

THE DECEMBER 1933

RADIO INDEX

THE ALL-WAVE RADIO MAGAZINE



30 cents
in Canada
Including
Tax

How to Hear Admiral Byrd's Station
Monthly Frequency Checks by States
The Police Broadcasting Stations
The Beginner's Story of Radio
How Radio Buyers are Gyped

DECEMBER 1, 1933



B. FRANCIS DASHIELL
Technical Editor

RADIO INDEX

Reg. U. S. Patent Office

FRED CLAYTON BUTLER
Editor and Publisher



PAGE TAYLOR
Short Wave Editor

TENTH YEAR

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With Fred Waring on "Old Gold Hour"

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DECEMBER DX CALENDAR

A list of the special programs for distant listeners arranged in order in Eastern Standard Time. Power is given in kilowatts in parentheses. Distant readers should note that those programs which occur weekly will probably be repeated on the same day of the week in January. Excellent opportunity to log nearly 300 small stations is provided in the frequency checks the first seven mornings of each month. See September RADEX for list by days and November issue for list by frequencies.

SUNDAY MORNINGS

Nov 26

2:00-4:00—KGKB, Tyler, 1500 (.1)

Dec. 3-10-17-24-31

12:00-1:00—CMBW, Havana, 1140 (.6)
 CMX, Havana, 890 (.1)
 KSO, Des Moines, 1370 (.1)
 XETW, Mexico City, 830 (.5)
 12:00-1:30—WMBC, Detroit, 1420 (.1)
 12:00-3:00—CMCD, Havana, 925 (.5)
 WGES, Chicago, 1360 (.5)
 1:00-2:00—WCCO, Minneapolis, 810 (.50)
 WDOO, Chattanooga, 1280 (.1)
 1:00-2:30—XEAB, Tamaulipas, 1450 (.0075)
 1:00-4:00—CMBD, Havana, 965 (.25)
 2:00-3:00—CMCJ, Havana, 1185 (.5)
 WMMN, Fairmont, 890 (.25)
 2:00-5:00—CMCU, Havana, 1100 (.5)
 KPJM, Prescott, 1500 (.1)
 3:00-4:00—KFXM, San Bernardino, 1210 (.1)
 KGER, Long Beach, 1360 (.1)
 KIT, Yakima, 1310 (.1)
 3:00-5:00—CKOV, Kelowna, 1200 (.1)
 KVL, Seattle, 1370 (.1)
 10-AT, Trail, 1155 (.025)
 3:00-6:00—XEFD, *Tijuana, 757 (.5)
 4:00-5:00—CFJC, Kamloops, 1120 (.1)
 CMJK, Camaguey, 790 (.5)
 4:00-6:00—XEFV, Juarez, 1370 (.1)
 *P. O. Box 1441, San Diego, Calif.

Dec. 3

11:00-3:00*—LR5, Buenos Aires, 830 (20)
 2:00-3:00—KDYL, Salt Lake City, 1290 (1)
 3:00-4:00—CHGS, Summerside, 1120 (.1)
 *Sometime between these hours.

Dec. 3, Jan. 7

1:00-2:00—WWAE, Hammond, 1200 (.1)
 2:30-4:30—10-BI, Prince Albert, 1200 (.025)

Dec. 3-17, Jan. 7

5:00-6:00—XFB, Jalapa, 1290 (1)

Dec. 10

1:00-1:30—WKY, Oklahoma City, 900 (1)
 1:00-2:00—KUSD, Vermillion, 890 (.5)
 XEFW, Tampico, 1280 (.07)
 2:00-3:00—KOH, Reno, 1380 (.5)
 3:00-4:00—WNRA, Muscle Shoals, 1420 (.1)
 WOS, Jefferson City, 630 (.5)
 3:30-4:30—CKWX, Vancouver, 1010 (.1)
 4:00-5:00—WBBZ, Ponca City, 1200 (.1)
 VE9EK, Montmagny, 1195 (.01)
 4:30-6:00—10-BP, Wingham, 1200 (.015)

Dec. 10-17-24-31

1:00-3:30—WIBM, Jackson, 1370 (.1)

Dec. 10-24

4:00-5:00—CMGF, Matanzas, 977 (.1)

Dec. 17

1:00-1:30—WHEB, Portsmouth, 740 (.25)
 1:00-5:00—KOOS, Marshfield, 1370 (.1)
 2:00-3:00—WOL, *Washington, 1310 (.1)
 3:00-4:30—KFOX, Long Beach, 1250 (.1)
 3:00-5:00—KGNO, Dodge City, 1340 (.25)
 KMJ, Fresno, 580 (.5)
 WGBI, Scranton, 880 (.25)
 WHAZ, Troy, 1300 (.5)
 WJEL, Hagerstown, 1210 (.1)
 3:00-7:00—KGIR, Butte, 1360 (.5)

4:00-5:00—KFJZ, Ft. Worth, 1370 (.1)
 WKEU, La Grange, 1500 (.1)

*Must enclose postage and have postmark not later than following Monday midnight.

Dec. 24

1:00-2:00—CMHJ, Cienfuegos, 1125 (.06)
 3:00-4:00—KREG, Santa Ana, 1500 (.1)
 3:00-5:00—WFAS, White Plains, 1210 (.1)
 4:00-5:00—WAZL, Hazelton, 1420 (.1)

Jan. 7

12:00-3:00—WCNW, Brooklyn, 1500 (.1)
 2:00-3:00—KFDDY, Brookings, 550 (.5)

MONDAY MORNINGS

Dec. 4-11-18-25

12:00-3:00—WGES, Chicago, 1360 (.5)
 12:30-1:00—KSOO, Sioux Falls, 1110 (2.5)
 2:00-3:00—KFSG, Los Angeles, 1120 (.5)

Dec. 4

12:00-3:00—WCNW, Brooklyn, 1500 (.1)

Dec. 4, Jan. 1

12:00-4:00—KOOS, Marshfield, 1370 (.1)
 3:00-5:00—KPCB, Seattle, 650 (.1)
 3:45-4:00—KUJ, Walla Walla, 1370 (.1)

Dec. 11

2:00-3:00—WDAS, Philadelphia, 1370 (.1)
 3:30-4:30—WHBU, *Anderson, 1210 (.1)
 *Wants 5 cents for verification.

Dec. 18

3:00-4:00—KDB, Santa Barbara, 1500 (.1)

Dec. 25

5:00-6:00—WHK, Cleveland, 1390 (1)

Dec. 25, Jan. 1

1:00-2:00 CMHJ, Cienfuegos, 1125 (.06)

Jan. 1

4:00-5:00—CHRC, Quebec, 930 (.1)
 1:00-2:00—XEPN, Piedras Negras, 585 (75)

TUESDAY MORNINGS

Dec. 5-12-19-26

12:00-1:00—XEH, Monterrey, 1132 (.25)
 1:00-1:30—WTOC, Savannah, 1260 (.5)
 1:00-3:00—CMCW, Havana, 965 (.15)
 1:00-4:00—WSUL, Iowa City, 880 (.5)
 4:00-5:00—WCAH, Columbus, 1430 (.5)
 5:00-6:00—WAWZ, Zarephath, 1350 (.25)

Dec. 5

1:00-1:30—WHBL, Sheboygan, 1410 (.5)
 1:00-3:00—WOWO, Ft. Wayne, 1160 (10)

Dec. 5, Jan. 2

5:00-5:30—WKFI, Greenville, 1210 (1)

Dec. 26

4:00-5:00—CHRC, Quebec, 930 (.1)

Jan. 2

1:00-2:00—CMHJ, Cienfuegos, 1125 (.06)
 2:30-4:00—CHWK, Chilliwack, 780 (.1)

WEDNESDAY MORNINGS

Dec. 6-13-20-27

6:00-7:00—WASH, Grand Rapids, 1270 (.5)

Dec. 6, Jan. 3

1:00-2:30—KFYR, Bismarck, 550 (1)
 4:30-5:00—WCAL, Northfield, 1250 (1)

Dec. 20

3:00-7:00—WOPI, Bristol, 1500 (.1)

THURSDAY MORNINGS

Nov. 30

12:00-7:00—WNBH, New Bedford, 1310 (.1)
12:30-1:30—HIX, Santo Domingo, 579-6000 (.15)

Dec. 7-14-21-28

2:00-4:00—CMK, Havana, 730 (.5)
WEDC, Chicago, 1210 (.1)

Dec. 7, Jan. 4

1:00-2:00—KFYO, Lubbock, 1310 (.1)
3:00-4:00—WRDW, Augusta, 1500 (.1)
4:30-5:00—WCBS, Springfield, 1210 (.1)
5:30-7:00—KGFF, Shawnee, 1420 (.1)

Dec. 14

2:00-3:00—WRUF, Gainesville, 830 (.5)

FRIDAY MORNINGS

Dec. 1

2:00-3:00—WRAW, Reading, 1310 (.1)

Dec. 1-8-15-22-29

12:00-1:00—KOIL, Council Bluffs, 1260 (1)
12:00-6:00—WJAX, *Jacksonville, 900 (1)
1:00-1:30—WRAM, Wilmington, 1370 (1)
1:00-2:00—WBBX, New Orleans, 1200 (1)
*Prizes to most distant.

Dec. 1-15, Jan. 1

1:00-2:00—HHH, San Pedro de M., 1395 (.015)

Dec. 15

3:00-4:00—WHBQ, Memphis, 1370 (1)

Dec. 22

4:00-5:00—WSPA, Spartanburg, 1420 (.25)

Dec. 29

4:00-5:00—KPOF, Denver, 880 (.5)

SATURDAY MORNINGS

Dec. 2

2:00-4:00—WIBX, Utica, 1200 (.1)
2:30-4:00—CHWK, Chilliwack, 780 (.1)
4:00-11:00—KFNF, Shenandoah, 890 (1)

Dec. 2-9-16-30

1:00-3:00—CMCW, Havana, 965 (.15)

Dec. 2-9-16-23-30

4:00-5:00—XEAQ, Mexicali, 560 (.1)

Dec. 2-23, Jan. 6

2:00-3:00—XES, Tampico, 1020 (.5)

Dec. 2-Jan. 6

3:00-4:00—WJBC, La Salle, 1200 (.1)
4:00-6:00—KVOA, Tucson, 1260 (.5)
4:15-4:45—WGNV, Chester, N. Y., 1210 (.1)

Dec. 9

3:15-4:15—WMBQ, Brooklyn, 1500 (1)
4:00-5:00—10-BQ, Brantford, 1200 (.005)

Dec. 9-16-23-30

2:00-3:00—WGLC, Hudson Falls, 1370 (1)

Dec. 16

1:00-2:00—CKLW, Windsor, 840 (5)
2:00-3:00—WHA, Madison, 940 (1)
WQO, Kansas City, 1300 (1)

Dec. 23

1:00-7:00—WHET, Troy, 1210 (1)
2:00-5:00—KRMD, Shreveport, 1310 (1)

Jan. 6

2:00-3:00—CMBS, Havana, 780 (.2)
4:00-5:00—WIS, Columbia, 1010 (.5)

Note: On either Dec. 17 or Dec. 18, FQN, St. Pierre, Miquelon, will broadcast for the I. D. A. on 570 with 250 watts. 3:00-4:00 a.m.

THE FREQUENCY CHECKS BY STATES AND CITIES

As the monthly frequency checks conducted by the Federal Radio Commission provide most unusual opportunity for logging hard-to-get stations, we are giving the schedule once more. In September we listed these checks by days of the week. In November they were listed by frequency. This month we are indexing them by states and cities so that our readers may readily tune those stations in which they need to complete their roster of the states. Each of these checks continues for twenty minutes after the time stated. Call letters are to be announced every three minutes. Checks are held first seven days of each month.

ALABAMA

Aniston	WAMC	1420	3:50 Tues.
Birmingham	WKBC	1310	2:30 Thur.
Gadsden	WJBY	1210	2:30 Tues.
Huntsville	WBHS	1200	2:10 Tues.
Mobile	WODX	1410	5:00 Thur.
Troy	WHET	1210	3:10 Tues.

ALASKA

Anchorage	KFQD	1230	5:50 Mon.
Juneau	KIFH	1310	6:00 Mon.
Ketchikan	KGBU	900	4:10 Mon.

ARIZONA

Jerome	KCRJ	1310	5:50 Tues.
Prescott	KPJM	1500	4:10 Tues.
Tucson	KGAR	1370	5:40 Tues.

ARKANSAS

Blytheville	KLCN	1290	3:00 Sun.
Fayetteville	KUOA	1260	5:40 Sun.
Ft. Smith	KFPW	1210	3:10 Sat.
Little Rock	KARK	890	4:50 Sun.
	KGHI	1200	3:30 Wed.
Paragould	KBTM	1200	3:30 Wed.
Texarkana	KCMC	1420	5:10 Thur.

CALIFORNIA

Bakersfield	KERN	1200	4:20 Tues.
Berkeley	KRE	1370	5:20 Tues.
Eureka	KIEM	1210	4:40 Tues.
El Centro	KXO	1500	4:30 Tues.

Oakland	KLS	1440	4:50 Tues.
Stockton	KGDM	1100	6:00 Tues.
	KWG	1200	4:00 Tues.

COLORADO

Alamosa	KGIW	1420	3:10 Wed.
Denver	KPOF	880	5:10 Sun.
Grand Junc.	KFXJ	1200	4:50 Sat.
Greeley	KFKA	880	5:30 Sun.
Lamar	KIDW	1420	3:40 Wed.
Pueblo	KGHF	1320	5:30 Wed.
Yuma	KGEK	1200	3:30 Fri.

CONNECTICUT

Bridgeport	WICC	600	4:40 Mon.
Storrs	WCAC	600	5:10 Mon.

FLORIDA

Miami	WQAM	560	4:20 Thur.
Orlando	WDBO	580	4:00 Thur.
Pensacola	WCOA	1340	3:40 Thur.
Tampa	WDAE	1220	4:30 Thur.
	WMBR	1370	3:00 Tues.

GEORGIA

Americus	WENC	1420	4:30 Tues.
Augusta	WRDW	1500	3:00 Thur.
Columbus	WRBL	1200	2:50 Tues.
LaGrange	WKEU	1500	2:40 Tues.
Savannah	WTOC	1260	5:10 Thur.
Thomasville	WQDX	1210	2:00 Tues.

HAWAII				MISSISSIPPI			
Honolulu	KGMB	1320	5:10 Tues.	Greenville	WKFI	1210	4:00 Tues.
	KGU	750	5:30 Tues.	Hattiesburg	WPFB	1370	4:20 Tues.
IDAHO				Kosciusko	WHEF	1500	3:30 Tues.
Nampa	KFXD	1200	5:00 Mon.	Laurel	WAML	1310	5:20 Tues.
ILLINOIS				Meridian	WCOC	880	4:50 Thur.
Carthage	WCAZ	1070	4:40 Wed.	Miss. City	WGCM	1210	2:50 Thur.
Chicago	WAAF	920	5:40 Wed.	Tupelo	WJEM	990	4:40 Thur.
	WCRW	1210	5:30 Fri.	Vicksburg	WQBC	1360	3:50 Thur.
	WEDC	1210	3:20 Thur.	MISSOURI			
	WSBC	1210	3:40 Thur.	Cape Girardeau	KFVS	1210	4:10 Sat.
Cicero	WHFC	1420	3:30 Thur.	Joplin	WMBH	1420	5:40 Fri.
Decatur	WJBL	1200	4:50 Fri.	St. Louis	WEW	760	5:20 Sat.
E. Dubuque	WKBB	1310	3:00 Wed.		WIL	1200	5:20 Wed.
Harrisburg	WEBQ	1210	4:00 Thur.	Springfield	KGBX	1310	5:00 Thur.
Joliet	WCLS	1310	4:40 Fri.	MONTANA			
LaSalle	WJBC	1200	3:00 Sat.	Billings	KGHL	950	4:20 Sat.
Rockford	KFLV	1410	3:50 Wed.	Kalispell	KGEZ	1310	5:20 Mon.
Rock Island	WHBF	1210	4:20 Thur.	Missoula	KGVO	1200	4:20 Mon.
Springfield	WCBS	1210	4:40 Thur.	Wolf Point	KGCX	1310	5:40 Mon.
	WTAX	1210	5:00 Thur.	NEBRASKA			
Tuscola	WDZ	1070	5:00 Wed.	Kearney	KGFW	1310	5:20 Thur.
INDIANA				Scottsbluff	KGKY	1500	4:00 Wed.
Anderson	WHBU	1210	5:20 Thur.	NEVADA			
Elkhart	WTRC	1310	3:20 Wed.	Las Vegas	KGIX	1420	5:00 Tues.
Fort Wayne	WGL	1370	3:10 Sat.	NEW JERSEY			
Hammond	WWAE	1200	3:20 Sat.	Jersey City	WAAT	940	4:50 Mon.
Muncie	WLBC	1310	3:30 Sat.	Red Bank	WJBI	1210	2:10 Sat.
Richmond	WKBV	1500	4:50 Thur.	Zarephath	WAWZ	1350	4:10 Sat.
South Bend	WFAM	1200	3:40 Sat.	NEW MEXICO			
Terre Haute	WBOW	1310	4:00 Wed.	Albuquerque	KGGM	1230	5:50 Sat.
IOWA				Clovis	KICA	1370	3:20 Wed.
Boone	KFGO	1310	4:20 Thur.	Roswell	KGFL	1370	4:10 Wed.
Cedar Rapids	KWCR	1420	5:00 Fri.	NEW YORK			
Decorah	KGCA	1270	4:00 Sat.	Albany	WOKO	1430	3:00 Sat.
	KWLC	1270	3:40 Sat.	Auburn	WMBO	1310	3:40 Mon.
Iowa City	WSUI	880	5:40 Sat.	Binghamton	WNBF	1500	2:20 Mon.
Marshalltown	KFJB	1200	4:40 Wed.	Brooklyn	WMBO	1500	2:40 Sat.
Ottumwa	WIAS	1310	4:40 Thur.		WCNW	1500	2:40 Sat.
KANSAS				Buffalo	WEWR	1310	2:00 Wed.
Dodge City	KGNO	1340	3:50 Sat.		WSVS	1270	3:30 Mon.
Kansas City	WLBF	1420	5:20 Fri.	Canton	WCAD	1220	4:00 Mon.
KENTUCKY				Chester	WCNY	1210	2:30 Sat.
Louisville	WLAP	1200	5:50 Fri.	Elmira	WESG	1040	4:30 Mon.
Paducah	WPAD	1420	3:10 Fri.	Freeport	WGBB	1210	2:50 Sat.
LOUISIANA				Hudson Falls	WGLC	1370	3:50 Mon.
Baton Rouge	WJBO	1420	2:40 Thur.	Jamesstown	WOCL	1210	3:50 Wed.
Monroe	KMLB	1200	3:40 Tues.	New York	WBNX	1350	3:50 Sat.
New Orleans	WBBX	1200	4:40 Tues.	Saranac Lake	WNEZ	1290	4:20 Mon.
	WJBW	1200	5:10 Tues.	Syracuse	WSYR	570	5:00 Mon.
Shreveport	KRMD	1310	3:00 Fri.	Tupper Lake	WHDL	1420	2:50 Mon.
	KTBS	1450	3:10 Sun.	Utica	WIBX	1200	3:20 Mon.
MAINE				White Plains	WFAS	1210	2:10 Mon.
Bangor	WABI	1200	2:40 Mon.	Woodside	WWRL	1500	2:20 Sat.
Presque Isle	WAGM	1420	2:30 Mon.	NORTH CAROLINA			
MARYLAND				Charlotte	WSOC	1210	2:00 Thur.
Cumberland	WTBO	1420	3:40 Mon.	Greensboro	WBIG	1440	3:30 Thur.
MASSACHUSETTS				Wilmington	WRAM	1370	5:00 Tues.
Springfield	WMAS	1420	2:00 Sat.	Winston-Salem	WSJS	1310	3:20 Tues.
MICHIGAN				NORTH DAKOTA			
Battle Creek	WELL	1420	3:30 Fri.	Devils Lake	KDLR	1210	4:30 Sat.
Bay City	WBCM	1410	3:30 Wed.	Grand Forks	KFJM	1370	4:30 Thur.
Calumet	WHDF	1370	5:20 Fri.	Mandan	KGCU	1240	4:00 Fri.
Detroit	WJBK	1370	5:00 Fri.	Minot	KLPM	1240	4:20 Fri.
	WMBC	1420	3:50 Fri.	OHIO			
E. Lansing	WKAR	1040	5:30 Wed.	Akron	WJW	1210	3:00 Fri.
Flint	WFDS	1310	4:00 Fri.	Canton	WHBC	1200	3:10 Wed.
Ironwood	WJMS	1420	3:10 Thur.	Cincinnati	WFBE	1200	4:10 Fri.
Jackson	WIBM	1370	5:30 Thur.	Cleveland	WJAY	610	4:00 Sat.
Kalamazoo	WKZO	590	3:50 Sat.	Columbus	WSEN	1210	3:20 Fri.
Lapeer	WMPD	1500	4:10 Thur.	Mt. Orab	WHBD	1370	5:10 Thur.
Ludington	WKBZ	1500	4:10 Thur.	Zanesville	WALR	1210	3:40 Fri.
Marquette	WBEO	1310	4:20 Wed.	OKLAHOMA			
Royal Oak	WEXL	1310	4:20 Fri.	Chickasha	KOCW	1400	3:50 Sun.
MINNESOTA				Elk City	KASA	1210	3:30 Sat.
Fergus Falls	KGDE	1200	5:00 Wed.	Enid	KCRC	1370	4:10 Fri.
Minneapolis	WLB	1250	5:10 Wed.	Norman	WNAD	1010	5:20 Sun.
Moorhead	KGFK	1500	5:50 Fri.				
Northfield	WCAL	1250	4:30 Wed.				

(Continued on page 46)

The BEGINNERS' STORY of RADIO

PART THREE

Electromagnetic Induction and Transformers

• • • By B. FRANCIS DASHIELL

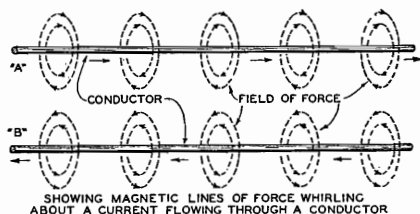
WE HAVE found that electricity flows steadily, as in the case with direct current, and that it also may periodically reverse its direction, as alternating current. Let us, then, take up the interesting subject of how an electric current can be transferred from one circuit to another, across an insulating air space, while at the same time it is amplified in strength. The practicable application of this remarkable phenomenon is the *transformer*, which makes possible the radio and audio-frequency amplification so necessary in radio reception.

Most of us are familiar with the *magnet*—a steel bar that possesses the peculiar faculty of attracting bits of iron. The two ends of a magnet are called “north” and “south” poles, usually indicated by N and S, respectively. Opposite poles attract each other, and similar poles repel. Then there are millions of “*lines of force*” existing about a magnet. They seem to stream from one pole to another. These lines, passing through the air, actually may be seen if the magnet is covered with a sheet of thin paper and then dusted over with fine iron filings.

The Magnetic Field

When any electric current is flowing it is surrounded by a whirling *magnetic field* composed of lines of force always spinning around the conductor as a center. The direction of rotation of the lines of force about the wire depends upon the direction in which the electric current is flowing through the circuit. A simple rule to remember is, that if a wire is grasped

with the right hand so the *extended* thumb points along the wire in the direction in which the current is flowing, the fingers will then curl around the wire and point along the direction in which the lines of force are whirling, always at right angles to the conductor.



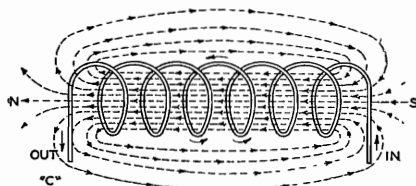
In the illustration “A” we see a conductor carrying an electric current moving as indicated by the arrows. The direction of the whirls of magnetic force about the conductor is shown by the encircling arrows. The same wire is shown again at “B,” but with the current direction reversed. We readily see that the whirls of force also reverse direction. Now, if an alternating current is flowing through the wire, the magnetic lines of force also change direction every time the current reverses its direction. The number of alternations of current is the same as the frequency of the reversal of the magnetic field surrounding the conductor. It is important that the reader remember this through the following paragraphs.

A Source of Interference

Wires carrying high voltage alternating currents, such as power lines,

have surrounding magnetic fields that encompass all nearby aeri-als and create constant hum and interference. And there is little or nothing that can be done about such interference unless the receiver and aerial wires are removed from the field of force.

Let us form a wire into a single loop. All of its encircling whirls or lines of force will pull together, and a more powerful magnetic field will be built up about the loop. Now, if a number of these loops are arranged in a form of a spring-like *coil*, the cumulative effect of the individual loops will build up a still greater magnetic field of force. At "C" we have such a coil. Magnetic lines of force are shown flowing through and around the coil, and they are similar to the lines that surround a steel bar-magnet. If an iron bar is placed within the coil it instantly becomes a magnet, and the coil with its magnet *core* is called an *electro-magnet*.



MAGNETIC LINES OF FORCE ABOUT A CURRENT FLOWING THROUGH A COIL OF WIRE

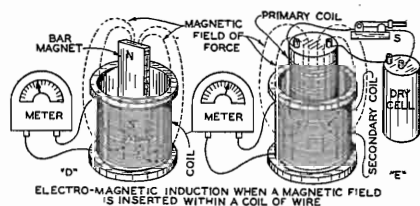
If the direction of the current flowing through the coil is made to alternate, the entire magnetic field reverses its direction each time the current alternates. If an iron bar is inserted within the coil, as before, it too becomes a magnet. But this time it has no fixed North and South poles. The two poles become alternately North and South every time the alternating current changes direction through the coil. The lines of force swing back and forth, and thus we can create a rapidly moving magnetic field of force surrounding the coil. The insertion of an iron core in the coil creates an electromagnet, and naturally the surrounding magnetic field becomes much stronger than that

existing about only a coil of wire.

The Phenomena of Induction

This leads us to the theory of *magnetic induction*. If a wire, having its two ends attached to a sensitive electric meter, is moved rapidly across one end of a powerful magnet, a surge of electricity will flash through the wire. Or, on the other hand, if the wire is held stationary and the magnet quickly moved, a similar effect is observed. It is motion alone—that of a wire cutting through a magnetic field, or a magnetic field moving across a wire—that creates an electric current. We see that electricity and magnetism go hand in hand—electricity produces magnetism, and magnetism creates electricity. Electric generators and magnetos owe their existence to this simple truth. But they require motion to operate. In radio it is the motion of the alternating-current magnetic field of force swinging back and forth that makes the transformer possible. Upon it hinges all *electro-magnetic-induction* as found in radio receivers where radio, intermediate and audio frequency stages of amplification are used.

If a large quantity of fine insulated wire is wound into a coil, as shown at "D," with the two ends connected to a sensitive meter, it will be found to create a single electrical impulse whenever a permanent steel magnet is plunged into the coil. And when the magnet is quickly withdrawn another surge of electricity takes place, but flowing in the opposite direction. These currents are *induced* by the motion of the magnetic field of force cutting across the many turns of wire in the coil. They are



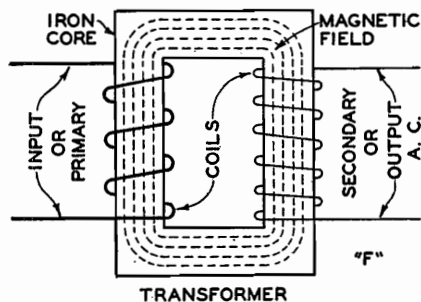
alternating because of the back and forth motion of the magnet. If the magnet is replaced with a smaller coil that is attached to a battery, as shown at "E," similar effects will be observed. Each time this inner, or *primary*, coil is inserted and removed two different surges of electricity are induced in the outer, or *secondary*, coil. The movements of the primary coil create alternations of current in the secondary.

On the other hand, when the primary coil remains stationary within the secondary, the same effect will be noticed each time the battery current is turned on and off by a switch (S) placed in the circuit. There will be a surge of current in one direction when the circuit is closed, and in the opposite direction when the switch is opened. When an iron bar is placed in the primary coil it will make a stronger magnetic field, and the induced current will be noticeably greater.

The Secondary Current

Connect an alternating current to the primary and there will be no necessity for moving the primary coil in and out of the secondary, or making and breaking the circuit with a switch or vibrator, in order to induce currents in the secondary coil. We know that an alternating current, when flowing through a coil, causes its surrounding magnetic field to reverse direction every time the current alternates. This, then, gives a quickly and constantly changing magnetic field that cuts across the wires of the secondary coil so as to induce currents in the latter. The alternations in the primary induce a similar, rapid, alternating current in the secondary, and the lapses between surges, whenever the magnetic field reverses direction, become so short that the current appears continuously to flow.

A transformer consists of two coils of wire wrapped about a soft iron core, as shown at "F." If the secondary has twice as many turns as the primary then twice as much potential will be generated. But the to-

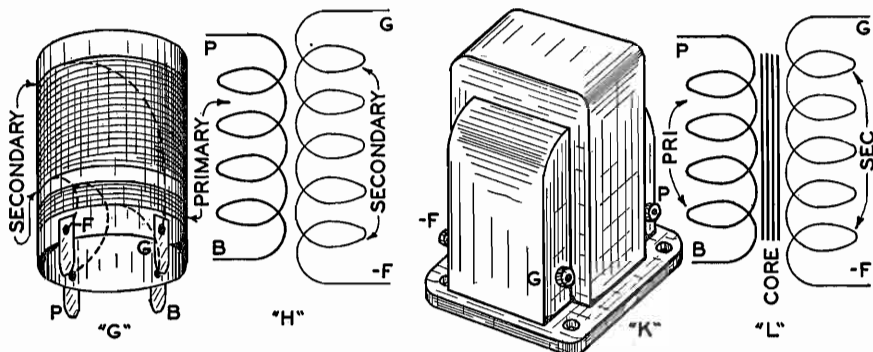


tal number of watts generated by the secondary cannot exceed the watts consumed by the primary. For instance, a 550 watt transformer, wound with 1,000 turns of wire on the primary, connected to 110 volts and consuming 5 amperes of current, will, when using a 5,000 turn secondary, generate 550 volts, but at only one ampere, or still 550 watts. In practice, however, the transformer is not 100 percent efficient. Transformers are remarkably self-regulating; an increased drain upon the secondary current causes an increase in the current flowing through the primary. Too much rise in the secondary, or over-loading, causes the transformer to become dangerously overheated.

The Transformer

The iron-core transformer is used when the frequencies of alternating currents are low and within the audible range. Many thousands of turns of wire are used in its coils. It is used in a radio receiver to step up the potential of 110-volt a.c. to the voltage needed to operate the plates of the tubes. Its particular adaption to radio, however, is as the *audio-frequency transformer* or *output transformer*. At "K" is shown an audio-frequency transformer, and the usual symbol used in drawing radio circuits is indicated by "L."

When very high a.c. frequencies are to be amplified by transformers, such as those within the radio-frequency range, the iron core is removed and the number of turns of wire in the primary and secondary reduced to a



RADIO AND AUDIO-FREQUENCY TRANSFORMERS

very few. Too many turns tend to choke back the rapid alternations of current. Low frequencies will pass through large coils; high frequencies through only very small coils. And the higher the frequencies the smaller the coils that must be used. The transformer used for high or radio-frequencies is, therefore, a *radio-frequency transformer*. It is shown at "G," and its radio circuit symbol is indicated by "H."

We have now learned that electric currents can be transferred from one circuit to another by induction, and amplified at the same time—by transformer action. Next month we shall see how similar results are obtained

by a more amazing phenomenon—that of *capacity*, or *condenser action*.

Queries

1. By means of what instrument is an electric current transferred from one circuit to an entirely separate one?
2. How may the lines of force in a magnet be demonstrated?
3. What is a magnetic field?
4. What effect has the magnetic field of high voltage a. c. lines on an antenna?
5. How is a magnetic field made more powerful?
6. What results to an iron bar when it is placed in a magnetic field?
7. When is an iron core used in a transformer?
8. Which requires the fewer turns of wire—an a. f. or r. f. transformer?
9. What two functions does a transformer perform?
10. What relation has the number of turns of wire in a transformer to the frequency it is desired to carry?

The MONTH'S CHANGES

FREQUENCIES

560	CJRM	Moose Jaw, Sask., from 880
	CJRW	Fleming, Sask., from 880
840	CKLW	Windsor, Ont., from 540
930	CFAC	Calgary, Alta., from 690
	CHRC	Quebec, Que., from 645
1230	CFQC	Saskatoon, Sask., from 890
1450	CKX	Brandon, Man., from 930

POWER

880	CRCO	Ottawa, Ont., 500 to 1000
1120	CKOC	Hamilton, Ont., 500 to 1000
1310	WLBC	Muncie, Ind., 50 to 100

LOCATIONS

940	WFIW	Louisville, Ky., from Hopkinsville
1420	KGIW	Alamosa, Colo., from Trinidad
1500	WKBV	Richmond, Ind., from Connorsville

CALLS

1200	WKBO	Harrisburg, Pa., from WCOD
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NEW

1195	VE9EK	Montmagny, Que.
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CHAINS

1210	WSOC	Charlotte, N. C., New NBC
1380	KQV	Pittsburgh, Pa., New CBS

PERMIT TO CHANGE LOCATION

1020	KYW	Chicago, Ill., to Philadelphia
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PERMIT TO CHANGE FREQUENCY

930	WIBG	Glenside, Pa., to 970
1020	WRAX	Philadelphia to 920
1500	WPEN	Philadelphia to 920

OWNERS

780	WMC	Memphis, Tenn., to WMC, Inc.
930	WBRC	Birmingham, Ala., to Frank M. King Receiver
1210	KWEA	Shreveport, La., to International Brdcstg. Corp.
1370	WFFB	Hattiesburg, Miss., to Otis P. Eure, Receiver

GYPPING *the* Radio Buyer

● ● ● By JOSEPH SALZMAN in "Radio Retailing"

DO YOU know a MOOTCH when you see one? Can you spot a GIMMICK or WRAP-UP?

In the pithy vernacular of "Gyp Row," where salesmen have learned to judge radio prospects with uncanny skill, a "Mootch" is a man who has time to kill, asks a lot of technical questions, but has no intention of buying. "Gimmick" (or "Wrap-Up") is the pretty name given to a genuine prospect who knows nothing about radio, is easily embarrassed, gullible, and offers little sales resistance.

The Mootch is anathema to the chiselling brethren; he gets a quick cold-shoulder. The Gimmick is the "babe in the woods" upon whom cut-price acrobats thrive . . . and how he does get it in the neck! Some of the gyp methods by which the public has been victimized for many years are positively criminal (ethically if not legally). Many are so bald-faced that they would be amusing if they were not so pathetic. In a review of the most common of these subterfuges lies our story.

ALL OLD TUBES ARE NOT JUNKED. Tubes turned in at gyp stores by customers are not always thrown away. Those having even a spark of life are wiped clean, the names scraped off the bases, re-boxed in bright, new cartons. Then they are sold as "independents" from seventeen cents up.

METERS TRAINED TO LIE. When a gullible customer asks to have his tubes tested he is led to an impressive but "doctored" machine. The clerk, who is habitually pessimistic about old tubes, manipulates the meter so that all tubes show up N.G.

SELLING HOCUS-POCUS MAKES. When a customer requests a standard tube which has an established reputation but carries a nar-

row discount for the gyp, meters are frequently manipulated so that an inferior (but more profitable) tube appears to be the best. Often, when a gyp wants to sell a Hocus-Pocus tube, he asks the customer the name of his radio, hesitates, thinks, searches through a reference book and then promptly informs the customer that to obtain ideal results the Hocus-Pocus tube is best for that particular model.

SELLING-UP, GYP STYLE. Where a shrewd customer insists upon buying a radio, advertised at cost in the window as a "come-on" the salesman tries to switch by demonstrating it poorly against other models. If this fails to "sell-up," the customer is permitted to pay for it. But while it is being wrapped the variable con-



Early to rise makes a man healthy, etc., according to Singin' Sam, whose privacy we herewith invade to show him at home at early morning breakfast. Sam is heard over CBS Tuesdays and Thursdays at 8:15 p. m. EST. West Coast rebroadcast at 11:30 p. m. EST Thursdays.

denser plates are bent, short-circuiting them. This naturally brings the customer back to store with a claim that the radio is defective and gives the salesman another chance to switch.

GENTLE ART OF SWITCHING. Prospective purchasers of radio sets who have definitely fixed their mind on a certain radio, are often misled into purchasing some other set, often an inferior one. The method applied is as follows: The radio the customer really wants is deliberately adjusted to give poor reception. The tone is stifled and the quality is extremely disappointing, prompting the customer to listen to the radio salesman's fluent description and careful, impressive demonstration of another radio which involves a better commission.

THE SPEAKER IS EXTRA. A shopper is in the market for a standard make radio and offers the dealer a price. The offer is below dealers' cost. When the dealer refuses to sell at the price offered the customer starts out of the store. The dealer stops him at the door and consents to sell the set at the price named.

The customer insists on getting delivery in the original crate. The dealer consents, obtains a deposit and informs the customer to call back. Later the customer pays the balance and receives his machine crated. At home, he discovers that it has no speaker. The dealer counters with: "You didn't expect a speaker at the price you paid, did you? If you want one it will cost you \$22 additional. Why don't you read your sales slip, you received everything you paid for." The customer looks at the sales slip, and to his amazement and chagrin reads: "One console cabinet one radio chassis; one complete set of tubes."

THEY JUST REMOVE THE DECIMAL. A stratagem (politely termed) occasionally practiced, particularly when gyps are overstocked with parts, is changing the manufac-

turer's ratings. For example: If the store has too many .5 mfd. fixed condensers and needs 5 mfd. sizes it merely erases the decimal point or pastes a new label on the condenser. Simple, isn't it?

EVEN SERVICE IS GYPED. Certain dealers reap a handsome profit on service. They send a serviceman to a customer whose radio is not functioning. When the man arrives he informs the customer, after a brief inspection, that there is something radically wrong with the radio, that to repair it properly it is necessary to bring it to the shop. The customer permits the man to take his set. It is held for three or four days, giving the customer the impression it is being repaired. Often, the only thing wrong is a poor tube.

Service is billed out for as much as \$18. On returning the radio the customer is informed that resistances, formers, volume control were replaced, and minor adjustments



Curtis Arnall, young NBC actor who plays the title role in the Red Davis sketches, a series of dramatic programs by Elaine Sterne Carrington dealing with events in the life of a typical American boy. Red Davis is heard over an NBC (Blue) network each Monday, Wednesday and Friday, at 8:45 p. m. EST.

made. You've heard of this one.

REFUNDS, IF YOU FIGHT FOR THEM. Gyp stores frequently gain the customer's confidence by voluntarily offering to refund within 24 hours. But when customers ask for one every form of persuasive effort is brought into play to avoid it. Refund customers usually walk out with a different radio and usually pay plenty for it.

"NEVER LET A SUCKER GO."

Some stores take deposits on merchandise, knowing that the radios cannot be sold at prices quoted. When the customer inquires about failure to deliver, the salesman discourages purchase and endeavors to sell another make. If the customer insists that he wants the radio he ordered the salesman regrets that he is unable to deliver at price quoted. If the customer threatens to force the dealer to deliver on strength of paid deposit the salesman points out an extremely small imprint on the sales slip which reads, "This order is not binding unless approved by an officer of the company."

Of course the customer can demand his money back, but most of them select another set to avoid further embarrassment.

FREELY GUARANTEED, IT COSTS NOTHING. Tubes are sold under varied guarantee arrangements. Some are not guaranteed at all. Others are guaranteed for three months to one year. Sets are guaranteed, in many instances, when customers insist. Whether the guarantee is fulfilled is not the immediate concern of dealer; the sale is what counts with him.

Many advertising tricks are used by the gyp, the main idea being to get prospects in the store no matter how. Several typical ads appear on these pages. Another common method is to price all sets displayed extremely low. This prompts customers to walk in. When the prospect is in the store, he learns that sets priced in window are sold only with



"Myrt and Marge"—which is the mother? Myrt, who writes the script series and heads the cast, spent the summer gathering material for this season's series. Heard Monday to Friday, inclusive, at 7:00 p. m. EST, over CBS, with a repeat broadcast at 10:45 p. m. EST, for the Middle West, South and West.

a cheap grade of tubes. The salesman emphatically discourages the purchase of any radio with cheap tubes. Poor quality, few stations, and decreased volume is, he contends, the result. He advises that it would pay to spend an additional five to fifteen dollars for better tubes. Many prospective purchasers willingly pay.

Editor's Note: Mr. Salzmann illustrates his timely and enlightening article with reproductions of advertising cards found in the windows of gyp shops. One favorite device is to play up in large letters "R. C. A. Tubes (or sets)" while in very small type the word "Licensed" appears under the R. C. A. This, of course, means nothing except that the R. C. A. owns the patents under which the gyp manufacturer works.

Another favorite device is to place in a window filled with fine sets, a card reading "1933 Majestic Radios \$9.95," followed by the word "up" in very fine print.

A WORD *About* AERIALS

*From the New Zealand Radio Times**

EVEN in these days of ultra efficient sets, a good antenna and earth system add materially to the dx ability of a receiver, yet in scouting round the city one sees but few aerial systems that can claim any semblance of efficiency, while many of them are unsightly. Most listeners pay a good price for their receivers yet will not go to the extra few shillings necessary to obtain a neat and efficient aerial system, mainly perhaps because the modern sets will bring in quite a number of stations with anything hooked on to the antenna binding post. Also, maybe, because in the cities a sensitive set with a good aerial will pick up a large percentage of noise. However, there are means of reducing this, and we shall come to this phase a little later.

Should be Loss-proof

No matter what type of an antenna is used its function is to intercept the small amount of radio frequency power radiated through the ether by the broadcasting station. The antenna used at these stations may send out through the ether thousands of watts of power, the antenna connected to your receiver must intercept but micro-watts of power. A broadcasting station antenna might transmit for example 25,000 watts, and the antenna on the set intercept but millionths of one watt. The broadcasting antenna is suspended by means of insulators, and when the station is on the air the voltage across these may be as much as 50,000 volts. The volume across the insulators of a receiving antenna is only millionths of a volt. These figures give you some idea of the difference between the antennas for transmitting and receiving and also show the

necessity of collecting every fraction of power possible. Unless the aerial is high and free from obstruction, much of the power that has been carefully collected will be lost.

Generally if the earth wire is not making good contact with the ground, power will be lost here, and although the losses may be little, it must be remembered that very little power is available from weak or distant stations, and this small percentage of leakage may be just sufficient to put the station beyond the audibility level.

Importance of Height

One hears very many arguments for and against the various types of antennas, but it is generally conceded that the inverted "L" type is the most popular. The inverted "L" comprises a short horizontal top and a long vertical antenna lead-in with the total length of wire not exceeding 100 feet.

Strange though it may seem, most of the energy is picked up by the vertical lead-in. This is why. An electro-magnetic wave traveling parallel to a flat surface sets up a magnetic field and an electric field at right angles to one another and to the wave. The voltage induced will be due to the electric and not to the magnetic field, and consequently voltage will be induced in the lead-in or vertical portion, which is parallel to the field, and not in the horizontal flat top which is perpendicular to the field. At the same time the top does materially reduce the aerial reactance, and this loading effect may be of considerable benefit.

The direction of the waves may be altered by the nearness to a steel building, while currents induced in nearby wires and metal structures

will frequently contribute an appreciable part of the voltage in the antenna system.

Therefore we come to the first general consideration—height is of paramount importance, height implying the distance above surrounding objects.

The aerial should be away from all metallic surfaces. An aerial 40 feet from the ground, running 10 feet above an iron roof loses a great deal in efficiency. It is much less efficient than a 30-foot aerial which runs clear of all structures.

In the country the erection of an ideal aerial is often possible owing to the greater amount of space available, but in the towns it is somewhat difficult and one often has to put up with an unsatisfactory aerial. However, by carefully studying most town lots, the best position for an aerial can be discovered. Bearing in mind

that height principally should be aimed at, one should endeavour to get the masts well above roof level, shortening the flat top considerably. Thirty or forty feet is not excessive, but above this very little increase in signal strength can be noticed. If you find it is difficult to run the top part of an aerial without crossing a metal building, obtain the highest mast possible and drop a vertical aerial from this straight to your set. It may seem difficult at first, but a little thought and study of your house and section will probably show you how this can be done quite efficiently.

Efficiency of a Short Aerial

Even where it is possible to get a long top, this should be avoided as, increasing the total length past 100 feet, unless the aerial be of the Beverage type, causes lack of selectivity and may even result in decreased sensitivity, the reason for this being that every aerial has a natural wavelength, below which sensitivity is very poor. If the natural wavelength falls inside the broadcast band all stations below this wavelength will be unsatisfactory. The use of a .0002 or .0001 mfd. condenser in series with a long aerial will often bring increased sensitivity.

Shadows

One should remember in erecting an aerial that trees are connected directly with the ground, and if the aerial is close to them a large amount of signal strength will be lost. Furthermore, swaying trees can often come into physical contact with an aerial, causing a direct leakage path to earth. Another point to remember is that a tree casts a shadow, and an aerial can be quite effectively shielded thereby.

The same applies to steel buildings, and these often are the cause of poor reception in a city. A steel building will not only absorb a large portion of the electro-magnetic field, but will also cast a shadow, as a tree does, tending to blot out the signal

(Continued on page 48)



Herbert J. Biberman and Gale Sondergaard, director and actress respectively of the Theatre Guild, take the same posts in "The Legend of America," heard over the Columbia network each Tuesday at 10:00 p. m. EST. The series presents a dramatic panorama of American history. Biberman is heard in the role of the narrator who lends continuity to the rapid-fire sequence of historical events.

A VISIT to Wheatenaville

• • • *With* "BETTY"

"THE only answer to what sent me into radio," says Ray Knight (Billy Bachelor) "is pleurisy. If I hadn't been sent to the hospital instead of the theatre the day after I was engaged as a director in the Theatre Guild School, I might even now be a figure in the American drama, if any." By the time Ray had emerged from bed and shaved off his beard, the Guild had another director and Ray had another chance to look for a job. He found it in the continuity department of the National Broadcasting Company.

Before this episode, however, Ray Knight had studied law, been admitted to the Massachusetts bar, practiced law for two years in Boston, decided to study for the ministry, went to Harvard Theological School, did social service work, became interested in the drama, taught school in Cuba, went back to Harvard to study with George Pierce Baker at the old 47 Workshop, followed him to Yale for another year's work, wrote a play and stage-managed a Broadway production, thus gaining a

background for anything that radio might require.

Ray is married—very happily, and has two children who provide plenty of material for "Wheatenaville" and in turn are sometimes reprimanded through listening to its episodes.

The twins, Peter and Pan, are played by Bobby Jordan and Emily Vass, popular child air actors, and David Dacca fills the rôle of Uncle Hannibal, Bachelor's faithful old Negro servant. Janet Freeman is played by Alice Davenport, while Ray not only plays the rôle of Billy but also that of Wellington Watts.

Bobby Jordan, who is ten years old, made his radio debut in the rôle of Peter last year. Previously, however, he had been seen on both the stage and screen. He was in the original New York production of the Pulitzer Prize Play "Street Scene," and later was featured in a series of movie shorts.

Emily Vass, also ten years old, has been playing before the microphone for a little over a year, and has been heard on many children's programs.

Miss Davenport also is well known to the radio audience, and has had the feminine lead in numerous air series.

Wheatenaville is designed as a family program and if it has an aim, it is to prove that it can have plenty of action and excitement and interest and yet be acceptable to the parent-teacher associations all over the country who have come to realize that what children hear over the air is just as important as what they read in books.

Billy Bachelor, his assistant, Janet Freeman, and



Billy, Janet, Peter and Pan

the twins, Peter and Pan, are heard in the Wheatenaville sketches over an NBC (Red) network every Monday to Friday, inclusive, at 7:15 p. m. EST.

The Super-salesman

In real life Elmer Everett Yess is Hal K. Dawson, veteran stage and radio actor, who now finds himself in his twenty-seventh sponsored dramatic series, but for the first time the star. Appropriately enough, he began life as a salesman.

Yess-man Dawson was born in October, 1896, in Rockville, Conn., and duly christened Harold Kaye Dawson. His father was a textile mill superintendent; a business that moved its locale so frequently that young Hal was brought up in various cities throughout New England.

After finishing high school in Pittsfield, Mass., Hal entered Syracuse University, where he starred on the track team, being a ten-second man in the 100-yard dash, was president of his class in his Junior year, belonged to the Psi Upsilon Fraternity, waved his arms as a cheer leader, sang in the glee club and choir, and gave a hint of his future career when he got himself deeply involved in the affairs of the dramatic club, to which he applied himself so diligently that he was chosen as its president.

When he finally stepped forth with his sheepskin in 1919, he became a salesman. Three years later the stage bug bit him, and he threw away his salesman's portfolio to be a stock company juvenile at \$10.00 a week, with such success that he soon was making \$15. For five years he continued to play stock in New York, Massachusetts, Kansas, and Canada, working almost steadily and averaging 45 weeks a year in productions during those five years—which any actor will tell you is a high batting average. After that he landed on Broadway, and among the productions he has acted were "Torch Song," "Three Times the Hour," "Louder Please," and most recently, "Another Language," in which he



He sells Plymouths

played the comedy part for 50 weeks on Broadway in the stage play, and also on the screen.

For the past five years, he has devoted considerable time to radio work between stage appearances. He is now under exclusive contract to "Elmer Everett Yess," which is heard every Tuesday, Thursday and Saturday over the CBS. In order to take the part in this comedy script series, he had to relinquish an important rôle in the Broadway play, "The Curtain Rises," which was in rehearsal when he got the radio call.

Hal is married and has a 16-month-old daughter, Patsy, and lives on Long Island. His wife, Frances Laughton, is also on the stage. They met in 1925, when both played in the same stock company in Utica, N. Y. He was in the Naval Aviation Service in the War. Golf is his favorite pastime, but he'll tell you he's a "dub". . . weighs 150 pounds. . . is 5-foot-8, has blue eyes, and light brown hair.

Joe Penner's Duck

Less than ten years ago Joe Penner was a mechanic in an automobile factory. One evening he was persuaded to go on the stage at an amateur night at a local theatre. For the first time that evening he pulled his now



Ducks for sale

celebrated line, "Wanna buy a duck?" and while no one did, there were vaudeville scouts in the audience who did buy Penner.

Success in vaudeville followed for the young comedian, then a place in three Broadway revues, and finally a contract to make 24 movie shorts. Back from Hollywood, he was introduced on the air by Rudy Vallee and scored so successfully that he soon was booked for the feature comedian's rôle in the Bakers Broadcast, heard every Sunday at 7:30 p. m. EST, over a coast-to-coast NBC (Blue) network, with Ozzie Nelson's orchestra and Harriet Hilliard.

Miss Hilliard, blonde young singer, was appearing in the New York night clubs when Ozzie Nelson heard her and made her the leading soloist with his orchestra. Later in Hollywood, motion picture producers saw her and persuaded her to appear in several pictures. Meanwhile she has continued her work with Nelson and his orchestra and now is regarded as a leading radio singer.

Ozzie Nelson's musical career began at Rutgers University, where he

organized a college orchestra which was in great demand for fraternity dances. Between rehearsals he found time to win his varsity letter in four sports, and when he was graduated decided to continue his studies in law school.

Before he became a full fledged lawyer, however, he organized another band which was so successful that he finally gave up law for music. That band, with some additions, is the one you now hear, and is the organization with which he has climbed in a few years to a commanding position among radio dance orchestras.

Two Black Crows

George Moran was born at Elwood, Kansas, in 1881. When fifteen he became an entertainer . . . made his debut with a road show . . . the play was "Uncle Tom's Cabin" . . . soon learned to buck-and-wing . . . became an all-around vaudeville performer.

His meeting with Charlie Mack was the beginning of a sensational rise to fame and fortune . . . the team first brought "Negro" impersonations to the "big time." It wasn't long before they were earning \$2000 per



Two Black Crows

week. Incidentally, Moran and Mack played the opening bill at the Palace Theatre in New York.

Moran was married in 1928 . . . his wife is Claire White . . . they met in the "Vaniities" . . . and now have a daughter.

Like his partner, Charles E. Mack is a native of Kansas . . . the year was 1887 . . . the town White Cloud . . . he wanted to be a vocal star . . . began singing for pennies at the local ball park when just seven. Charlie got his start in show business as a dancer at Centralia, Wash. He and Moran each were doing a black-face act in 1917 . . . they went broke . . . decided to team up . . . that was the birth of "The Two Black Crows."

They catapulted to national fame in 1927 and 1928 . . . more than four million of their recordings sold . . . everyone was saying "Why bring that up?" . . . they've been in Hollywood for the past five years . . . and will continue to make movie shorts in between broadcasts with Fred Waring's Old Gold program.

Mack writes and directs . . . but two other activities take up a lot of his time . . . attending to his stamp collection and building houses in Norman architecture.

The Playboys

Leonard Whitcup, Walter Samuels, and Felix Bernard, "thirty flying fingers on two pianos." This trio of composer-pianists is heard over the Columbia network three times a week.

For several years, Felix Bernard had been toying with the idea of a two-piano trio, but had never been fortunate enough to round up two other pianists who would fit in with his ideas on tempo and rhythm. While trying out some music at a publishers, he met Leonard and Walter, had a hunch that these were his partners, and formed the team. Felix Bernard and Walter Samuels alternate between the melody and rhythm technique, while Leonard Whitcup holds down the bass.

Leonard Whitcup made his debut



Thirty flying fingers

on the air at three o'clock one morning about seven years ago. He was to follow the program of Whispering Jack Smith, and did—when that popular artist finally had sung all the request numbers that had been phoned in.

Leonard was born in New York on October 12, 1903, and was schooled in the same city. When he left New York University, his family urged him to carry on the business which they had worked forty years to establish. Instead, he landed a job in a music retail shop at the nominal sum of \$12.00 a week. There he first tried his hand at writing popular songs and since has penned many a tune, notably "Nize Baby," "I Gotta Have You," and with Samuels, "Fiesta."

Walter Samuels was born in New York on February 2, 1903. His family has always been connected with theatricals, and so Walter took to the profession quite naturally. But Walter ran the gamut of rôles from small bits to major parts in Hollywood and on Broadway. He now is

(Continued on page 47)

SHORT WAVE Reception in ENGLAND

• • • By G. WINSON*

ALTHOUGH I had listened to some of the London programs on a friend's set, up until a year ago I had no interest in radio at all. Then a chap told me that it was possible to get the U. S. A. on a short wave set so I fell to and started to build one. My first was a three-valve, the second a one-valve and now I have a two-valve. Personally I think that on H.T.B. (high-tension "B"?) there is too much *rush* with a 3-valve; on a one not enough power behind the signals owing to having no amplification. A 2-valve just compromises and you have the "sigs" boosted up by the one stage of amplification which is just sufficient to work a loud speaker satisfactorily. More than a 3-valve is too much on

the pocket for batteries as unfortunately we have no electricity in this part of London.

I am quite satisfied with my set to date, having logged in a year practically all the countries in the world. I use 120 volts h. t. B, two volts l. t. No ground and a very poor antenna, 30-feet long, only six feet above the roof and screened on three sides by very tall houses and on the fourth by the electric railway only fifty feet away with trains sparking and arcing all day and half the night. It is a very poor locality but owing to the freakishness of s. w., I am lucky in reception results.

Up to date I have had about everything worth having on phones and a good bag on loud speaker. I have built the set into an all-wave, 15-2500 meters, with six-pin plug-in coils so that Ma can listen to London if she wishes to when I do not want to use the set.

Certainly "A Good Bag"

My log now includes AC8, CE, CM, CTI, CV, D, EAR, EI, F4, F8, F1, G, G1, HA, HB, HK, I, J, LA, LU, OH, OK, ON, OZ, PA, PY, SM, SP, SU, UO, VE, VK, VPI, VQ2, VQ4, VSI-2, VS7, VU, W, X, YI, YM, YV, ZC6, ZD, ZL, ZS and ZU. These prefixes are all of countries heard either from hams, private phone or broadcasting stations—only a few countries to be heard to complete the world.

Of the broadcasters I have logged the following by call and most are verified: W3XAL, W8XK, W2XAD, W1XAZ, W4XB, W8XAL, W9XAA, W9XF, W3XL, W2XAF and W2XE. Some of these I have not heard recently and they may be off the air now. Outside of the U. S. A. there are XDA, HKD, YV1BC, YV1BMO, VE9GW, VE9DR, VE9BY, RW59,



Bert Laehr, funny man on the Royal Gelatine program, Wednesdays at 8:00 p. m. EST, on the NBC (Red) network, with George Olsen's orchestra.

OXY, DJC, DJD, DJA, EAQ, CT1AA, PLE, FYA, HVJ, CNR, 2RO, SRI, HBP, VQ7LO, JB, REN, EAR262, and VX2ME. The latter is the only one of the Aussie broadcasters ever heard and that only twice—the hams are received well though. All this may seem like an exaggeration but I assure you it is not. You see I am a fan and sit up till 3 a. m. nights and go on again at 7 a. m. just to catch a particular station.

I listen most to the U. S. and now I have logged so many I am ready to settle down to hear what I originally made the set for. A friend over there sent me a copy of your magazine and now that I have subscribed for two years, I am looking forward to a very interesting time in radio. It will help me immensely to keep track of my favorite programs which are Amos 'n' Andy, A. & P., Chase & Sanborn, Clicquot Club, Carnation Contented, Firestone, Five Star, Lucky, Old Gold, Roxy's Gang, Royal Vagabonds, Ed Wynn, Eno's Crime Club, Foreign Legion, Fu Manchu, Goldbergs, Magic Voice, March of Time, Myrt and Marge, Rin Tin, Buck Rogers, Wheatenaville. These are a few that I have heard at different times and enjoyed a lot. Heard the first ball game coming over well this year, on April 11th at about 11 p. m. GMT from KDKA's relay, W8XX. It was very clear and I certainly enjoyed it a whole lot.

Over here if you tell anyone you can get the U. S. in the daytime, they call you a liar and if you mention the Aussie's they just think you're entirely screwy. I guess over there you are well enough advanced in radio to know what is possible on the short waves.

It's in this Issue

I would like to see a list of the broadcasting stations of the U. S. which are relayed by the short waves as I do not always know which chain or what station's program I have. Would like, too, to hear from some of your readers who are interested in short waves although I cannot promise to answer them all at once as I



John N. Dyer, Columbia engineer, directs the operation of Station KJTY aboard the S. S. Jacob Ruppert, flagship of the Byrd Antarctic Expedition. Dyer will be at the controls of the short wave transmitter during the two years in which regular broadcasts from the Antarctic are to be forwarded by short wave to the Columbia network in America.

have not much time away from the dials to do anything but work and eat. I have often wondered what stations you get over there that are difficult to get here. I have heard you find it difficult to get England. Give us more newsy notes as we never hear much about the stars over here and these little tidbits go down well. (The Gracie Allen missing brother search was a great gag.)

Best 73's, DXers. "Hpe cuagn sn."

*4, Osten Mews, Emperors Gate, Cromwell Road, South Kensington, London S.W. 7, England.

In January Mr. Dashiell will describe the correct ways of attaching phonograph pick-ups and microphones to modern sets.

TALKING OVER Our Radio TROUBLES

• • • *With the Technical Editor*

WHICH type of line noise filter made by I.C.A., Tobe or Aerovox is best to use with my three sets—Scott, Eveready and Freed-Eiseman? I expect to purchase one of those makes.

Of the three types you mention—Tobe, ICA and Aerovox—we are inclined to suggest that the smaller units of this kind are practically useless where rather powerful surges come in over the a.c. lines. Of these three makes, then, we suggest either the ICA “senior” type, the Tobe “line filterette” type, or Aerovox “senior interference filter” type, all of which are larger and more efficient types. See the April, 1933, issue of RADEX.

It must be remembered that much noise is picked up by the Aerial, and a noise filter in the a. c. line will not stop the interference, except in cases where it is known that motors, etc., operate on the same power lines. Success is now being obtained with antenna filter systems and shielded lead-ins. These are described at length in the October, 1933, issue of RADEX.

Tubes in Philco 96

I have a Philco model 96 receiver and believe it would be helped by the use of the new tubes in place of the present ones. What can you advise me?

The model 96 Philco is a tuned radio-frequency set, using three -24 r. f. tubes. These tubes can be replaced with 57s if suitable adapters are used. In this case, however, special shields are used, for the adapter adds to the height of the tubes and their grid caps may not fit beneath the old shields. A careful readjusting of the trimmer condensers attached to the tuning condensers will be necessary to rebal-

ance the set. The first audio amplifier, a -27, may be replaced with a 56.

Strange Harmonics Annoy

I hear strange harmonics on fractions of the frequencies at which I am supposed to receive certain broadcasting stations on my Radolek receiver. Can you account for this? My set uses five tubes.

The first harmonic of a radio wave is the fundamental wave assigned to that particular broadcast. See the January, 1933 (No. 65), issue of RADEX, for an article on harmonics. The second harmonic is composed of a frequency of twice the fundamental or a wave of half the original



Frank Munn, whose tenor voice is heard over NBC (Red) network on the *Album of Familiar Music* program co-starring with Virginia Rea, on Sundays at 9:30 p. m. EST, and also on Wednesdays at 8:30 p. m. EST, with Abe Lyman and his orchestra.

length. Therefore it is impossible to get a station on 100 meters, for the second harmonic of a 50 meter station would be 25 meters and not 100 meters, as mentioned by you. Stations also may be found on harmonics which are multiples of the original frequency, or fractions of the wave length and not frequency, as mentioned by you.

It can be possible, however, that the construction of the receiver, with its internal harmonics caused by the oscillator, etc., will favor the creation of several unnatural frequencies within the receiver, and these will become audible in the loud speaker.

Tubes in Zenith

Can some of the new 50 types of tubes be substituted for -27s in the Zenith 39-A receiver? Also, will you suggest other tube changes that might help out?

This set uses six -27 tubes, in radio-frequency, detector, and first audio; a -26 second audio; and a -10 in the last power stage.

The -26 second audio tube cannot be replaced by any other type. The -10 tube is satisfactory as an amplifier. The first audio tube, type -27, can be replaced with a 56 to some advantage. The first radio-frequency -27 tube may also be replaced with a 56. We doubt whether the rest of the -27s should be replaced unless you are fully able to rebalance the set to meet the characteristics of the 56s.

RADEX S.W. Converter

I have constructed the converter you published in the June issue. For some reason it will not oscillate, and I cannot get a response out of it. I have used all parts as specified, but with a filament transformer instead of the wafer adapters. It is being used with a 1933 Stromberg-Carlson receiver of ten tubes. The circuit has been checked time and again, and I hope there is something that you can suggest.

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We would first suggest trying another 56 type of tube which is recommended as the oscillator, as it is generally known that some tubes will not oscillate under ideal circuit and voltage conditions. Also, mechanical ruggedness and electrical security are important where the specified parts and advised arrangement was followed.

The mechanical layout arrangement of the parts must be chosen so that the field of the oscillator coil is relatively free (unshielded). Other points of construction must conform with the regular radio construction procedure. These include, secure soldering, short, uninfluenced leads, correct spacing and shielding of the apparatus (except oscillator coil and tube), and proper mounting of all parts.

More New Tubes

Can the new 56, 57, 58 and 46 types of tubes be used to good advantage in my Atwater Kent model 89 radio

receiver in place of the older tubes now in use?

The rectifier tube (-80) should not be replaced with any other type, such as the 83 which uses too much current. The present -47s are adapted to the input transformer primary coil and its impedance value would be wrong for type 46. We do not recommend replacing the -35s or -24s with 58s or 57s, respectively. The automatic volume control and oscillator tubes should not be replaced, as their parts of the circuit are very critical. The second detector, if a -27, can be replaced with a 56, as no special adapter or new socket will be needed. The -27 first audio tube may also be replaced with a 56 type.

Phones With Philco

What arrangement for connecting headphones, as shown in the February, 1933, issue of RADEX, will you recommend for my Philco 90 receiver? Also, which are best, 2,000 or 3,000 ohms phones?

The Philco model 90 receiver was constructed in several types—one with serial numbers 32,001 to 35,000, and above 53,100; and one covering the other numbers. The only difference that concerns your use of phones is that of power output tubes. If the set uses two -47s or two -45s in push-pull amplification then you may attach headphones as shown in Figures 4 or 5 in the issue of RADEX mentioned above. If you have a single -47 in the set, then connect the phones as shown in Figure 3, lower right-hand corner arrangement. This figure will be found on page 3 of No. 66.

Either two or three thousand ohms phones will work very well, but the 3,000 ohms type will be somewhat more sensitive to distant signals.

Electrolytic Condensers

I would like information concerning the condensers in my 6-tube receiver. Shortly after I purchased it the electrolytic condenser burned out, that is, one side of it. I replaced it

with a larger and heavier condenser of 4 microfarads. Two weeks later the other side burned out, leaving only the renewed side in good shape. Can you tell me what is wrong?

Any present day electrolytic condenser should be capable of withstanding as much as 500 volts across its terminals. However, if there has been excess evaporation of the electrolyte this may not be true. It seems possible that the condenser was defective on both sides, one giving out soon after the other. Such units are generally self-healing and ordinarily overcome these difficulties. It is not likely that the set is defective and in some manner is delivering 500 volts or more to the condenser.

Air Cell Conversion

Can I use 2-volt tubes and Air Cell battery with my Kolster model 6-D receiver?

You may use the two-volt tubes in this circuit in connection with the Air Cell battery. Use type -30s in place of the -01As, and a -31 in place of the -17A. There is a little one-ohm resistor leading to the filament wires in the circuit that must be removed or short-circuited with a piece of wire when 2-volt tubes are utilized. The end of the rheostat that is not covered by the resistance changing arm must be taken out of the circuit by also shorting with a length of wire.

Repeating Coil in Radio

Can a repeating coil be used in my radio set to advantage? I have one but do not know what it is for or how it is used. Please tell me.

The repeating coil is used on long telephone and telegraph circuits. It is a form of transformer, and may be used to link radio conversations with land lines for transmission along wires to inland points, such as ship to shore communication.

In multiplex wire telephony two pairs of wires may be made to transmit three different telephone con-

versations at the same time, using audio frequency currents. If transformers or repeating coils are used at each end of the lines a "phantom" circuit is set up and takes care of a third conversation which ordinarily could not pass over the two wires or pairs of circuits without interference. The repeating coil has no definite place in your radio receiver circuit.

Low Power With S.W. Converter

I have built your short wave converter which is used with a five-tube General Electric set, but the volume from an English station was very weak and reception was unstable. How can I get more power?

A converter does not amplify any signals beyond the very slight natural gain that comes with passing a radio signal through a detector tube. All the converter does is to take a weak signal from the antenna and convert it to a different frequency that falls within the reception limits of a broadcast radio set. The receiver itself does the amplifying and the degree of amplification depends upon the power of the set. You cannot expect any more power from short wave signals than you get on broadcast signals coming from over similar distances. With a 5-tube set we think it is only natural that English signals would be quite weak.

Fading Signals

I have a Crosley "Washington" receiver, but when local stations are tuned in it has a peculiarity of fading and then coming in normal again. This happens off and on, and also when the local switch is thrown to out of town stations. The fading is sometimes accompanied by a rumbling noise. What can be the trouble?

This trouble can undoubtedly be traced to a defective grid or plate resistor in the audio system. It is easier to test such resistors by substitution, for when tested alone they may not exhibit any faults. The resistors can be given the high volt-



Bruno Walter, distinguished German conductor, will continue to lead the first ten of the New York Philharmonic-Symphony Orchestra broadcasts, heard over CBS and Canadian networks Sundays at 3:00 p. m. EST.

age test, however, which may show up the difficulty. Many types of carbon resistors change values intermittently under operating conditions.

Carefully inspect and test the field coil circuit for the rumbling noise as your trouble indicates possible trouble in the speaker field. All of this seems to us to be a job for a competent service shop that is well equipped with testing devices.

Sudden Volume Changes

I have a Philco and Bosch direct current set. They are used on board ship, and at times the volume suddenly drops. How do you account for this?

As d.c. receivers use 110-volts direct-current, it means that only this amount of potential can be obtained as maximum plate voltage. Any sudden surges or changes of current below this maximum reduces the operating plate voltage sharply and, as a result, the volume of the sound drops

(Continued on page 47)

On the Editor's WAVE LENGTH

SO VERY many of the readers of this magazine are receiving foreign stations on the broadcast band that we are bringing out a separate publication called the "DX Radio Log of the World." It will be issued quarterly (with proper support from the listeners) and will be found on sale at most newsstands. You will be able to identify it a block away by its black and white diagonal stripes on the front cover. It sells for ten cents the copy and forty cents a year. The "DX Log" contains all the stations of the world on frequencies between 520 and 1500 arranged in the usual RADEX method of frequencies, call letters and countries, states and cities. It was impossible to find room for all these stations in this magazine, hence the new publication.

The problem of noises—judging from the letters we receive—is the most puzzling and pressing one our readers have. The only relief from man-made static is through the use of filters. The Tobe Deutschmann Corp. prepared a most complete treatise on this subject—75 big pages, profusely illustrated—diagnosing the various noises and prescribing the proper treatment for each case. The book is so large it must go by parcel post and the postage alone is from eight to fifteen cents a copy. We felt we would be serving our readers to make this book available to them. We are therefore giving a copy of this book free with a year's subscription to this magazine to those who desire it in place of the World Map and Time Converter. Be sure to include ten cents for postage or \$1.85 in all.

Following this "blurb" by the Business Manager, we will now look over

The Editor's Mail

"You have stations listed as answering DX mail which positively do not answer—not one letter but five," complains Harry McPoyle, 1411 N. Edgewood St., West Philadelphia.

"The worst offender is WTFI in Athens, Ga. Others are WTOG, WLBL, KFDM, KFJB, WBTM, WNYC, WJAY, and WIND. Some of them collect dimes too. I used to send for stamps and they never even bothered to send back the dime. I certainly think a 'z' symbol should be used for these stations." This is typical of many letters we receive and yet, on the other hand, we have such letters on the other side of the subject as that of George W. Haskell published in another column. Our symbols indicate exactly what the stations notify us is their policy. What's the answer? Mr. McPoyle goes on to tell us that his log has increased to 431, with 45 of the states, 7 Canadian provinces, South America, Cuba, Porto Rico and Mexico.

James W. Hughes, 9003 Capital Ave., Cleveland, wants to know how to change his Brandes broadcast re-



Albert Spalding, America's foremost violinist, is the latest of world famous concert artists to lend his talents to radio. He is heard each Wednesday at 8:30 p. m. EST, over a coast-to-coast Columbia network.

ceiver over into a short wave set. We receive frequent similar letters. There are so few parts in a broadcast receiver that are suitable for short wave work that we do not advise trying to utilize them. If the broadcast receiver is a good one, it would be better to build the converter described in our May and June issues and use it in connection with the broadcast set.

"It might be of interest to readers of RADEX," writes John J. Donaldson, Greenville, Pa., "to know that the first test broadcast of CRCS, Chicoutimi, Que., was had on the morning of September 17 last, a few minutes before 4:00 a. m. EST and lasted but a few minutes. I tuned them in at that time by accident, reported reception and received letters of verification from both engineers of the station, saying that at the time of my reception the process of connecting up the aerial and tuning and coupling had been completed but an hour or so. They also stated that my report was the only one they had received on this, their first test on the air. Their power is 100 watts and they are located about 100 miles northeast of the City of Quebec, on the Saugenay River. They are not yet fully organized, but say that their regular broadcasting periods will be from 6:30 to 11:00 p. m. EST."

The Aerial and Ground

With only 59 more stations to receive and verify, Ray E. Everly, PHG, 102 West Washington Street, Newton, Ill., has the U. S. pretty well covered. He uses a Scott All-Wave but credits much of his success to his ground and aerial system. He has a short aerial of 80 feet and one of 120 feet connected to his receiver by a double switch. He uses a triple ground system which has improved his reception fifty per cent—a driven pipe ground as described by Mr. Cutler in the October RADEX, a modified Ollie Ross ground buried in salt and moist earth, and a chemical ground made of old B batteries. These three grounds are connected together and kept well watered. Mr. Everly emphasizes the

value of a good aerial as high as it can be placed, and a good ground system kept wet.

"I have been thinking over the idea of your putting the list of stations by frequencies in the center of the magazine," suggests William Vornkahl, Jr., Westport, Conn. "In that way we could take these pages out and bind them all in one book. Then we would not have to have all the books with us all the time. The time on the air for each day would be at hand without having all the seven magazines to cart around. The rest of the magazine could be filed away for future reference."

"Pay no attention to readers advising you to cut out different departments," urges Albert Sandham, 99 Page St., St. Catharines, Ont. "Some people are so selfish that they can only see things from their own angle. My radio is purely b.c., but I get almost as much kick from reading S.W. reports as I do from the others."

A Complaint

"RADEX is better than ever, in some respects, but in a few particulars, it is, I think, not so good," complains Rev. L. W. Rose, 812 First Ave., Laurel, Miss. "Personally I am fed up on 'Stories of the Stars.' We already have them ad nauseam in various publications. And I am not interested, as so many of your readers evidently are, in messages from abroad. 'What's On the Air Tonight' in the U. S. A. is the big question with yours truly."

Fred H. Bisset, President of the Canadian DX Relay, P. O. Box 339, Goderich, Ont., adds a new station to our lists: VE9EK using 10 watts on 1195 kcs. This station, which sends a fine verification card will have a special DX for the CDXR on November 25th and December 10th from 4:00 to 5:00 a. m. EST. On a previous DX on October first, this station received reports from Michigan to Massachusetts. Mr. Bisset thinks some of our readers may have had VE9EK and thought they had HIJK.

George W. Burns, 2466 Wahl Terrace, Cincinnati, sends us a clipping containing the information that Mexican stations are moving up into the kilowatts—XEN with 150; XEM with 500; XEF with 500; XET with 500; XER with 500; XETM with 150; XENT with 150. We rather doubt the authenticity of the report however as some of the stations named have never been constructed to our knowledge.

A new Pacific Coast network will make its appearance in Southern California on the first of November. KFVB at Hollywood is the key station. The others are KMPC, Beverly Hills, KFOX, Long Beach, KFXM, San Bernardino, and possibly KREG at Santa Ana. The chain will bring popular Hollywood and Los Angeles programs to listeners in the out of town areas.

Radio in Canada

Maybe we had better not give the name and address of the writer of the following letter or his tax may be boosted to five dollars! "As you know, we have a Radio Commission here in Canada and it apparently is going over in a big way with everyone but the public! I have not yet talked to a single person who is in favor of it. You see they boosted our radio license from one dollar to two dollars a year to produce revenue for the Commission to fritter away. Now the logical way to protest is to refuse to purchase a license but if you do you are liable to a fine so what chance has one? My friends and I believe that a Federal control of radio such as obtains in the U. S. A. is a good thing but not to have the government enter the broadcasting end of the business and unnecessarily spend public money when private firms are content to do so in return for a few minutes of our time to tell us of their product. We never listen to a Commission program anymore but turn instead to U. S. A. stations for our radio entertainment. Buffalo's stations WGR, WKBW and WBEN have larger audiences in these parts than any of the Toronto stations with the exception of CFRB

which does not carry Commission programs." We can only counsel our friend to be patient and give the new Canadian Commission a chance to work out its policies. Our own Commission in the U. S. muddled around for a long time. Oddly enough we have heard people remark after listening to Symphonic Strings, a Canadian Commission program, "That's better music that we get in this country."

"We have just gotten a radio and immediately started to use RADEX but we would like to get more Czechoslovak programs and do not know when or on what stations to find them. Will you be so kind as to give me that information?" Can any of our readers tell us what programs there are particularly for Czechoslovakian listeners or advise the inquirer, Miss Agnes Hudicek, Maumee, Ohio.

"I want you to tell the readers of RADEX," informs J. T. Maher, Jr., 406 Maple St., Holyoke, Mass., "that the Tobe Filter Model 33 is great. I have been bothered by street car interference and this filter proved its worth, and I honestly mean it."

"Tune-In" is the inviting name of a new DX magazine published in Dunedin, New Zealand (P. O. Box 706). It is filled with chat and gossip of the New Zealand brethren and makes interesting reading. It is published monthly and sells for 6d.

LISTEN to THIS

The DX program to be broadcast by Station WOWO, Fort Wayne, Ind., on Tuesday morning, December 5, from 1:00 a. m. EST until probably 3:00 will have as its personnel the entire staff of announcers of WOWO, and a large group of radio artists of both WOWO and WGL. It will be a program well worth hearing.

A number of other noteworthy programs will be found in our DX Calendar. Several radio stations last month were kind enough to dedicate their programs to the readers of RADEX as a voluntary courtesy. To them we give our sincere thanks.

POINTS for DXers to REMEMBER

Some time ago the Newark News Radio Club published some hints for the use of its members when seeking verifications for their reports of reception. These were so pertinent that we are reproducing them below.

We believe that excellent results will be obtained if NNRC members and other DXers will follow these suggestions when writing for verifications. One—Be sure to write legibly, especially your name and complete address. Two—Mention the exact time and date you heard the station to which you are writing and specify E. S. T., C. S. T., etc.

Three—List titles of musical selections in the order heard together with your other verifiable material. It is important to give the names of participating artists, orchestras, musicians, speakers, together with their subjects, etc. Time announcements are also frequently given on DX or test programs.

While some broadcasters are careless in the matter of verifying reports of reception, there is a steady tightening up and many stations now carefully check letters to be certain they are authentic and deserving of confirmation before the issuance of one. This is most encouraging and extremely beneficial for the game. It is no wonder that many reports are thrown in to waste paper basket; we have seen some that came into WHOM and WAAT in which there was absolutely nothing to indicate that the writers had ever heard those stations. After all, what satisfaction is there in a verification dishonestly procured?

Four—Many stations wish to know just how their transmitters are operating as well as to learn you enjoyed their programs. We can partly repay their kindness in verifying our reports by comment on signal strength, modulation and fading. Five—It should be remembered that a verification is

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604 S. Dearborn Street Chicago, Ill., U. S. A.

distinctly a courtesy to the listener. Many of our smaller broadcasters because of insufficient revenue, are unable to maintain an adequate office staff and consequently the answering of the many hundreds of letters received during the DX season is a heavy burden often borne by the managers, engineers or announcers. Surely, in addition to that extra work we cannot expect them to defray postage and other incidental expenses incurred. By all means, enclose return postage or a self-addressed stamped envelope.

Six—A friendly letter rather than a demand will create a willingness to comply with our requests much more quickly. It should be remembered that there is no law or regulation compelling a station to verify reports of reception and finally, before submitting reports be certain you have actually heard the station and furnish sufficient proof to convince them you are entitled to a verification.

COMING TREATS *on the* SHORT WAVES

• • • *By* PAGE TAYLOR

THE first permanent marine unit of a radio network has been granted an operating license with the call letters KJTY. It is located on board the S. S. Jacob Ruppert, flagship of the Byrd Antarctic Expedition. The Federal Radio Commission license grants the station 15 frequencies for the transmission of voice and 51 frequencies for telegraphic communication.

Station KJTY, 1000 watts power, will be used for special broadcasts while the Jacob Ruppert is en route to the Antarctic ice barrier. At the barrier the broadcasting equipment will be transferred to the S. S. Bear, which will penetrate the frozen wastes to Byrd's Forward Base in Little America. There a new station will be set up on the ice to handle the regular weekly programs over the Columbia Broadcasting System in which Admiral Byrd and the members of his expedition will report on the progress of their explorations.

The ultimate geographical location of KJTY at the Forward Base will be, Latitude 85 S., Longitude 168 W.

Rocky Point Frequencies

Several of the Rocky Point Experimental stations have been authorized to test with KJTY, but as we cannot determine which ones will be used, a complete list of these stations is given this month in RADEX, the first time, as far as we know, that such a list has ever been published. The 15 voice frequencies used by KJTY are also given. Readers should note that any of the Rocky Point stations may use the experimental call letters W2XBJ at times.

KJTY has already been heard by several readers, John Strong report-

ing it off of Cape Cod, and E. A. Conklin, 21 Maple St., Norwich, N. Y., hearing it on 6.660 megs. talking to W2XBJ. Geo. K. Glass, Official Auditor in Detroit, Mich., 1320 Cadillac Blvd., writes: "At 11:30 a. m., EST, I had WCG on 28.9 meters and at 11:33 got KJTY on 13.200 megs. or about 22.73 meters. KJTY was R7, QSA5. They were arranging for a schedule but the frequency to be used was designated by a number. The operator on KJTY mentioned they were on 13.200 kcs at the time and was requested by the CBS man to use numbers. I lost KJTY when they changed frequency. I guess if they are going to be secretive about their transmissions we will be lucky to hear them. KJTY was nearing the Canal Zone."

Some Specials

During this month listeners will have the opportunity of trying for two more special programs, both of which are especially dedicated to RADEX readers. The first of these will be on December 10 from YV3BC, Caracas, Venezuela, 9510 kcs, from 9:30 to 10:30 p.m. EST, or 0230 to 0330 GMT. 9510 kcs is equivalent to 31.52 meters. Reports can be sent to Radiodifusora Venezuela, Bajos Pasaje Ramella, Caracas, and return postage, that is, an International Reply Coupon, should be enclosed if a verification is desired.

YV3BC will also dedicate programs to readers of this magazine on January 10 and February 10, 1934, at the same hour.

The second DX program will be broadcast by station HCJB, "La Voz de los Andes," on 73 meters (4.107 megs.) from 11 p.m. to midnight, EST, on December 16. This is, in

GMT, 0400 to 0500 on December 17. The address of HCJB is Mr. Clarence W. Jones, Casilla 691, Quito, Ecuador. Mr. Jones says that the power of his station will soon be 400 watts and that he is on the air daily except Monday from 8:14 'to 10:14 p.m., EST.

A Mystery Station

Only the realization of the fact that our readers want the best and latest in news causes us to enter the discussion that has prevailed for some time over the existence of a station known as "Moska Imeni Popova." Whether or not the station exists has long been a subject of argument among listeners the world over. "Microm" and "Midlander," s. w. correspondents for World-Radio, believe that this 25 meter station is the second harmonic of the 50 meter Moscow Trades Union station RV59. Other European listeners give it the call RW72. Our good correspondent in New Zealand, Mr. F. W. Sellens, says he heard the call RV50 on 25 meters. Regular monthly information on Soviet stations and programs fails to mention any stations on short waves other than RV59.

We believe, however, despite this great divergence of opinion, that a postal card received from Official Auditor Roy E. Robinson, 133 Mitchell St., Providence, R. I., will settle the matter, at least for the present time. "I was turning the dials this afternoon around 1:45," he writes, "and I heard a station on 25 meters, something new to me, playing violin music. The music stopped and a voice, 'This is Moscow calling . . .' He talked entirely in English, asking for reports of reception, giving the address as Radio Station RNE, Gorki St. No. 17, Moscow, USSR. It signed off before 2 p.m. Reception was QSA5, R7/S/N. They are experimenting with the United States."

A Columbian Schedule

Mr. Robinson would like correspondence from other fans.

A card from HJ4ABE gives their

schedule as follows: Monday, 7 to 11 p.m.; Tuesday, Thursday and Saturday, 6:30 to 8 p.m.; Wednesday and Friday, 7:30 to 11 p.m., EST. The address is Cia. Radiodifusora de Medellin, Emisora HJ4ABE, Medellin, Colombia.

HJ1ABB has changed its wavelength to 46.5 meters or 6.447 megs. and announce their schedule as 11:30 a.m. to 1 p.m. and 5 to 10 p.m., EST. Elias J. Pellet, its owner, wishes reports on this new frequency, which will be acknowledged. Address: Apartado 715, Barranquilla, Colombia. HJ1ABB is heard much better now than it was on its old frequency. Readers reporting it are John Strong, who says they now use 3 kw. and gives the Sunday schedule as 7:45 to 8:45 p.m. only. Edward C. Houlgate and R. W. Evans also contributed information.

TGW Verifies!

Jack Thompson, 535 Hess St., Bethlehem, Pa., apparently has accomplished the impossible. He has



George E. Jessel, man-of-the-music-halls, whose songs and droll anecdotes have made the rafters ring in theatres throughout the country, broadcasts each Saturday night at 10:30 p. m. EST, over the CBS.

a verification from TGW. Considering, however, the hundreds, or perhaps even thousands, who have written this station without having the courtesy of a reply, we continue to advise readers that money spent for postage and Reply Coupons to TGW, TGX, HJ3ABF and RV15, is simply money wasted.

Some very good advice for fans is offered in a letter from Clarence Sargent, 19 Clinton St., Dansville, N. Y., an Official Auditor. "W3XL, Boundbrook, is on the air often lately, sometimes testing with W9XZ, the stratosphere balloon. W3XL is always a good station to listen to when they are on as it is the NBC cue station and is always used for stunt and special broadcasts," W3XL has a regular schedule on Fridays, but listeners who remain tuned to this station when hearing it at other times are always rewarded by picking up some new station which may be testing with Boundbrook and Riverhead.

An incident that is recalled by many short wave listeners is the broadcast from ICGZ, the M. S. Saturnia, 1100 miles out to sea, in the spring of 1932. It was on the air for five minutes so Giuseppe de Luca, a passenger on the ship, could sing an operatic aria for a benefit performance in New York City. W3XL was the cue station. A more recent occurrence was the program transmitted over the NBC network from the Graf Zeppelin during its recent visit to this country. Those who listened to W3XL during this visit learned that DENNE, the Graf Zeppelin, worked on 54, 37.5 and 30.83 meters. At the time of going to press, only one reader has reported reception of DENNE, this being Geo. K. Glass of Detroit. Mr. Glass heard DENNE on 30.4 meters instead of 30.83 as announced by Boundbrook.

DX Reports

"My set is an 8-tube Allwave Philco super, Model 43, and I am more than satisfied with it," writes Arthur Koeppel, 321 Summit Ave.,

Hackensack, N. J. "I think I have done fairly well. My best catches are VK2ME, 3ME, PHI, CT1AA, and HIX. In my verification from HIX they state that their regular broadcasts are on Tuesday and Friday nights at 8 to 10 p.m., EST, and Sunday mornings at 7:40 a.m. They work on 50.4 meters with 200 watts. The address is Estacion HIX, Mr. J. R. Saladin, Santo Domingo, Dominican Republic."

Charles A. Perdicaro gives the Sunday schedule of HIX as 4 to 5 p.m., EST. John Strong says it is 8 to 10 a.m. Other readers reporting this station are Geo. W. Burns, R. W. Evans, Ed. C. Houlgate and Clement Van Velsor.

John Strong, Official Auditor, 1436 Meridian Place, Washington, D. C., reports reception of station HIZ whose address is given as Calle Duarte No. 68, Santo Domingo City. They work daily on 47.5 meters from 4:40 to 5:40 p.m., EST.

Blames the Moon

"While listening to PHI, Holland, on 16.88 meters this morning I heard the announcer say that they would be heard hereafter on 25.57 meters from 9 to 11 a.m., EST, except on Tuesdays and Wednesdays," contributes Arthur C. Gluck, 295 Clinton Ave., Brooklyn, N. Y., an official Auditor. "CT3AQ, Funchal, Madeira, 26.83 meters, is heard here generally Sundays around 11:15 a.m. They are QSA3, R6/S/N. I am of the opinion that short wave reception is at its peak when the moon is full and at its worst when the moon is in the last quarter, or the new moon. I would be pleased to hear from others on this idea."

New One in Ecuador

Many of our readers are hearing the new Ecuadorian station HC2RL. This station was first reported by J. G. Richard Heckscher on May 25 of this year. HC2RL works on 45.02 meters on Tuesday nights from 9:15 to 11:15 p.m., EST, and are on the air at other times irregularly. The

mailing address is Dr. Roberto Levi, P. O. Box 759, Guayaquil, Ecuador. Robert L. Weber, West McHenry, Ill., has enjoyed consistent reception from them since September. Doyle E. Carpenter, Emmetsburg, Iowa, one of the Official Auditors from his state, says they are on the air on Sundays from 5:45 to 7:45 p.m. in addition to the Tuesday broadcast. Other readers reporting HC2RL are Mel Johnson and John Strong.

Robert L. Weber reports that he heard PHI announce their location as Eindhoven and asks if they have moved from Huizen. No doubt what Mr. Weber heard was a rebroadcast from Eindhoven; what might serve as an answer to his query is furnished by Geo. K. Glass, who comments as follows: "I had PHI this morning from 1550 to 1627 GMT. Very good, R8, QSA5. Copied a whole page of notes for verification. They announced in several languages. They signed, "I am greeting you from the Netherlands. Good evening, good night, that's all. PHI. N. V. Philips Radio, Huizen."

Soviet Politics

"At 2155 GMT I tried 50 meters," continues this interesting letter from Mr. Glass. "A speaker in English was concluding a talk. Then the address was spelled out very carefully, No. 12 Solianka, Moscow, USSR. The National Anthem (Internationale) followed and they signed off at 2200 GMT. While the set was unchanged and as I was writing down the address DJC came on, starting their program. I didn't get the call RV59 due to interference. The announcer asked that everyone send in a frank opinion of the program so I guess it was political. Anyhow I wrote them a letter and trust to obtain a verification and some up-to-date information."

Mr. Glass will receive his verification, as Mme. Inna Marr of RV59 is very courteous about answering reports. And he will also receive the up-to-date information, in the form

of monthly bulletins giving the daily schedules of their programs for the whole month. Their programs are strictly political.

Time of HKE

"HKE has been heard well on several occasions," reports Edward C. Houlgate, Official Auditor, 351 Adelaide St., London, Ont. "A recent letter from them states that they are on the air Mondays and Thursdays from 6:15 to 7 p. m. and Tuesdays and Fridays from 8 to 9 p. m. EST. They give their wave as 42.3 meters but on my dials they are closer to 41.6 meters. YV1BC has been heard close to 50 meters lately with excellent volume. Pontoise on 25.2 has been heard returning to the air with the 25.6 meter transmitter at 3 p. m. recently." Mr. Houlgate has also heard KJTY, reporting them in the early evening on 45 meters in communication with WCG and WKP, Rocky Point.

Several readers have complained that XETE is no longer audible, but perhaps this is due to the fact they have been changing their wavelength frequently. Geo. W. Burns, Auditor, 2466 Wahl Terrace, Cincinnati, Ohio, states that XETE gradually slid down from 31.25 meters and now appears to be stationary on 29.2 meters. His letter continues with the information that TIR, Costa Rica, now uses the call sign TIN when working New York and TIU when working Hialeah. "DJB, now being heard here for the first time (I suppose I've passed them up before taking them for VE9DR), is on until 9:30 and sometimes 9:45 p. m.," he writes.

From the Rockies

"In this section of Alberta, Canada, within a hundred miles or so of the Rockies, short wave reception is somewhat difficult," advises A. B. Baadsgaard, Drawer O, Ponoka, Alta. "I may add, however, that I have had very good success in bringing in Paris and London in the 25 meter band between 9 a. m. and 2 p. m., with reception equal to and in some in-

stances superior to our local stations. I have had no success in getting Berlin on 19 meters and when on 25 meters the signals are somewhat faint. I would welcome, therefore, reports from anyone in Central Alberta who is able to bring in station DJB." Mr. Baadsgaard uses a Marconi 13-tube Allwave receiver.

"South America hasn't started to come in here as well as it should yet," contributes Doyle Carpenter, Auditor in Emmetsburg, Iowa. "There are six or eight which can be heard but their quality is such that it is painful to listen to them. LSX has been coming in quite well. I got GSG finally, but just once. I also heard DJC once. I imagine we will hear him well this winter as they were very FB last winter."

C. J. Martin, Jr., Springfield, N. Y., sends us the name and address of a very successful all wave DX'er in France who wishes correspondence, especially from persons who have heard French stations. This is M. Francys Carville, 10 Avenue de la Liberté, Becon-Courbevoie (Seine), France. M. Carville has heard 1769 stations on all waves in every part of the world, the list including, of course, both voice and CW transmissions.

The Moroccan

RADEX has never recommended station CN8MC as a possible "good catch" for its readers, but for the benefit of those who may have read elsewhere that this station in Casablanca, Morocco is on the air on 48 meters, let us present an excerpt from a letter from Dr. G. Veyre, owner of ex-CN8MC. "Ever since Radio-Maroc, situated in Rabat, has transmitted on short waves, I have discontinued my own broadcasting. It has been over two years since I have been on the air. . ."

"I have a Pilot Super-Wasp modified for 2 volt battery tubes and amplify the last stage through a Western Electric 25-B amplifier using 205-D tubes," writes C. A. James, 745 Berckman St., Plainfield, N. J.

"In my location I find that EAQ, GSB, DJC and DJD come through consistently well on the loud speaker. I2RO and Pontoise are fairly good. For the past few evenings EAQ has been broadcasting from 7 to 7:30 p. m., a program for the International Broadcasting Co., of London, W1, England. They wish all listeners to send their name and address on a postal card and join the I. B. C. Listeners' Club, membership in which is free."

Enthusiastic Over S. W.

James Woonton, Oxford and Wharnccliffe Road, London, Ont., has always been a radio fan, but says that early this year he was looking for something new and found it on the short waves after purchasing his 12 tube Sparton 16 AW Model. This enthusiastic tuner writes, "This is the first short wave set I ever operated and you can count me in as a dyed-in-the-wool fan from now on. It certainly is great to hear old Big Ben striking midnight in London while sitting in your own home. I have logged four of the Daventry waves, DJB and D, 2RO, Pontoise, EAQ, YV1BC, LSY, etc. I would like to hear from some of the boys who tune a Sparton to see what their results are."

"As the summer sent me into s.w. I entered the Denton contest and am very glad to say that I have 73 stations on my log and have 35 veries already and more coming regularly," advises Ramon M. Marti, Box 3783, Santurce, Puerto Rico. He continues with the information that HIX and HIZ are received with good R9 signals; that YV2AM is heard every Sunday from 7:30 to 10 a. m., EST on 42 meters, R9, and that HJ1ABB on its new wavelength is easily one of the best stations ever heard.

R. Matsunaga, Box 86, San Luis Obispo, Calif., is the proud owner of a 1933 Victor R90 long and short wave set on which he has logged 10 Japanese and one Chinese station on long waves, and J1AA, RV15, XETE,

VK2ME and VK3ME on short waves, in addition to numerous United States amateurs, police and airports.

The GS Schedule

An eight-page letter from Official Auditor Charles Perdicaro, 7225 New Utrecht Ave., Brooklyn, N. Y., is full of assorted short wave data. Following are some of the items contributed:

"Reception of Daventry, Zeesen and Pontoise could not be better. I heard the entire broadcast of a Beethoven concert from Germany, and also vaudeville from Canterbury, England, as if I were in the studios in person. The 25 meter band has gone haywire, amateur code and voice interference raising havoc constantly. Has anyone else complained of this? (Ed., Yes) Daventry stations broadcast time signals superimposed on their programs every quarter hour. The new Empire station schedule is

No. 1, 2 to 4 a. m., GSD and GSF

No. 2, 7 to 8:45 a. m., GSE and GSG

No. 3, 9 to 11 a. m., GSF and GSD or GSE; 11 a. m. to 1 p. m., GSB and GSA or GSF

No. 4, 1:15 to 5:45 p. m., GSB and GSD

No. 5, 6 to 8 p. m., GSD and GSA or GSB.

There will no longer be Zone broadcasts; they will be numbered as above."

"On my Midwest 16-tube allwave set I have been hearing GSD every day," remarks Harvey Kees, Beulah, N. Dak. "Today Pontoise was an R9 signal. Other dependable stations here are GSE, I2RO, EAQ and HIZ. Will you put me down as being interested in writing to all Midwest 16 owners? I promise to answer all letters."

C. E. Gates, 514 Ivy St., Official Auditor in Pittsburg, Pa., reports perfect reception of the Central American phones, RXC (now HPF), YVQ and HJB. Mr. Gates heard KWU with tremendous volume and

(Continued on page 46)

"HELLO WORLD" Becomes "GOODBYE"

"Old Man" Henderson, the Peck's Bad Boy of Radio, is passing from the scene. Most of our readers will remember his harangues over KWKH at Shreveport. His pet peeve was the chain store and he would damn it by the hour and urge people to boycott it and buy from their home merchants. In the next breath he would beg people to send him one dollar for a can of "Hello World" coffee. He "organized" the Merchants' Minute Men (at a dollar a month dues) and furnished them with a card to hang in their windows. He is said to have received nearly \$400,000 from this source. When the Radio Commission asked for an accounting of this fund, "Old Man" Henderson told them in his polite way that "it was none of their business."

Henderson is now retiring from the air because of financial troubles. The Radio Commission has assigned the license of the "Hello World" station to the International Broadcasting Co., headed by Samuel B. Hunter, an oil magnate. Henderson used the slogan "Shreveport on the air, Shreveport everywhere." His station was licensed at the time for only 500 watts but listeners all over the United States and in Canada could tune his station in. He afterward admitted that he used many times the power allotted him.

A typical demagog, he would rant and rave over his station for hours at a time, tilting at whatever windmill attracted his attention at the moment. "Doggonit" was one of his favorite expletives as well as one of his mildest. His others were ruled off the air by the Commission but for a long time Henderson paid no attention to the ruling of the Federal Board. In the passing of "Old Man" Henderson, radio loses one of the curious characters that developed when the new art suddenly gave small-minded men the power to be heard over the nation.

CHAT *and* COMMENT

on the B. C. BAND

• • • The Readers' Round Table

THE DX season is under way again and all my enthusiasm and more has returned," comments Donald T. Rogers, 5212 Navarro St., Los Angeles, Calif. "I say more because I am getting better results now than I got last winter. I've had the whole set checked over; put on a new dial, so will have to get all my stations over again; installed a new volume control, which seems to give much more volume, and had all tubes checked and replaced five out of the nine. I put a 56 tube in the 27 socket on the second detector, and the new type of 24 tube and 27 tube in two other sockets. My set has three 35s, two 47s, one 80, one 24, and two 27 sockets. In the first week of DXing since overhauling the set, I received 82 stations, among which are WLW, WGN, WCCO, WHAS, WABC, WOC, WBT, KMOX, KVOO, WAPI, KSTP, KOMA, 2YA, JOIK, JOCK, WSB, WCAU, and WHAM. These were received in the last week of September and the air was very warm and full of static (it was around 100 during the daytime), and the latter three stations were loud enough to drive you out of the room if turned on full. My aerial is a 30-foot five-wire aerial and I am thinking of running another one of one wire 100 feet long NW to SE in order to pick up Austrakia better. The first one runs straight north and south."

DXing Under Difficulties

Many of our readers will recall our DX brother, D. T. Cantwell, who has been lying on his back for twenty months in St. Joseph's Hospital, North Bay, Ontario. In spite of his handicap he is an ardent Radexer and writes us a cheerful letter. Drop him a card, you fellows whose greatest misfortunes are static and stations that

don't verify! Brother Cantwell has a new Victor 5-tube 1933 Mantel set which he thinks is double A-1. "I have identified 110 distant stations. I could easily add 50 more and will soon. I have 84 of the 97 channels logged and 29 out of the 48 States and XEAW, XEB, XEPN and XER in Mexico. It is rumored that the Canadian Radio Commission will soon take over CFCH here in North Bay, modernize and re-staff it. The present staff will go to Timmins, Ont., (245 miles north of here) where a new station is to be built. The tone of my Victor is excellent. Volume perfect and selectivity knife-edged. I can separate CFRB on 690 and WLW on 700 perfectly; also WGY on 790 and WFAA on 800; WCCO on 810 and WHAS on 820; WABC, 860, and WENR, 870. I have had installed a two-way switch for changing over from earphones to speaker. When the phones are used no one can hear a thing ten feet away—a most desirable feature in a hospital."

Uses a Big Loop

"When I wrote you last September," advises H. Arbic, Acton, Ont., "I had 212 stations logged. Now I have 340 and they are still coming in. That makes 118 stations in one month. I expect to have at least 15 more before 6:00 a. m. My machine is a Rogers 850, 8-tube (1933), one of the most sensitive sets I've heard. I received WKAQ this morning. It came in fine. On these test programs I can pick up any 100-watter from here to the Pacific coast, if the weather is right. I would like to hear from anyone operating a Rogers 850. I have only missed one station in the last twelve and that was KFYO. As I told you before, I use a loop with 230 feet of aerial. The loop is 7 feet in diameter. It is only

15 feet from the machine, but the pole is 35 feet high. Around the outside of the small wire is 30 feet of 2.0 solid copper wire. This works all right on small distant stations. I also have a ground aerial, to which I hook it some times. I had to use it to bring in KXO. I'll be glad when this testing is over then I can have a good sleep. I have to go to work at 7:00 a. m., so I get up about 3:00 and log stations."

From the West Coast

"We notice that very few of the big logs reported to you come from the Pacific Coast," comment Herbert R. Lehman and John Biller, 3504 Geary Street, San Francisco, Calif. "We spend some time with my Pilot Super (6-tube broadcast and 10-tube short-wave) and find that we have just about reached our limit with 255 stations on the broadcast band. This is due to the fact that California, Oregon and Washington stations form an almost impenetrable barrier until the great majority of Eastern and mid-Western stations have signed off. Then, too, we are rather at a disadvantage living directly on a main thoroughfare with street-cars passing constantly day and night with other disturbances from electrical appliances of every kind and description. Have had the good fortune, however, to pick up several stations rather unique to the West Coast, such as WEXL, Royal Oak, Mich., 50 watts on 1310 kcs., WMPC, Lapeer, Mich., and WFEF, Kosciusko, Miss. We find that the little 100-watt stations on the lower frequencies cover distance better than their higher powered brothers on the higher channels. In regard to the Japanese stations, we hear practically all of them regularly, so much so that they have become pests."

Novel Aerial System

"I have two radios, although I only use one for DXing," states Nicholas J. Hock, 20 Burnet St., Newark, N. J. "They are a Fada 42 and an A.K. 42. I use the Fada for DX work and believe me it sure can drag 'em in. I also use two aerials—one is a dis-

carded telephone line about 200 feet long, and the other a silicon bronze wire aerial 100 feet long, with a 75-foot lead. It is 20 feet above the roof. I also have a ground that is 50 feet from the radio. When this is attached to the aerial post (by means of a knife switch) the volume is increased 25% on certain waves when using the silicon bronze aerial, and other waves when using the phone aerial. Then when I use both aerials without this ground, the volume is 50% more than when using only one. This, though, only occurs between 940 and 760 kcys. I would like to hear from anyone owning this model Fada, which is a KA chassis and the sets are 41, 42, 44, 46, 47, etc."

Good Luck on Tests

"I certainly have had luck in recent nights," admits Francis Eugene Andres, 104 North 19th Street, Wheeling, W. Va. "The West Coast stations have been rolling in. During the past two nights I have added six new Californians and one new Washington. One of the former was KWG with 100 watts. They sign off at three o'clock EST and play taps immediately after the announcement. KERN, Bakersfield, interferes with them some. I also had KFVD, Los Angeles, 250 watts. I received close to 200 of the stations on frequency tests and my log has increased from about 200 to 426. I have only one more New Mexican to get and I will have completed that state. I have little trouble in receiving KOB every Friday and Monday night from 9:15-10:00 EST. From 9:45 to 10:00 they have a Hawaiian program. I am using a 10-tube Clarion superhet and it has proven its worth by separating WCAU-KOB-WOAI. I had a pleasant surprise on the last frequency check when I received KFPM, Greenville, Tex., 15 watts, despite heavy static."

"After reading RADEX for over three years, I have at last decided to write you," pens Lauren Collins, 1610 Lexington Ave., Indianapolis, Ind. "In the first place, I cannot tell you how much I enjoy RADEX. To date my log

is 339; Mexico 9, Canada 16, Cuba 5. I am a b.c. listener and I do not log stations a second time unless they change their call, frequency or location. I use a Philco model 87, four years old. On Saturday morning, October 7, I pulled in all the stations testing (except the four which were scheduled for September only) in a steady downpour of rain. Pretty good, isn't it? I am contemplating buying a Midwest 16 receiver, but have hesitated due to its low price and would like to hear from everybody who uses one. I will answer all letters."

"A Rank Novice"

"I am a comparative newcomer to this DX racket," admits Jack Land, 603 Milton St., Toledo, Ohio. "The purchase of RADEX brought it all about. For many years I have been a DXer, so to speak, but never went in for verifying my catches. However, I now have 160 veris and over 100 out in the mail. You may be interested in knowing that almost every one of the stations listed in the September RADEX, that were to test for the F.R.C., have done just that. On the October tests I got 137 stations. The best I've heard in this week of DX are: KGA, KGFF, KFJB, KGHF, KFJR, KFNF, WOCL, WQAM, KFJM, WQDX, KGBZ, KFOX, KBTM, KGHL, and last but not least, WKAQ. Not bad for a rank novice. I'd sure be pleased to hear from DXers anywhere, particularly Newark News members, as I am a member of that club."

"For quite some time I have been reading of the results obtained by radio fans in your magazine," remarks E. C. Weiskerger, 127 Prospect Ave., Scranton, Pa. "I, too, enjoy sitting down at my radio and experiment at bringing in distant stations. I purchased a new radio about three months ago, but it wasn't until the first of this month (October) that I did any concentrated DXing. Now I have logged every station of 5000 and over in the U. S., excepting KEX and I have not been at my radio after 11:00 p. m. with the exception of one night

when I stayed up till midnight. I have also listed three Mexican stations: XER, XEPN and XEW."

Short Waves Too

"Since August 25 I have received 201 stations in the U. S. on the broadcast band," reports M. Lloyd Bond, 138 Shippen St., Weehawken, N. J. "44 of these are 2000 miles or more distant. Also some in Mexico, Canada and South America. On short waves I have received GSA-B-C-D-E-F; DJA-B-C-D; PRAG, LSX, EAQ, W3XY (a new station on 3420 kcs.); W3XAU, VK2ME, many 'phones,' J1AA, ships, I2RO, FYA, W3XAL, VE9GW, W9XF, VE9DR, W8XAL, W2XE, many amateurs, police, airplane and television stations. I would like to correspond with persons 17 years old, and those with Philco 470 sets. My aerial is 240 feet long, running N. to S., and my ground is a bundle of copper rods wrapped in copper wire and buried 4 feet underground."

"I have been DXing for about three years, but until February of this year, when I saw your magazine for the first time, I had always been handicapped by inefficient station lists and station news," admits Wm. Goadby, 45 East 85th St., New York, N. Y. "But now with RADEX I am fully equipped for DXing. On June 14 I received a Lafayette 5-tube 200-2000 meter set. I immediately started to work pulling 'em in, and now have 185 stations which, considering that most of them were received during the summer, is not so bad. I think you should print the actual location of the transmitter of a station instead of where the studios or business offices are located."

Another New Member

"I am a new member of the DXers," remarks Richard Pulford, 41 Ives St., Waterbury, Conn. "How it came about was that I have had two small RCA's and I was not satisfied with the distance I got on them, so I bought a new A.K. 708 cabinet model, long and short wave. I went looking for radio

books on short waves and came upon yours. I find it is priceless when it comes to information. I have already set in one of the grounds which was mentioned by E. O. Cutler in the October issue, although I have not tried it much as yet, but I think it has improved my set a lot."

"I am fifteen years old and, as I go to school, can only DX on weekends and holidays, even then without the complete approval of my parents," confesses David Walton, Box 87, Picton, Ont. "I have a log of 414 stations, my best catches being HHK, YV1BC, CKMO, WKAQ and 2YA, the last two verified. I have a five-year-old 6-tube DeForest Crosley, in which the chief fault is lack of selectivity. I am weak on low-powered west coast stations, having only one under 250 watts, CKMO. I am making the new ground described in October RAdEX and hope for great improvement."

"My radio is a Sparton, Model 936; we can separate WGR and CKLW which in this part is considered pretty good," narrates Leo Shelly, 125 Lake Street, St. Catharines, Ont. "I have a log of 645 stations since I have been DXing with 330 verified. I expect to verify a lot more this year than I never sent to before. By the way, the antenna for our local station, CKTB, is now built and it sure is a nice one. It stands 230 feet in the air and the towers supporting the single aerial are 14 feet wide at the bottom. It is only a few hundred yards from Lake Ontario."

Logs Are Growing

"The DX weather here has been fine with the exception of a little static," reports James Lees, Excelsior, Minn. "My log is growing every day. I have a total of 92 stations, with 87 of them verified. I have had exceptional luck in receiving veris from the nearby stations. My most distant catch is PPQ, a short wave station in Rio de Janeiro. I would like to correspond with any other radio fans in the U. S. or any other part of the world, and most of all those who are using a Mel-

rose set."

"I get a great kick out of your Index and DX programs," admits Douglas Chisholm, 254 Wellington Crescent, Winnipeg, Man. "I went to sleep over the dials this morning early listening to the program. Last night alone I got WENR, WBBM, WGN, WLW, CKY, WDIS, KSTP, WOAI, KMOX, WCCO, WSM and KFYY. Pretty good for one night. My dial runs from 1-100 so I couldn't use kilocycles. Up to date 12 stations are not bad. I'll be up for all the DX programs all winter."

"I have an RCA Model 60 superheterodyne made in 1929. Is there anything that can be done to give it sharper tuning and more distance?" asks Archie Ferrie, 38 Glenmanor Drive, Toronto, Ont. "Such stations as WBEN take at least 40 kilocycles. This is worse from 800 kcys. down to 550. Distance on this set is sometimes good, but I have never heard Japan, Australia or Europe. Best verified after three years are HJN, YV1BC, KID (250 w., 1700 miles), KFOX, KFAC, and WGCM (100 w., 950 miles)."

"I live in a hotel in the midst of downtown, ten floors up. I have an aerial on the roof running east to west and north to south—about eighty feet altogether—with a 100-foot lead-in to my room and, surprising as it may seem, interference is slight. The best I can do for a ground is to use a radiator. I expect to get a short-wave converter soon for my new General Electric Model K-50-P receiver." This report is from Sam J. Keiffer, Jr., Hotel Missouri, St. Louis.

Back in the Harness

"I recently sat down at my set and twirled the dial and passed over 680 kcs. just as KPO announced its call at 9 p. m. EST," says Joe Stokes, 7318 Woodlawn Ave., Swissvale, Pa. "I had not been doing any DXing for nine or ten months but this brought back the old urge and I then pulled in KNX, KOA and KFI in the order named. Now I am back in the 'harness.' So I

went out to hunt up a new RADEX and set the dial for 960 and there was CRCT. I am again eligible to the 'All Night Sittels' Club.'

"Due to the press of other affairs recently," announces Donald Bobb, 214 Taylor St., Black River Falls, Wis., "I have been forced to drop my DX work, but am now taking it up again. I use a 9-tube, Model 90, Philco super-heterodyne. My record is 400 stations received and verified, all in North America and the West Indies. Please put my name in RADEX as one who wishes to correspond with other DX-ers and who will answer all letters. I particularly wish to hear from those of my radio friends with whom I was corresponding in 1931 and 1932."

"In spite of the fact that I have verifications from CMGE, JOHK, 2YA and 4QG," remarks Albert Sandham, 99 Page St., St. Catharines, Ont., "I count as my best a card from KFPM, that great little 15-watter in Greenville, Texas. I received them on their test program and they came in much better than the other Texans. To date I have exactly 650 stations logged, with 254 of the best verified. I am looking forward to CP4's program. Those are the kinds of DX broadcasts we want."

The Calendar Helps

"I now have 582 stations," reports George Othen, 804 First St. So., Willmar, Minn. "Your DX calendar is good. I have received many stations that I could not have received if I had not known when they were on the air. Last winter I got 113 new stations from September 12 to April 14. The greatest distance was KGU. I still use a Majestic as they reach out and get the stations."

"Since I started using RADEX my log has increased from about 225 stations (mostly in the U. S.) to a total of 639 stations, representing 14 countries, exclusive of the U. S.," reports Lloyd S. Hahn, 2810 Laurens St., Baltimore, Md. "I have stations verified in Australia, New Zealand, Haiti, Dominican Republic, Colombia, and Venezuela, among others."

"With receipt of the October issue of RADEX and the buying of a Model 43 Philco I am ready for the new season," comments Fred Wakerell, 32 Boteler St., Ottawa, Ont. "Last season's log totaled 611 and included VK2CO, VK5CL, ZL2YA, Poste Parisien, YV1BC, KGU, CKMO, CKWX, KJBS, KERN, KFJB, KGFI. On my new log, short and long wave, I have nothing to be proud of. Just TGW, GSB, T14NRH, DJD, GSD, GSE, VE9JR, Pontoise, DJB, PLF, EAQ."

"My log stands at 562 on our Victor R-35," postcards Howard R. Garrett, 171 Hillsdale Ave., East, Toronto, Ont. "My best catches are: YV1BC, RUS, 4QG, LR2, LR4, KPCC, KFPM, KXO, XEAO, WNBW, CJC and KGU. I would like to hear from someone with a Victor R-35. I have at least one station from every state and every province. Together with my outside aerial, I use an Elimino inside aerial and four grounds."

Reception Improving

"DXing is coming into its own," says Sam Kiamie, 2857 Sampson Ave., New York, N. Y., "now that the cooler weather is here. Some of my latest catches, received on my Grebe 88, are KRE, KGAR, KGFL, KBTM, KIDW, WACO, WTRC, KGDE, KGHF, WLB, WLBL, WHAD, and many other dandy catches. All of these were received on speaker with volume plus. Most of these catches were received on account of the F.R.C. tests."

"My new Sonora All-wave receiver is a very sensitive little set with a lovely tone," reports N. H. Scott of Red Deer, Alberta. "It is quite good on the short waves although there is the usual fading. I listened to the 'Roxy Gang' on Sunday from New York and held the program without much fading at all and that is pretty good considering the fact that there is a dead spot east of me and a range of mountains directly west."

"I have been DXing for a year and now have 355 stations, including 29 shortwave and police," comments Clarence Merkel, Jr., 622½ No. 7th St.,

Quincy, Ill. "I have 18 police ranging from 1534 to 1712 kcs. My best catches are WRDO, CHML, WSOC, WGNY, WJEJ, CHAB and 10-BQ. I have a Crosley 9-tube superhet and I think it is the finest radio going. I would like to hear from other Crosley users."

"I surely did add a large number of stations to my list in this month's frequency tests," remarks James Owen, 1019 W. Webster, Springfield, Mo., "62 to be exact, bringing my total up to 444. The weather here was perfect for DXing and I managed to get up between 1:00 and 2:00 CST each morning during the tests."

"This is my first letter to the DX round-table," greets Warren Hyser, Holland, Mich. "I just started DXing in June and to date I have 386 stations, including 50 100-wattors and five 50's. I would probably have more but I am only 14 and can't let DX interfere with my school work."

Logged WEE?

Fred Stone of Kintnersville, Penna., sends us a description of the smallest radio station in the world which is now on display in Easton, Penna. Station WEE, .04 watts, has a range of only 200 feet but it is complete in every detail. Fred tells us his log now stands at 428 stations, all received before twelve o'clock at night.

"This is my first year of DXing," comments E. Brooks, 5408 Forest Ave., Kansas City, Mo. "I have an 11-tube Majestic and it sure is a great radio. I have logged 176 stations since February. Not bad for a beginner. Just received verification from KGIW (100 watts)."

"I have received 265 stations in 19 months using only the loud speaker of my radio," states Glen V. Phillips, 97 Oakdene Ave., Grantwood, N. J. "I have heard five stations in California, two in Washington, and many others of 100 watts and less."

"I heard station WILM very clearly last summer between 6:00 and 7:00 a. m. EST," writes Russell Geiger, Poland, Ohio. "It was not on Sundays at that time and only certain days of

the week. This may help Miss Margaret Parks (September issue) find her 48th state."

"For the benefit of any DX fan who hasn't pulled in Idaho yet," advises George Burnett, 604 Sycamore St., Buffalo, N. Y., "might try KTFI on 1240 kcs. about 1:00 a. m. EST. They sign off about 1:20 a. m. EST. This is their regular program and not a test."

H. Searles, 349 Broadway, Rochester, N. Y., says he logged 47 new stations in eight evenings. Among them were CMC, KFEL, KTM, KTFI, WWAE, WEXL, KSO, XEW, XEFO and WEBQ.

STATION NOTES *and* DX TIPS

FROM little HIH down in the Dominican Republic, comes information regarding the DX programs which will be found in this month's Calendar. In December, they tell us, they are going to have a program dedicated to the readers of RADEX. We hope many of them will tune it in and report it. For the benefit of our overseas readers, this station will broadcast on the first and fifteenth of December, January and February from 1:00 to 2:00 a. m. EST and will gladly dedicate these programs to radio clubs requesting it. This 15-watt station should be eagerly listened for by our DXers.

* * *

"Tips for the International DXers Alliance are broadcast from the following stations," writes Robert Rosenberger, 17 Janssen Place, Kansas City, Mo. "WDAF, Saturday night, 1:25 to 1:30 a. m. EST; KFOX, before the Saturday night sign-off; YV2AM, 7125 kcys., 8:00 to 10:00 a. m. Sunday. New Zealand's foreign tips: KMBC, 12:50 a. m. to 1:00 a. m. Saturday night. We are organizing a tip chain all over the U. S. A."

* * *

Here is a combination program that

is well worth the efforts of both broadcast and short wave DXers: The American Consul at Santo Domingo, D. R., notifies Rudolph Kure, Cincinnati, that HIX will have a special DX program beginning at 12:30 EST on Thursday morning, November 30. The program will be broadcast simultaneously on 579 and 6000 kcs. with a power of 1500 watts.

* * *

Alfred W. Oppel, Executive Secretary of the Newark News Radio Club, tells us that the Club will verify all correct reports for station WAAT, that Ekko stamps will be issued for ten cents and that all letters and reports will be answered. Postage should always be included. The only DX programs of WAAT this year will be dedicated to the NNRC.

* * *

Evidently the new 500,000-watt transmitter of WLW at Cincinnati is going to be a "hot" station. A press clipping reports that enough water will be used each day to cool the tubes of the giant transmitter, to supply the wants of 6,000 average families. The new super-powered station will be ready for test broadcasts some time in February and radio listeners everywhere are wondering what is going to happen on their sets.

* * *

Station KUAO at Fayetteville, Ark., are off the air installing a new transmitter at a new location, Mount Sequoyah, about two miles from Fayetteville. They state they will be ready to "shoot" from the new transmitter about November 7th and will wire us the date of a special program which they are good enough to offer to dedicate to RADEX readers.

* * *

Radio Station WFLA-WSUN are now giving a special DX program nightly from midnight to one o'clock EST. These will continue until April 30th at which time their schedule will drop back to close at midnight. They advise that they receive many reports of reception from Oceania on these after-midnight programs.

Station WOCL, Jamestown, N. Y., on 1210 with only 50 watts, tell us they were picked up in Palmerston North, New Zealand, on their frequency test of September 6th. How many DXers in America have picked up a 50-watt New Zealand station?

* * *

Station WCLO at Janesville, Wisconsin, tell us that they will probably take part in a grand frolic of the 1200 channel the third Sunday in January although the definite time is not yet known.

* * *

WFIW of Hopkinsville, Ky., has been sold to George W. Norton of Louisville and is being moved to the latter city. It is not known how soon it will be operating at its new location.

WHO Can Answer?

"ON September 11, at about 8:00 p. m. EST," remarks 12-year-old Russell Geiger, Poland, Ohio, "I received a station on 835 kcys., which announced in Spanish and played classical selections. I tuned in on it at about 8:00 and just before the 8:30 announcement they stopped the music and a man stepped up to the microphone and said, 'Au Revoir, Auf Wiedersehen, Buenos Noches, and Good Night!' Each one in its correct foreign accent. The announcement followed, but seemed like no more than a lot of Spanish all rolled and jumbled together, and although I had brushed up on my Spanish I could not hear anything which sounded like letters to me. On Thursday, October 5, I heard this same station, much clearer, and they were playing band music. This was at about 9:00 and, as the first time, I could not understand the announcement. I wonder if anyone else could have heard this same station at either of these times. The radio is very accurate and I am certain that it was on 835 and not a station on 830 like KOA or WRUF. I am anxious to

identify this station, as 840 is the only channel on which I have not received at least one station."

* * *

"I started DXing last January," begins D. F. Mason, 53 Atlantic Avenue, Halifax, N. S. "Since that time I have logged 520 stations. I use a Sonora, Model 050, and with this really marvellous little set, I have logged at least one station in every state, at least one in every Canadian province and some foreign stations. In conjunction with a 63 foot outdoor aerial, I use an Ollie Ross ground and a line filter. I find this a great combination. Here's a question I'd like you to answer if possible. On Thursday, the 26th of October, I received a Spanish-speaking station on 870. This station cut through WABC several times but never long enough to identify. The only station I can find in RADEX around this wave which it may have been, is LR2 in Buenos Aires. Do you think that this station could be received here? The time was 8:16 to 9:03 EST." Have any of our other readers in the East identified this station?

* * *

"I own a 1933 Stromberg-Carlson 10-tube set purchased last December," states A. Belanger, 76 Hotel-de-Ville St., Hull, Que., "and I don't think there is any finer broadcast receiver on the market today. I don't do very much DXing, but enough that so far I have a station on every channel of the band and 40 states out of 49 including D.C. I have been trying to get YV1BC and KGU for a long time, but I never did connect with the slightest hint that my wish might have been satisfied. I would be much obliged if you could give me some tips that would help in tuning in these stations."

* * *

"Until this year I was using a Radiola RCA 20 and logged 300 stations," writes George Burnett, 604 Sycamore St., Buffalo, N. Y. "I just purchased a Midget Majestic 6-tube Model 411. During the past week I've

added a couple of good ones to my list: KFPY, KTFI, KGHL. I have YV1BC and WKAQ verified. I would like to know if there is anybody in the east receiving LR4 regularly, and the best time to catch them."

* * *

"I would like to have someone tell me when I can get WCAX so I can verify them," is the plea of B. L. Ahman, Jr., 3313 Westerwald Ave., Baltimore, Md. "I have trouble getting WCAX although I have the other Vermont stations verified." Mr. Ahman reports CMX, WIBG, VONF, XES, XEPN, CKWX, XEAW, CMQ, CKPC, KDB, 10-BP, YV1BC, HJN, KTAR and WHBC among his recent catches bringing his verified total to 376.

* * *

"I have heard unidentified Cubans on 1315—1355 kcs.," questions Edward B. Davis, 120 Northampton St., Easton, Pa. "I often hear the word 'Habana' but can't seem to catch the call letters."

* * *

"There seems to be a station on 860 kcs.," questions S. B. Leland, 82 St. John Place, New Canaan, Conn., "nearly every morning at about 5:30 EST, which I would like to identify, and may be a good catch."

Double Reception

"I FEEL that there must be some mistake in the idea that 'half-harmonics' are impossible," thinks William Barnett, 2896 Sydney Street, Jacksonville, Fla. "I have received WCKY several times on its half-harmonic very clearly." This subject of harmonics was covered quite fully by Mr. Dashiell in an article in the January, 1933, issue of this magazine, and also in his answer to an enquirer published on page 22 of the May, 1933, number. "There is no such a thing as a 'half-harmonic'," says the Technical Editor. "Harmonics are always multiples of the original broadcast frequency—never fractions

..... However, a regenerative receiver produces a considerable amount of harmonic energy and it is possible to receive signals on the second harmonic of the receiver (when tuned to a certain frequency). For example: If your receiver happens to be tuned to 525 kcs. so it will oscillate, its own second harmonic will be 1050 kcs. The set is thus made very sensitive at 1050 kcs. and there will be a decided tendency to pick up a station on 1050."

"I have read with interest the notes on reception of stations on other frequencies than their own which cannot be accounted for by harmonics or parasitic radiation," contributes C. H. Skatzes, 45 Flax Street, Delaware, Ohio. "If these readers are using superhets, the reception is probably due to a characteristic known as 'image.' I receive WCAH on 1050 very weakly."

And Harold F. Barnes, 1526 Fifth N. E., Canton, Ohio, adds: "In my case, if I set my dial to 720 kcs. in the day time, I will receive WTAM very faintly. (If I touch the grid lead to the detector tube, it will come in just as loud as it does at 1070.) Here is what happens: The intermediate frequency that my set is peaked at is 175. That means that when I tune in to 720 kcs., the oscillator circuit is tuned to 895 kcs. at this point. The rule for beat frequency is that it will always equal the difference between the resonant frequency and the oscillator frequency. Since my oscillator circuit is tuned at 895 and WTAM is 1070, we see that the difference is 175 kcs., therefore these signals will also pass through the intermediate amplifier. These signals are weak because they do not have the benefit of being amplified in the first r.f. stage. Only the resonant frequencies are amplified."

If you are interested in foreign stations on the broadcast band, we can send you a DX Log of the World for ten cents.

Verifications as Americana

By GAYLORD JOSEPH BELL*

I'VE been a reader of RADEX since I read the first issue and began DXing, September, 1931. I feel I ought to tell you just how much your fine publication has aided me in getting such stations as JFAK, JOHK, 2CO, 5CK, 2BL, and many, many others. I have verifications coming in almost every mail now. This promises to be an extraordinary year for DXers, don't you think? Before the month of August (of all DXing months!) was over, I'd caught two new Australians and one Asiatic, in spite of static designed to kill a horse! I thank your DX Calendar.

I've an idea that verification collections will some day be valued as a phase of what other collectors call Americana, since radio is yet in a comparative infancy. So it is that I try to get as many Canadians as I can, what with the impending Commission changes in that country, since deleted stations, if verified before deletion, add considerably to the worth of one's collection, as do stations logged and verified before they change their channel, or increase power, just as first editions of books are of greater value than later printings. Look at coin and stamp collectors today: the rarest, largest, finest collections are commanding higher prices and are bid for and sought for their value. Well, why not similar value for collections of Early American Radio Stations, The First Western Radio Stations, etc., a few years hence? I would like to know what some readers think of this idea.

When I catch a new station, which, because of low power, or distance, I think is a good "reach," I always ask the station, when I write for the veri, whether or not I'm the first in my State to get them. I think such data as this, on the resulting verifica-

tion, enhances its value quite a bit.

Situated here on the Pacific Coast, it is difficult to get many W's, and it is only by persistent DXing that I've landed as many as I have. Still, here on the Coast, we are doubtless advantageously situated when it comes to trying for the Oceanic and Asiatic stations. How I'd like to land an European station! Maybe . . .! Who knows? Radio is so strange—and fascinating!

My set is a three-year old Gloritone, five-tube, with two of the new tubes. I'd like very much to hear from others using my set, particularly those who've found ways to rejuvenate the set with new tubes, etc. By the way, there's a swell job for your splendid magazine—publish by installments, ways of treating old, standard types of radios, to bring them up to rating with the newer sets. These are still rather depressing times and all of your readers would appreciate such a department, I believe. And I hope you plan another list of DX Clubs? Aren't there any here in Washington—or even on the Pacific Coast?

*909 Second Street, Mount Vernon, Washington.

Working the T-Ps

WHILE it may be somewhat exasperating to readers who have tried and tried unsuccessfully for the Trans-Pacific stations, yet publishing the stories of those who do receive them gives proof that they can be received, not merely on the West Coast but in various parts of the U. S. and Canada. To tune these stations in for the first time requires unlimited patience and determination. The stations are on the air and their signals are without doubt right in the very room in which your receiver is located. The trick is to find them and pick them up.

"The T-P's have started to come through again," advises William E. Johnson, Vinalhaven, Maine. "Received 2BL and 2YA October 5 and 6.

Both were good enough to get announcements on. Last winter was a banner one for me, as I have received veris on the following: 4BC, 2YA, 2UE, 3YA, 4BH, 3DB, HJN, YV1BC, KGU. I received 2BL many times last year, but they were the only ones to refuse my request for verification. I will try them again. I am in hopes of receiving a JO station this winter. As yet I haven't even thought I heard one."

A Thrilling Morning

"I had a most unusual experience and received more thrills this morning (Oct. 14) than I ever had before in my DX career," relates Raymond Corbett, 619 12th St., Sacramento, Calif. "Little did I know when I tuned in JOHK at 1:10 that before the morning was over I was to hear *twenty-two* Japanese stations. Never expect to duplicate this feat again and I will be satisfied even if I never hear a Jap again. My new ones were JOTK, JODK, JOKK, JOPK, JOOK, JOXK, JOCG, JOBG and JOAG also a new one on 900. (JODK-2 at Keijo, Korea, is on 900. Ed.) We happened to be giving a party that morning and 29 persons got the 'thrill of a lifetime.' All in all, it was just one of those 'believe it or not' mornings."

"There seem to be quite a few new Jap stations," informs R. W. Schofield, Manager, The Wilma Plunge, Missoula, Mont. "Tuesday morning, October 17, I tuned in and out of 26 stations on my dial all the way from 1080 to 590 kcys., with the stations coming in with the same program (as near as I could determine) about every 20 kcys. Also tuned in and out of about 8 New Zealand and Australian stations. All this, believe it or not, without an aerial."

From Warren Winkley, Box 12, Hughson, Calif., comes this report: "During the past week I have received verifications from 2BL in Sydney, Australia and JOIK in Sapporo, Japan. The former station, logged and reported on August 19th, congratulates me on my summer-time reception. Here is the schedule of 2BL:

Monday to Friday inclusive 7:00-9:30 a. m., 11:30 a. m. to 5:30 p. m., 6:15 to 10:30 p. m.; Saturday 7:00-9:30 a. m., 11:30-5:30 p. m., 6:15 to midnight; Sunday 10:55 a. m. to 3:00 p. m., 4:30-10:00 p. m. (For EST subtract fifteen hours from the above; better yet use the RADEX Time Converter. Ed.) JOIK lists their evening programs beginning at 5:35 and closing at 10:00 p. m. (Japanese Standard Time is 14 hours faster than EST) I have just finished an all-night DX-feast; here are my results: New stations are KGIW, Alamosa, Colo., WGL, Fort Wayne, Ind., JOFG, Fukui, Japan, JOCK-2, Nagoya, Japan and JOBK-2, Osaka, Japan. JOFG although only 500 watts was about the loudest of any. During the night I heard 20 Japanese stations. I'm still using my 1928 Atwater Kent with a new 200 foot aerial, north and south. I held XGOA, Nanking, China, on 655 for over four hours." (A late list from China shows XGOA on 681.8. Ed.)

The Aussies

Two of our readers having reported gala nights with the Japanese stations, here is a report from W. T. R. Morris, Jr., 3219 Garland Ave., Richmond, Va., on a case of quantity reception of the Australians: "Tuesday morning, October 10, must have been Australia day in radio. I tuned in eight Australians that morning. And the funny part is that 2YA, Wellington, N. Z., which is heard here nearly every morning, could not be picked up at all. But the Aussies were pounding in. I couldn't listen to them all at the same time so I picked out the loudest and jotted down their programs. Here is a list of those I heard: 2CO, Corowa, on 560; 5CK, Crystal Brook, on 635; 2FC, Sydney, on 665; 3LO, Melbourne, on 800; 2BL, Sydney, on 855; 2GB, Sydney, on 950; and one unidentified on 815. Can any one give me a hint on that last one? (Was this 1YA at Auckland, N. Z., on 820? Ed.) This morning, Oct. 12, I picked up Ketchikan, Alaska, on 900 with only 500 watts. Logged him from 3:37 to

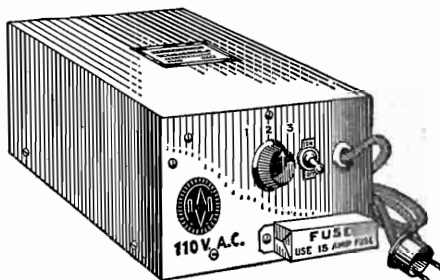
3:59 a. m. when he signed off. I'm sure that this winter will be a wow for the T-P's. Only had one or two Japs so far and then couldn't log their reception—entirely too weak. XGOA seems to have faded away lately. They used to be fairly good here."

"No one ever mentions what kind of nights are best to try to hear the T-P stations," observes Guy B. Welsh, 114 Brown Street, Reynoldsville, Pa. "I think that if DXers who hear the Japs regularly would notice what other particular stations are coming in at the time and would advise you, it would help a number of readers who have difficulty getting over the Pacific. I find that if KGFJ is coming in, almost invariably the signals of the trans-Pacifics between 1000 and 1500 can be heard. If KPCB, KTM or KMPC are especially good, look for the T-P stations between 550 and 1000 kcs."

For the benefit of those particularly interested in tuning in the Trans-Pacific and other foreign stations, we have issued a DX Log of the World.

It contains all the broadcast stations of the world in three lists—by frequencies, by call letters and by countries, states and cities.

The price is 10 cents per copy.



The Electronic Converter

Converting D. C. to A. C.

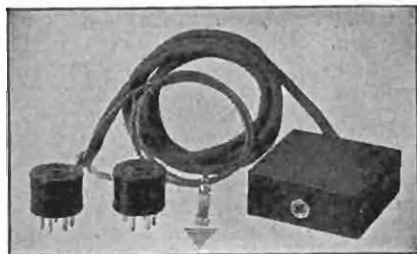
MANY a person who has a fine a. c. receiver or who wants to buy one but is located where only direct current is available, will be interested in this simple device for converting direct into alternating current. It is the Electronic Converter for 110 volts d. c. with an output of 110 volts a. c. at 200 watts. It is said to maintain a constant output voltage from the transformer during the entire cycle of operation of the power supply. It is of small size, quiet operation and attractive appearance.

The manufacturers are the Electronic Laboratories, Inc., 122 West New York St., Indianapolis, who make converters also for 32 volts with 100 watts capacity and eliminators for 32 volts d. c. and 6 volts automobile radio.

An IDEAL METHOD for Attaching Phones

THERE have been two general methods of attaching phones to modern sets both of which have been described at length in this magazine. The first required a plug-in adapter. With this method it was necessary to take out both power tubes whenever it was desired to use phones and place the adapter in either socket. As everyone knows it is a nuisance to remove and replace tubes particularly when the prongs must be fitted into holes in the bottom of a deep shield. Then, too, the removal of a tube must necessarily change the load on the speaker. Most manufacturers warn against the operation of a receiver with any of the tubes removed.

The second method required the use of a wafer adapter which was placed under one of the power tubes and left there permanently. The disadvantage of this method was that it did not cut out the loud speaker. To



The Perfect Phone Adapter

silence the speaker it was necessary to cut the voice coil wire and insert a switch. It is always a hazardous thing for a non-technical person to cut or make any changes whatever in the wiring of a set.

A third method which has all the advantages and none of the disadvantages of the older ones, has now appeared. It makes the use of phones available exactly as they would be if the manufacturer of the set had arranged this in the design of his receiver. We have submitted one of these devices to our Technical Editor for a thorough test. He writes: "The Perfect Phone Adapter is so simple and so really correct in principle, that I cannot understand how I failed to think of it myself! The outstanding feature of the device is its ability to cut out the speaker at will but without unbalancing the receiver. When the phones are desired the plug is inserted in the jack box and the loudspeaker is automatically silenced without its circuit being opened. The jack merely connects the phones in series with the grid contacts of the power socket or sockets and at the same time grounds the grids. The bias thus thrown on the tubes renders them inoperative although the filaments remain lighted."

The unit consists of either one or two adapters depending upon the number of power tubes in the set, a cable of generous length leading to a crackle-finish metal box which contains the jack. The adapter or adapters are placed under the power tube or tubes and left in place. The jack-

box may be placed in any convenient location. It may even be screwed to the under side of the cabinet out of sight as the plug may easily be inserted by sense of touch.

The Perfect Phone Adapter comes with either one or two socket-adapters and these are furnished with four, five, six or seven holes as may be required by the number of prongs on the power tubes.

As the signals for the phones are taken off before they are amplified by the power stage, they are of suitable volume for the ears and there is no danger of heating or burning out the coils in the phones.

The Perfect Phone Adapter is sold by Radio Parts Co., 1401 Prospect Ave., Cleveland, O.

FREQUENCY Checks

(Continued from page 4)

Oklahoma City	KFXR	1310	3:20 Fri.
Ponca City	KGFG	1370	4:30 Fri.
Shawnee	WBBZ	1200	4:20 Wed.
OREGON	KGFF	1420	5:30 Thur.
Eugene	KORE	1420	7:20 Mon.
Klamath Falls	KFJI	1210	7:00 Mon.
Marshfield	KOOS	1370	4:30 Mon.
Medford	KMED	1310	7:10 Mon.
PENNSYLVANIA			
Altoona	WFBG	1310	2:40 Wed.
Carbondale	WNBW	1200	2:10 Wed.
Grove City	WSAJ	1310	2:20 Wed.
Hazleton	WAZL	1420	3:20 Mon.
Johnstown	WJAC	1310	2:00 Mon.
Philadelphia	WHAT	1310	2:50 Mon.
Pittsburgh	WTEL	1310	3:10 Mon.
Reading	WWSW	1500	2:40 Mon.
Silverhaven	WRAW	1310	4:40 Mon.
Sunbury	WNBO	1200	4:30 Mon.
Wilkes-Barre	WBUX	1210	4:50 Mon.
Williamsport	WBAX	1210	3:50 Mon.
PORTO RICO	WBRE	1310	4:20 Mon.
San Juan	WRAK	1370	2:10 Mon.
SOUTH CAROLINA	WKAQ	1240	3:10 Thur.
Charleston	WCSC	1360	3:20 Thur.
Greenville	WBCB	1200	2:20 Thur.
Spartanburg	WSPA	1420	2:10 Thur.
SOUTH DAKOTA			
Huron	KGDY	1340	4:10 Sun.
Pierre	KGFX	630	4:40 Sun.
Rapid City	WCAT	1200	3:50 Fri.
Watertown	KCCR	1210	5:10 Sat.
TENNESSEE			
Jackson	WTJS	1310	4:10 Tues.
Knoxville	WROL	1310	4:50 Tues.
Memphis	WHBQ	1370	2:20 Tues.
Springfield	WNER	1430	4:10 Thur.
TEXAS	WSIX	1210	5:30 Tues.
Austin	KNOW	1500	5:40 Thur.
Beaumont	KFDM	560	5:00 Sat.
Brownsville	KWWG	1260	4:00 Sun.

College Sta.	WTAW	1120	3:20 Sat.
Corpus Christi	KGFI	1500	5:10 Fri.
Dallas	WRR	1280	4:30 Sun.
Dublin	KFPL	1310	3:40 Fri.
El Paso	KTSM	1310	3:20 Thur.
Fort Worth	WDAH	1310	3:00 Thur.
Galveston	KFJZ	1370	4:50 Fri.
Greenville	KLUF	1370	3:10 Thur.
Harlingen	KFPM	1310	3:40 Thur.
Houston	KRGV	1260	4:20 Sun.
Lubbock	KPRC	920	4:40 Sat.
San Angelo	KTRH	1120	3:00 Sat.
San Antonio	KXYZ	1440	3:30 Sun.
	KFYD	1310	4:00 Thur.
	KGKL	1370	3:30 Thur.
	KABC	1420	4:40 Fri.
	KMAC	1370	3:50 Thur.
	KONO	1370	4:10 Thur.
	KTSA	1290	3:40 Sun.
	KGKB	1500	5:30 Fri.
	WACO	1420	4:50 Wed.
	WGKO	570	5:00 Sun.
Tyler	WCAX	1200	3:00 Mon.
Waco	WSYB	1500	3:10 Mon.
Wichita Falls	WQDM	1370	3:30 Mon.
VERMONT	WNBX	1260	4:10 Mon.
Burlington	WEHC	1350	3:30 Wed.
Rutland	WBTM	1370	2:30 Mon.
St. Albans	WLVA	1370	3:00 Mon.
Springfield	WPHR	1200	2:50 Wed.
VIRGINIA	WBBL	1210	3:20 Wed.
Charlottesville	WMBG	1210	4:10 Mon.
Danville	WRBX	1410	3:10 Wed.
Lynchburg			
Petersburg			
Richmond			
WASHINGTON			
Roanoke	KXRO	1310	6:40 Mon.
Aberdeen	KVOS	1200	6:10 Mon.
Bellingham	KFBL	1370	4:50 Mon.
Everett	KGY	1210	4:40 Mon.
Olympia	KRSC	1120	6:30 Mon.
Seattle	KVL	1370	5:10 Mon.
Spokane	KFIO	1120	6:50 Mon.
Walla Walla	KUJ	1370	5:30 Mon.
Wenatchee	KPO	1500	4:00 Mon.
Yakima	KIT	1310	6:20 Mon.
WEST VIRGINIA			
Bluefield	WHIS	1410	2:30 Wed.
WISCONSIN			
Fond du Lac	KFIZ	1420	3:50 Thur.
Green Bay	WHBY	1200	3:00 Thur.
Janesville	WCLO	1200	4:30 Fri.
LaCrosse	WKBY	1380	5:30 Sat.
Madison	WHA	940	5:20 Wed.
Manitowoc	WOMT	1210	5:40 Thur.
Milwaukee	WHAD	1120	4:30 Wed.
Poynette	WISN	1120	4:50 Wed.
Sheboygan	WIBU	1210	5:10 Fri.
Stevens Point	WHBL	1410	4:10 Wed.
Superior	WLBL	900	5:10 Wed.
	WEBC	1290	3:00 Wed.

SHORT WAVES

(Continued from page 33)

says he is curious to know if this station uses directional antennae, as he understands it is the phone link with Coco Head, Hawaii. Directional antennae are used, and as a rule it is much easier to hear the Hawaiian than the Californian stations. The signals cannot be wholly confined in one pencil-like beam, however, and with 40 kilowatts it is natural to as-

sume that some signals are being radiated in all directions from the transmitter.

In honor of the new short wave department of the International DXers Alliance of Bloomington, Ill., Station Y V2AM has issued a four-page printed announcement of a special DX program beginning at 8:00 a. m. EST on Sunday, November 12. An elaborate program has been arranged and Santiago M. Vegas, operator and proprietor of Y V2AM will present to the listener who sends the most complete report of the program, a set of Indian arrows, a souvenir of Maracaibo. The station which is an experimental one, will broadcast on 7.145 megacycles.

The Technical Editor

(Continued from page 23)

off accordingly. On shipboard it would appear that current changes might come suddenly. Small d.c. power plants are subject to violent voltage fluctuations.

It might be well to consider the installation of some ballast or voltage regulator tube, or an Amperite device, in your power line circuit leading to the set. Your radio supply or service man can best advise you after seeing or learning of the model of the sets you are using.

Betty's GOSSIP

(Continued from page 17)

a radio veteran of more than seven years.

His songs have been played time and again by leading orchestras, but he feels that his latest effort, "Dark Clouds" will prove to be his hit tune. Some day he hopes that his varied experience will be the means to becoming a great picture director. Walter is extremely fond of outdoor life, and his few holidays usually find him in the New Hampshire mountains. And being quite a versatile young man, he might be found there sketching.

Felix Bernard was born to art. His grandfather was a painter, sculptor and photographer, and his father was a musical director. Felix first took to dramatic comedy, and was connected with every show at school before realizing that music was really his forte. He has toured in plays, song and dance acts, and has been heard on the air between vaudeville tours since 1921. Born in Brooklyn, April 28, 1899, he attended school in that borough and later was a student at Rensselaer Polytechnic Institute. Felix is only 5 feet 4½ inches tall and weighs 138 pounds. Because of his size, he was determined to be a better athlete than his larger classmates and succeeded in carrying away medals for swimming and track. His name is connected with several hit tunes, especially the favorite of a decade ago, "Dardanella." His hobby is raising Scotch terriers—seven of them, in fact.

* * *

Burns and Allen, that goofy pair, are in Hollywood, where they have signed to make three full-length Paramount pictures within the space of five months. The first picture George and Gracie will make is titled "Six of a Kind," in which they will be featured with Mary Boland, Charles Ruggles, W. C. Fields, and Alison Skipworth. The second will feature the dumb-crackers alone. In the third, they will join their fellow CBS artist, Bing Crosby, in a "Cruise to Nowhere."

* * *

When his birthday rolls around, Bert Lahr invites 25 people at random from fans he has met through the mail. Then when they arrive, the housekeeper tells them he was suddenly called away. But, disguised as a butler, Lahr moves among his guests, getting the lowdown on what they think of him before he takes off his wig and discloses his real identity.

* * *

The theory that the stage can furnish stars for the air but that radio cannot turn out stars for the

stage is no longer true—James Melton and Jane Froman have disproved it. They are two examples of artists who made big radio names and are now featured in separate musical stage shows on Broadway.

New Zealand Aerials

(Continued from page 13)

strength, and at the same time, because of the proximity of machinery, introduce a predominance of noise.

Avoid Chimneys

In erecting an aerial over a roof do not stay it to a chimney. An aerial taken direct to a chimney is a very sorry affair indeed, for it cannot have a vertical lead-in, and a large part of the horizontal portion must pass directly over the roof.

The question of single and double wire aerial often comes up for discussion, but without going into theory it can be taken that a double wire is of little value except where a very short aerial has to be used. In cases such as this the wires should be six feet apart. They may be joined to a single lead-in at one end.

Few of the fancy aerials have anything to commend them, and suffer considerably in comparison with an efficient inverted "L" aerial. In some localities it is more convenient to use the "T" aerial, this consisting of an aerial the lead-in of which comes from the dead centre. Care must be exercised to ensure that this actually is the case, and the lead-in does not come from any point other than the centre, for the total effective length of aerial is that of the lead-in plus the shorter portion of the horizontal top.

Shielded Leads-in

Because the vertical portion is responsible for most of the voltage induced in the aerial, it is also responsible for picking up the greatest amount of noise, and this why it is often recommended that it be shielded. It is obviously wrong to

extend the shielding of the lead-in aerial all the way up to the horizontal flat top. With this type of noise reducing antenna the shielded lead-in starts near the ground and should run only as far as necessary to shield it from the nearby sources of interference.

*Editor's Note: The "Radio Times" is published by Radio Publishing Co., of N. Z., P. O. Box 1032, Wellington, N. Z. It is an excellent monthly containing a great deal of information about Australasian stations and is the official organ of the New Zealand DX Club. The price is one shilling per copy or ten shillings per year.

JUST ABOVE the 1500 Channel

A number of the new broadcast receivers will reach into the short wave band as far as 1700 kilocycles and for the benefit of those of our readers who have such sets, we are giving below a continuation of our Index by Frequencies from 1500 to 1700 kcs. To identify the amateurs who may be heard just above the broadcast band, listeners should provide themselves with a Call Book of the Amateurs, which they will find advertised on another page of this magazine.

Kilo-	Meters	
1534	195.45	KGHO Des Moines, Iowa. (Police)
		WPGC Albany, N. Y. (Police)
1544	194.18	W2XDA New York, N. Y. (Exp. Relay)
1558	192.43	KGPD San Francisco, Calif. (Police)
		WEY Boston, Mass. (Fire)
		WKDT Detroit, Mich. (Fire)
1570	191.08	WPEQ Baton Rouge, La. (Police)
		WPEW Northampton, Mass. (Police)
1574	190.48	KGPD Shreveport, La. (Police)
		WMP Framingham, Mass. (Police)
		WPEC Framingham, Mass. (Police)
		WPEL W. Bridgewater, Mass. (Police)
		WPEV Portable in Mass. (Police)
		WRDS E. Lansing, Mich. (Police)
1595	187.90	KFPA "F. A. Ring," Boston Harbor
		KFCP "A. J. McDonald," Boston Harbor
		KFPD "J. P. Doud," Boston Harbor
1596	187.85	WCF New York, N. Y. (Police)
		WRDU Brooklyn, N. Y. (Police)
1604	186.92	W1XAU Boston, Mass. (Exp.)
		W1XN Middletown, Conn. (Exp.)
		W3XI Baltimore, Md.
		W3XJ Silver Spring, Md.
		W3XL Boundbrook, N. J.
		W3XR Mendham, N. J.
		W3XZ Washington, D. C.
		W6XI Bolinas, Calif.
		W9XAL Addison, Ill.
		W9XY Chicago, Ill.
1658	180.83	KSW Berkley, Calif. (Police)

MONDAY—(Continued)

WGST WHAS WHEC WHK WICC
WISN WJAS WJSV WKRC WLAC
WLBZ WMBG WMT WNAZ WOKO
WOWO WPG WQAM WREC WRR
WSPD WTPA WTOG

R—A. & P. Gypsies

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

F—Hour of Gaiety and Romance

CFAC CFBO CFCH CFCH CFCH
CFCH CFCH CFCH CFCH CFCH
CFCH CHAB CHGS CHNS CHRC
CHWC CHWK CJCA CJCB CJCH
CJGX CJOC CJRM CJRW CKCH
CKCK CKNC CKOC CKOV CKPC
CKPR CKUA CKX CKY CRCA
CRCO CRCS CRCT CRCV

B—Sinclair Minstrels

KDKA KFYR KOA KOIL KPRC
KSO KSTP KTBS KTHS KVOO
KWCR KWK WBAL WBZ WBZA
WDAY WEBC WFAA WFLA WGAR
WHAM WIBA WIOD WIS WJAX
WJDX WJR WJY WKY WLS WLW
WMC WOAI WPTF WREN WRVA
WSB WSM WSMB WTMJ WWSN

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

C—Alexander Woolcott

CFRB CKLW KFH KLRA KLZ
KMBC KTRH KTHS KFOR WABC
WACO WADC WBIG WBT WCAH
WCAO WCAU WCCO WDAE WDBJ
WDBO WDOD WEAN WFBL WFBM
WFEA WGST WHAS WHK WHP
WICC WISN WJAS WJSV WKBW
WLBW WLBZ WMBG WMBD WMBG
WNAZ WODX WORC WPG WQAM
WREC WSBT WSPD WTOG

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

C—Lham Jones; Lulu McConnell

CFRB CKLW KDB KERN KFBK
KFYR KPRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KRIL
KSL KVI KWG WABC WADC
WBBM WBT WCAH WCAU WCAU
WCCO WDCR WDSU WEAN WFBL
WFBM WHAS WHK WICC WJAS
WJSV WKBW WKRC WLAC WNAZ
WOKO WOWO WREC WSPD WTAZ

R—Del Monte Ship of Joy

KDYL KOA KPRC KSD KSTP
KTBS KVOO WBEN WCAE WCHS
WEAF WEBC WEEI WFAA WFBZ
WFLA WGY WHO WIOD WIS
WJAR WJAX WKBF WKY WLIT
WMAQ WOAI WOC WOW WRC
WRVA WSAI WTAG WTAM WTMJ
WWJ WNNC

B—Jack Frost's Melody Moments

KDKA WBAL WENR WGAR WHAM
WJR WJZ WLW

F—Roundup Rangers

CFBO CFCH CFCH CFCH CFCH
CFCH CFCH CFCH CFCH CFCH
CHGS CHNC CHNS CHRC CHWC
CHWK CJCA CJCB CJGX CJOC
CJRM CJRW CKCH CKCK CKNC
CKOC CKOV CKPC CKPR CKUA
CKK CKY CRCH CRCO CRCS
CRCT CRCV

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

C—Wayne King and Orchestra

CKLW KALE KDB KERN KFRK
KGB KHJ KLZ KMBC KMOX
KOIN KOL KSL KWG WAAB WABC
WADC WBBM WCAO WCAU WCCO
WDCR WEAN WFBL WFBM WGR

WHAS WHK WJAS WJSV WKRC

WOKO WOWO WSPD

R—Contented Program

CFCH CRCT KDYL KFI KFYZ
KGO KGW KHQ KOA KOMO KPRC
KSTP WCHS WEAF WEBC WEEI
WFBZ WJAR WLIT WMC WOAI
WRC WSP WSM WTAG

B—Richfield Country Club

KDKA WBAL WBZ WBZA WHAM
WJZ WMAL WSYR

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

C—Columbia News Service

CKAC CKLW KLRA KRIL KTRH
KTHS KFOR WAAB WABC WACO
WBIG WBT WCAH WCAU WCAU
WDAE WDBJ WDOD WDOD WDRC
WEAN WFBL WFEA WGR WGST
WHAS WHEC WHP WISN WJAS
WJSV WKBW WLAC WLWB WLWB
WMAZ WMT WODX WOKO WORC
WQAM WRC WRSJ WSPD WTOG

R—Kay-Seven, Drama

CRCT KSD WBEN WCAE WCHS
WDAF WEAF WEEI WFBZ WGY
WHO WJAR WLIT WLW WMAQ
WOC WOW WRC WTAG WTAM
WTIC WWJ

B—Henri Deering, Concert Pianist

KFYR KOIL KPRC KSO KSTP
KTBS KVOO KWCR WBAL WBZ
WBZA WCKY WEBC WFAA WHAM
WIBA WJDX WJZ WKY WMAL
WOAI WREN WSB WSM WSMB
WSYR

F—Luigi Romanelli's Orchestra

CFBO CFCH CFCH CFCH CFCH
CFCH CFCH CFCH CFCH CFCH
CHNS CHRC CHWC CHWK CJCA
CJGX CJOC CJRM CJRW CKCH
CKCK CKNC CKOC CKOV CKPC
CKPR CKUA CKK CKY CRCH
CRCO CRCS CRCT CRCV

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

C—Myrt and Marge

KDB KERN KFBK KFYR KFRK
KGB KHJ KLRA KLZ KMBC KMJ
KMOX KOIN KOL KOMA KSL
KVI KWG WBBM WBRB WCCO
WDSU WFBM WGST WHAS WLAC
WODX WREC

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

C—Evan Evans, Baritone

CKAC CKLW KFH KLRA KLZ
KMBC KTRH KTHS KFOR WAAB
WABC WACO WADC WBIG WBT
WCAH WCAO WCCO WDAE WDBJ
WDBO WDOD WDRC WEAN WFBZ
WGST WHEC WHP WISN WICC
WIP WISN WJAS WJSV WKBW
WKBW WLAC WLWB WLWB WMAZ
WMBD WMT WODX WOKO WORC
WPG WQAM WREC WSBT WJSJ
WSPD WTOG

B—Amos 'n' Andy

KDYL KFI KGO KGW KHQ KOA
KOIL KOMO KPRC KSTP KTHS
KWK WBAP WDAF WENR WKY
WMAQ WMC WOAI WREN WSB
WSM WSMB WTMJ

F—Musical Cavalcade

Stations same as 10:30 Monday

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

C—Boswell Sisters

CFRB CKLW KFAB KFH KLRA
KLZ KMBC KTRH KTHS KFOR
KWCR KWK KYA WAPI WBAP
WBZ WBZA WCKY WFLA WHAM
WIBA WIS WJDX WJZ WMAL
WOAI WPTF WREN WSMB WNNC

WFEA WGST WHP WIBW WIP
WISN WJAS WJSV WKBW WKBW
WLAC WLWB WLWB WMAZ WMBD
WMT WODX WORC WPG WQAM
WREC WSBT WJSJ WSPD WTOG

R—Lum and Abner

KFYR KSD WDAF WENR WHO
WIBA WKBF WOC WOW WTAM
WTMJ

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

C—Glen Gray and Orchestra

CFRB CKLW KFH KLRA KLZ
KMBC KOMA KTRH KTHS KFOR
WABC WADC WBRB WCAO WCAU
WDBJ WDRC WDSU WEAN WFBL
WFBM WGST WHAS WHK WHP
WISN WICC WISN WJSV WKBW
WLAC WLWB WMBD WMBG WMT
WNAZ WOKO WORC WPG WQAM
WREC WSBT WJSJ WTAZ WTOG

TUESDAY

E-8:00 p.m., C-5:00, M-4:00, P-3:00

C—Buck Rogers, See Monday

R—Waldorf Astoria, See Monday

B—Henry King and Orchestra

KOIL KSO KWCR WBAL WCKY
WENR WHAM WJR WJZ WMAL
WREN

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

C—Bobby Benson, See Monday

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

C—Betty Barthell, Songs

CFRB CKLW KLRA KOMA WAAB
WABC WADC WBIG WBRB WCAO
WDBJ WDRC WDSU WFBM WFEA
WGST WHEC WHK WHP WJSV
WKBW WLWB WMBG WOKO WORC
WQAM WREC WFAA WJSJ WTAZ
WTOG

R—Mid-Week Hymn Sing

KDYL KFYR KGIR KPO KPRC
KTBS KTHS KVOO WDAY WEAF
WFAA WFI WGY WHO WIBA WIS
WJAX WJDX WMAQ WOAI WOC
WRC WSAI WTAG WNNC

F—Dinner Hour, See Monday

B—Mary Small, Juvenile Singer

KSO KWCR WBAL WCKY WENR
WHAM WJZ WREN WSYR

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

C—Little Italy

WAAB WABC WCAO WCAU WDRC
WEAN WHEC WHP WKBW WOKO

R—Cherrie Musical Mosaics

KDYL KOA KPO KSD WCKY
WEAF WEEI WFBZ WFLA WGY
WHO WIOD WIS WJAR WJAX
WJDX WMAQ WOC WOW WRVA
WSAI WSM WSOZ WTAG WWJ
WNNC

B—Lowell Thomas, See Monday

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

C—Myrt and Marge, See Monday

B—Amos 'n' Andy, See Monday

F—Rex Battle's Orchestra

Stations same as 7:00 Monday

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

C—Just Plain Bill, See Monday

R—Billy Bachelor, See Monday

B—Radio in Education

KDKA KECA KEX KFSD KFYR
KGA KGHJ KGIR KJR KOA KOIL
KPRC KTRH KTBS KTHS KVOO
KWCR KWK KYA WAPI WBAP
WBZ WBZA WCKY WFLA WHAM
WIBA WIS WJDX WJZ WMAL
WOAI WPTF WREN WSMB WNNC

TUESDAY—(Continued)

E-7:30 p.m., C-6:30, M-6:30, P-4:30
C — Jack Denny's Orchestra
 WABC WCAU WDRG WFBL WGR
 WBAS WMAS WOKO WORC WWSA
 R — Lum and Abner See Monday

E-7:45 p.m., C-6:45, M-5:45, P-4:45
C — Beale Carter, See Monday
R — Goldbergs, See Monday
B — Don Carney's Dog Chats
 KDKA WBZ WBZA WCKY WGAR
 WHAM WJR WJZ WMAL WMAQ
 WSYR

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Elmer Everett Yess; Comedy
 CKLW KFBK KFH KMBC KMOX
 KOMA KSCJ KTRH KTSB WAAB
 WABC WADC WBBM WBIG WBRC
 WBT WCAH WCAO WCAU WCCO
 WDAE WDDB WDOO WDRG WDSU
 WEAN WFBL WFBM WGR WGST
 WHAS WHEC WHK WIBW WICC
 WJAS WJSV WKBN WKRC WLAC
 WMAS WMBG WMT WOKO WORC
 WOWO WQAM WREC WRR WSFA
 WSPD WTAR WWSA
R — Blackstone; Sanderson-Crumit
 WBN WCAE WCSH WFAE WEEI
 WFI WGY WJAR WRC WTAG
 WTAM WWJ
B — Eno Crime Clues
 KDKA KWK WBAL WBZ WBZA
 WGR WHAM WJR WJZ WLW
 WMAL WMAQ WREN

F — Chas. Dornberger's Orchestra
 Stations same as 7:00 Monday

E-8:15 p.m., C-7:15, M-6:15, P-5:15
C — Singin' Sam, Barbasol Man
 CKLW KMBC KMOX WABC WADC
 WCAO WCAU WCCO WDRG WDSU
 WFBL WFBM WGN WGR WHK
 WJAS WJSV WKRC WNAC WOKO
 WSPD

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — Voice of Experience
 CKLW KMBC KMOX WABC WBBM
 WBT WCAO WCAU WDRG WEAN
 WGR WHAS WHK WJAS WJSV
 WKRC WNAC
R — Wayne King and Orchestra
 KPRC KSD KSTP WBN WCAE
 WFSH WDAF WFAE WEEI WFAA
 WFI WGY WHO WJAR WKBK
 WKY WMAQ WMC WOA WOC
 WOW WRC WSAI WSB WSM WSMB
 WTAG WTAM WTMJ WWJ
B — Horlick's Adventures in Health
 CRCT KDKA KOIL KSO KWK
 WBAL WBZ WBZA WGR WHAM
 WJR WJZ WLS WLW WREN
F — Romantic Pictures
 Stations same as 7:00 Monday

E-8:45 p.m., C-7:45, M-6:45, P-5:45
C — Modern Male Chorus
 CFRB CKLW KFH KLRA KLZ
 KMOX KOMA KSL KTRH KTSB
 KFOR WABC WACO WADC WBIG
 WBRC WCAO WCAU WCCO WDBJ
 WDRG WDSU WEAN WFBL WFBM
 WFEA WGR WGST WHAS WHEC
 WHK WHP WIBW WICC WISN
 WJAS WJSV WLAC WLWB WMBG
 WMT WNAC WOKO WORC WPG
 WQAM WREC WSBT WSJS WTAQ
 WTAR WTOG
B — Smith Bros.—Trade and Mark
 KDKA KOIL KSO KWCR KWK
 WBAL WBZ WBZA WGR WHAM

WJR WJZ WLS WLW WMAL WREN
 WSYR

E-8:00 p.m., C-8:00, M-7:00, P-6:00
R — Ben Bernie and Orchestra
 KFYR KOA KPRC KSD KSTP
 WBAP WBN WCAE WCSH WDAY
 WFAE WFEI WFBM WFI WGY
 WJO WJAR WKY WLW WMAQ
 WMC WOA WOC WOW WRC
 WRYA WSB WSM WSMB WTAG
 WTAM WTMJ WWJ
B — Household Musical Memories
 KDKA KSO KWK WBAL WBZ WBZA
 WHAM WJR WJZ WKBK WLS
 WREN WSYR
C — Phila. Symphony, See Monday

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — Nino Martini, Tenor
 CFRB CKLW KFH KLRA KLZ
 KMBC KMOX KOMA KRLD KSL
 KTRH KTSB KFOR WABC WACO
 WADC WBIG WBRC WCAO WCAU
 WCCO WDBJ WDRG WDSU WEAN
 WFBL WFBM WFEA WGN WGST
 WHAS WHEC WHK WHP WIBW
 WICC WJAS WJSV WKBW WLAC
 WLWB WMBD WMBG WMT WNAC
 WOKO WORC WPG WQAM WREC
 WSJS WTAR WTOG
B — Texaco Fire Chief Program
 KDYL KFI KFSB KFYR KGHL
 KGRG KGO KGW KHQ KOA KOMO
 KPRC KSD KSTP KTA KTBS
 KVOO WBAP WBN WCAE WCSH
 WDAF WDAY WFAE WFCB WFEI
 WFBM WFI WFLA WGY WHO WIBA
 WIOD WIS WJAR WJAX WJDX
 WKY WLW WMAQ WMC WOA
 WOC WOW WPTF WRC WRYA
 WSB WSM WSMB WTAG WTAM
 WTMJ WWJ WNNC

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Legend of America
 CKLW KFH KLRA KLZ KMBC
 KMOX KOMA KTRH KTSB KFOR
 WAAB WABC WACO WADC WBIG
 WBRC WCAO WCAU WCCO WDBJ
 WDRG WDSU WEAN WFBL WFEA
 WGST WHAS WHEC WHP WIBW
 WICC WJAS WJSV WKBW WLAC
 WLWB WMBD WMBG WMT WOKO
 WORC WPG WQAM WREC WSJS
 WTOG WWSA
R — Lives at Stake—Drama
 KDYL KFI KGO KGW KHQ KOA
 KOMO KPRC KSD KTBS KTHS
 KVOO WBAP WBN WCAE WCSH
 WDAF WFAE WFEI WFBM WFI
 WGY WHO WJAR WJDX WKBK
 WKY WLW WMAQ WMC WOA
 WOC WOW WRC WRYA WSB WSM
 WSMB WTAG WTAM WWJ
B — Ortiz Tirado, Mexican Tenor
 CFCF CRCT KDKA KSO KSTP
 KWCR KWK WBAL WBZ WBZA
 WCKY WDAY WFCB WENR WFLA
 WGR WHAM WIBA WIOD WIS
 WJAX WJR WJZ WMAL WREN
 WSYR WTMJ WNNC

E-10:30 p.m., C-9:30, M-8:30, P-7:30
R — Madame Sylvia—Beauty Talk
 KDYL KFI KGO KGW KHQ KOA
 KOMO KSD KSTP WBN WFAE
 WBBM WEEI WGY WHO WIBA
 WMAQ WOC WRC WTAG WWJ
C — News Service, See Monday
F — Maurice McEet's Orchestra
 Stations same as 10:30 Monday

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C — Myrt and Marge, See Monday

E-11:00 p.m., C-10:00, M-9:00, P-8:00
B — Amos 'n' Andy, See Monday
C — Howard Barlow's Symphony
 CKLW KFH KLRA KLZ KMBC
 KTRH KTSB KFOR WAAB WABC
 WACO WADC WBIG WBT WCAH
 WCAO WCCO WDAE WDBJ WDDB
 WDOO WDRG WEAN WFEA WGST
 WHAS WHEC WHP WIBW WICC
 WIP WISN WJAS WJSV WKBW
 WKBW WLAC WLWB WLWB WMAS
 WMBD WMBG WMT WODX WOKO
 WORC WPG WQAM WSJS WSPD
 WTOG WWSA

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C — Elmer Everett Yess; Comedy
 KALE KDB KERN KFRG KGB
 KHJ KLZ KMJ KOIN KOL KSL
 KWG
R — Lum and Abner, See Monday

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Isham Jones and Orchestra
 CFRB CKLW KFH KLRA KLZ
 KMBC KOMA KSL KTRH KTSB
 WABC WADC WBRC WCAO WDBJ
 WDRG WDSU WEAN WFBL WFBM
 WGST WHK WHP WIBW WISN
 WJSV WKBW WLAC WLWB WMBD
 WMBG WMT WNAC WOKO WORC
 WQAM WREC WSBT WSJS WTAR
 WTOG WWSA
B — Paul Whiteman and Orchestra
 CFCF KDYL KFYR KOIL KPO KSO
 KSTP KWCR KWK WAPI WBAL
 WBZ WBZA WCKY WDAY WEEC
 WENR WFLA WHAM WIBA WIOD
 WIS WJDX WJZ WMAL WMC
 WREN WRYA WSB WSM WSMB
 WSYR WNNC

E-11:45 p.m., C-10:45, M-9:45, P-8:45
C — Voice of Experience
 KDB KERN KFBK KFPY KFRG
 KGB KHJ KLZ KMJ KOIN KOL
 KSL KVI KWG

E-12:00 mid., C-11:00, M-10:00 P-9:00
R — Ben Bernie and Orchestra
 KFI KGO KGW KHQ KOMO

WEDNESDAY

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C — Buck Rogers, See Monday
B — Ernie Holst and Orchestra
 KOIL KSO KWCR WBAL WBZ WBZA
 WCKY WJR WJZ WREN
R — Waldorf Astoria, See Monday

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — Bobby Benson, See Monday

E-6:30 p.m., C-5:30, M-4:30, P-3:30
C — Vera Van, See Monday
R — Back of News
 KFYR WFAE WFBM WGY WIBA
 WIS WJAR WJDX WRC WSAI
 WSB WSM WWJ WNNC
B — Irene Beasley, Contralto
 KGO KOA KPRC KSO KTBS KVOO
 KWCR WBAL WBAF WCKY WENR
 WGR WJZ WOA WREN

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

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

WEDNESDAY—(Cont'd)

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

C — Just Plain Bill, See Monday
 R — Billy Bachelor, See Monday
 B — John Herrick, Baritone
 KDKA KOIL KSO KWCR KWK
 WBAL WBZ WBZA WCKY WENR
 WHAM WJZ WMAL WSYR

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

C — Music in Air, See Monday
 R — Lum and Abner, See Monday
 B — Potash and Perlmutter, See Mon.
 F — Maritime Presentations
 CFBO CFCE CFCH CFCC CFCC
 CFNB CFPL CHGS CHNS CJCB
 CKCH CKNC CKOC CKPC CKPR
 CRCC CRCT

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

C — Boake Carter, See Monday
 R — Goldbergs, See Monday
 B — Irene Rich for Welch
 KDKA WBAL WBZ WBZA WCKY
 WJZ WMAL WMAQ WMC WSB
 WSM WSBM WSYR

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

C — Happy Bakers, See Monday
 R — George Olsen; Bert Lahr
 CFCE CRCT KSD WBEN WCAE
 WCKY WCHS WDAF WFAE WBEI
 WFBW WGY WHO WJAR WLIT
 WLS WOC WOW WRC WSAI WTAG
 WTAM WTIC WWJ
 B — Eno Crime, See Tuesday
 F — Rhapsodies in Rhythm
 Stations same as 10:30 Monday

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

C — Edwin C. Hill, See Monday
 F — Gamboliers, Harmony Duo
 Stations same as 10:30 Monday

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

C — Albert Spalding; Conrad Thibault
 CFBR CKAC CKLW KDB KERN
 KFBK KPFF KPFC KGB KHJ
 KLRA KLZ KMBC KMJ KMOX
 KOIN KOL KOMA KSL KTAT
 KTRH KTSK KVI KWG WABC
 WBRC WCAO WCAU WCCO WDOD
 WDRC WDSU WEAN WFBL WFBM
 WGN WGR WGST WHAS WHK
 WJAS WJVS WKRC WLAC WMT
 WNAC WOKO WORC WOW WREC
 WRR

R — Abe Lyman; Frank Munn
 WBEN WCHS WDAF WFAE WFBW
 WGY WHO WJAR WLIT WMAQ
 WOC WOW WRC WSAI WTAG
 WTAM WWJ

B — Dangerous Paradise, Drama
 CFCE KDKA KOIL KSO KWCR
 KWK WBAL WBZ WBZA WGAR
 WHAM WJR WJZ WLS WMAL
 WREN WSYR

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

B — Red Davis, See Monday

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

R — Ipana Troubadours
 KDYL KFI KGO KGW KHQ KOA
 KOMO KPRC KSD KSTP KTBS
 KTHS KVOO KAPL KBTP WBEN
 WCAE WCHS WDAF WFAE WFAA
 WFBW WGY WHO WIOD WIS
 WJAR WJAX WKY WLIT WMAQ
 WMC WQAI WOC WOW WRC
 WRVA WSAI WSB WSM WSMB
 WTAG WTAM WTMJ WWJ
 B — Warden Lawes; Sing Sing Drama
 KDKA KOIL KSO KWCR KWK

WBAL WBZ WBZA WCKY WGAR
 WHAM WJR WJZ WLS WMAL
 WREN WSYR

C — Philadelphia Symphony, See Mon.
 F — One Hour With You
 Stations same as 9:30 Monday

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

C — Alex. Woolcott, See Monday

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

C — Guy Lombardo; Burns and Allen
 CKLW KDB KERN KPBC KPFF
 KPFC KGB KHJ KLZ KMBC KMJ
 KMOX KOIN KOL KOMA KRLD
 KSL KTRH KTSK KVI KWG WABC
 WADC WBT WCAO WCAU WCCO
 WDRC WEAN WFBL WFBM WGN
 WHS WJAS WJVS WKBW WKRC
 WNAC WOC WORC WOW WSPD
 R — Leo Reisman's Orchestra
 KSD KSTP WBEN WCAE WCHS
 WDAF WFAE WFBW WGY WJAR
 WLIT WMAQ WOW WRC WSAI
 WTAG WTAM WTMJ WWJ

B — John McCormack, Tenor
 KDKA KDYL KFI KGO KGW KHQ
 KOA KOIL KOMO KSO KWCR
 KWK WBAL WBZ WBZA WCKY
 WENR WGAR WHAM WJR WJZ
 WMAL WREN WSYR

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

C — Old Gold — Fred Waring's Orchestra
 CKLW KDB KERN KPBC KFOR
 KPFF KPFC KGB KHJ KLRA KLZ
 KMBC KMJ KMOX KOL KOIN
 KOL KOMA KRLD KSCJ KSL
 KTRH KTSK KVI KFOR KWG
 WABC WACO WADC WBIG WBRB
 WBT WCAH WCAO WCAU WCCO
 WDAE WDBJ WDOD WDOD WDRC
 WDSU WEAN WFBL WFBM WFEA
 WGN WGST WHAS WHBC WHK
 WHP WIBW WICC WISN WJAS
 WJVS WKBW WKBW WKRC WLAC
 WLWB WLWB WBSB WMBD WMBG
 WMT WNAC WNAX WOKO WORC
 WOWO WPG WQAM WREC WSPD
 WTAR WTOG

R — Corn Cob Pipe Club
 KDYL KFI KPFF KGHF KGRH
 KGO KGW KHQ KOA KOMO KSD
 KSTP WBEN WCAE WCHS WDAF
 WDAY WFAE WFBW WEEI WENR
 WFBW WGY WHO WIBA WJAR
 WLIT WLW WOC WOW WRC
 WRVA WTAG WTAM WTIC WTMJ
 WWJ

D — Pedro Vira's Orchestra
 CFCE CRCT KDKA KOIL KSO
 KWCR KWK WBAL WBZ WBZA
 WCKY WGR WHAM WJZ WMAL
 WREN WSYR

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

R — National Radio Forum
 KPFF KPFC KSD KSTP KTHS
 KVOO WBEN WCAE WCHS WDAY
 WFAE WEEI WFAA WFBW WFLA
 WGY WHO WIBA WIS WJAR WJAX
 WJDX WKY WMAQ WQAI WOC
 WOW WRC WRVA WSAI WSB WSM
 WSMB WTAG WTAM WTIC WWJ
 WWNC

B — Ruth Lyon, Soprano
 CFCE KDKA KOIL KSO KWCR
 WBAL WBZ WBZA WCKY WENR
 WGAR WJR WJZ WMAL WREN
 WSYR

C — News Service, See Monday
 F — Joe DeCourcy's Orchestra
 Stations same as 10:30 Monday

E-10:45 p.m., C-9:45, M-8:45, P-7:45
 C — Myrt and Marge, See Monday

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

B — Amos 'n' Andy, See Monday
 C — Mark Warnow Presents
 CKLW KFI KLRA KLZ KMBC
 KSL KTRH KTSK KFOR WAAB
 WABC WACO WADC WBIG WBT
 WCAH WCAO WCCO WDAE WDBJ
 WDOD WDOD WDRC WEAN WFBL
 WFEA WGST WGET WHK WHP
 WIBW WICC WIP WISN WJAS
 WJSB WKBW WLAC WLWB WLWB
 WMAA WMBD WMBG WMT WODX
 WOKO WORC WPG WQAM WSJS
 WSPD WTOG

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

R — Lum and Abner, See Monday
 B — Poet Prince, Songs
 KDYL KFI KPFF KGO KGW KHQ
 KOA KOIL KOMO KSO KSTP KTBS
 KTHS KWCR KWK WAPI WBAL
 WCKY WDAY WECB WFAA WIBA
 WJDX WJR WJZ WKY WMAL
 WMAQ WMC WREN WSB WSYR

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

C — Ozzie Nelson and Orchestra
 KLRA WABC WBRB WDBJ WDRC
 WDSU WEAN WGST WICC WLAC
 WMBG WNAC WORC WQAM WREC
 WSJS WTAR WTOG

THURSDAY

E — 8:00 p.m., C-5:00, M-4:00, P-3:00

C — Buck Rogers, See Monday
 R — Waldorf Astoria, See Monday
 B — Dick Messner's Orchestra
 KOIL KSO KWCR KYW WBAL
 WBZ WBZA WCKY WENR WHAM
 WJR WJZ WMAL WREN WSYR

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

C — Bobby Benson, See Monday

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

R — John B. Kennedy
 KDYL KPFF KOA KPO KPFC KSD
 KTBS KTHS KVOO WAPI WDAY
 WFAE WFBW WFI WGY WHO WIBA
 WIS WJAX WJDX WMAQ WMC
 WOR WRC WSAI WSB WSMB WTAG
 WWJ WWNC

B — Old Songs of the Church
 KSO KWCR WBAL WCKY WENR
 WHAM WJZ WREN WSYR

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

R — Sixties Trio
 KPFF KOA KPFC KSD KSTP
 KTBS KVOO WAPI WBEN WCKY
 WDAY WFAE WFBW WEEI WFAA
 WFBW WFI WGY WHO WIBA WJAR
 WJDX WKY WMC WQAI WOC WOW
 WSAI WSB WSM WSMB WTAG
 WWJ

B — Lowell Thomas, See Monday

C — Little Italy, See Tuesday

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

C — Myrt and Marge, See Monday
 B — Amos 'n' Andy, See Monday
 F — Rex Battle
 Stations same as 7:00 Monday

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

B — Three Musketeers, Drama
 CRCT WBAL WBZ WBZA WHAM
 WJZ WMAL WSYR

FRIDAY—(Continued)

E-7:30 p.m., C-6:30, M-5:30, P-4:30
R — Scott's Circus Day
 KSD WCHS WDAF WEAF WEEI
 WGY WJAR WKBF WLW WMAQ
 WOW WRC WTAG WTAM WTIC
B — Potash and Perlmutter, See Mon.
C — Music in Air, See Monday.

E-7:45 p.m., C-6:45, M-5:45, P-4:45
C — Boake Carter, See Monday
R — Goldbergs, See Monday
B — Irene Rich, See Wednesday

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Happy Bakers, See Monday
R — Cities Service Concert
 CRCT KDYL KOA KPRC KSD KTBS
 KTBS KYW WBNB WCAE WCHS
 WDAF WEAF WEEB WEEI WFAA
 WFBF WGY WHO WJAR WKY WLIT
 WOAI WOC WOW WRC WRVA WSAI
 WTAG WTAM WTIC WTMJ WJJ
B — Nestle's with Ethel Shutta
 KDKA KWK WBAL WBZ WBZA
 WCKY WJAR WJR WJZ WLS WML
 WSYR

F — Allan Clifton's Orchestra
 CFNC CFQC CHAB CHWC CJCA
 CJGX CJOC CJRM CJRW CKCK
 CKUA CKK CKY

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

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — March of Time
 CKLW KDB KERN KFBK KFPY
 KFRK KGB KHJ KLZ KMBC KMJ
 KMOX KOIN KOL KSL KTRH KVI
 KWG WABC WCAO WCAU WCCO
 WDRG WDSU WEAN WFBL WFBM
 WGN WGR WGST WHAS WHK WJVS
 WWSB WKRC WNAC WOKO WSPD
B — Dangerous Paradise, See Wed.
F — Jimmie Namoro, Xylophonist
 Stations same as 7:00 Monday

E-8:45 p.m., C-7:45, M-6:45, P-5:45
B — Red Davis, See Monday

E-9:00 p.m., C-8:00, M-7:00, P-6:00
R — Fred Allen's Revue
 KSD WBNB WCHS WEAF WEEI
 WFBF WGY WJAR WLIT WLW
 WMAQ WRC WTAG WTAM WTIC
 WWJ
B — Phil Harris and Orchestra
 CFNC KDKA KDYL KFI KGH
 KGR KGO KGW KHQ KOA KOIL
 KOMO KSO KWCR KWK WAPI
 WBAL WBZ WBZA WCKY WFAA
 WGAR WJZ WKY WLS WML
 WOAI WREN WSB WSM WSMB
 WSYR
C — Philadelphia Symphony, See Mon.
F — Jack Dale, Tenor
 Stations same as 9:30 Monday

E-9:15 p.m., C-8:15, M-7:15, P-6:15
C — Threads of Happiness
 CKLW KDB KERN KFBK KFH
 KFPY KFRK KGB KHJ KLA KLZ
 KMBC KMJ KMOX KOIN KOL
 KOMA KSL KTRH KTAT KTSK KVI
 KWG WABC WADC WDAE WDRG
 WCAU WCAU WCCO WDAE WDRG
 WDSU WEAN WFBL WFBM WGN
 WGBT WHAS WHK WJVS WJSV
 WKBW WKRC WLAC WNAC WOKO
 WOWO WREC WRR WSPD WTAR
 WTCO

F — Gentleman Jim
 Stations same as 9:30 Monday

E-9:30 p.m., C-8:30, M-7:30, P-6:30
R — Pond's Program; Lee Wiley
 KSD WBNB WCAE WCHS WDAF
 WEAF WFBF WGY WHO WJAR
 WLIT WMAQ WOC WOW WRC WSAI
 WTAG WTAM WTIC WWJ
B — Armour Program; Phil Baker
 KDKA KDYL KFI KGO KGW KHQ
 KOA KOIL KOMO KPRC KSO KSTP
 KTRH KWK WAPI WBAL WBZ
 WBZA WBC WENR WFAA WGAR
 WHAM WIOD WJAX WJR WJZ
 WKY WMC WOAI WREN WRVA
 WSB WSM WSMB WTMJ WNNC
F — Gems from Lyric Stage
 Stations same as 9:30 Monday

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Swift Revue — Olsen and Johnson
 CKLW KDB KERN KFBK KFPY
 KFRK KGB KHJ KLZ KMBC KMJ
 KMOX KOIN KOL KOMA KRLD
 KSCJ KSL KTRH KVI KWG WABC
 WADC WBBM WBRG WBT WCAO
 WCAU WCCO WDRG WEAN WFBL
 WGBT WHAS WHK WJVS WJSV
 WKBW WKRC WNAC WOKO WOWO
 WREC

R — First Nighter — Drama
 CRCT KDYL KFI KGO KGW KHQ
 KOA KOMO KPRC KSD KSTP
 WAPI WBNB WCAE WCHS WDAF
 WEAF WEEB WEEI WFBF WGY
 WHO WJAR WKY WLIT WMAQ
 WOAI WOC WOW WRC WSAI WSB
 WSM WSMB WTAG WTAM WTIC
 WTMJ WWJ

E-10:30 p.m., C-9:30, M-8:30, P-7:30
R — Lum and Abner's Sociable
 KFRY KSD WBNB WCAE WCHS
 WDAF WDAY WEAF WEEI WENR
 WFBF WGY WHO WIBA WJAR
 WKBF WLIT WLW WOC WOW
 WRC WTAG WTAM WTIC WTMJ
B — Mario Cozzi, Baritone
 KDKA KFRY KOIL KSO WAPI
 WBAL WBZ WBZA WCKY WDAY
 WEEB WFLA WHAM WIBA WIOD
 WIS WJAX WJR WJZ WREN WSB
 WSM WSYR WNNC

C — News Service, See Monday
F — Events of Canadian Interest
 Stations same as 10:30 Monday

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C — Myrt and Marge, See Monday
B — Headline Hunter; Floyd Gibbons
 KDKA KFRY KSO WAPI WBAL
 WBZ WBZA WCKY WDAY WEEB
 WFLA WHAM WIBA WIOD WIS
 WJAX WJR WJZ WREN WSB WSM
 WSYR WNNC

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Symphonic Strings
 CFBO CFCH CFNC CFQC CFY
 CFJC CFNB CFPL CFQC CHAB
 CHGS CHNC CHNS CHRC CHWC
 CHWK CJCA CJCB CJGX CJOC
 CJRM CJRW CKCH CKCK CKNC
 CKOC CKOV CKPC CKPR CKUA
 CKK CKY CCRM CCRG
 CRCS CRCT CRGV CKLW KFH
 KLA KLZ KMBC KTRH KTSK
 KFOR WAAB WABC WACO WADC
 WBG WBT WCAO WCCO WDAE
 WDBJ WDBO WDOD WDRG WEAN
 WFA WGST WHEC WHK WHP
 WIBW WICC WIP WISN WJAS
 WJSV WKBW WLAC WLWB WLZ
 WMA WMBD WMBG WMT WODX
 WOKO WORC WPG WQAM WREC
 WJSJ WSPD WTCO

B — Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C — Boswell Sisters, See Monday

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Isha m Jones, See Tuesday

E-12:15 a.m., C-11:15, M-10:15, P-9:15
R — Fred Allen's Revue
 KDYL KFI KPSD KGO KGW KHQ
 KOA KOMO KTRH WDAF

SATURDAY

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C — Meet the Artist
 CFRB CKLW KFH KLRA KMBC
 KOMA KSL KTRH KTSK KFOR
 WAAB WABC WACO WADC WBBM
 WBIG WBRG WCAO WCCO WDBJ
 WDSU WFBL WFEA WGR WGST
 WHAS WHEC WHK WHP WIBW
 WICC WIP WISN WJAS WJSV WLAC
 WLWB WLZ WMBG WMT WOKO
 WQAM WREC WSBT WSPA WSJS
 WTAQ WTAR WTCO WWVA
R — Waldorf Astoria, See Monday

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — Mildred Bailey, Songs
 CKAC CKLW KFH KFH KLRA
 KLZ KMBC KRLD KSL KTRH KTSK
 KFOR WAAB WABC WACO WBG
 WBT WCAH WCAO WCCO WDAE
 WDBJ WDBO WDOD WDRG WEAN
 WFA WGR WGST WHEC WHK
 WHP WIBW WICC WIP WISN
 WJAS WJSV WLAC WLWB WLZ
 WMBG WMT WOKO WORC WQAM
 WREC WSBT WSPA WSJS WSPD
 WTAQ WTCO WWVA

E-6:30 p.m., C-5:30, M-4:30, P-3:30
R — Phil Spitalny and Orchestra
 KDYL KFI KFRY KGO KGW KHQ
 KOA KOMO KPRC KSD KSTP KTSK
 KTBS KVOO WCAE WDAF WDAY
 WEAF WEEB WFLA WHO WIBA
 WIOD WIS WJAR WJAX WJDX
 WKY WMAQ WMC WOAI WOC
 WRC WSB WSM WTAG WTAM
 WWJ WNNC
B — Mary Small, See Tuesday
F — Dinner Hour, See Monday

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C — Tito Guizar, Tenor
 CKLW KLRA KLZ KMBC KMOX
 KRLD KSL KTRH KTSK KFOR
 WAAB WABC WACO WADC WBG
 WBRG WCAO WCAU WCCO WDBJ
 WDSU WFBL WFBM WFEA WGST
 WHAS WHEC WHP WIBW WICC
 WISN WJSV WKBW WLAC WLWB
 WLZ WMBG WMT WOKO WQAM
 WREC WSBT WSPA WSJS WTAQ
 WTAR WTCO WWVA
B — Flying with Capt. Al Williams
 WBAL WBZ WBZA WCKY WGAR
 WHAM WJR WJZ WSYR
R — Grandmother's Trunk
 CRCT KDYL KOA KSD WBNB
 WCAE WCHS WEAF WFBF WFI
 WGY WHO WIS WJAR WJAX
 WMAQ WOC WOW WRC WRVA
 WSAI WSM WTAG WWJ WNNC

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C — Frederic William Wile
 CKLW KFH KLRA KLZ KMBC
 KRLD KSL KTRH KTSK KFOR
 WABC WACO WADC WBBM WBIG
 WBRG WCAO WCAU WDBJ WDSU
 WEAN WFBL WFEA WGR WGST
 WHEC WHK WIBW WICC WISN

SATURDAY—(Cont'd)

WJAS WJSV WLAC WLWB WLWZ
WMBG WMT WOKO WQAM WREC
WSBT WSFA WSJS WTAQ WTRC
WTOC WWVA

R—J. C. Nugent, Male Quartet
WCSE WEAF WEEI WGY WJAR
WTAG WTIC

B—John Herrick, Baritone
KDKA KOIL KSO KWCR KWK
WBAL WKCY WGAR WJZ WKBF
WMAL WMAQ

F—Rex Battle
Stations same as 7:00 Monday

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

C—Jack Denny's Orchestra
WABC WCAU WDRC WFBL WGR
WHCC WJAS WMAS WOKO WORC
WWVA

B—Three Musketeers, See Thursday

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

C—Jane Froman; Charles Carlie
WABC WDRC WEAN WFBL WFEA
WGR WJSV WLWB WNAC WOKO

R—Circus Days, See Friday
B—Trio Romantique
KOIL KSO KWCR WBAL WKCY
WENR WHAM WJR WJZ WMAL
WREN WSYR

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

B—O'Leary's Irish Minstrels
CFBC KOIL KPRC KSO KTBS
KTHS KWCR WBAL WPAB WKCY
WENR WHAM WIOD WIS WJR
WJZ WKY WMAL WMC WOAI
WREN WRVA WSB WSM WSMB
WSYR WWNC

R—Jack and Loretta Clemens
KDYI KFI KGO KGW KHQ KOA
KOMO KSD WBN WCHS WDAF
WEAF WEEI WFBF WGY WJAR
WOW WRC WSAI WTAG WTAM
WWJ

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

C—Elmer E. Yess, See Tuesday
F—Maurice Meerte's Orchestra
Stations same as 7:00 Monday

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

C—Fray and Braggiotti
CFRB CKAC CKLW KFH KLRA
KLZ KMBC KSL KTRH KTSK
KFOR WABC WACO WADC WBIG
WBT WCAH WCAO WCAU WCCO
WDAE WDBJ WDOO WDOD WDRC
WEAN WFBL WFEA WGR WGST
WHAS WHEC WHP WIBW WICC
WISN WJAS WJSV WLAC WLWB
WLWZ WMAS WMBG WMT WNAC
WOKO WORC WPG WQAM WREC
WSBT WSFA WSJS WSPD WTAQ
WTOC WWVA

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

R—Antobal's Cubans
KDYI KFI KGO KGW KHQ KOA
KOMO KPRC KSD KTBS KTHS
KVOO WCHS WDAF WDAY WEAF
WEBC WFAA WFBF WFLA WGY
WHO WIBA WIS WJAR WJAX
WJDX WKY WMAQ WMC WOAI
WOC WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WWJ WWNC
B—Sous les Ponts de Paris
CFBO CFCH CFEN CFEO CFY
CFJC CFNB CFPC CFQ CHAB
CHGS CHNC CHNS CHWC CHWK
CJCA CJCB CJGX CJOC CJRM
CJRW CKCH CKCK CKNC CKOC

CKOV CKPC CKPR CKUA CKK
CKY CRCM CRCO CRCS CRCT
CRCV KDKA KOIL KSO KWCR
KYW WBAL WBZ WBZA WKCY
WGAR WHAM WJR WJZ WMAL
WREN WSYR

C—George Jesse
CFRB CKLW KFH KLRA KLZ
KMBC KMOX KOMA KRLD KTRH
KTSK KFOR WAAB WABC WADC
WBIG WBRC WCAO WCAU WCCO
WDBJ WDSU WEAN WFBM WFEA
WGST WHAS WHEC WHK WHP
WIBW WICC WISN WJAS WJSV
WKWB WLAC WLWB WLWZ WMBD
WMBG WOKO WPG WQAM WREC
WSBT WSJS WTRC WTOC WWVA

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

R—Lucky Strike—Jack Pearl
KDYI KFSD KFYP KGO KGW KGW
KHQ KOA KOMO KPRC KSD KSTP
KTRH KTBS KTHS WAPI WBAP
WBN WCAE WCHS WDAF WDAY
WEAF WEBC WEEI WFBF WFI
WFLA WGY WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WOAI WOV WRC WRVA WSB
WSMB WTAG WTAM WTMJ WWJ
WWNC

B—Jamboree—Variety Show
KDKA KOIL KSO KWCR KWK KYW
WBAL WKCY WGAR WHAM WJR
WJZ WMAL WREN WSYR

C—Philadelphia Symphony, See Mon.

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

C—Carborundum Band
CKLW KMBC KMOX WAAB WABC
WBBM WBT WCAO WCAU WCCO
WHAS WHK WJAS WKWB WKRC
R—Leo Reisman: Yacht Club Boys
WBN WCAE WCHS WDAF WEAF
WEEI WFBF WFI WGY WHO WJAR
WMAQ WOC WOV WRC WSAI
WTAG WTAM WWJ

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

R—B. A. Rolfe and Orchestra
CRCT KDYL KFI KGO KGW KOA
KOMO KSD KSTP WBAP WBN
WCAE WCHS WDAF WEAF WEEI
WFBF WFI WGY WHO WJAR WJAX
WLW WMAQ WOAI WOC WOV
WRC WRVA WSB WSMB WTAG
WTAM WTMJ WWJ

B—Tales of the Titans—Drama

KDKA KOIL KWCR KWK KYW
WBAL WBZ WBZA WKCY WGAR
WHAM WJR WJZ WMAL WREN
WSYR
C—Byrd Expedition
CKLW KDB KERN KFBK KFH
KFYP KFRC KGB KHJ KLRA
KMBC KMJ KMOX KOIN KOL
KOMA KRLD KTRH KTSK KVI
KWG WAAB WABC WACO WADC
WBBM WBRC WBT WCAO WCAU
WCCO WDAE WEAN WGST WHAS
WHEC WHK WHP WIBW WJSV
WKWB WKRC WLAC WLWB WMBG
WMT WOKO WORC WQAM WREC

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

C—News Service, See Monday
B—Cuckoo—Ray Knight
KOIL KSO KWCR KYW WBAL WBZ
WBZA WKCY WGAR WJZ WMAL
WREN WSYR
F—Billy Bisset's Orchestra
CFBO CFCH CFEO CFNB CFPL
CHNC CHNS CHRC CJCB CKCH
CKNC CKOC CKPC CKPR CRCM
CRCO CRCS CRCT

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

C—Isham Jones and Orchestra
CFRB CKLW KLRA KLZ KMBC
KMOX KOMA KTRH KTSK KFOR
WAAB WABC WADC WBIG WBRC
WCAO WCAU WCCO WDBJ WDSU
WEAN WFBL WFBM WGST WHAS
WHP WIBW WICC WISN WJAS
WJSV WKWB WLAC WLWB WLWZ
WMBD WMBG WMT WOKO WPG
WQAM WRC WSBT WSJS WTRC
WTOC

R—One Man's Family—Sketch
CFBC KDYL KFI KFYP KGO KGW
KHQ KOA KOMO KPO KPRC KSD
KSTP KTBS KTHS KVOO WBN
WCAE WDAF WDAY WEAF WFBF
WFI WFLA WGY WHO WIBA WIOD
WIS WJAR WJAX WJDX WKY
WMAQ WMC WOAI WOC WOV
WRC WRVA WSAI WSB WSMB
WTAG WTAM WWJ WWNC

B—WLS Barn Dance

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

F—Vancouver Saturday Frolic
Stations same as 10:30 Monday

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

C—Elmer E. Yess, See Tuesday

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

C—Glen Gray and Orchestra
CFRB CKLW KLRA KLZ KMBC
KOMA KSL KTRH KTSK KFOR
WABC WADC WBRC WCAO WDBJ
WDSU WEAN WFBL WFBM WGST
WHEC WHP WIBW WIP WISN
WJSV WKWB WLAC WLWB WLWZ
WMBD WMBG WMT WNC WOKO
WPG WQAM WREC WSBT WSJS
WTOC

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

C—Barney Rapp and Orchestra
CKAC CKLW KFAB KFH KLZ
KMBC KMOX KRLD KTRH KTSK
WABC WCAU WCCO WEAN WFBL
WHAS WHP WIBW WICC WISN
WJSV WKWB WLWB WMAS WMBD
WMT WNAC WOC WSBT WSPD
WTAQ
B—Reggie Childs and Orchestra
KOIL KSO KWCR KWK KYW
WBAL WBZ WBZA WKCY WGAR
WHAM WJZ WLW WMAL WREN
WSYR

SUNDAY

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

R—Major Bowes' Capitol Family
KDYI KFYP KOA KPRC KSTP
KTBS KVOO WAPI WCAE WDAF
WDAY WEAF WEBC WFAA WFBF
WFLA WGY WHO WIOD WJAR
WJAX WKY WMAQ WMC WOAI
WOC WRC WRVA WSAI WSMB
WTAG WTAM WWNC

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

C—Salt Lake Tabernacle Choir
CKLW KLRA KLZ KMBC KOMA
KSL KTRH KTSK KFOR WABC
WACO WADC WBIG WBRC WCAO
WCCO WDBJ WDRC WDSU WEAN
WFBL WFEA WGN WGR WGST
WHAS WHEC WHP WIBW WICC
WISN WJAS WJSV WLAC WLWB
WMBD WMT WNC WOKO WORC
WPG WQAM WSBT WSFA WSJS
WTAQ WTRC WWVA

SUNDAY—(Continued)

E-12:15 p.m., C-11:15, M-10:15, P-9:15
R—Morning Home Circle
 WCHS WFAE WEEI WFBR WFI
 WJAR WRC WTAG

E-12:30 p.m., C-11:30, M-10:30, P-9:30
C—Tito Guizar's Serenade
 WABC WCAU WDRS WEAN WFEA
 WLBZ WNAC WORC

B—Radio City Concert
 CFCE CRCT KDKA KDFL KFI
 KFYR KGO KGW KHQ KOA KOIL
 KOMO KPRC KSO KVOO WAPI
 WBAL WBZ WBZ WCKY WDAY
 WEEB WGBA WHAM WIS WJDX
 WJR WJZ WKY WMAL WOAI WREN
 WSBM WSYR WWNC

R—Chicago Round Table
 WBSN WCHS WDAF WFAE WEEI
 WFBR WFI WGY WHO WJAR
 WOC WOW WRC WSAI WTAG
 WTAM WWJ

E-12:45 p.m., C-11:45, M-10:45, P-9:45
C—Madison Ensemble
 CFRB CKLW KLRA KLZ KMBC
 KOMA KSL KTRH KFOR WACO
 WADC WBIG WCAU WDBJ WDRS
 WDSU WFLB WGR WGST WHAS
 WHEC WHP WIBW WJAS WJSV
 WLAC WLWB WMT WOKO WPG
 WQAM WREC WSBT WSJS WTAQ
 WTKR WTOP WWVA

E-1:00 p.m., C-12:00, M-11:00, P-10:00
C—Church of the Air
 CFRB CKLW KLRA KLZ KOMA
 KTRH KTSa KFOR WAAB WABC
 WACO WADC WCCO WDBJ WDRS
 WDSU WFLB WGR WGST WHAS
 WHEC WHP WIBW WJAS WJSV
 WLAC WLWB WMT WOKO WPG
 WQAM WREC WSBT WSJS WTAQ
 WTKR WTOP WWVA

R—Balkan Mountain Men
 WBSN WCAE WDAF WFAE WEEI
 WENR WFI WGY WHO WJAR
 WLW WOC WRC WSAI WTAG
 WTAM WWJ

E-1:30 p.m., C-12:30, M-11:30, P-10:30
R—Little Known Facts
 WBSN WCHS WFAE WEEI WFI
 WGY WJAR WTAG WTAM WWJ

B—National Youth Conference
 KDKA KFI KFSB KFYR KGHL
 KGIR KGO KGW KHQ KOA KOIL
 KOMO KPRC KSO KTAI KTBS
 KVOO KWCR KWK WAPI WBAL
 WBZ WBZ WDAY WEEB WFAA
 WGAR WJB WIOD WIS WJAX
 WJDX WJR WJZ WMAL WOAI
 WREN WRVA WSB WSM WSBM
 WSYR WWNC

C—Lazy Dan, Minstrel Man
 CKLW KMBC KMOX KRLD WABC
 WBBM WCAH WCAU WCCO
 WHAS WHK WJAS WJSV WKBW
 WKRC WMBG

E-2:00 p.m., C-1:00, M-12:00, P-11:00
C—Broadway Melodies; Helen Mor-
gan

CFRB CKLW KDB KFPY KFRS
 KGB KHJ KLZ KMBC KMOX KOIN
 KOL KRLD KSL KVI WABC WBBM
 WCAU WCAU WCCO WDSU WHK
 WJAS WJSV WKBW WKRC WLAC
 WNAC

R—Gene Arnold and Commodores
 KDFL KFI KGO KGW KHQ KOA
 KOMO KPRC KVOO WBSN WCAE
 WCHS WFAE WEEB WEEI WFAA
 WFBR WGY WIBA WJAR WKY
 WLW WMAQ WOAI WOW WPTF
 WRC WRVA WTAG WTAM WWJ
 WWNC

B—Bar X Days and Nights
 CFCE CRCT KDKA KOIL KSO
 KWCR KWK KYW WBAL WBZ
 WBZA WCKY WGR WJR WJZ
 WMAL WREN WSYR

E-2:30 p.m., C-1:30, M-12:30, P-11:30
C—Abe Lyman's Orchestra
 CFRB CKLW KMBC KMOX WABC
 WBBM WCAU WCCO WDRS
 WEAN WFLB WFBM WHEC WHK
 WJSV WKBW WKRC WNAC WOKO

B—Yeast Foamers; Jan Garber
 KDKA KDFL KFI KFSB KFYR
 KGHL KGIR KGO KGW KHQ KOA
 KOIL KOMO KPRC KSO KSTP
 KTAI KTBS KTHS KVOO KWCR
 KWK KYW WAPI WBAL WBZ WBZA
 WDAY WEEB WFAA WFLA WGAR
 WHAM WIBA WIOD WIS WJAX
 WJDX WJR WJZ WKBW WKY WLW
 WMAL WMC WOAI WPTF WREN
 WRVA WSB WSM WSBM WSYR
 WTMJ WWNC

R—John B. Kennedy
 CFCE CRCT KSD WBSN WCAE
 WCKY WDAF WFAE WEEI WFBR
 WGY WJAR WMAQ WOW WRC
 WSAI WTAG WTAM WWJ

E-2:45 p.m., C-1:45, M-12:45, P-11:45
R—Gems of Melody; Muriel Wilson
 WBSN WCAE WCHS WDAF WFAE
 WEEI WFBR WGY WHO WJAR
 WMAQ WOC WOW WRC WSAI
 WTAG WTAM WWJ

E-3:00 p.m., C-4:00, M-1:00, P-12:00
C—New York Philharmonic Orch.
 CFAC CFBO CFCE CFCH CFEN
 CFCC CFCE CFJC CFNB CFPL
 CFQC CHAB CHGS CHNS CHRC
 CHWC CHWK CICA CJCB CJCJ
 CJGX CJOC CJRM CJRW CKCH
 CKCK CKNC CKOC CKOV CKPC
 CKPR CKUA CKX CKY CRCA
 CRCC CRCS CRCT CRCV CFRB
 CKLW KFLR KLRA KLZ KMBC
 KMOX KOMA KSL KTRH KTSa
 KFOR WABC WADC WBIG WBRB
 WCAU WCAU WCCO WDBJ WDRS
 WDSU WEAN WFBM WFEA WGN
 WGR WGST WHAS WHEC WHK
 WHP WIBW WICC WIP WISN WJAS
 WJSV WLAC WLWB WMBD WMBG
 WMT WNAC WOKO WORC WQAM
 WREC WSBT WSJS WTAQ WTKR
 WTOP WWVA

R—Wayne King and Orchestra
 KDFL KFI KGO KGW KHQ KOA
 KOMO KPRC KSD KSTP KVOO
 WBSN WCAE WCHS WDAF WFAE
 WEEI WFAA WGY WHO WJAR
 WKBW WKY WLIT WLS WLW
 WOAI WOC WOW WRC WTAG
 WTAM WTMJ WWJ

B—International Tid-bits
 CFCE CRCT KDKA KOIL KSO
 KWCR KWK KWK WBAL WBZ
 WBZA WCKY WFLA WGAR WHAM
 WIOD WIS WJAX WJDX WJR WJZ
 WMAL 'MC WRVA WSB WSM
 WSBM WSYR WWNC

E-3:30 p.m., C-2:30, M-1:30, P-12:30
B—Antibal's Cubans
 KDKA KOIL KSO KWK WCR KWK
 WBAL WBZ WBZA WCKY WGR
 WJR WJZ WKBW WMAL WREN
 WSYR

E-4:00 p.m., C-3:00, M-2:00, P-1:00
R—Fiddlers Three
 CFCE CRCT KDFL KFI KFSB
 KFYR KGO KGW KHQ KOA KOMO
 KSD KSTP KTAI KTBS KYW
 WAPI WBSN WCAE WDAF WDAY
 WFAE WEEB WEEI WFLA WGY
 WHO WIBA WIOD WIS WJAR
 WJDX WKY WLIT WOAI WOC
 WOW WRC WRVA WSAI WSB WSM
 WTAG WTAM WWJ WWNC

Rev. Charles E. Coughlin
 KMOX KSTP KYW WCAU WCAU
 WDRS WEAN WFLB WFEA WGAR
 WGR WJB WHO WICC WJAS WJR
 WLWB WLW WMAS WNAC WOC
 WOL WOR WORC WCKY WOKO

B—Railroad Adventures, Drama
 KDKA KDFL KFI KFYR KGHL
 KGIR KGO KGW KHQ KOA KOIL
 KOMO KPRC KSO KSTP KTBS
 KTHS KVOO KWCR KWK WAPI
 WBAL WBAP WBZ WBZA WCKY
 WDAY WEEB WENR WFLA WGAR
 WHAM WIBA WIOD WIS WJAX
 WJDX WJR WJZ WKBW WKY
 WMC WOAI WPTF WREN WRVA
 WSB WSM WSBM WSYR WTMJ
 WWNC

E-4:15 p.m., C-3:15, M-2:15, P-1:15
R—Wildroot; Vee and Johnny
 KDFL KFI KFYR KGO KGW KHQ
 KOA KOMO KPRC KTBS KVOO
 WBSN WCAE WCHS WDAF WDAY
 WFAE WEEB WEEI WFAA WFBR
 WGY WIBA WJAR WKY WLIT WLS
 WOAI WOW WRC WSAI WTAG
 WTAM WTMJ WWJ

B—Morin Sisters, Harmony Trio
 CFCE CRCT KDKA KOIL KSO
 KWCR KWK KYW WBAL WBZ
 WBZA WCKY WFLA WGAR WHAM
 WIOD WJAX WJDX WJR WJZ WLW
 WMAL WREN WRVA WSB WSM
 WSYR WWNC

E-4:30 p.m., C-3:30, M-2:30, P-1:30
R—Hoover Sentinels
 CFCE CRCT KDFL KFI KGO KGW
 KHQ KOA KOMO KPRC KVOO
 WBAP WBSN WCAE WCHS WDAF
 WFAE WEEB WEEI WFBR WFI
 WGY WIBA WJAR WKY WMAQ
 WOAI WOW WRC WTAG WTAM
 WWJ

B—Dion Kennedy, Organist
 CFCE CRCT KDKA KFSB KFYR
 KGO KGW KHQ KOA KOIL KOMO
 KPRC KSO KSTP KTBS KVOO
 KWCR KWK KYW WBAL WBZ
 WBZA WCKY WDAY WEEB WFAA
 WFLA WGAR WHAM WIBA WIOD
 WIS WJAX WJDX WJR WJZ WKY
 WMAL WMC WOAI WREN WRVA
 WSB WSM WSYR WWNC

E-5:00 p.m., C-4:00, M-3:00, P-2:00
C—Roses and Drums, Drama
 CKLW KFAH KLRA KLZ KMBC
 KMOX KOMA KRLD KTRH KTSa
 WAAB WABC WADC WBBM WBRB
 WCCO WDSU WGST WHAS WHK
 WJAS WJSV WKRC WREC

SUNDAY—(Continued)

R — Big Ben Dream Drama

WBEN WCAE WCSH WDAF WFAF
WEEI WFBW WGY WJAR WMAQ
WOW WRC WSAI WTAG WTAM
WWJ

B — National Vespers

KDYL KECA KFSD KFYR KGH
KGR KGO KGW KHQ KOA KOIL
KPRC KSO KSTP KTAR KTBS
KVOO KWCR KWK WAPI WBAL
WBZ WBZA WCFW WCKY WDAY
WEEB WFLA WGAR WHAM WJAZ
WJOD WIS WJAX WJDX WJR WJZ
WKY WMAL WMC WOAI WPTF
WRER WRVA WSB WSM WSMB
WWNC

F — Vesper Hour

CFBO CFCH CFCH CFCH CFCH
CFBN CFPL CFQC CHAB CHNS
CHWC CHWK CJCA CJGX CJOC
CJRM CJRW CKCH CKCK CKNC
CKOC CKOV CKPC CKPR CKUA
CKK CKY CRMC CRCO CRCT
CRCV

E-5:15 p.m., C-4:15, M-3:15, P-2:15

R — Achievements in Science, Drama
CFCH CRCT WBEN WCAE WCSH
WDAF WFAF WENR WFBW WGY
WJAR WOW WRC WSAI WTAG
WTAM WWJ

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

C — Frank Crumit; Julia Sanderson
CKLW KFAB KFH KMBC KMOX
KOMA WAAB WABC WADC WCAH
WCAO WCAU WDRG WDSU WEAN
WFLB WFBM WGR WHEC WHK
WICC WJSV WMAA WOKO WORC
WSPD WTAR WWVA

R — Talkie Picture Time—Sketch

WCAE WCSH WDAF WFAF WFAF
WFBW WFI WGY WJAB WMAQ
WMC WOW WRC WSAI WTAG

B — Grand Hotel—Drama

KDKA KDYL KFI KFYR KGO KGW
KHA KOA KOIL KOMO KPRC KSO
KSTP KTBS KWCW KWK WBAL
WBZ WBZA WDAY WEEB WFAA
WFLA WGY WHO WJAZ
WJOD WIS WJAX WJDX WJR
WJZ WKBF WMAL WREN WSYR
WTMJ

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

C — Jacques Renard's Orchestra
CKLW KMBC KMOX WABC WBBM
WCAO WCAU WCCC WFBM WGR
WHK WJAS WJSV WKRC

R — Catholic Hour

KDYL KECA KFYR KGH KGR
KGW KOA KOMO KPO KPRC
KSTP KTAR KTBS KVOO WAPI
WBAP WBEN WCAE WCSH WDAF
WDAY WFAF WEEB WEEI WENR
WFBW WFLA WGY WHO WJAZ
WJOD WIS WJAX WJDX WJR
WJZ WLT WMC WOAI WOC WOV
WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WWJ WWNC

B — Rhythm String Quartet

CFCH CRCT KOIL KSO KWCR
KWK WBAL WBZ WBZA WCKY
WGAR WHAM WJR WJZ WMAL
WMAQ WREN WSYR

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

C — Smiling Ed McConnell
CKLW KDB KERN KFAB KFBK
KFH KFPY KFRC KGB KHJ KLZ
KMBC KMOX KOIN KOL KRLD
KSL KVI KWG WAAB WABC WBBM
WBT WCAH WCAU WCCC WDSU

WEAN WFBL WHAS WHEC WHP
WJAS WJSV WKBW WKRC WLAC
WMT WOKO WQAM WSPD WTAR
WWVA

R — Our American Schools

CFCH CRCT KDYL KECA KFSD
KPHY KGW KOMO KPO KPRC KSD
KSTP KTAR KTBS KVOO WAPI
WBAP WBEN WCAE WCSH WDAF
WDAY WFAF WEEB WEEI WFBW
WFLA WGY WHO WJAZ WJOD
WJAX WJDX WJZ WJZ WJZ
WMAQ WMC WOAI WOC WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAM WWJ WWNC

F — Dinner Hour, See Monday

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

C — H. V. Kallenborn
CKAC CKLW KLRA KLZ KMBC
KTRH KTSB KVOR WAAB WABC
WACO WBIG WBRC WCAH WCAO
WCAU WCCC WDAE WDBJ WDBO
WDDO WDRC WEAN WFEA WGST
WHAS WHEC WHP WICC WJAS
WJSV WKBW WLAC WLBW WMAS
WOKO WQAM WREC WSPA WSPD
WTAR WTOG

B — Engineering Thrills, Drama

KDKA KDYL KFI KFYR KGO
KGW KHQ KOA KOIL KOMO KSO
KSTP KWCR KWK WJAZ WBZ
WBZA WCKY WDAY WEEB WENR
WGAR WJAZ WJR WJZ WMAL
WREN WSYR WTMJ

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

R — Blue Coal Program
CRCT WBEN WFAF WEEI WFBW
WGY WJAR WLT WRC WTAG

B — Vincent Lopez; Alice Joy

KDKA KDYL KFI KFYR KGO KGW
KHQ KOA KOIL KOMO KPRC KSO
KSTP KTBS KWCW KWK WBAL
WBZ WBZA WDAY WEEB WFAA
WFLA WGY WHO WJAZ
WJOD WIS WJAX WJDX WJR
WJZ WLT WMC WOAI WOC WOV
WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WWJ WWNC

C — Ethel Waters; George Beatty

WABC WBT WCAO WCAU WDAE
WDBO WDRG WEAN WFEA WGST
WHK WJAS WJSV WKBW WLBZ
WNAC WPG WQAM WTAR WWVA

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

B — Ozzie Nelson; Joe Penner
KDKA KDYL KFI KFYR KGO KGW
KHQ KOA KOIL KOMO KPRC KSO
KSTP KTAR KVOO KWCR KWK
WBAL WBZ WBZA WDAY WEEB
WFAA WFLA WGAR WHAM WJAZ
WJOD WJAX WJDX WJR WJZ WJZ
WLS WLW WMAL WMC WOAI
WPTF WREN WRVA WSB WSM
WSMB WTMJ WWNC

F — Atlantic Nocture; Organ

Stations same as 7:00 Monday

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

C — Rin Tin Tin Thriller
CKLW KMOX WABC WCAU WFLB
WFBM WGN WGR WHAS WHK
WJAS WJSV WKRC WNAC

R — Fitch Program; Wendell Hall

CFCH KSD WBEN WCAE WCSH
WDAF WFAF WFBW WGY WHO
WJAR WLT WMAQ WOC WOV
WRC WSAI WTAG WTAM WWJ

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

R — Chase and Sanborn Hour
CFCH CRCT KDYL KFI KFYR KGO
KGW KHQ KOA KOMO KPRC KSD
KSTP KTAR KTHS KVOO WBEN
WCAE WCSH WDAF WDAY WFAF
WEEB WFAA WFBW WFLA WGY
WHO WJOD WIS WJAX WJAX
WJDX WJZ WLT WLV WMAQ
WMC WOAI WOC WOV WPTF WRC
WRVA WSB WSM WSMB WTAG
WTAG WTMJ WTMJ WWJ WWNC

C — Evening in Paris

CKLW KLZ KMBC KMOX KOMA
KSL WABC WADC WBBM WCAO
WCAU WCCC WDSU WEAN WFLB
WFBM WGR WGST WHAS WHK
WJAS WJSV WKRC WOKO WSPD

B — Egon Petri, Concert Pianist

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

F — Albert Pratz, Violinist

Stations same as 7:00 Monday

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

C — Freddie Rich; Mildred Bailey
CKLW KLZ KMBC KTRH KTSB
KVOR WAAB WABC WBRG WBT
WCAH WCAU WCCC WDAE WDBJ
WDBO WDRG WDSU WFBM WFEA
WGR WGST WHAS WHEC WHK WHP
WICC WISN WJAS WJSV WKBW
WLAC WLBW WLEC WODX WOKO
WORC WQAM WREC WSPA WJSV
WSPD WTAR WWVA

F — Ritz Carlton Concert

Stations same as 10:30 Monday

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

C — Erno Rapce; Nino Martini
CKLW KDB KERN KFBK KFPY
KFRC KGB KHJ KLRA KLZ KMBC
KMJ KMOX KOIN KOL KOMA
KRLD KSCJ KSL KTRH KVI KWG
WABC WADC WBBM WCAO WCAU
WCCC WDRG WDSU WEAN WFLB
WFBM WGR WGST WHAS WHK
WISN WJAS WJSV WKRC WMT
WNAC WNAX WOKO WORC WOWO
WREC WSPD WTAR

R — Manhattan Merry-Go-Round

KDYL KFI KGO KGW KHQ KOA
KOMO KSD WDAF WFAF WFBW
WFI WGY WHO WJAR WMAQ WOC
WOW WRC WSAI WTAM WTIC
WWJ

B — Will Rogers, Al Goodman

KDKA KPRC WJAB WBZ WBZA
WFAA WFLA WGAR WHAM WJOD
WIS WJAX WJDX WJR WJZ WLW
WMAL WMC WOAI WPTF WRVA
WSB WSM WSMB WSYR WWNC

F — Musical Comedy

Stations same as 9:30 Monday

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

R — Album of Familiar Music
CFCH CRCT KDYL KFI KGO KGW
KHQ KOA KOMO KPRC KSD KSTP
WAPI WBEN WCAE WCKY WCSH
WDAF WFAF WEEI WFAA WFBW
WFI WFLA WGY WHO WJOD WJAR
WJAX WJDX WKY WMAQ WMC
WOAI WOC WOV WPTF WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAG WTMJ WWJ

B — Walter Winchell

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

SUNDAY—(Continued)

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

B — Noveliers Quartet

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

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

R — Chevrolet; Jack Benny

KDYL KFI KFSD KFYR KGHL
KGIR KGO KGW KHQ KOA KOMO
KPRC KSTP KTRT KTBS WAPI
WBAP WBNB WCAE WCHS WDAF
WDAY WFAF WEBC WEEI WFBR
WFI WFLA WGY WIBA WIOD WIS
WJAR WJDX WKY WMAQ WMC
WOAI WOW WRC WRVA WSB WSM
WSMB WTAG WTAM WTIC WTMJ
WWJ WWNC

B — Green Brothers Novelty Orch.

CFCF KDKA KOIL KSO KWCR
WBAL WENR WGAR WHAM WJZ
WMAL WREN

C — Patri's Childhood Dramas

CKLW KDB KERN KFBK KFPY
KPRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KSL KVI KGW
WAAB WABC WCAO WCAU WCCO
WDRB WFBL WGR WHS WHK
WJAS WJSV WKRC WOKO

F — Chateau Laurier Musicale

Stations same as 9:30 Monday

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

R — Col. Louis McHenry Howe

KDYL KFYR KGHL KGIR KGO
KGOV KHQ KOA KOMO KPRC KSD
KSTP KVOO WBNB WCAE WDAF
WDAY WFAF WEBC WEEI WFAA
WFBR WFI WGY WHO WIBA WJAR
WKY WMAQ WMC WOAI WOC

WOW WRC WSAI WSB WSMB
WTAG WTAM WTIC WTMJ WWJ

B — Phil Ducey, Baritone

KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WGAR
WJR WJZ WLW WREN

C — Madison Singers; Ann Leaf

CFRB CKAC CKLW KFH KLRA
KLZ KRLD KTRH KTSB KFOR
WAAB WABC WACO WADC WBIG
WBRC WCAH WCAO WCCO WDAE
WDBJ WDBO WDOD WDRB WDSU
WEAN WFBL WFEA WGR WGST
WHAS WHC WHK WHP WICC
WIP WISN WJAS WJSV WKBN
WLAC WMAS WNAC WODX WOKO
WORC WPG WQAM WREC WSFA
WSJS WSPD WTAR WTOG

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

B — Mountain Music

CFCF KDKA KOIL KSO KWCR
WBAL WENR WGAR WHAM WID
WIS WJAX WJZ WMAL WREN
WRVA WWNC

R — Sunday at Seth Parker's

CRCT KDYL KFSD KFYR KGHL
KGIR KGO KGW KHQ KOA KOMO
KPRC KSD KSTP KTRT KTBS KYW
WAPI WBNB WCAE WCHS WDAF
WDAY WFAF WEBC WEEI WFAA
WFBR WFLA WGY WHO WIBA
WIOD WIS WJAR WJAX WJDX
WMC WOAI WOC WOW WPTF WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAM WTMJ WWJ WWNC

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

C — Guy Lombardo and Orchestra

CFRB CKAC CKLW KFH KLRA
KLZ KTRH KTSB KFOR WABC

WACO WBIG WBRC WCAH WCAO
WDAE WDBJ WDBO WDOD WDRB
WDSU WEAN WGST WHAS WHEC
WHP WICC WIP WISN WJAS WJSV
WKBW WLAB WLWB WMAS WMBE
WNAC WODX WOKO WPG WQAM
WREC WSFA WSJS WSPD WTAR
WTOG

B — Ennio Volonini, 'cellist

KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WGAR
WJR WJZ WLW WREN

B — Walter Winchell

KDYL KFI KFSD KGHL KGIR
KGO KGW KHQ KOA KOMO KTRT

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

B — William Scotti and Orchestra

KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WGAR
WJR WJZ WLW WREN

E-11:45 p.m., C-10:45, M-9:45, P-8:45

C — Joe Haymes and Orchestra

CFRB CKLW KFH KLRA KLZ
KOMA KSL KTRH KTSB WABC
WADC WBRC WCAO WCAU WDBJ
WDRB WDSU WEAN WFBL WFBM
WGR WGST WHAS WHEC WHK
WHP WLBW WISN WJAS WJSV
WLAC WLWB WMBD WMT WNAC
WOKO WPG WQAM WREC WSBT
WSJS WTAR WTOG

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

C — Eddie Duchin and Orchestra

KMBC KTRH KTSB WABC WCAU
WCCO WEAN WGR WHAS WHP
WICC WISN WJSV WLWB WMAS
WMT WNAC WOKO WSPD

KYW to Move to Philadelphia

Today (October 27th) the Federal Radio Commission hands down its long-awaited decision in the so-called 1020 and 1160 kc. cases. These cases went to hearing on July 18. Briefly the decision is as follows: The Westinghouse Electric & Mfg. Co., is granted permission to move their KYW from Chicago to a location near Philadelphia. The application of Kunsky-Trendle Broadcasting Corp., of Detroit for the 1020 channel is denied as, of course, are the applications of the other claimants: WFAN, WIP, and WCAU, all of Philadelphia.

They Like It

"I am sorry your publication was not brought to my attention sooner as I am persuaded I have missed much valuable information. However from now on it will find a place on my radio every month."

J. Henry Scheidegger, Chief Pharmacist Mate, USN., U. S. S. Bridge, Care Postmaster, San Francisco, Calif.

"I have found RADEX of more assistance in DXing than any other magazine I have ever read. I used to buy ten or twelve different kinds but now I buy RADEX and 'save the difference.' It is the most complete and up-to-date published."

Harold T. Hammond, Box 111, Marblehead, Mass.

"RADEX is the most interesting, the most absorbing, radio magazine that I have ever known. It has simplified many troubles I've had."

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Victor Strinck, Jr., 5941 Leithgow St., Philadelphia.

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Standard

CONCERTS

Howard Barlow, 11:00 p. m., Tuesday, C.
Concert Favorites, 7:45 p. m., Thursday, B.
N. Y. Philharmonic, 3:00 p. m., Sunday, C.
Philadelphia Symphony, 9:00 p. m., daily, ex. Sunday, C.
Radio City, 12:30 p. m., Sunday, B.
Trio Romantique, 7:30 p. m., Saturday, B.
Albert Spalding, 8:30 p. m., Wednesday, C.
Symphonic Strings, 11:00 p. m., Friday, C.
Waldorf Astoria, 6:00 p. m., daily, ex. Sunday, R.

DANCE BANDS

Ben Bernie, 9:00 p. m., and 12:30 a. m., Tuesday, R.
Don Bestor, 8:00 p. m., Friday, B.
Reggie Childs, 12 mid., Saturday, B.
Jack Denny, 7:30 p. m., Tues., Thurs.; 7:15 p. m., Sat., C.
Eddie Duchin, 12 mid., Sunday, C.
Jan Garber, 2:30 p. m., Sunday, B.
Glen Gray, 11:30 p. m., Monday and Saturday, C.
Green Bros., 10:00 p. m., Sunday, B.
Phil Harris, 9:00 p. m., Friday, B.
Ernie Holst, 6:00 p. m., Wednesday, B.
Isham Jones, 9:30 p. m., Monday; 11:30 p. m., Tues., Thurs., Fri.; 11:00 p. m., Sat., C.
Henry King, 6:00 p. m., Tuesday, B.
9:30 p. m., Thurs., B.
Wayne King, 10:00 p. m., Monday, C.; 3:00 p. m., Sun.; 8:30 Tues., R.
Guy Lombardo, 11:15 p. m., Sun.; 9:30 p. m., Wed., C.
Vincent Lopez, 7:00 p. m., Sunday, B.
Abe Lyman, 2:30 p. m., Sun., C.; 8:30 p. m., Wed., R.
Dick Messner, 6:00 p. m., Thursday, B.
Ozzie Nelson, 11:45 p. m., Wed., C.; 7:30 p. m., Sun., B.
George Olsen, 8:00 p. m., Wednesday, R.
Barney Rapp, 12:00 mid., Saturday, C.
Leo Reisman, 9:30 p. m., Wed., and Sat., R.
Freddie Rich, 8:30 p. m., Sunday, C.
Willard Robison, 10:00 p. m., Thursday, C.
B. A. Rolfe, 10:00 p. m., Saturday, R.
George Scherban, 6:45 p. m., Friday, C.
Phil Spitalny, 7:00 p. m., Sun., 6:30 p. m., Sat., R.
Rudy Vallee, 8:00 p. m., Thursday, R.
Fred Waring, 10:00 p. m., Wednesday, C.
Paul Whiteman, 11:30 p. m., Mon.; 10:00 p. m., Thurs., R.

DIALOG

Fred Allen, 9:00 p. m. and 12:15 a. m., Friday, R.
Amos 'n' Andy, 7:00 and 11:00 p. m. daily, ex. Sat. and Sun., B.
Phil Baker, 9:30 p. m., Friday, B.
Jack Benny, 10:00 p. m., Sunday, R.
Burns and Allen, 9:30 p. m., Wednesday, C.
Cuckoo Program, 10:30 p. m., Saturday, B.
Andrew Kelly, 6:45 p. m., Monday, R.
Bert Lahr, 8:00 p. m., Wednesday, R.
Lum and Abner, 7:30 and 11:15 p. m., Mon. to Thurs., Inc.; 10:30 p. m., Fri., R.
Lulu McConnell, 9:30 p. m., Monday, C.
Walter O'Keefe, 8:00 p. m., Friday, B.
Olsen and Johnson, 10:00 p. m., Friday, C.
Jack Pearl, 9:00 p. m., Saturday, R.
Joe Penner, 7:30 p. m., Sunday, B.
Potash and Perlmutter, 7:30 p. m., Mon., Wed., Fri., B.
Talkie Picture Time, 5:30 p. m., Sunday, R.
Ed Wynn, 9:30 p. m., Tuesday, R.
Elmer Everett Yess, 8:00 and 11:15 p. m., Tues., Thurs., Sat., C.

DRAMA

Achievements in Science, 5:15 p. m., Sunday, R.
Billy Bachelor, 7:15 p. m., daily, ex. Sat. and Sun., R.
Bar X Days, 2:00 p. m., Sunday, B.
Bobby Benson, 6:15 p. m., daily, ex. Sat. and Sun., C.
Big Ben's Dream, 5:00 p. m., Sunday, R.
Just Plain Bill, 7:15 p. m., daily, ex. Sat. and Sun., C.
Circus Days, 7:30 p. m., Fri. and Sat., R.
Columbia Dramatic Guild, 9:30 p. m., Thursday, C.
Dangerous Paradise, 8:30 p. m., Wed. and Fri., B.

Red Davis, 8:45 p. m., Mon., Wed., Fri., B.
Death Valley, 9:00 p. m., Thursday, B.
Engineering Thrills, 6:45 p. m., Sunday, B.
Eno Crime, 8:00 p. m., Tues. and Wed., B.
First Nighter, 10:00 p. m., Friday, R.
Goldbergs, 7:45 p. m., daily, ex. Sat. and Sun., R.
Grand Hotel, 5:30 p. m., Sunday, B.
Kay-Seven, 10:30 p. m., Monday, R.
Warden Lawes, 9:00 p. m., Wednesday, B.
Legend of America, 10:00 p. m., Tuesday, C.
Little Italy, 6:45 p. m., Tues. and Thurs., C.
Lives at Stake, 10:00 p. m., Tuesday, R.
March of Time, 8:30 p. m., Friday, C.
Three Musketeers, 7:15 p. m., Thurs., Fri., Sat., B.
Myrt and Marge, 7:00 and 10:45 p. m., daily, ex. Sat. and Sun., C.
One Man's Family, 11:00 p. m., Saturday, R.
Patri's Child Drama, 10:00 p. m., Sunday, C.
Railroad Adventures, 4:00 p. m., Sunday, B.
Rin Tin Tin Thriller, 7:45 p. m., Sunday, C.
Buck Rogers, 6:00 p. m., Mon. to Thurs., inc., C.
Roses and Drums, 5:00 p. m., Sunday, C.
Soconyland Sketches, 8:00 p. m., Monday, R.
Tales of Titans, 10:00 p. m., Saturday, B.

PIANO AND ORGAN

Henri Deering, 10:30 p. m., Monday, B.
Fray and Braggiotti, 8:15 p. m., Saturday, C.
Archer Gibson, 10:30 p. m., Thursday, B.
Dion Kennedy, 4:30 p. m., Sunday, B.
Ann Leaf, 10:30 p. m., Sunday, C.
Ohman and Arden, 9:30 p. m., Sunday, R.
Egon Petri, 8:00 p. m., Sunday, B.

POPULAR PROGRAMS

A. & P. Gypsies, 9:00 p. m., Monday, R.
Album Familiar Music, 9:30 p. m., Sunday, R.
Antobal's Cubans, 3:30 p. m., Sun., B.; 8:30 p. m., Sat., R.
Armour Program, 9:30 p. m., Friday, B.
Blackstone Plantation, 8:00 p. m., Tuesday, R.
Blue Coal Program, 7:00 p. m., Sunday, R.
Major Bowes' Family, 11:15 a. m., Sunday, R.
Carborundum Band, 9:30 p. m., Saturday, C.
Chase and Sanborn, 8:00 p. m., Sunday, R.
Cheerio Musical Mosaics, 6:45 p. m., Tuesday, R.
Chevrolet Program, 10:00 p. m., Sunday, R.
Cities Service, 8:00 p. m., Friday, R.
Contented Program, 10:00 p. m., Monday, R.
Corn Cob Pipe Club, 10:00 p. m., Wednesday, R.
Del Monte Ship of Joy, 9:30 p. m., Monday, R.
Evening in Paris, 8:00 p. m., Sunday, C.
Fiddlers Three, 4:00 p. m., Sunday, R.
Fleischmann Hour, 8:00 p. m., Thursday, R.
Jack Frost's Melody, 9:30 p. m., Monday, B.
General Foods, 10:00 p. m., Saturday, C.
Grandmother's Trunk, 6:45 p. m., Saturday, R.
Hands Across Border, 10:00 p. m., Thursday, B.
Hoover Sentinels, 4:30 p. m., Sunday, R.
Household Musical, 9:00 p. m., Tuesday, B.
Ipana Troubadours, 9:00 p. m., Wednesday, R.
Jamboree-Variety, 9:00 p. m., Saturday, B.
Lucky Strike, 9:00 p. m., Saturday, R.
Lum and Abner Sociable, 10:30 p. m., Friday, R.
Manhattan Merry-Go-Round, 9:00 p. m., Sunday, R.
Maxwell House Show Boat, 9:00 p. m., Thursday, R.
Molle Show, 7:00 p. m., Mon., Wed. and Fri., R.
Music on the Air, 7:30 p. m., Mon., Wed., Fri., C.
Nestle's Chocolateaters, 8:00 p. m., Friday, B.
Old Gold, 10:00 p. m., Wednesday, C.
O'Leary's Irish Minstrels, 7:45 p. m., Saturday, B.
Pond's Program, 9:30 p. m., Friday, R.
Rhythm String Quartet, 6:00 p. m., Sunday, B.
Richfield Country Club, 10:00 p. m., Monday, B.
Sealed Power Side Show, 8:00 p. m., Monday, B.
Sinclair Minstrels, 9:00 p. m., Monday, B.
Sous les Ponts de Paris, 8:30 p. m., Saturday, B.
Swift Revue, 10:00 p. m., Friday, C.
Texaco Fire Chief, 9:30 p. m., Tuesday, R.

Threads of Happiness, 9:15 p. m., Friday, C.
Wildroot, 4:15 p. m., Sunday, R.
WLS Barn Dance, 11:00 p. m., Saturday, B.
Yeast Foamers, 2:30 p. m., Sunday, B.

RELIGIOUS

Catholic Hour, 6:00 p. m., Sunday, R.
Church of the Air, 1:00 p. m., Sunday, C.
Mid-Week Hymn Sing, 6:30 p. m., Tuesday, R.
National Vespers, 5:00 p. m., Sunday, B.
Old Songs of Church, 6:30 p. m., Thursday, B.
Seth Parker's, 10:45 p. m., Sunday, R.
Salt Lake Choir, 11:30 a. m., Sunday, C.

SINGERS

Frances Alda, 6:00 p. m., Tuesday, R.
Baby Rose Marie, 7:15 p. m., Monday, B.
Mildred Bailey, 8:30 p. m., Sun.; 6:15 p. m., Sat., C.
Betty Barthell, 6:30 p. m., Tuesday, C.
Irene Beasley, 6:30 p. m., Mon., Fri., R.; 6:30 p. m., Wed., B.
Betty Boop Frolics, 6:45 p. m., Friday, R.
Boswell Sisters, 11:15 p. m., Monday and Friday, C.
Eddie Cantor, 8:00 p. m., Sunday, R.
Jack and Loretta Clemens, 7:45 p. m., Saturday, R.
Bing Crosby, 8:30 p. m., Monday, C.
Mario Cozzi, 10:30 p. m., Friday, B.
Jessica Dragonette, 8:00 p. m., Friday, R.
Phil Dwyer, 10:30 p. m., Sunday, 9:30 p. m., Monday, B.
Evan Evans, 11:00 p. m., Monday, C.
Father Finn Choristers, 8:30 p. m., Monday, B.
Jane Froman, 9:00 p. m., Sunday; 7:30 p. m., Saturday, C.
Tito Guizar, 12:30 p. m., Sunday; 6:45 p. m., Saturday, C.
Wendall Hall, 7:45 p. m., Sunday, R.
Hall Johnson Singers, 8:30 p. m., Thursday, C.
Annette Hanshaw, 9:00 p. m., Thursday, R.
Happy Bakers, 8:00 p. m., Mon., Wed., Fri., C.
John Herriek, 7:15 p. m., Wed.; 7:00 p. m., Sat., R.
George Jessel, 8:30 p. m., Saturday, C.
Alice Joy, 7:00 p. m., Sunday, B.
Lay Dan, 1:30 p. m., Sunday, C.
Ruth Lyon, 10:30 p. m., Wednesday, B.
Madison Ensemble, 12:45 p. m., Sun.; 10:30 p. m., Sun., C.
Nino Martin, 9:00 p. m., Sun.; 9:30 p. m., Tues., C.
Smiling Ed McConnell, 6:30 p. m., Sunday, C.
John McCormack, 9:30 p. m., Wednesday, B.
Modern Male Chorus, 8:45 p. m., Tuesday, C.
Helen Morgan, 2:00 p. m., Sunday, C.
Morin Sisters, 4:15 p. m., Sunday, B.
Mountain Music, 10:45 p. m., Sunday, B.
Frank Munn, 9:30 p. m., Sun.; 8:30 p. m., Wed., R.

Gertrude Niesen, 9:30 p. m., Monday.
Novellers Quartet, 9:45 p. m., Sunday, B.
Viola Philo, 11:00 p. m., Thursday, R.
Virginia Rea, 9:30 p. m., Sunday, R.
Phil Regan, 11:15 p. m., Thursday, C.
Revelers Quartet, 9:00 p. m., Sun.; 8:45 p. m., Thurs., B.
Gladys Rice, 11:00 p. m., Thursday, C.
Carson Robison, 2:00 p. m., Sunday, B.
Lanny Ross, 9:00 p. m., Thursday, R.
Sanderson-Crumit, 5:30 p. m., Sun., C.; 8:00 p. m., Tues., R.
Ethel Shuttles, 8:00 p. m., Friday, B.
Singing Sam, 8:15 p. m., Tues. and Thurs., C.
Sizzlers Trio, 6:45 p. m., Thursday, R.
Mary Small, 10:00 p. m., Sun.; 6:30 p. m., Tues. and Sat., B.
Smith Bros., 8:45 p. m., Tuesday, B.
Songs Mother Used to Sing, 6:00 p. m., Sunday, C.
Conrad Thibault, 8:30 p. m., Wednesday, C.
Three Jesters, 7:45 p. m., Monday, B.
Ortiz Tirado, 10:00 p. m., Tuesday, B.
Vera Van, 6:30 p. m., Mon. and Wed.; 8:30 p. m., Sat., C.
Vee and Johnny, 4:15 p. m., Sunday, R.
Ethel Waters, 7:00 p. m., Sunday, C.
Lee Wiley, 9:30 p. m., Friday, R.
Muriel Wilson, 2:45 p. m., Sunday, R.
Yacht Club Boys, 9:30 p. m., Saturday, R.

TALKS

Back of the News, 6:30 p. m., Wednesday, R.
Admiral Byrd Expedition, 10:00 p. m., Saturday, C.
Don Carney's Dog Chat, 7:45 p. m., Tuesday, B.
Boake Carter, 7:45 p. m., daily, ex. Sat. and Sun., C.
Columbia News Service, 10:30 p. m., daily, ex. Sun., C.
Father Coughlin, 4:00 p. m., Sunday.
Edwin C. Hill, 8:15 p. m., Mon., Wed., Fri., C.
Horlick's Health, 8:30 p. m., Tues. and Thurs., B.
Col. Louis McHenry Howe, 10:30 p. m., Sunday, R.
H. V. Kaltenborn, 6:45 p. m., Sun.; 6:00 p. m., Fri., C.
John B. Kennedy, 2:30 p. m., Sun.; 6:30 p. m., Thurs., R.
National Radio Forum, 10:30 p. m., Wednesday, R.
National Youth Conference, 1:30 p. m., Sunday, B.
Radio in Education, 7:15 p. m., Tuesday, B.
Grantland Rice, 10:00 p. m., Monday, B.
Irene Rich, 7:45 p. m., Wed. and Fri., B.
Will Rogers, 9:00 p. m., Sunday, B.
Our American Schools, 6:30 p. m., Sunday, R.
Madame Sylvia, 10:30 p. m., Monday, R.
Lowell Thomas, 6:45 p. m., daily, ex. Sat. and Sun., B.
Flying Capt. Williams, 6:45 p. m., Saturday, B.
Walter Winchell, 9:30 and 11:15 p. m., Sunday, B.
Alexander Woolcott, 9:15 p. m., Mon. and Wed., C.

KEY TO SYMBOLS

Frequency is given in kilocycles; wavelength in meters. Night power is shown in watts in third column. Daytime power is shown in parenthesis in fourth column in kilowatts, thus (.25) indicating 250 watts. Some stations outside the United States use a "split frequency." Their exact frequency is shown in fourth column. Time Zones: A—Atlantic, E—Eastern, C—Central, M—Mountain, P—Pacific, L—Local. A. M. time is shown in light face type.

Second Column Symbols

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

Fourth Column Symbols

- A Amalgamated Broadcasting System.
- B National "Blue" network.
- C Columbia network.
- D Daytime only.
- Da Daytime with occasional evening hours.
- E Trans-Canada network.
- F Canadian Radio Broadcast Commission.
- G All Canadian networks.

As Shown in the Index by
Frequencies and Dial Numbers

- H Yankee network.
- J Orange network.
- K Michigan network.
- L Canadian Pacific Ry. network.
- M Central Canada network.
- N National "Red" and "Blue" networks.
- P Has construction permit only.
- Q Great Lakes network.
- R National "Red" network.
- S Sunday only.
- Sy Synchronized.
- T Don Lee System.
- U Dixie network.
- V Maritime Broadcasting network.
- W All-Florida network.
- W Curtis-Indiana network.
- X Has permit to increase power.
- Y Has permit to change location.
- Z Has permit to change frequency.

a-b-c. Small letters show stations using same transmitter
1-2-3. Figures denote stations sharing time.
..... No information.

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KCYS.

600

DIAL

540 kilocycles 555.2 meters

CJRM	z	500	F	Moose Jaw, Sask. C
CJRW	ak	500	F	Fleming, Sask. C—8:00-9:00; 10:00-10:45; 1:00-1:15; 2:15-2:30; 5:30-7:30; 8:00-9:30
XEY	z	105	546.8	Merida, Yuc.

550 kilocycles 545.1 meters

KFDY	ae	500	1 (1)	Brookings, S. D. C—12:30-2:00
KFUO	ae	500	2 (1)	St. Louis, Mo. C
KFYR	ah	1000	1N (2.5)	Bismarck, N. D. C—7:00-12:30; 2:00-11:30
KOAC	ak	1000	.....	Corvallis, Ore. P—6:30-4:00; 6:30-9:00
KSD	ak	500	2R	St. Louis, Mo. C
TISO	ak	250	.....	San Jose, C. R. C—10:00-1:00; 4:00-11:00
WDEV	ae	500	D	Waterbury, Vt. E—7:30-10:00; 11:30-2:00; 3:00-7:00
WGR	ae	1000	C	Buffalo, N. Y. E—7:30-mid.
WKRC	ak	1000	C	Cincinnati, Ohio. E—7:00-1:00

560 kilocycles 535.4 meters

KFDM	ak	500	(1)	Beaumont, Texas. C—7:00-10:00
KGIZ	ak	500	D	Springfield, Mo. C—7:00-7:00
KLZ	ak	1000	C	Denver, Colo. M—6:45-11:30
KTAB	ak	1000	.....	San Francisco, Calif. P—7:00-1:00
WFI	ae	500	1R	Philadelphia, Pa. E—6:45-9; 9:45-11; 1-2; 3-4:30; 6-mid.
WIND	ak	1000	C	Gary, Ind. C—5:30-3:30
WLIT	ak	500	1R	Philadelphia, Pa. E—9:00-9:45; 11:00-1:00; 2:00-3:00; 4:30-6:00
WNOX	ak	1000	C (2)	Knoxville, Tenn. C
WQAM	ae	1000	CW	Miami, Fla. E—7:15-mid.
XEAO	ak	100	(.15)	Mexicali, B. C. P—8:00-10:00

570 kilocycles 526.0 meters

KGKO	ak	250	(.5)	Wichita Falls, Texas. C—7:00-10:00
KMTR	ak	500	.....	Hollywood, Calif. P—6:00-12:15
KVI	ak	500	.....	Tacoma, Wash. P—6:00-mid.
WKBN	ae	500	1C	Youngstown, Ohio. E—7:30-9:00; 11:00-1:00; 3:00-mid.
WMCA	ak	500	.....	New York, N. Y. E—8:00-1:00
WNAX	ak	1000	C (2.5)	Yankton, S. D. C—6:00-mid.
WQSU	ae	750	1 (1)	Columbus, Ohio. E—9:00-11:00; 1:00-3:00
WSYR	ak	250	B	Syracuse, N. Y. E—7:30-1:00
WWNC	ae	1000	N	Asheville, N. C. E—8:00-1:00

580 kilocycles 516.9 meters

CHMA	ak	250	S	Edmonton, Alta.
CKCL	aj	100	M	Toronto, Ont. E—8:00-11:30 (CFCL)
CKUA	ak	500	F	Edmonton, Alta. M
CRCA	ak	500	F	Moncton, N. B. A—12:30-2:00; 8:00-mid.
HIX	ah	1500	.....	Santo Domingo, D. R. E—Silent
KMJ	ak	500	CT	Fresno, Calif. P—7:00-mid.
KSAC	ak	500	2 (1)	Manhattan, Kans. C—8:00-9:00; 10:00-10:30; 12:30-1:30; 4:30-5:30
WDBO	ae	250	CW	Orlando, Fla. E—7:00-mid.
WIBW	ae	1000	C2	Topeka, Kans. C—6:00-mid.
WOBW	ak	250	(.5)	Charleston, W. Va. E—8:00-mid.
WTAG	ae	250	R (.5)	Worcester, Mass. E—8:00-mid.
XEPN	ak	75000	585	Piedras Negras, Coah. C—6:00-8:00; 11:00-1:00; 7:00-11:00

590 kilocycles 508.2 meters

CMW	ae	1400	.....	Havana, Cuba. E
KHQ	ak	1000	N (2.5)	Spokane, Wash. P—7:00-1:00
WEEI	ak	1000	R	Boston, Mass. E
WKZO	ae	1000	DK	Kalamazoo, Mich. E—7:00-7:00
WOW	ae	1000	R	Omaha, Neb. C—7:00-10:00; 10:45-3:15; 4:00-mid.

600 kilocycles 499.7 meters

CFCE	ae	500	F	Montreal, Que. E—7:30-mid.
KFOD	ck	250	.....	Anchorage, Alaska. L—6:00-mid.
KFSD	ah	1000	N	San Diego, Calif. P—7:30-mid.
WCAC	ae	250	2	Storrs, Conn. E—12:30-1:00; 7:00-8:00
WCAO	ae	250	C	Baltimore, Md. E—7:00-mid.
WICC	ae	250	2 CH (.5)	Bridgeport, Conn. E—7:45-1:00
WMT	af	500	C	Waterloo, Iowa. C—6:00-mid.
WREC	ak	500	C (1)	Memphis, Tenn. C—6:30-mid.

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610 kilocycles 491.5 meters

KFRC	ae	1000	CT	San Francisco, Calif.	P-7:00-1:00
KZEG	ak	1000	618.5	Manila, P. I.	L-7:30-12:15; 1:15-5:00
KZRM	ak	50000	618.5	Manila, P. I.	L-6:30-7:30; 12:15-1:15; 5:10-10:30
TXA	z	7.5	614	San Jose, C. R.	
WDAF	ak	1000	R	Kansas City, Mo.	C-7:56-12:30
WIP	ae	500	C	Philadelphia, Pa.	E-8:30-12:30
WJAY	ak	500	D	Cleveland, Ohio.	E
XETR	z	1000	.....	Mexico City, D. F.	C-9:00-noon; 1:00-4:00; 5:00-11:00

620 kilocycles 483.6 meters

KGW	ae	1000	NJ	Portland, Ore.	P-7:00-mid.
KTAR	ae	500	NJ (1)	Phoenix, Ariz.	M-7:00-11:15
WFLA	ae	1000	Na (2.5)	Clearwater, Fla.	E-7:30-1:00
WLBZ	ak	500	C	Bangor, Maine.	E
WSUN	ae	1000	Na (2.5)	St. Petersburg, Fla.	E-7:30-1:00
WTMJ	ae	1000	N (2.5)	Milwaukee, Wis.	C-6:45-1:00

630 kilocycles 475.9 meters

CFCY	ae	500	FVE	Charlottetown, P. E. I.	A-12:00-1:30; 6:00-11:30
CJGX	ck	500	F	Yorkton, Sask.	C-8:30-9:15; 10:30-11:45; 12:40-1:15; 7:30-8:30
CMQ	z	500	2	Havana, Cuba	E
KFRU	ak	500	1	Columbia, Mo.	C-6:00-9:00; 4:00-sunset; 7:00-8:00
KGFX	z	200	D	Pierre, S. D.	C-9:30-sunset
WGBF	ae	500	1	Evansville, Ind.	C
WMAL	ak	250	B (.5)	Washington, D. C.	E-6:45-mid.
WOS	ak	500	1D	Jefferson City, Mo.	C-9:00-4:00
XEZ	z	500	.....	Merida, Yuc.	C
XFG	z	2000	638.3	Mexico City, D. F.	C

640 kilocycles 468.5 meters

CKCR	ak	100	M645	Kitchener, Ont.	E-10:00-1:30; 4:00-11:00
KFI	ak	50000	1N	Los Angeles, Calif.	P-6:30-mid.
WAU	ae	500	1	Columbus, Ohio.	E-6:15-5:00
WOI	ae	5000	D	Ames, Iowa.	C-6:30-11:30; noon-1:45; 3:30-5:00

650 kilocycles 461.3 meters

KPCB	ae	100	.....	Seattle, Wash.	P-5:30-sunset; 10:00-4:00
WSM	aej	50000	N	Nashville, Tenn.	C-6:30-mid.

660 kilocycles 454.3 meters

TIGP	z	75	666	San Jose, C. R.	
WAAW	af	500	D	Omaha, Neb.	C-6:00-sunset
WEAF	ak	50000	R	New York, N. Y.	E-8:00-1:00

670 kilocycles 447.5 meters

WMAQ	ck	5000	N	Chicago, Ill.	C-7:30-1:00
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680 kilocycles 440.9 meters

CMAF	ak	1000	Havana, Cuba.	E-5:30-11:30
HJN	ak	500	681	Bogota, Colombia.	L-Noon-1:30; 8:00-11:00
KFEQ	ae	2500	D	St. Joseph, Mo.	C-9:30-4:50
KPO	ak	50000	N	San Francisco, Calif.	P-7:30-mid.
VAS	z	2000	685	Glance Bay, N. S.	A-1:00-1:15; 1:00-1:15
WPTF	ae	1000	DnN	Raleigh, N. C.	E-7:30-sunset

690 kilocycles 434.5 meters

CFRB	ak	10000	C	Toronto, Ont.	E-8:00-mid.
CJCB	ak	500	1	Calgary, Alta.	M
NAA	ak	1000	.....	Arlington, Va.	E-11:55-noon; 9:55-10:00
XET	ck	500	Monterrey, N. L.	C-Noon-2:00; 4:00-10:00

700 kilocycles 428.3 meters

WLW	ak	50000	NX	Cincinnati, Ohio.	E-6:30-2:00
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710 kilocycles 422.3 meters

KMPC	ae	500	Dn	Beverly Hills, Calif.	P-6:45-12:30
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TIFB z 30 714 San Jose, C. R. C-6:00-10:00
WOR ak 5000 Newark, N. J. E-6:45-12:30
XEN ak 1000 711 Mexico City, D. F. C-9:00-noon; 1:00-4:00; 5:00-mid.

720 kilocycles 416.4 meters

WGN ck 25000 Chicago, Ill. C-7:00-1:30

730 kilocycles 410.7 meters

CFPL z 100 London, Ont. E
CJCA ah 500 F Edmonton, Alta. M
CKAC ak 5000 CF Montreal, Que. E-7:30-11:30
CMK ae 3150 Havana, Cuba. E-11:00-1:00; 7:00-mid.
XEF-
XER ak 150000 735 Villa Acuna, Coah. C-7:15-5:00

KCYs.

820

DIAL

740 kilocycles 405.2 meters

KMMJ ae 1000 D Clay Center, Neb. C-5:00-sunset
WHEB ah 250 D Portsmouth, N. H. E-8:30-1:30; 3:30-7:45
WSB ah 50000 NX Atlanta, Ga. C-6:55-mid.

750 kilocycles 399.8 meters

KGU aj 2500 N Honolulu, T. H. L-6:30-10:30
WJR ak 10000 B Detroit, Mich. E-7:00-1:00
XEAN ae 5000 Juarez, Chih. M
XEFD ak 5000 757 Tijuana, B. C. P-7:00-mid.

760 kilocycles 394.5 meters

KXA ae 250 (.5) Seattle, Wash. P
WBAL ae 10000 BSy Baltimore, Md. (See 1060 Kcys.)
WEW ae 1000 D St. Louis, Mo. C-7:30-6:00
WJZ ck 50000 BSy New York, N. Y. E-8:00-1:00

770 kilocycles 389.4 meters

KFAB ae 5000 CSy Lincoln, Neb. C-5:00-6:45; 9:00-mid.
WBBM ae 25000 CSy Chicago, Ill. C

780 kilocycles 384.4 meters

CHWK ak 100 F Chilliwack, B. C. P-9:00-10:00; 12:00-1:00; 5:30-8:30
CJCS ae 500 (1) P Sudbury, Ont. E-8:00-mid.
CKPR ak 100 FE Fort William, Ont. E-10:00-2:00; 5:00-11:00
CMBS ag 200 1 (.15) Havana, Cuba. E-10:00-noon; 3:30-6:00
CMCQ z 1000 1 Havana, Cuba. E
KELW ae 500 2 Burbank, Calif. P-10:00-1:00; 5:00-8:00; 4:00-6:00
KTM ae 500 2 (1) Los Angeles, Calif. P-6:00-10:00; 1:00-5:00; 8:00-4:00
WEAN ae 500 CH Providence, R. I. E-7:30-1:00
WMC ak 500 N (1) Memphis, Tenn. C-7:00-mid.
WTAR ae 500 C Norfolk, Va. E-7:00-mid.
XEP z 1000 Mexico City, D. F. C
XEYZ z 10000 Mexico City, D. F. C

790 kilocycles 379.5 meters

CMJK ak 500 Camaguey, Cuba. E-11:30-12:30; 5:00-11:00
KGO ak 7500 N San Francisco, Calif. P-7:00-mid.
WGY ak 50000 R Schenectady, N. Y. E-6:45-1:00

800 kilocycles 374.8 meters

VOAC z 40 St. John's, Newfoundland. L
WBAP ak 50000 Na Fort Worth, Texas. C-6:30-7; 8:30-10:30; 12:30-3; 5:30-6:30; 7-10
WFAA ak 50000 Na Dallas, Texas. C-7:8:30; 10:30-12:30; 3-5:30; 6:30-7; 10-mid.
KFC z 350 805 Aguascalientes, Ags.

810 kilocycles 370.2 meters

VOAS ak 100 St. John's, Nfld. L-11:00-12:30; 4:00-5:30
WCCO ae 50000 C Minneapolis, Minn. C-7:00-mid.
WNYC ak 500 N New York, N. Y. E-10:00-7:30

820 kilocycles 365.6 meters

CMGC z 30 Matanzas, Cuba. E
WHAS aj 25000 C Louisville, Ky. C-7:00-mid.

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830 kilocycles 361.2 meters

CMGA	z	100	834	Colon, Cuba.	E
KOA	ak	12500	N	Denver, Colo.	M-7:00-mid.
TIBA	z	7.5	833	San Jose, C. R.	L
WEEU	ak	1000	D	Reading, Pa.	E-8:00-6:15
WHDH	ae	1000	DnA	Boston, Mass.	E-7:00-sunset in Denver
WRUF	ae	5000	Dn	Gainesville, Fla.	E-8:00-6:30
XETW	dk	500	.....	Mexico City, D. F.	C-Noon-11:00

840 kilocycles 356.9 meters

CJOC	ak	100	F	Lethbridge, Alta.	M-7:30-8:00
CKLW	ae	5000	C	Windsor, Ont.	E-7:00-1:00
CMC	ae	500	.....	Havana, Cuba.	E-10:30-11:30; 8:00-11:00
CFX	ak	500	.....	Mexico City, D. F.	C-7:00-noon; 6:30-10:00

850 kilocycles 352.7 meters

KIEV	ak	100	D	Glendale, Calif.	P-6:00-sunset
KWKH	ae	10000	I	Shreveport, La.	C
WWL	ae	10000	IDn	New Orleans, La.	C-8:00-8:30

860 kilocycles 348.6 meters

TIVL	z	30	869	San Jose, C. R.	C-11:00-1:00; 7:00-10:00
WABC	ae	50000	C	New York, N. Y.	E-7:30-2:00 (WBOQ)
WHB	ae	500	D	Kansas City, Mo.	C-6:00-5:00
XETH	ak	100	.....	Puebla, Pue.	C-8:30-11:00; 1:00-3:00; 6:30-11:00

870 kilocycles 344.6 meters

WENR	ak	50000	Na	Chicago, Ill.	C
WLS	ae	50000	Na	Chicago, Ill.	C-5:30-9:15; 10:45-2:30; 6:00-7:30
XEAD	z	250	875	Mexico City, D. F.	C

880 kilocycles 340.7 meters

CJCB	ak	50	.....	Sydney, N. S.	A-10:00-11:00; noon-2:00; 5:00-10:00
CRCO	ak	1000	F	Ottawa, Ont.	E-Noon-1:30; 5:30-11:30
KFKA	ak	500	2 (1)	Greeley, Colo.	M-6:00-7:30; 9:00-2:30; 4:30-6:00; 8:00-mid.
KLX	ae	1000	.....	Oakland, Calif.	P-8:00-11:00
KPOF	ae	500	2	Denver, Colo.	M-7:30-9:00; 2:30-4:30; 6:00-8:00
WCOC	ae	500	(1)	Meridian, Miss.	C-7:30-2:00; 5:00-10:30
WGBI	ae	250	1	Scranton, Pa.	E-9:30-12:30; 1:30-4:30; 5:30-10:30
WQAN	ae	250	1	Scranton, Pa.	E-9:00-9:30; 12:30-1:30; 4:30-5:30
WSUI	ae	500	.....	Iowa City, Iowa.	C-9:00-10:00; 11:00-12:30; 2:00-4:00; 6:00-10:00
YV2BC	z	100	882	Caracas, Venez.	L

890 kilocycles 336.9 meters

CMCF	ak	250	1	Havana, Cuba.	E-5:00-8:00
CMX	ae	1000	1	Havana, Cuba.	E-Noon-2:00; 8:00-11:00
KARK	ak	250	.....	Little Rock, Ark.	C-7:00-2:30; 4:30-9:00
KFN	ak	500	2 (1)	Shenandoah, Iowa.	C-5:00-10:00; 11:00-5:00; 6:00-10:00
KSEI	ck	250	(5)	Pocatello, Idaho.	M-7:30-11:00
KUSD	ae	500	2	Vermillion, S. D.	C-Silent
WGST	ae	250	C (5)	Atlanta, Ga.	C-7:00-mid.
WILL	ak	250	2 (1)	Urbana, Ill.	C-10:00-12:15; 5:00-6:00
WJAR	ae	500	R	Providence, R. I.	E-8:00-1:00
WMMN	ae	250	(5)	Fairmont, W. Va.	E-7:00-9:30
XETU	z	100	.....	Pachuca, Hdo.	

900 kilocycles 333.1 meters

KGBU	ak	500	.....	Ketchikan, Alaska.	L
KHJ	ae	1000	CT	Los Angeles, Calif.	P-7:00-1:00
VOWR	ae	500	S	St. John's, Nfld.	L-Silent
WBEN	ae	1000	R	Buffalo, N. Y.	E-6:45-mid.
WJAX	ae	1000	N	Jacksonville, Fla.	E-7:00-12:30
WKY	ak	1000	N	Oklahoma City, Okla.	C-6:45-mid.
WLBL	ae	2500	D	Stevens Point, Wis.	C-8:00-sunset

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910 kilocycles 329.6 meters

CFRC	ak	100	915	Kingston, Ont.	E
CKY	ak	5000	Winnipeg, Man.	C—8:30-1:30; 4:00-11:00
CRCM	z	5000	F	Montreal, Que.	E
TICR	z	75	911	San Jose, C. R.	C—6:30-10:00
XEW	ak	5000	.....	Mexico City, D. F.	C

920 kilocycles 325.9 meters

CMCD	ah	500	(.25)	Havana, Cuba.	E—Noon-9:00
CMDE	z	150	925	Havana, Cuba.	E
HHK	ae	1000	.....	Port-au-Prince, Haiti.	E—Silent
KFEL	ak	500	1	Denver, Colo.	M—6:30-8:30; 10:00-12:30; 3:00-4:30; 9:00-mid.
KFXF	ae	500	1	Denver, Colo.	M—8:30-10; 12:30-3; 4:30-6; 7:30-9; mid.-1
KOMO	ak	1000	N	Seattle, Wash.	P—6:55-mid.
KPRC	ae	1000	N (2.5)	Houston, Texas.	C—6:30-mid.
WAAF	ak	500	D	Chicago, Ill.	C—6:00-sunset
WBSO	ae	500	D	Babson Park, Mass.	E—8:30-5:15
WWJ	ae	1000	R	Detroit, Mich.	E—7:30-mid.

930 kilocycles 322.4 meters

CFAC	ak	500	.....	Calgary, Alta.	M
CFCH	ak	100	F	North Bay, Ont.	E—Noon-1:30; 5:30-mid.
CFCL	ae	100	.....	Prescott, Ont.	E—8:00-10:00; noon-2:00; 5:00-7:30
CHRC	ak	100	F	Quebec, Que.	E—9:00-12:30
CKPC	ae	100	FG	Preston, Ont.	E—6:45-mid.
CMJF	z	200	.....	Camaguey, Cuba.	E
KFWJ	ak	500	1	San Francisco, Calif.	P
KGBZ	ak	500	2 (1)	York, Neb.	C—5-6; 7:30-9:30; 11-12:30; 2-3:30; 6-mid.
KMA	ak	500	2 (1)	Shenandoah, Iowa.	C—6-7:30; 9:30-11; 12:30-2; 3:30-5
KROW	ak	500	1 (1)	Oakland, Calif.	P—8:00-9:00; 1:00-6:00; 7:30-11:00
WBRC	ak	500	C (1)	Birmingham, Ala.	C—7:00-11:00
WDBJ	ae	250	C (.5)	Roanoke, Va.	E—8:00-mid.
WIBG	ae	25	DZ	Glenside, Pa.	E—9:00-sunset

KCYS.

990

DIAL

940 kilocycles 319.0 meters

KOIN	ak	1000	CT	Portland, Ore.	P—6:30-mid.
WAAT	ae	300	D	Jersey City, N. J.	E—6:00-6:00
WCSH	ae	1000	R (2.5)	Portland, Maine.	E—8:00-mid.
WDAY	ae	1000	N	Fargo, N. D.	C—7:00-mid.
WFIW	ak	1000	Y	Louisville, Ky.	C—Silent
WHA	ak	1000	D	Madison, Wis.	C—8:00-sunset
XEFO	ak	5000	.....	Mexico City, D. F.	C—1:00-3:00; 6:25-mid. (XEO)

950 kilocycles 315.6 meters

CMHD	dk	500	(.25)	Caibarien, Cuba.	E—Silent
KFWB	ak	1000	.....	Hollywood, Calif.	P—7:30-12:30
KGHL	ak	1000	NJ (2.5)	Billings, Mont.	M—8:00-11:00
KMBC	ak	1000	C	Kansas City, Mo.	C—6:00-mid.
WRC	ae	500	R	Washington, D. C.	E—6:30-1:00

960 kilocycles 312.3 meters

CMBD	z	250	965	Havana, Cuba.	E—6:00-11:00
CMCW	ak	150	965	Havana, Cuba.	E—Noon-6:00
CMJL	z	50	.....	Camaguey, Cuba.	E
CRCT	ak	5000	NF	Toronto, Ont.	E—6:45-mid.
XEAW	ak	10000	965	Reynosa, Tams.	C—5:00-1:00
YVIBC	ak	5000	.....	Caracas, Venez.	L—11:00-1:30; 5:30-10:15

970 kilocycles 309.1 meters

CMGF	ak	100	977	Matanzas, Cuba.	E—3:00-5:00; 8:00-10:30
KJR	z	5000	N	Seattle, Wash.	P—6:55-mid.
WCFL	ae	1500	BX	Chicago, Ill.	C—7:00-mid.

980 kilocycles 303.9 meters

KDKA	ak	50000	B	Pittsburgh, Pa.	E—7:00-1:00
XEAE	ak	800	.....	Tijuana, B. C.	P—9:00-mid.

990 kilocycles 302.8 meters

TITV	z	7.5	999	San Jose, C. R.	C—3:00-5:00; 7:00-11:00
WBZ	ak	25000	BSy	Boston, Mass.	E
WBZA	ak	1000	BSy	Springfield, Mass.	E
WJEM	z	500	D	Tupelo, Miss.	C
XEK	ak	100	Mexico City, D. F.	C—11:00-4:00; 6:00-2:00

CUT OUT ON DOTTED LINES

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1000 kilocycles 299.8 meters

KFVD	ae	250	Dn	Los Angeles, Calif.	P-6:30-sunset; 10:00-mid.
WHO-					
WOC	ak	50000	R	Des Moines, Iowa.	C-7:00-mid.
WORK	ak	1000	D	York, Pa.	E-8:00-6:45
XEA	ak	250	.....	Guadalajara, Jal.	C-8:30-9:00; 6:00-11:00
XEC	z	50	.....	Toluca, D. F.	C
XEFE	z	100	.....	Nuevo Laredo, Tams.	C
XEFJ	ak	100	.....	Monterrey, N. L.	C-11:00-2:00; 7:00-10:00
XEFS	ak	40	.....	Queretaro, Qro.	C-8:00-10:00
XEL	ak	40	.....	Saltillo, Coah.	C-10:30-1:00; 6:00-9:00

1010 kilocycles 296.9 meters

CHML	aei	50	M	Hamilton, Ont.	E-8:00-11:00
CHWC	ae	500	3F	Regina, Sask.	M-7:00-9:00; 10:00-11:00; noon-1:00; 3:30-6:30
CKCD	ak	100	.....	Vancouver, B. C.	P-7:30-9:30
CKCK	ak	500	3F	Regina, Sask.	M-9:00-10:00; 11:00-noon; 1:00-3:30; 5:30-11:00
CKCO	z	100	.....	Ottawa, Ont.	E
CKIC	ak	50	.....	Wolfville, N. S.	A-Noon-1:00; 6:00-8:00
CKWX	aei	100	LZ	Vancouver, B. C.	P-7:00-7:30; 9:30-mid.
CMBZ	ak	150	.....	Havana, Cuba.	E-11:00-1:00; 4:00-6:00; 8:30-11:00
CMJO	ak	50	.....	Ciego de Avila, Cuba.	E-9:00-1:00; 6:00-10:00
KGGF	ak	500	2 (1)	Coffeyville, Kans.	C-7:30-2:00; 3:45-7:15
KQW	ae	500	.....	San Jose, Calif.	P-7:00-8:00; 9:00-3:00; 4:30-10:00
TIGA	z	30	1014	Cartago, C. R.	
WHN	ae	250	1	New York, N. Y.	E-1:30-7:00
WIS	ae	500	N (1)	Columbia, S. C.	E-8:00-mid.
WNAD	ae	500	2	Norman, Okla.	C-7:15-9:15
WPAP	ae	250	1	New York, N. Y.	E-7:00-9:00
WQAO	ae	250	1	New York, N. Y.	E-Silent
WRNY	ae	250	1	New York, N. Y.	E-9:30-1:30; 9:00-1:00
XEJ	ak	500	1015	Juarez, Chih.	C
XEU	ak	100	.....	Veracruz, Ver.	C-7:00-9:00; 10:00-2:00; 5:00-11:00

1020 kilocycles 293.9 meters

KYW	ae	1000	NY	Chicago, Ill.	C-8:00-1:00
WRAX	ak	250	DZ	Philadelphia, Pa.	E-7:00-7:00
XES	dk	250	.....	Tampico, Tams.	E-10:00-2:30; 5:00-10:00

1030 kilocycles 291.1 meters

CFCN	ak	10000	.....	Calgary, Alta.	M
CFCN	ae	500	FE	Fredericton, N. B.	A-8:30-9:30; 12:30-2:00; 7:30-10:00
CKNC	ak	100	F	Toronto, Ont.	E-8:00-11:00
CMHI	ak	250	1037	Santa Clara, Cuba.	E-11:00-noon; 8:00-9:00
CMKC	z	150	1034	Santiago, Cuba.	E
XEB	ak	10000	.....	Mexico City, D. F.	C-9:30-10:00

1040 kilocycles 288.3 meters

CMGH	ak	15	.....	Matanzas, Cuba.	E-2:00-3:00; 5:00-6:00; 7:30-8:30
KRLD	ae	10000	IC	Dallas, Texas.	C
KTHS	ae	10000	IN	Hot Springs, Ark.	C
WESG	ak	1000	D	Elmira, N. Y.	E-8:00-7:00
WKAR	ak	1000	D	East Lansing, Mich.	E

1050 kilocycles 285.5 meters

CHNS	ae	500	FL	Halifax, N. S.	A-8:00-1:30; 6:00-mid.
CMJG	z	50	.....	Camaguey, Cuba.	E
KFB	ak	5000	Dn	Abilene, Kans.	C-6:00-sunset
KNX	ak	25000	.....	Hollywood, Calif.	P-6:45-11:00
XEFC	ak	100	.....	Merida, Yuc.	C-8:00-10:00

1060 kilocycles 282.8 meters

KWJJ	ak	500	.....	Portland, Ore.	P-6:00-8:00; 9:00-2:00
WBAL	ae	10000	1B	Baltimore, Md.	E-3:00-mid.
WJAG	ak	1000	D	Norfolk, Neb.	C-6:45-sunset
WTIC	ak	50000	1R	Hartford, Conn.	E

1070 kilocycles 280.2 meters

CMBG	z	225	Havana, Cuba.	E
CMCB	ak	150	Havana, Cuba.	E

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KJBS	ae	100	D	San Francisco, Calif.	P-12:01-sunset
WCAZ	ae	50	D	Carthage, Ill.	C
WDZ	ak	100	D	Tuscola, Ill.	C-8:00-4:00
WTAM	ck	50000	R	Cleveland, Ohio.	E-6:30-1:00
XEG	z	500	1075	Mexico City, D. F.	C-(Mail returned)

1080 kilocycles 277.6 meters

VOKW	z	30	1085	St. John's, Nfld.	L-Noon-2:00
WBT	ae	25000	CU	Charlotte, N. C.	E-7:00-mid.
WCBM	ae	5000	1Dn	Zion, Ill.	C-7:30-10:30; 1:30-sunset
WMBI	ae	5000	1Dn	Chicago, Ill.	C-7:00-7:30; 10:30-1:30; 3:00-4:00
XEFG	ak	500	1085	Mexico City, D. F.	C-10:30-4:00; 7:00-mid.

1090 kilocycles 275.1 meters

KMOX	ak	50000	C	St. Louis, Mo.	C-6:30-12:30
XEAI	z	100	.....	Mexico City, D. F.	(All mail returned)

1100 kilocycles 272.6 meters

CMCU	ak	500	.....	Havana, Cuba.	E-Noon-6:00
CRCV	ak	500	F	Vancouver, B. C.	P-10:00-1:00; 5:30-11:00
KGDM	ak	250	D	Stockton, Calif.	P-6:00-6:30
TRCA	ak	500	.....	San Jose, C. R.	C-11:00-1:00; 5:00-10:30
WLWL	ae	5000	1	New York, N. Y.	E-6:00-8:00
WPG	ak	5000	1C	Atlantic City, N. J.	E-9:00-6:00; 8:00-1:00

1110 kilocycles 270.1 meters

KSOO	ae	1000	Dn (2.5)	Sioux Falls, S. D.	C-6:00-6:30
WRVA	ae	5000	N	Richmond, Va.	E-7:00-mid.
XENT	ak	150000	1115	Nuevo Laredo, Tams.	C-6:00-8:00; 10:00-2:00; 5:00-10:00

KCYS.
1160

1120 kilocycles 267.7 meters

CHGS	ae	100	F	Summerside, P. E. I.	A-7:30-8:45; 10:30-2:00; 4:30-7:30; 9:00-11:00
CHLP	z	100	.....	Montreal, Que.	E-9:00-mid.
CKOC	ae	1000	F	Hamilton, Ont.	E-7:45-11:30
CMHJ	ae	60	1125	Cienfuegos, Cuba.	E-11:00-2:00; 6:00-9:00
KFIO	ae	100	D	Spokane, Wash.	P-7:00-sunset
KFSG	ag	500	a	Los Angeles, Calif.	P-6:30-7:15; 7:30-mid.
KRKD	ae	500	a	Los Angeles, Calif.	P-7:45-7:30
KRSC	ak	100	D	Seattle, Wash.	P-6:45-6:30
KTRH	z	1000	2C	Houston, Texas.	C-6:30-11:30
WDEL	ak	250	(.5)A	Wilmington, Del.	E-9:00-10:00
WHAD	ak	250	1C	Milwaukee, Wis.	C-9:30-10:15; 3:00-4:00; 8:30-9:30
WISN	ak	250	1	Milwaukee, Wis.	C
WTAW	ae	500	2	College Station, Texas.	C-12:30-1:00; 8:00-9:00

DIAL

1130 kilocycles 265.3 meters

KSL	ae	50000	C	Salt Lake City, Utah.	M-6:45-mid.
WJJD	ae	20000	Dn	Chicago, Ill.	C-6:30-10:00
WVO	ag	1000	D	New York, N. Y.	E-8:00-6:00
XEH	ak	250	1132	Monterrey, N. L.	C-8:00-1:30; 5:00-10:00

1140 kilocycles 263.0 meters

CMBJ	z	500	.....	Havana, Cuba.	E-8:00-11:00; 7:00-11:00
CMBW	ak	600	.....	Havana, Cuba.	E
KVOO	ae	5000	IN	Tulsa, Okla.	C-6:30-7:00; 9:00-mid.
WAPI	ae	5000	IN	Birmingham, Ala.	C-6:00-9:00

1150 kilocycles 260.7 meters

CMJH	ak	50	.....	Ciego de Avila, Cuba.	E-8:00-8:30; 10:00-3:00; 5:30-10:30
WHAM	ae	25000	B	Rochester, N. Y.	E-8:00-mid.
XED	ak	500	1155	Guadalajara, Jal.	C-Noon-3:30; 7:00-mid.
10-AT	ak	25	1155	Trail, B. C.	P-9:30-9:00

1160 kilocycles 258.5 meters

WOWO	ae	10000	1C	Fort Wayne, Ind.	C-8:30-5:45; 7:30-mid.
WWVA	ae	5000	1C	Wheeling, W. Va.	E-6:30-8:30

CUT OUT ON DOTTED LINES

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1170 kilocycles 256.3 meters

CMJE z 50 1175
WCAU ae 50000 C

Camaguey, Cuba. E.
Philadelphia, Pa. E-8:00-1:00

1180 kilocycles 254.1 meters

CMBN ak 150 1185
CMCJ ak 500 1185
HJJK z 15000
KOB ak 5000 2N
WDGY ae 10000 2
WINS ae 500
WMAZ ak 500
XETA z 250

Havana, Cuba. E.
Havana, Cuba. E-Noon-2:00; 4:00-6:00; 7:00-10:00
Santo Domingo, D. R.
Portland, Ore. P-7:00-4:45; 8:00-mid.
Albuquerque, N. M. M-Noon-1:00; 5:00-9:00
Minneapolis, Minn. C-6:30-8:15
New York, N. Y. E-6:00-7:00
Macon, Ga. E-7:30-3:00; 5:00-8:15
Mexico City, D. F.

1190 kilocycles 252.0 meters

HJ z 15 1195
VE9EK ak 10 1195
VONE ak 400 1195
WOAI ae 50000 N
WSAZ ak 1000

Santo Domingo, D. R. E-12:30-2:30; 6:30-8:30
Montmagny, Que. E
St. John's, Nfld. L-Noon-2:00; 6:00-9:00
San Antonio, Texas. C-6:30-11:30
Huntington, W. Va. E-8:00-8:00

1200 kilocycles 249.9 meters

CHAB ak 25 F
CKOV ak 100 F
CKTB ae 100 G
CMGB z 30 1205
KBTM ak 100 D
KERN ak 100 CT
KFJB ak 100 (.25)
KFJD ae 100
KFJX ak 100
KGDE ak 100 (.25)
KGEK ak 100
KGFJ ae 100
KGHI ak 100 (.25)
KGVO ak 100
KMLB ak 100
KSUN ae 100 D
KVOS ak 100
KWG ae 100 CT
WABI ak 100
WBXX ak 100 1
WBBZ ak 100
WBHS z 100 4
WCAT ak 100 D
WCAX ak 100 A
WCLO ak 100
WFAM ak 100 8C
WFBC ak 100 4 (.25)
WFBE ak 100 (.25)
WHBC ak 100 2
WHBY ak 100
WIBX ae 100 (.3)
WIL ak 100 5 (.25)
WJBC ae 100 6
WJBL ae 100 6
WJBW ak 100 1
WKBO ak 100 3
WKJC ae 100 3
WLAP ae 100 (.25)
WNBO ae 100 2
WNBW z 10 (.1)
WPHR ak 100 (.25)
WRBL z 100
WWAE ae 100 8
YV3BC ak 1000
10-AK ak 15
10-B1 ak 25
10-BP ak 15
10-BQ ak 5
10-BU z 15

Moose Jaw, Sask. M-5:30-9:00
Kelowna, B. C. P
St. Catharines, Ont. E
Matanzas, Cuba. E
Paragould, Ark. C-7:30-1:30; 2:30-5:30
Bakersfield, Calif. P-7:00-mid.
Marshalltown, Iowa. C-6:00-9:00; noon-3:00; 6:00-9:00
Nampa, Idaho. M-7:00-9:00
Grand Junction, Colo. M
Fergus Falls, Minn. C-7:00-9:00
Yuma, Colo. M-11:30-1:30
Los Angeles, Calif. P-24 hours
Little Rock, Ark. C-7:00-1:00; 4:00-10:00
Missoula, Mont. M-8:00-8:30
Monroe, La. C
Lowell, Ariz. M-Sunrise-sunset
Bellingham, Wash. P-7:00-10:00
Stockton, Calif. P-7:00-mid.
Bangor, Maine. E-9:00-2:00; 6:00-10:00
New Orleans, La. C-Noon-5:00; 8:00-11:00
Ponca City, Okla. C-6:30-9:00
Huntsville, Ala. C
Rapid City, S. D. C-12:30-1:30
Burlington, Vt. E-Noon-1:00
Janesville, Wis. C-7:30-2:00; 5:00-8:30
South Bend, Ind. C-6:30-mid.
Greenville, S. C. E-7:30-2:30; 5:30-10:30
Cincinnati, Ohio. E-7:00-11:30
Canton, Ohio. E-7:00-9:00; noon-3:00; 6:00-9:00
Green Bay, Wis. C-7:30-9:45
Utica, N. Y. E-8:00-11:00
St. Louis, Mo. C-7:00-mid.
LaSalle, Ill. C-8:00-9:00; 10:00-12:30; 3:00-6:30
Decatur, Ill. C-6:30-8:00; 9:00-10:00; 12:30-3:00; 6:30-10:00
New Orleans, La. C-8:00-noon; 5:00-8:00
Harrisburg, Pa. E-7:00-10:00; 2:00-5:00; 8:00-11:00
Lancaster, Pa. E-11:00-3:00; 6:00-9:00
Louisville, Ky. C-7:30-11:30
Silverhaven, Pa. E-9:00-noon; 3:00-6:00; 9:00-mid.
Carbondale, Pa. E
Petersburg, Va. E-8:00-5:00; 6:00-9:00
Columbus, Ga. C-7:00-11:00
Hammond, Ind. C-7:00-8:30; 11:00-1:00; 4:00-7:00; 8:00-mid.
Caracas, Venez. L-11:00-2:00; 5:00-10:30
Stratford, Ont. E-Noon-1:00; 5:30-7:00
Prince Albert, Sask. M
Wingham, Ont. E-7:15-9:30
Brantford, Ont. E-11:00-8:00
Canora, Sask. C

1210 kilocycles 247.8 meters

CFBO z 100
CFCO ak 100 FL

St. John, N. B. A
Chatham, Ont. E-7:15-10:00

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CHNC	ak	100	PF	New Carlisle, Que.	A-1:00-mid.
CJOR	ak	500	Vancouver, B. C.	P-7:30-10:30
CKCH	z	100	Hull, Que.	E
CKMC	ak	100	.....	Cobalt, Ont.	E
KASA	ak	100	.....	Elk City, Okla.	C-6:30-1:30; 5:00-7:00
KDLR	ak	100	.....	Devils Lake, N. D.	C-8:00-2:15; 6:00-8:00
KFJI	ak	100	.....	Klamath Falls, Ore.	P-8:30-9:00
KFOR	ak	100	(.25)	Lincoln, Neb.	C-7:00-10:00
KFPW	ak	100	.....	Fort Smith, Ark.	C-7:00-2:00; 5:00-10:00
KFVS	ae	100	6	Cape Girardeau, Mo.	C-9:00-noon; 4:00-7:30; 9:00-mid.
KFXM	ak	100	9	San Bernardino, Calif.	P-6:00-mid.
KGCR	ak	100	.....	Watertown, S. D.	C
KGY	ak	100	.....	Olympia, Wash.	P-7:00-7:00
KIEM	ak	100	.....	Eureka, Calif.	P-7:45-sunset
KPPC	ak	50	9	Pasadena, Calif.	P-Silent
KWEA	z	100	.....	Shreveport, La.	C
KWV	z	100	.....	Hilo, Hawaii.	L
WALR	ae	100	.....	Zanesville, Ohio.	E
WBAX	ae	100	1	Wilkes Barre, Pa.	E
WBBL	ak	100	7S	Richmond, Va.	E-Silent
WCBS	ak	100	2	Springfield, Ill.	C-11:15-3:00; 6:45-9:00
WCRW	ae	100	4	Chicago, Ill.	C-11:00-2:00; 5:00-7:00
WEBQ	ae	100	6	Harrisburg, Ill.	C-6:00-9:00; noon-4:00; 7:30-9:00
WEDC	ae	100	4	Chicago, Ill.	C-8:30-10:00; 3:30-5:00; 7:00-8:00; 10:00-11:00; mid-4:00
WFAS	ak	100	3A	White Plains, N. Y.	E-1:00-5:00; 9:00-mid.
WGBB	ae	100	3	Freeport, N. Y.	E-7:00-9:00
WGCM	ae	100	(.25)	Mississippi City, Miss.	C-Silent until Dec. 29
WGNV	ak	100	.....	Chester, N. Y.	E
WHBF	ak	100	.....	Rock Island, Ill.	C-7:30-10:00
WHBU	ah	100	.....	Anderson, Ind.	C-7:00-7:15
WHET	ak	100	D	Troy, Ala.	C-9:00-sunset
WIBU	a	100	.....	Poynette, Wis.	C
WJBI	ak	100	3A	Red Bank, N. J.	E-9:00-11:00; 5:00-7:00
WJBY	ak	100	.....	Gadsden, Ala.	C-9:00-9:00
WJEJ	ah	100	D	Hagerstown, Md.	E-7:00-1:00; 4:00-7:45
WJW	ak	100	.....	Akron, Ohio.	E-9:00-11:30
WKFI	ak	100	Y	Greenville, Miss.	C-7:00-7:00
WKOK	ak	100	1P	Sunbury, Pa.	E
WMBG	ak	100	7C	Richmond, Va.	E-7:00-mid.
WOCL	ak	50	.....	Jamestown, N. Y.	E-Noon-mid.
WOMT	ae	100	.....	Manitowoc, Wis.	C
WPRO	ak	100	A	Providence, R. I.	E-9:00-2:00; 4:00-11:15
WQDX	ae	100	.....	Thomasville, Ga.	E-8:00-9:00
WSBC	ae	100	4	Chicago, Ill.	C-6:00-8:30; 10:00-11:00; 2:00-3:30; 8:00-10:00; 11:00-mid.
WSEN	ak	100	.....	Columbus, Ohio.	E-8:00-mid.
WSIX	ak	100	.....	Springfield, Tenn.	C-6:00-4:00; 6:00-9:00
WSOC	ae	100	N	Charlotte, N. C.	E
WTAX	ae	100	2	Springfield, Ill.	C
XEX	z	500	.....	Mexico City, D. F.	(All mail returned)

KCYS.

1240

DIAL

1220 kilocycles 245.8 meters

CMHK	ak	50	1225	Cruces, Cuba.	E-10:00-11:30
KFKU	ae	500	a	Lawrence Kans.	C-2:30-3:00; 6:00-6:15
KTW	ak	1000	S2	Seattle, Wash.	P-8:00-10:00
KWSC	ae	1000	2(2)	Pullman, Wash.	P-Noon-2:30; 4:30-8:00
WCAD	ak	500	D	Canton, N. Y.	E-12:30-1:30; 3:00-4:00
WCAE	ae	1000	R	Pittsburgh, Pa.	E-6:45-1:00
WDAB	ae	1000	CW	Tampa, Fla.	E-8:00-mid.
WREN	ak	1000	Ba	Lawrence, Kas.	C-7:00-mid.

1230 kilocycles 243.8 meters

CFQC	z	500	.....	Saskatoon, Sask.	C
CMBY	z	250	2	Havana, Cuba.	E
CMCA	z	150	2	Havana, Cuba.	E
KGGM	ak	250	(.5)	Albuquerque, N. M.	M-6:00-noon; 4:00-8:00
KYA	ae	1000	N	San Francisco, Calif.	P-7:30-mid.
WFBM	ae	1000	1C	Indianapolis, Ind.	C-7:30-10:15; noon-3:00; 5:30-11:30
WNAC	ak	1000	CH	Boston, Mass.	E-6:30-1:00
WSBT	ak	500	1C	South Bend, Ind.	C-6:30-mid.

1240 kilocycles 241.8 meters

CMAB	z	20	1249	Pinar del Rio, Cuba.	E
CMJN	z	50	.....	Camaguey, Cuba.	E
KGCU	ak	250	1	Mandan, N. D.	M-Noon-5:00; 6:45-9:00
KLPM	ak	250	1	Minot, N. D.	C-7:00-1:00; 6:00-7:45
KTAT	ak	1000	C	Fort Worth, Texas.	C-7:00-mid.

CUT OUT ON DOTTED LINES

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KTFI	ae	1000	Twin Falls, Idaho.	M—6:00-mid.
WKAQ	ae	1000	San Juan, P. R.	A—12:15-3:15; 6:30-10:00
WXYZ	ak	1000	K	Detroit, Mich.	E—7:30-mid.

1250 kilocycles 239.9 meters

KFOX	ae	1000	.....	Long Beach, Calif.	P—6:00-mid.
WAAM	ae	1000	1a (2.5)	Newark, N. J.	E—7:00-9:00; 10:00-noon; 2:00-4:30; 6:00-9:00
WCAL	ah	1000	2	Northfield, Minn.	C—9:45-10:15; 8:00-10:00
WDSU	ak	1000	C	New Orleans, La.	C—7:00-11:45
WGCP	ak	250	1	Newark, N. J.	E—2:00-5:00; 8:00-10:00
WLB	ak	1000	2	Minneapolis, Minn.	C—8:00-9:00
WODA	z	1000	1a (2.5)	Paterson, N. J.	E
WRHM	ak	1000	2	Minneapolis, Minn.	C—6:15-9:45; 10:35-8:00; 9:00-mid.
XEFA	z	500	.....	Mexico City, D. F.	C

1260 kilocycles 238.0 meters

KOIL	ak	1000	B	Council Bluffs, Iowa.	C—6:00-mid.
KRGV	ae	500	1	Harlingen, Texas.	C—7:00-9:30; 12:30-3:30
KUOA	ak	1000	.....	Fayetteville, Ark.	C—7:00-6:30
KVOA	ak	500	.....	Tucson, Ariz.	M—6:00-9:00; noon-3:00; 6:00-9:00
KWWG	z	500	1	Brownsville, Texas.	C
WLBW	ae	500	C(1)	Erie, Pa.	E—8:00-1:00
WNBX	ak	250	D	Springfield, Vt.	E—7:30-sunset
WTOC	ae	500	C	Savannah, Ga.	E—7:00-1:00
XEFI	ak	250	.....	Chihuahua, Chih.	C—1:00-3:00; 8:00-10:30

1270 kilocycles 236.1 meters

CMBC	ae	150	1	Havana, Cuba.	E
CMCP	z	150	1	Havana, Cuba.	E
KGCA	ak	100	2D	Decorah, Iowa.	C—8:30-9:45; 10:45-11:30; 12:30-2:30
KOL	ae	1000	CT	Seattle, Wash.	P—6:45-mid.
KWOR	ae	1000	C	Colorado Springs, Colo.	M—7:00-11:00
KWLC	ak	100	2D	Decorah, Iowa.	C—7:30-8:30; 9:45-10:45; 11:30-12:30; 2:30-3:30
WASH	ak	500	Ka	Grand Rapids, Mich.	E—7:00-mid.
WBFR	ae	500	R	Baltimore, Md.	E—7:10-1:00
WJDX	ae	1000	N	Jackson, Miss.	C—7:00-11:00
WOOD	ak	500	Ka	Grand Rapids, Mich.	E—7:00-mid.

1280 kilocycles 234.2 meters

CMJI	ak	45	.....	Ciego de Avila, Cuba.	E
KFBF	ae	1000	(2.5)	Great Falls, Mont.	M—8:00-3:00; 5:00-10:00
WCAM	ae	500	1A	Camden, N. J.	E—2:00-5:00
WCAP	ae	500	1A	Asbury Park, N. J.	E—9:00-1:00; 8:00-mid.
WDOD	ae	1000	C(2.5)	Chattanooga, Tenn.	C—7:00-11:00
WIBA	ae	500	N(1)	Madison, Wis.	C—7:30-mid.
WORC	ak	500	CH	Worcester, Mass.	E—8:00-mid.
WRR	ak	500	C	Dallas, Texas.	C—7:00-11:00
WTNJ	ak	500	1A	Trenton, N. J.	E—1:00-2:00; 5:00-8:00
XEFW	ak	70	.....	Tampico, Tams.	E—8:00-10:00; noon-2:00; 5:00-6:00; 7:00-10

1290 kilocycles 232.4 meters

CMHL	ak	20	.....	Cienfuegos, Cuba.	E—10:00-noon; 6:00-9:00
KDYL	ae	1000	NJ	Salt Lake City, Utah.	M—6:30-1:00
KLGN	z	100	D	Blytheville, Ark.	C
KTSa	ak	1000	C	San Antonio, Texas.	C—7:00-mid.
WEBC	ae	1000	N(2.5)	Superior, Wis.	C—7:00-mid.
WJAS	ak	1000	C(2.5)	Pittsburgh, Pa.	E—7:30-12:30
WNBZ	z	50	D	Saranac Lake, N. Y.	E
XEAC	z	100	1295	San Luis Potosi, S. L. P.	E
XFB	ak	1000	.....	Jalapa, Ver.	C—8:00-9:00; 1:00-2:30; 8:00-11:30

1300 kilocycles 230.6 meters

CMKJ	z	20	.....	Guantanamo, Cuba.	E
KALE	ak	500	3CT	Portland, Ore.	P—7:00-10:30; 2:30-5:00; 6:00-7:00; 8:00-11:00
KFAC	ae	1000	.....	Los Angeles, Calif.	P—7:00-mid.
KFH	ak	1000	C2	Wichita, Kans.	C—7:30; 9-11; 11:30-2; 3-9; 10-11
KFJR	ag	500	3	Portland, Ore.	P—10:30-2:30; 5:00-6:00; 7:00-8:00
WBBER	aej	1000	1	Brooklyn, N. Y.	E—6:00-7:00; 10:00-noon; 6:00-8:00
WEVD	ak	500	1	New York, N. Y.	E—4:15-6:00
WFAB	ae	1000	1	New York, N. Y.	E—9:00-10:00; noon-3:00; 9:00-10:00
WHAZ	ae	500	1	Troy, N. Y.	E—Silent
WIOD	ae	1000	N	Miami, Fla.	E—7:15-mid.
WOQ	ae	1000	2	Kansas City, Mo.	C—6-7; 8:35-9:05; 11-11:30; 2-3; 9-10; 11-mid.

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1310 kilocycles 228.9 meters

CFJC	ak	100	FLE	Kamloops, B. C.	P-7:30-10:30; noon-2:00; 6:00-7:30
CHCK	ak	100	.....	Charlottetown, P. E. I.	A-Noon-1:30
CKCV	ak	50	.....	Quebec, Que.	E-Noon-2:00; 6:30-11:00
KCFJ	ak	100	D	Jerome, Ariz.	M-7:30-9:30; noon-1:00; 4:30-6:00
KFBK	ak	100	C	Sacramento, Calif.	P-7:00-11:00
KFGQ	ak	100	7	Boone, Iowa	C
KFPL	ak	100	.....	Dublin, Texas	C-6:30-8:30; 9:00-3:15; 7:00-10:45
KFPM	ak	15	.....	Greenville, Texas	C-7:45-9:00; 1:00-2:45; 6:00-9:00
KFXR	ak	100	(.25)	Oklahoma City, Okla.	C-7:30-2:00; 4:30-11:00
KFYU	ak	100	(.25)	Lubbock, Texas	C-7:00-2:00; 4:00-10:00
KGBX	ae	100	.....	Springfield, Mo.	C
KGCX	ak	100	(.25)	Wolf Point, Mont.	M-7:30-9:00; 11:30-3:00; 6:00-7:00
KGEZ	aj	100	.....	Kalispell, Mont.	M-8:00-9:00
KGFW	ak	100	.....	Kearney, Neb.	C-7:00-9:00
KIFH	z	100	.....	Juneau, Alaska	L
KIT	z	100	.....	Yakima, Wash.	P-7:00-11:00
KMED	ck	100	.....	Medford, Ore.	P-8:00-8:00
KRMD	ak	100	.....	Shreveport, La.	C-7:00-1:00; 5:00-8:00
KTSM	ak	100	.....	El Paso, Texas	M-7:00-1:30; 3:00-10:00
KXRO	ak	100	a	Aberdeen, Wash.	P-7:30-10:00
WAML	ak	100	.....	Laurel, Miss.	C-7:00-10:00; 11:00-2:00; 4:00-7:00
WBEO	ae	100	.....	Marquette, Mich.	C-9:30-1:15; 5:00-7:00
WBOW	ak	100	.....	Terre Haute, Ind.	C-7:00-11:00
WBRE	ak	100	.....	Wilkes Barre, Pa.	E-8:00-11:30
WCLS	ae	100	b	Joliet, Ill.	C-Silent
WDAH	ck	100	Sa	El Paso, Texas	M-Silent
WEER	aej	100	Q (.25)	Buffalo, N. Y.	E-7:00-1:00
WEXL	ak	50	.....	Royal Oak, Mich.	E-7:30-5:00
WFBG	ae	100	3	Altoona, Pa.	E-10:30-4:30; 7:00-10:00
WFDG	ak	100	K	Flint, Mich.	E-7:00-mid
WGAL	ae	100	5	Lancaster, Pa.	E-9:30-2:30; 4:30-6:00
WGH	ae	100	.....	Newport News, Va.	E-7:00-1:00; 5:00-11:00
WHAT	ak	100	4	Philadelphia, Pa.	E-9:00-11:00; 1:00-2:00
WIAT	ak	100	7	Ottumwa, Iowa	C
WJAC	ae	100	3	Johnstown, Pa.	E-9:00-10:30; 4:30-6:15
WKBB	ae	100	b	E. Dubuque, Ill.	C
WKBC	ak	100	.....	Birmingham, Ala.	C-7:00-10:00
WLBC	ak	100	6	Muncie, Ind.	E-9:00-9:00
WMBO	ak	100	.....	Auburn, N. Y.	E-8:00-2:00; 4:00-10:00
WNBH	ae	100	(.25) A	New Bedford, Mass.	E-7:00-1:00; 3:00-9:00
WOL	ae	100	A	Washington, D. C.	E-7:00-9:30; 6:00-mid.
WRAP	ak	100	5	Reading, Pa.	E-7:00-1:00; 4:00-11:00
WROL	ak	100	.....	Knoxville, Tenn.	C-7:15-8:15
WSAJ	ae	100	C	Grove City, Pa.	E-7:45-mid.
WSJS	ak	100	.....	Winston-Salem, N. C.	E-7:00-9:00; 11:00-1:00; 5:00-mid.
WTSL	ah	100	4	Philadelphia, Pa.	E-7:00-2:00; 4:00-10:00
WTS	ak	100	(.25)	Jackson, Tenn.	C-6:00-7:30
WTRC	ak	50	6 (1)	Elkhart, Ind.	C-11:00-2:00; 6:00-11:00
XEFB	ak	100	1315	Monterrey, N. L.	C-2:00-3:30; 9:00-10:00
XEI	ak	250	.....	Morelia, Mich.	C-2:00-3:30; 9:00-10:00

1320 kilocycles 227.1 meters

CMCY	ak	500	1325	Havana, Cuba	E
KGHF	ak	250	(.5)	Pueblo, Colo.	M-6:30-9:30
KGMB	ak	250	C	Honolulu, T. H.	L-6:00-11:00
KID	ae	250	(.5)	Idaho Falls, Idaho	M-6:00-11:00
WADC	ae	1000	C	Akron, Ohio	E-8:00-mid.
WSMB	ak	500	N	New Orleans, La.	C-7:00-mid.

KCYS.

1340

DIAL

1330 kilocycles 225.4 meters

KGB	agj	1000	CT	San Diego, Calif.	P-7:00-1:00
KMO	ak	250	.....	Tacoma, Wash.	P-6:45-11:00
KSCJ	aj	1000	1C (.25)	Sioux City, Iowa	C-7:30-11:00
WDRC	ae	1000	CH	Hartford, Conn.	E-8:00-mid.
WSAI	ae	1000	R (.25)	Cincinnati, Ohio	E-8:00-mid.
WTAQ	ae	1000	1C	Eau Claire, Wis.	C-7:00-8:00
XEQ	z	500	.....	Mexico City, D. F.	

1340 kilocycles 223.7 meters

KFPY	ak	1000	C	Spokane, Wash.	P-6:45-mid.
KGDY	ak	250	.....	Huron, S. D.	C
KGNO	ak	250	.....	Dodge City, Kans.	C-6:30-9:00
WCOA	ae	500	.....	Pensacola, Fla.	E-9:00-10:00
WLBC	z	250	(.5)	Portland, Maine	E-(Mail returned)
WSPD	ae	1000	C	Toledo, Ohio	E-7:00-1:00

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1350 kilocycles 222.1 meters

KIDO	ak	1000	Boise, Idaho.	M-8:00-mid.
KWK	ak	1000	B	St. Louis, Mo.	C-7:00-mid.
IGW	ak	500	.....	Guatemala City, Guat.	L-Noon-1:00; 6:00-7:00; 9:00-11:00
WAWZ	ae	250	1	Zarephath, N. J.	E-6:00-9:00; 5:00-6:30
WBX	ae	250	1A	New York, N. Y.	E-9:00-11:30
WHEC	ae	500	D	Charlottesville, Va.	E

1360 kilocycles 220.4 meters

CMJP	ak	75	.....	Moron, Cuba.	E-10:00-noon; 8:00-10:00
KGER	ak	1000	.....	Long Beach, Calif.	P-6:00-mid.
KGIR	ak	500	N(1)	Butte, Mont.	M-7:00-mid.
WCSC	ae	500	.....	Charleston, S. C.	E-8:00-10:30; noon-2:00; 7:00-10:00
WFLB	ak	1000	C(2.5)	Syracuse, N. Y.	E-8:00-1:00
WGES	ae	500	.....	Chicago, Ill.	C-5:45-11:00; 5:00-8:00
WQBC	ak	500	.....	Vicksburg, Miss.	C

1370 kilocycles 218.8 meters

CMCN	z	250	1375	Havana, Cuba.	E
CMCR	ak	150	1375	Havana, Cuba.	E-Noon-1:00; 4:00-6:00; 8:00-9:00
CMGE	z	30	1375	Cardenas, Cuba.	E
KCRC	ak	100	2(.25)	Enid, Okla.	C-6:00-9:00; 11:00-2:00; 5:00-7:45; 10:00-mid.
KFBL	ae	50	3	Everett, Wash.	P-9:00-noon; 3:00-6:00; 9:00-mid.
KFJM	ak	100	.....	Grand Forks, N. D.	C-7:00-9:00
KFJZ	ak	100	.....	Fort Worth, Texas.	C-7:00-11:00
KGAR	ae	100	(.25)	Tucson, Ariz.	M-7:00-9:00
KGFG	bk	100	2	Oklahoma City, Okla.	C
KGFL	ak	100	4	Roswell, N. M.	M-6:00-9:30; 2:00-7:30
KGKL	ak	100	.....	San Angelo, Texas.	C-8:00-4:30; 6:00-10:00
KICA	ak	100	4	Clovis, N. M.	M-9:30-2:00; 7:30-9:30
KLUF	z	100	.....	Galveston, Texas.	C
KMAC	ak	100	5	San Antonio, Texas.	C-7:00-8:30; 10:00-11:00; noon-1:30; 4:00-6:00; 7:00-8:00; 10:00-12:30
KONO	ak	100	5	San Antonio, Texas.	C-6:00-7:00; 8:00-10:00; 11:00-noon; 1:30-4:00; 6:00-7:00; 8:00-10:00
KOOS	ae	100	.....	Marshfield, Ore.	P-7:00-9:00
KRE	ak	100	.....	Berkeley, Calif.	P-6:30-9:30; noon-3:00; 6:00-9:00
KSO	ak	100	B(.25)	Des Moines, Iowa.	C-6:30-mid.
KUJ	ak	100	.....	Walla Walla, Wash.	P-6:45-9:00
KVL	ak	100	3	Seattle, Wash.	P-6:00-9:00; noon-3:00; 6:00-9:00; mid.-2:00
KWKC	z	100	.....	Kansas City, Mo.	C
WBTM	ak	100	7	Danville, Va.	E-11:00-1:00; 6:30-10:00
WCBM	ae	100	(.25)A	Baltimore, Md.	E-7:00-mid.
WDBS	ae	100	(.25)	Philadelphia, Pa.	E-9:00-11:00
WGL	ae	100	C	Fort Wayne, Ind.	C-6:30-mid.
WGLC	ak	100	C	Hudson Falls, N. Y.	E-7:30-mid.
WHBD	ak	100	.....	Mount Orab, Ohio.	E-8:00-11:30; noon-9:00
WHBQ	ak	100	.....	Memphis, Tenn.	C-7:55-2:00; 4:00-10:30
WHDF	ak	100	(.25)	Calumet, Mich.	E-7:00-9:00; 11:30-1:30; 5:30-8:30
WIBM	ae	100	1K	Jackson, Mich.	E-7:30-9:00
WJBK	ae	50	1	Detroit, Mich.	E-7:00-sunset; 9:00-mid.
WJTL	ae	100	.....	Atlanta, Ga.	E
WLEY	ak	100	(.25)	Lexington, Mass.	E-Noon-3:00; 6:00-9:00
WLVA	ck	100	7	Lynchburg, Va.	E-7:00-11:00; 1:00-6:30
WMBR	ak	100	.....	Tampa, Fla.	E-7:00-9:30
WPF	ak	100	.....	Hattiesburg, Miss.	C
WQDM	ae	100	D	St. Albans, Vt.	E
WRAM	ak	100	.....	Williamsport, Pa.	E-8:30-3:00; 5:00-10:30
WRAM	ae	100	.....	Wilmington, N. C.	E-7:30-mid.
WRDO	ae	100	.....	Augusta, Maine.	E-9:00-1:00; 4:30-8:30
WRJN	ae	100	.....	Racine, Wis.	C-9:00-2:30; 4:00-10:30
WSVS	ae	50	D	Buffalo, N. Y.	E-8:30-10:00; 2:00-3:00
XEFY	ae	100	.....	Juarez, Chih.	C-9:00-3:00; 5: 11:00
XEFZ	ae	100	.....	Mexico City, D. F.	C

1380 kilocycles 217.3 meters

CMJC	z	150	1382	Camaguey, Cuba.	E
KOH	ak	500	C	Reno, Nev.	P-8:00-10:00
KQV	ak	500	2C	Pittsburgh, Pa.	E-7:00-10:00
TGX	z	75	.....	Guatemala City, Guat.	
WKBH	ae	1000	C	LaCrosse, Wis.	C-7:30-10:00
WSMK	ak	200	2	Dayton, Ohio.	E-7:00-8:00; 10:00-mid.
XETB	z	125	Torreón, Coah.	

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1390 kilocycles 215.7 meters

HIH	ak	15	1395	San Pedro de Macoris, D. R.	L-12:15-2:00; 10:00-11:00
KLRA	ae	1000	C	Little Rock, Ark.	C-7:00-mid.
KOY	ae	500	(1)	Phoenix, Ariz.	M
WHK	ae	1000	C(2.5)	Cleveland, Ohio.	E-7:00-mid.

1400 kilocycles 214.2 meters

KLO	ah	500	C	Ogden, Utah.	M-8:30-10:30
KOCW	z	250	(.5)	Tulsa, Okla.	C
VOGY	ak	75	.....	St. John's, Nfld.	L-10:30-11:30; 1:00-2:00; 6:15-8:00
WARD	ak	500	2	Brooklyn, N. Y.	E
WBAA	z	500	1	Lafayette, Ind.	C-Silent
WBBC	ae	500	2	Brooklyn, N. Y.	E-11:30-1:30; 7:30-9:00
WFOJ	ak	500	2	Brooklyn, N. Y.	E
WKBF	ak	500	1N	Indianapolis, Ind.	C-6:00-mid.
WLTH	ak	500	2	Brooklyn, N. Y.	E-8:30-11:30; 6:00-7:30

1410 kilocycles 212.6 meters

CKFC	ak	50	5	Vancouver, B. C.	P-3:00-4:30
CKMO	z	100	5	Vancouver, B. C.	P
CMCH	ak	50	.....	Havana, Cuba.	E
CMCM	z	15	.....	Havana, Cuba.	E
KFLV	ak	500	4	Rockford, Ill.	C-10:00-12:30; 3:00-6:00; 8:00-10:45
KGRS	ae	1000	1	Amarillo, Texas.	C-6-8; 10-12:30; 3:00-4:30; 6:00-7:30
WAAB	ae	500	CH	Boston, Mass.	E-8:30-mid.
WBGM	ae	500	K	Bay City, Mich.	E-8:00-mid.
WDAG	ae	1000	1	Amarillo, Texas.	C-8-10; 12:30-3:00; 4:30-6:00; 7:30-mid.
WHBL	ae	500	4	Sheboygan, Wis.	C-7:00-10:00; 12:30-3:00; 6:00-8:00
WHIS	ak	250	2	Bluefield, W. Va.	E-7:00-9:00; noon-3:00; 6:00-8:00
WODX	ae	500	3C	Mobile, Ala.	C-7:00-6:15; 7:45-10:30
WRBX	ae	250	2	Roanoke, Va.	E
WSFA	ck	500	3C	Montgomery, Ala.	C-6:00-7:45

1420 kilocycles 211.1 meters

KABC	ak	100	.....	San Antonio, Texas.	C-6:00-mid.
KBPS	aj	100	4	Portland, Ore.	P-11:00-12:30; 3:00-5:00
KCMC	ak	100	.....	Texarkana, Ark.	C-7:00-2:00; 4:00-9:00
KFTZ	ak	100	.....	Fond du Lac, Wis.	C-10:00-1:00; 4:00-10:00
KGFF	ak	100	.....	Shawnee, Okla.	C-7:30-3:00; 5:00-9:00
KGGC	ak	100	.....	San Francisco, Calif.	P-9:00-1:00; 4:00-9:00
KGIW	ak	100	1	Alamosa, Colo.	M
KGLX	ak	100	.....	Las Vegas, Nev.	M
KICK	z	100	.....	Carter Lake, Iowa.	C
KIDW	z	100	1	Lamar, Colo.	M-8:00-10:00; 7:00-10:00
KORE	ae	100	.....	Eugene, Ore.	P-7:45-9:00
KUMA	ak	100	.....	Yuma, Ariz.	M-7:00-9:00; 11:00-2:00; 6:00-10:00
KWCR	ak	100	B(.25)	Cedar Rapids, Iowa.	C-6:30-mid.
KXL	ae	100	4	Portland, Ore.	P-7:00-1:00
WACO	ak	100	C	Waco, Texas.	C-8:00-2:00; 5:00-10:30
WAGM	ae	100	.....	Presque Isle, Maine.	E-11:00-1:00; 4:00-7:00
WAMC	ae	100	.....	Anniston, Ala.	C-7:00-9:00
WAZL	ak	100	2	Hazleton, Pa.	E-11:00-9:00
WEED	ak	100	D	Greenville, N. C.	E-9:00-6:00
WEHS	ak	100	a	Cicero, Ill.	C-4:00-6:00
WELL	ak	50	.....	Battle Creek, Mich.	E-9:00-9:30
WENC	ak	100	D	Americus, Ga.	C-7:00-6:15
WHDL	ae	100	D	Tupper Lake, N. Y.	E
WHFC	ae	100	a	Cicero, Ill.	C-7:00-1:30; 6:00-9:00; 11:00-1:00
WILM	aj	100	2	Wilmington, Del.	E-7:00-11:00; 2:00-5:00; 9:00-mid.
WJBO	z	100	D	Baton Rouge, La.	C
WJMS	ak	100	.....	Ironwood, Mich.	C-7:30-1:30; 4:30-7:00
WKBI	ak	100	a	Cicero, Ill.	C-1:30-4:00
WLBF	ak	100	.....	Kansas City, Kans.	C-7:00-11:00
WMAS	ak	100	CH(.25)	Springfield, Mass.	E-8:00-mid.
WMBG	ag	100	(.25)	Detroit, Mich.	E-7:30-mid.
WMBH	ak	100	(.25)	Joplin, Mo.	C-7:30-2:00; 6:00-9:30
WNRA	ak	100	D	Muscle Shoals, Ala.	C-7:00-10:00
WPAD	ak	100	.....	Paducah, Ky.	C
WSPA	ae	100	(.25)	Spartanburg, S. C.	E-7:30-2:00; 4:00-9:30
WTBO	ae	100	(.25)	Cumberland, Md.	E-9:00-7:00

1430 kilocycles 209.7 meters

CFCT	ae	50	.....	Victoria, B. C.	P-8:00-12:30; 6:00-8:00; mid.-2:00
KECA	ak	1000	N	Los Angeles, Calif.	P-7:00-11:00
KGNF	ak	500	D	North Platte, Neb.	C-7:00-sunset

KCYS.

1430

DIAL

INDEX BY FREQUENCIES AND DIAL NUMBERS

With Thursday's Time on the Air

WBAK	ak	500	1 (1)	Harrisburg, Pa. E
WCAH	ae	500	1C	Columbus, Ohio. E—8:00-mid.
WFEA	ae	500	CH	Manchester, N. H. E—7:30-11:00
WHBC	ae	500	C	Rochester, N. Y. E
WHP	ak	500	1C(1)	Harrisburg, Pa. E—8:30-10:30; 11:30-1:30; 2:30-4:00; 4:30-1:00
WNBR	ae	500	.....	Memphis, Tenn. C—8:00-1:00; 3:00-10:00
WOKO	ae	500	C	Albany, N. Y. E—7:30-1:00

1440 kilocycles 208.2 meters

CMBK	z	15	1445	Havana, Cuba. E
CMBL	ak	200	1445	Havana, Cuba. E—Mail returned
KDFN	ak	500	.....	Casper, Wyo. M—7:30-2:00; 3:30-9:00
KLS	ae	250	D	Oakland, Calif. P—8:00-sunset
KXYZ	ak	250	.....	Houston, Texas. C—6:30-1:00; 2:30-11:00
TIFS	z	7.5	1441	Cartago, C. R. L
WBIG	ae	500	C(1)	Greensboro, N. C. E—8:00-11:00
WCBA	aj	250	a	Allentown, Pa. E—7:30-mid.
WMBD	ae	500	3C(1)	Peoria, Ill. C—6:00-11:00; 8:00-mid.
WSAN	aj	250	a	Allentown, Pa. E—7:30-mid.
WTAD	ak	500	3	Quincy, Ill. C—11:00-8:00

1450 kilocycles 206.8 meters

CKX	ak	500	F	Brandon, Man. C
KTBS	ck	1000	N	Shreveport, La. C—7:00-mid.
TIEP	z	7.5	.....	San Jose, C. R. L
WGAR	ak	500	B(1)	Cleveland, Ohio. E—6:00-1:00
WHOM	ae	250	.....	Jersey City, N. J. E—8:00-mid.
WSAR	ae	250	A	Fall River, Mass. E—8:00-3:30; 5:00-10:00
WTFI	ak	500	.....	Athens, Ga. E—8:00-9:00
XEAB	ak	7.5	.....	Neuvo Laredo, Tams. C—10:00-3:00; 4:00-7:00

1460 kilocycles 205.4 meters

KSTP	ae	10000	N (25)	St. Paul, Minn. C—6:45-12:30
WJSV	ak	10000	C	Washington, D. C. E—6:30-mid.

1470 kilocycles 204.0 meters

KGA	ak	5000	N	Spokane, Wash. P—6:00-mid.
WLAC	ae	5000	C	Nashville, Tenn. C—7:00-mid.

1480 kilocycles 202.6 meters

KOMA	ak	5000	C	Oklahoma City, Okla. C—6:30-mid.
WKBW	ae	5000	C	Buffalo, N. Y. E—10:00-1:00

1490 kilocycles 201.2 meters

WKCY	ae	5000	BY	Covington, Ky. E—7:00-mid.
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1500 kilocycles 199.9 meters

CRCS	z	100	Chicoutimi, Que. E—6:30-11:30
KDB	ak	100	CT	Santa Barbara, Calif. P—7:30-mid.
KGFI	ak	100	(25)	Corpus Christi, Tex. C—7:00-3:00; 6:00-10:00
KGFK	ak	100	.....	Moorhead, Minn. C—8:00-9:00
KGKB	ak	100	.....	Tyler, Texas. C—8:00-10:00; noon-2:00; 5:00-6:00; 7:30-9:00
KGKY	ck	100	.....	Scottsbluff, Neb. M—9:00-1:30; 5:30-9:00
KNOW	ak	100	.....	Austin, Texas. C—7:30-2:00; 4:00-10:00
KPJM	ak	100	.....	Prescott, Ariz. M—7:00-8:00
KPO	aj	100	.....	Wenatchee, Wash. P—7:00-10:00
KREG	ak	100	.....	Santa Ana, Calif. P—9:00-11:00
KXO	al	100	.....	El Centro, Calif. P—7:00-2:00; 4:00-9:00
WCNW	ak	100	1A	Brooklyn, N. Y. E—2:00-8:00
WFDV	ak	100	.....	Rome, Ga. C—7:00-10:00; noon-3:00; 6:00-9:00
WHEF	z	100	P (25)	Kosciusko, Miss. C
WKBV	z	100	.....	Richmond, Ind. C
WKBZ	ak	100	.....	Ludington, Mich. E—9:00-9:00
WKEU	ak	100	.....	LaGrange, Ga. C—10:00-noon; 3:00-6:00
WMBQ	ae	100	1	Brooklyn, N. Y. E—9:00-11:00; noon-2:00; 8:00-10:00
WMPC	ak	100	.....	Lapeer, Mich. E—10:00-2:00; 3:30-6:00
WNEB	ak	100	.....	Binghamton, N. Y. E—7:30-10:00
WOPI	ae	100	.....	Bristol, Tenn. E—7:00-2:00; 3:00-8:00
WPDW	ck	100	(25)AZ	Philadelphia, Pa. E—7:30-10:00
WRDW	ae	100	.....	Augusta, Ga. E
WSYB	ak	100	A	Rutland, Vt. E—10:00-1:00; 5:00-9:00
WWRL	ak	100	1	Woodside, N. Y. E—8:00-9:00; 11:00-noon; 10:00-12:30
WWSW	ae	100	(25)	Pittsburgh, Pa. E—8:00-11:45

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Frequency in kilocycles in second column. Night power in watts in third column. Network affiliations in fourth column: C Columbia, R National Red, B National Blue, N National Red and Blue. A Amalgamated. F Canadian.

ALABAMA Anniston WAMC 1420 100 Birmingham WAPI 1140 5000 N WBRC 930 500 C WKBC 1310 100 Gadsden -WJB 1210 100 Huntsville WBHS 1200 100 Mobile -WODX 1410 500 C Montgomery WSFA 1410 500 C Muscle Shoals -WNRA 1420 100 Troy -WHET 1210 100 ALASKA Anchorage KFQD 600 250 Juneau KIFH 1310 100 Ketchikan KGBU 900 500 ARIZONA Jerome KCRJ 1310 100 Lowell KSUN 1200 100 Phoenix KOY 1390 500 -KTAR 620 500 N Prescott KPJM 1500 100 Tucson KGR 1370 100 KVOA 1260 500 Yuma KUMA 1420 100 ARKANSAS Blytheville KLCN 1290 100 Fayetteville -KUOA 1260 1000 Fort Smith -KFPW 1210 100 Hot Springs -KTHS 1040 10000 N Little Rock KARK 890 250 -KGHI 1200 100 -KLRA 1390 1000 C Paragould -KBTM 1200 100 Texarkana -KCMC 1420 100 CALIFORNIA Bakersfield -KERN 1200 100 C Berkeley KRE 1370 100 Beverly Hills KMPC 710 500 Burbank KELW 780 500 El Centro -KXO 1500 100 Eureka -KIEM 1210 100 Fresno KMJ 580 500 C Glendale KIEV 850 100	Hollywood -KFWB 950 1000 KMTR 570 500 -KNIX 1050 25000 Long Beach -KFOX 1250 1000 -KGER 1360 1000 Los Angeles KECA 1430 1000 N KFAC 1300 1000 -KFI 640 50000 N KFSG 1120 500 KFVD 1000 250 -KGJ 1200 100 KHJ 900 1000 C KRRD 1120 500 KTM 780 500 Oakland KLS 1440 250 KLX 880 1000 -KROW 930 500 Pasadena KPCC 1210 50 Sacramento KFBK 1310 100 C San Bernardino KFXM 1210 100 San Diego -KFSD 600 1000 N -KGB 1330 1000 C San Francisco KFRC 610 1000 C KFWI 930 500 KGCC 1420 100 KGO 790 7500 N KJBS 1070 100 -KPO 680 50000 N KTAB 560 1000 -KYA 1230 1000 N San Jose KQW 1010 500 Santa Ana KREG 1500 100 Santa Barbara KDB 1500 100 C Stockton KGDM 1100 250 KWG 1200 100 C COLORADO Alamosa -KGIW 1420 100 Colorado Springs KVOR 1270 1000 C Denver KFEL 920 500 -KFXF 920 500 -KLZ 560 1000 C -KOA 830 12500 N -KPOF 880 500 Grand Junction KFXJ 1200 100 Greeley KFKA 880 500 Lamar -KIDW 1420 100 Pueblo -KGHI 1320 250 Yuma KGEK 1200 100 CONNECTICUT Bridgeport WICC 600 250 C Hartford WDRC 1330 1000 C	WTIC 1060 50000 R Storrs WCAC 600 250 DELAWARE Wilmington WDEL 1120 250 A WILM 1420 100 DISTRICT OF COLUMBIA Washington WJSV 1460 10000 C WMAL 630 250 B WOL 1310 100 A WRC 950 500 R FLORIDA Clearwater WFLA 620 1000 N Gainesville WRUF 830 5000 Jacksonville WJAX 900 1000 N Miami WIOD 1300 1000 N WQAM 560 1000 C Orlando WDBO 580 250 C Pensacola WCOA 1340 500 St. Petersburg WSUN 620 1000 N Tampa -WDAE 1220 1000 C WMBR 1370 100 GEORGIA Americus -WENC 1420 100 Athens WTFI 1450 500 Atlanta WGST 890 250 C WJTL 1370 100 -WBS 740 50000 N Augusta WRDW 1500 100 Columbus -WRBL 1200 100 LaGrange -WKEU 1500 100 Macon WMAZ 1180 500 Rome WFDW 1500 100 Savannah -WTOC 1260 500 C Thomasville -WQDX 1210 100 HAWAII Hilo KWFV 1210 100 Honolulu KGMB 1320 250 C KGU 750 2500 N IDAHO Boise KIDO 1350 1000 Idaho Falls KID 1320 250 Nampa KFEX 1200 100 Pocatello KSEI 890 250 Twin Falls -KTFI 1240 1000 ILLINOIS Carthage -WCAZ 1070 50	Chicago -KYW 1020 10000 N -WAAB 920 500 -WBBM 770 25000 C -WCFL 970 1500 B -WCRW 1210 100 -WEDC 1210 100 -WENR 870 50000 N -WGES 1360 500 -WGN 720 25000 -WJJD 1130 20000 -WLS 870 50000 N -WMAQ 670 5000 N -WMBI 1080 5000 WSBC 1210 100 Cicero WEHS 1420 100 -WHFC 1420 100 WKBI 1420 100 Decatur -WJBL 1200 100 East Dubuque -WKBB 1310 100 Harrisburg -WEBQ 1210 100 Joliet -WCLS 1310 100 LaSalle WJBC 1200 100 Peoria -WMBD 1440 500 C Quincy -WTAD 1440 500 Rockford -KFLV 1410 500 Rock Island -WHBF 1210 100 Springfield -WCBS 1210 100 -WTAX 1210 100 Tuscola -WDZ 1070 100 Urbana -WILL 890 250 Zion WCBD 1080 5000 INDIANA Anderson -WHBU 1210 100 Elkhart -WTRC 1310 50 Evansville WGBF 630 500 Fort Wayne -WGL 1370 100 C -WOWO 1160 10000 C Gary -WIND 560 1000 C Hammond WWAE 1200 100 Indianapolis WFBM 1230 1000 C -WKBF 1400 500 N Muncie WLBC 1310 100 Richmond WKBV 1500 100 South Bend -WFAM 1200 100 C WSBT 1230 500 C Terre Haute WBOW 1310 100 West Lafayette WBAA 1400 500
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INDEX BY LOCATIONS

IOWA			Bangor			WRHM 1250 1000			WOW 590 1000 R		
Ames			WABI	1200	100	Moorhead			Scottsbluff		
-WOI	640	5000	WLBZ	620	500 C	-KGFK	1500	100	KGKY	1500	100
Boone			Portland			Northfield			York		
-KFGQ	1310	100	-WCSH	940	1C30 R	-WCL	1250	1000	-KGBZ	930	500
Carter Lake			WLEC	1340	250	St. Paul			NEVADA		
KICK	1420	100	Presque Isle			-KSTP	1460	10000 N	Las Vegas		
Cedar Rapids			WAGM	1420	100	MISSISSIPPI			KGIX	1420	100
-KWCR	1420	100 B	MARYLAND			Greenville			Reno		
Council Bluffs			Baltimore			WKFI	1210	100	-KOH	1380	500 C
-KOIL	1260	1000 B	WBAL	1060	10000 B	Hattiesburg			NEW HAMPSHIRE		
Decorah			WCAO	600	250 C	-WPFB	1370	100	Manchester		
-KGCA	1270	100	WCBM	1370	100 A	Jackson			WFEA	1430	500 C
-KWLC	1270	100	WFBR	1270	500 R	-WJDX	1270	1000 N	Portsmouth		
Des Moines			Cumberland			Kosciusko			WHEB	740	250
KSO	1370	100 B	WTBO	1420	100	WHEF	1500	100	NEW JERSEY		
-WOC	1000	5000 R	Hagerstown			Laurel			Asbury Park		
-WHO			WJEI	1210	100	WAML	1310	100	WCAP	1280	500 A
Iowa City			MASSACHUSETTS			Meridian			Atlantic City		
-WSUI	880	500	Babson Park			-WCOE	880	500	-WPG	1100	5000 C
Marshalltown			WBSO	920	500	Mississippi City			Camden		
-KFJB	1200	100	Boston			WGM	1210	100	WCAM	1280	500 A
Ottumwa			WAAB	1410	500 C	Tupelo			Jersey City		
-WIAS	1310	100	WBZ	990	25000 B	WJEM	990	500	WAAT	940	300
Shenandoah			WEEI	590	1000 R	Vicksburg			WHOM	1450	250
-KFNF	890	500	WHDH	830	1000 A	-WQBC	1360	500	Newark		
KMA	930	500	WNAC	1230	1000 C	MISSOURI			WAAM	1250	1000
Sioux City			Fall River			Cape Girardeau			WGCP	1250	250
-KSCJ	1330	1000 C	WSAR	1450	250 A	-KFVS	1210	100	WOR	710	5000
Waterloo			Lexington		A	Columbia			Pateron		
-WMT	600	500 C	WLEY	1370	100	-KFRU	630	500	WODA	1250	1000
KANSAS			New Bedford			Jefferson City			Red Bank		
Abilene			WNBH	1310	100 A	-WOS	630	500	WJBI	1210	100 A
-KFBI	1050	5000	Springfield			Joplin			Trenton		
Coffeyville			WBZ	990	1000 B	-WMBH	1420	100	WTNJ	1280	500 A
-KGGF	1010	500	WMAS	1420	100 C	Kansas City			Zarephath		
Dodge City			Worcester			-KMBC	950	1000 C	WAWZ	1350	250
-KGNO	1340	250	WORC	1280	500 C	-KWKC	1370	100	NEW MEXICO		
Kansas City			WTAG	580	250 R	-WDAF	610	1000 R	Albuquerque		
-WLBF	1420	100	MICHIGAN			-WHB	860	500	KGGM	1230	250
Lawrence			Battle Creek			-WQO	1300	1000	-KOB	1180	10000
-KFKU	1220	500	WELL	1420	50	St. Joseph			Clovis		
-WREN	1220	1000 B	Bay City			-KFEQ	680	2500	KICA	1370	100
Manhattan			-WBCM	1410	500	St. Louis			Roswell		
-KSAC	580	500	Calumet			KFUO	550	500	-KGFL	1370	100
Topeka			-WHDF	1370	100	-KMOX	1090	50000 C	NEW YORK		
-WIBW	580	1000 C	Detroit			-KSD	550	500 R	Albany		
Wichita			-WJBK	1870	50	-KWK	1350	1000 B	WOKO	1430	500 C
-KFH	1300	1000 C	-WJR	750	10000 B	-WEW	760	1000	Auburn		
KENTUCKY			WMBC	1420	100	-WIL	1200	100	WMBO	1310	100
Covington			-WWJ	920	1000 R	Springfield			Binghamton		
-WCKY	1490	5000 B	WXYZ	1240	1000	-KGBX	1310	100	WNB	1500	100
Louisville			East Lansing			KGIZ	560	500	Brooklyn		
-WFIW	940	1000	WKAR	1040	1000	MONTANA			WARD	1400	500
-WHAS	820	25000 C	Flint			Billings			WBBC	1400	500
WLAP	1200	100	WFDF	1310	100	-KGHL	950	1000 N	WBRR	1300	1000
Paducah			Grand Rapids			-KGR	1360	500 N	WCNW	1500	100 A
-WPAD	1420	100	WASH	1270	500	Great Falls			WFOX	1400	500
LOUISIANA			WOOD	1270	500	-KFBZ	1280	1000	WLTH	1400	500
Baton Rouge			Ironwood			Kalispell			WMBQ	1500	100
WJBO	1420	100	WJMS	1420	100	-KGEZ	1310	100	Buffalo		
Monroe			Jackson			Missoula			WBEN	900	1000 R
-KMLB	1200	100	-WIBM	1370	100	KGVO	1200	100	WEBR	1310	100
New Orleans			Kalamazoo			Wolf Point			WGR	550	1000 C
WBBX	1200	100	WKOZ	590	1000	KGKX	1310	100	WKBW	1480	5000 C
-WDSU	1250	1000 C	Lapeer			NEBRASKA			WSVS	1370	50
WJBW	1200	100	-WMPC	1500	100	Clay Center			Canton		
WSMB	1320	500 N	Ludington			-KMMJ	740	1000	WCAD	1220	500
-WWL	850	10000	Marquette			Kearney			Chester		
Shreveport			-WBEO	1310	100	KGFW	1310	100	WGNY	1210	100
-KRMD	1310	100	Royal Oak			Lincoln			Elmira		
KTBS	1450	1000 N	-WEXL	1310	50	-KFAB	770	5000 C	WESG	1040	1000
KWEA	1210	100	MINNESOTA			KFOR	1210	100	Freeport		
KWKH	850	10000	Fergus Falls			Norfolk			WGBB	1210	100
MAINE			-KGDE	1200	100	WJAG	1060	1000	Hudson Falls		
Augusta			Minneapolis			-KGNF	1430	500	WGLC	1370	100 C
WRDO	1370	100	-WCCO	810	50000 C	Omaha			Jamestown		
			-WDGY	1180	1000	-WAAW	660	500	-WOCL	1210	50
			WLB	1250	1000						

INDEX BY LOCATIONS

New York WABC 860 50000 C WBNX 1350 250 A WBOQ 860 50000 WEAF 660 50000 R WEVD 1300 500 WFAB 1300 1000 WHN 1010 250 WINS 1180 500 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 500 WNYC 810 500 WOV 1130 1000 WPAP 1010 250 WQAO 1010 250 WRNY 1010 250 Rochester WHAM 1150 25000 B WHBC 1430 500 C Saranac Lake WNBZ 1290 50 Schenectady WGY 790 50000 R Syracuse WFBL 1360 1000 C WSYR 570 250 B Troy WHAZ 1300 500 Tupper Lake WHDL 1420 100 Utica WIBX 1200 100 White Plains WFAS 1210 100 A Woodside WWRL 1500 100 NORTH CAROLINA Asheville WNCN 570 1000 N Charlotte WBT 1080 25000 C WSOC 1210 100 N Greensboro WBIG 1440 500 C Greenville WEED 1420 100 Raleigh WPTF 680 5000 N Wilmington WRAM 1370 100 Winston-Salem WSJS 1310 100 C NORTH DAKOTA Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1370 100 Mandan KGCU 1240 250 Minot KLPM 1240 250 OHIO Akron WADC 1320 1000 C WJW 1210 100 Canton WHBC 1200 100 Cincinnati WFBE 1200 100 WKRC 550 1000 G WLW 700 50000 N	SAI 1330 1000 R Cleveland WGAR 1450 500 B WHK 1390 1000 C WJAY 610 500 WTAM 1070 50000 R Columbus WAU 640 500 WCAH 1430 500 C WOSU 570 750 WSEN 1210 100 Dayton WSMK 1380 200 Mount Orab WHBD 1370 100 Toledo WSPD 1340 1000 C Youngstown WKBN 570 500 C Zanesville WALR 1210 100 OKLAHOMA Elk City KASA 1210 100 Enid KCRC 1370 100 Norman WNAD 1010 500 Oklahoma City KFXR 1310 100 KGGG 1370 100 KOMA 1480 5000 C WKY 900 1000 N Ponca City WBBZ 1200 100 Shawnee KGFF 1420 100 Tulsa KOCW 1400 250 KVOO 1140 5000 N OREGON Corvallis KOAC 550 1000 Eugene KORE 1420 100 Klamath Falls KFJI 1210 100 Marshfield KOOS 1370 100 Medford KMED 1310 100 Portland KALE 1300 500 C KBPS 1420 100 KEX 1180 5000 N KFJR 1300 500 KWG 620 1000 N KOIN 940 1000 C KWJJ 1060 500 KXL 1420 100 PENNSYLVANIA Allentown WCBA 1440 250 WSAN 1440 250 Altoona WFBG 1310 100 Carbondale WNBW 1200 10 Erie WLBW 1260 500 C Glenside WIBG 930 25 Grove City WSAJ 1310 100 Harrisburg WBAK 1430 1000 WHP 1430 500 C WKBO 1200 100	Hazleton WAZL 1420 100 Johnstown WJAC 1310 100 Lancaster WGAL 1310 100 WKJC 1200 100 Philadelphia WCAU 1170 50000 C WDAS 1370 100 WFI 560 500 R WHAT 1310 100 WIP 610 500 C WLIT 560 500 R WPEN 1500 100 A WRAX 1020 250 WTEL 1310 100 Pittsburgh KDKA 980 50000 B KQV 1380 500 C WCAE 1220 1000 R WJAS 1290 1000 C WWSW 1500 100 Reading WEEU 830 1000 WRAP 1310 100 Scranton WGBI 880 250 WQAN 880 250 Silverhaven WNBO 1200 100 Sunbury WKOK 1210 100 Wilkes-Barre WBAX 1210 100 WBRE 1310 100 Williamsport WRAK 1370 100 York WORK 1000 1000 PHILIPPINES Cebu KZRC 937.5 500 Manila KZEG 618.5 1000 KZKA 1110 1000 KZRM 618.5 5000 PORTO RICO San Juan WKAQ 1240 1000 RHODE ISLAND Providence WEAN 780 500 C WJAR 890 500 R WPRO 1210 100 A SOUTH CAROLINA Charleston WCSC 1360 500 Columbia WIS 1010 500 N Greenville WFBC 1200 100 Spartanburg WSPA 1420 100 SOUTH DAKOTA Brookings KFDY 550 500 Huron KGDY 1340 250 Pierre KGFY 630 200 Rapid City WCAT 1200 100 Sioux Falls KSOU 1110 1000 Vermillion KUSD 890 500 Watertown KGCR 1210 100	Yankton WNAX 570 1000 C TENNESSEE Bristol WOPI 1500 100 Chattanooga WDOD 1280 1000 C Jackson WTJS 1310 100 Knoxville WNOX 560 1000 C WROL 1310 100 Memphis WHBQ 1370 100 WMC 780 500 N WNRB 1430 500 WREC 600 500 C Nashville WLAC 1470 5000 C WSM 650 50000 N Springfield WSIX 1210 100 TEXAS Amarillo KGRS 1410 1000 WDAG 1410 1000 Austin KNOW 1500 100 Beaumont KFDN 560 500 Brownsville KWWG 1260 500 College Station WTAW 1120 500 Corpus Christi KGTI 1500 100 Dallas KRLD 1040 10000 C WFAA 800 50000 N WRR 1280 500 C Dublin KEPL 1310 100 El Paso KTSN 1310 100 WDAH 1310 100 Fort Worth KFJZ 1370 100 KTAT 1240 1000 C WBAP 800 50000 N Galveston KLUF 1370 100 Greenville KFPN 1310 15 Harlingen KRGV 1260 500 Houston KPRC 920 1000 N KTRH 1120 1000 C KXYZ 1440 250 Lubbock KFYO 1310 100 San Angelo KGLL 1370 100 San Antonio KABC 1420 100 KMAC 1370 100 KONO 1370 100 KTSN 1290 1000 C WOAI 1190 50000 N Tyler KGKB 1500 100 Waco WACO 1420 100 C Wichita Falls KGKO 570 250 UTAH Ogden KLO 1400 500 C
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INDEX BY LOCATIONS

Salt Lake City
 -KDY 1290 1000 N
 -KSL 1130 5000 C

VERMONT

Burlington
 WCAX 1200 100 A
Rutland
 WSYB 1500 100 A
St. Albans
 WQDM 1370 100
Springfield
 WNBX 1260 250
Waterbury
 WDEV 550 500

VIRGINIA

Arlington
 NAA 690 1000
Charlottesville
 -WEHC 1350 500
Danville
 -WBTM 1370 100
Lynchburg
 WLVA 1370 100
Newport News
 WGH 1310 100
Norfolk
 WTAR 780 500 C
Petersburg
 -WPHR 1200 100
Richmond
 WBL 1210 100
 WMBG 1210 100 C
 -WRVA 1110 5000 N
Roanoke
 WDBJ 930 250 C
 -WRBX 1410 250

WASHINGTON

Aberdeen
 KXRO 1310 100
Bellingham
 KVOX 1200 100
Everett
 KFBL 1370 50
Olympia
 KGY 1210 100
Pullman
 -KWSC 1220 1000
Seattle
 -KJR 970 5000 N
 KOL 1270 1000 C
 KOMO 920 1000 N
 -KPCB 650 100
 KRSC 1120 100
 KTW 1220 1000
 -KVL 1370 100
 -KXA 760 250

Spokane

KFIO 1120 100
 KFPY 1340 1000 C
 KGA 1470 5000 N
 KHQ 590 1000 N

Tacoma

KMO 1330 250
 KVI 570 500 C

Walla Walla

KUJ 1370 100
Wenatchee
 KPQ 1500 100

Yakima

KIT 1310 100

WEST VIRGINIA

Bluefield
 -WHIS 1410 250
Charleston
 WOB 580 250
Fairmont
 WMMN 890 250

Huntington
 WSAZ 1190 1000
Wheeling
 -WVVA 1160 5000 C

WISCONSIN

Eau Claire
 -WTAQ 1330 1000 C
Fond du Lac
 KFIZ 1420 100
Green Bay
 WHBY 1200 100
Janesville
 -WCLO 1200 100
LaCrosse
 WKBH 1380 1000 C
Madison
 -WHA 940 1000
 WIBA 1280 500 N
Manitowoc
 WOMT 1210 100
Milwaukee
 -WHAD 1120 250 C
 WISN 1120 250 C
 WTMJ 620 1000 N
Poyntette
 -WIBU 1210 100
Racine
 WRJN 1370 100
Sheboygan
 -WHBL 1410 500
Stevens Point
 -WLBL 900 2500
Superior
 -WEBE 1290 1000 N

WYOMING

Casper
 KDFN 1440 500

CANADA

ALBERTA

Calgary
 CFAC 930 500 F
 CFCA 1030 1000 F
 CFCJ 690 500 F
Edmonton
 CHMA 580 250
 CJC 730 500 F
 CKUA 580 500 F
Lethbridge
 CJOC 840 100 F

BRT. COLUMBIA

Chilliwack
 CHWK 780 100 F
Kamloops
 CFJC 1310 100 F
Kelowna
 CKOV 1200 100 F
Trail
 10-AT 1155 25
Vancouver
 CJOR 1210 500
 CKCD 1010 100
 CKFC 1410 50
 CKMO 1410 100
 CKWX 1010 100
 CRCV 1100 500 F

Victoria

-CFCT 1430 50

MANITOBA

Brandon
 -CKX 1450 500 F

Winnipeg

CKY 910 5000 F

NEW BRUNSWICK

Fredericton
 CFNB 1030 500 F
Moncton
 CRCA 580 500 F

St. John
 CFBO 1210 100 F

NOVA SCOTIA

Gloucester Bay
 VAS 685 2000
Halifax
 CHNS 1050 500 F
Sydney
 CJCB 880 50 F
Wolfville
 CKIC 1010 50

ONTARIO

Brantford
 10-BQ 1200 5
Chatham
 CFCC 1210 100 F
Cobalt
 CKMC 1210 100
Fort William
 CKPR 780 100 F
Hamilton
 CHML 1010 50
 CKOC 1120 1000 F
Kingston
 CFRC 915 100
Kitchener
 CKCR 645 100
London
 CFPL 730 100 F
North Bay
 CFCH 930 100 F
Ottawa
 CKCO 1010 100
 CRCO 880 1000 F
Prescott
 CFLC 930 100
Preston
 CKPC 930 100 F
St. Catharines
 CKTB 1200 100
Stratford
 10-AK 1200 15
Sudbury
 CJCS 780 500

Toronto

-CFRB 690 10000 C
 CKCL 580 100
 -CRCT 960 5000 N
 CKNC 1030 100 F
Windsor
 -CKLW 840 5000 C

10-BP 1200 15

PRINCE EDWARD ISLAND

Charlottetown
 CFCY 630 500 F
 CHCK 1310 100
Summerside
 CHGS 1120 100 F

QUEBEC

Chicoutimi
 CRCS 1500 100 F
Hull
 CKCH 1210 100 F
Montreal
 CFCF 600 500 N
 CHLP 1120 100 F
 CKAC 730 5000 C
 CRGM 910 5000 F

New Carlisle

CHNC 1210 100

Quebec

CHRC 930 100 F
 CKCV 1310 50
SASKATCHEWAN
Canora
 10-BU 1200 15

Fleming
 CJRW 540 500 F

Montmagny

VE9EK 1195 10
Moore Jaw
 CHAB 1200 25 F
 CJRM 540 500 F

Prince Albert

10-BI 1200 25

Regina

CHWC 1010 500 F
 CKCK 1010 500 F

Saskatoon

CFQC 1230 500 F

Yorkton

CJGX 630 500 F

NEWFOUNDLAND

St. John's

VOAC 800 40
 VOAS 810 100
 VOGY 1400 75
 VOKW 1085 30
 VONF 1195 400
 VOWR 900 500

CENTRAL AMERICA

COSTA RICA

Cartago

TIFS 1441 7.5
 TIGA 1014 30

San Jose

TICR 912 75
 TIEA 833 7.5
 TIEP 1450 7.5
 TIFB 714 30
 TIGP 666 75
 TIRCA 1100 500
 TISO 550 250
 TITV 999 7.5
 TIVL 869 30
 TIXA 614 7.5

GUATEMALA

Guatemala City

TGW 1350 500
 TGX 1380 75

EL SALVADOR

San Salvador
 RUS 664 500

MEXICO

AGUASCALIENTES

Aguascalientes
 XFC 805 350

BAJA CALIFORNIA

Mexicali

XEAO 560 100
Tijuana
 XEAE 980 800
 XEFD 757 5000

CHIHUAHUA

Chihuahua
 XEFI 1260 250
Juarez
 XEAN 750 5000
 XEFV 1370 100
 XEJ 1015 500

COAHUILA

Piedras Negras

-XEPN 585 75000

Saltillo

XEL 1000 40

Torreón

XETB 1380 125

Villa Acuna

-XER- 735 150000

XEF

INDEX BY LOCATIONS

D. F.		PUEBLA		Cardenas		CMCY 1320 500	
Mexico City		Puebla		CMGE 1375 30		CMDE 925 150	
XEAD	875 250	XETH	860 100	Ciego de Avila		CMK 730 5000	
XEAI	1090 100	QUERETARO		CMJI 1150 50		CMQ 630 500	
XEB	1030 10000	Queretaro		CMJI 1280 45		CMW 590 1400	
XEFA	1250 500	XEFS 1000 40		CMJO 1010 50		CMX 890 1000	
XEFG	1085 500	SAN LUIS POTOSI		Cienfuegos		Matanzas	
XEFZ	1370 100	San Luis Potosi		CMHJ 1125 60		CMGB 1205 30	
XEG	1075 500	XEAC 1295 100		CMHL 1290 20		CMGC 820 30	
XEK	990 100	TAMAULIPAS		Colon		CMGF 977 100	
XEN	711 1000	Nuevo Laredo		CMGA 834 100		CMGH 1040 15	
XEO	940 5000	XEAB 1450 7.5		Cruces		Moron	
XEP	780 500	XEFE 1000 100		CMHK 1225 50		CMJP 1360 75	
XEQ	1330 500	XENT 1115 150000		Guantanamo		Pinar del Rio	
XETA	1180 250	Reynosa		CMKJ 1300 20		CMAB 1249 20	
XETR	610 1000	XEAW 965 10000		Havana		Santa Clara	
XETW	830 500	Tampico		CMAF 680 1000		CMHI 1037 250	
XEW	910 5000	XEFW 1280 70		CMBC 1270 150		Santiago	
XEX	1210 500	XES 1020 250		CMBD 965 250		CMKC 1034 150	
XEYZ	780 10000	VERACRUZ		CMBG 1070 225		DOMINICAN REPUBLIC	
XFG	638 2000	Jalapa		CMBJ 1140 500		San Pedro de	
XFO	940 5000	XFB 1290 1000		CMBK 1445 15		Marcoris	
XFX	840 500	Veracruz		CMBL 1445 200		HIH 1395 15	
XEC	1000 50	XEU 1010 100		CMBN 1185 150		Santo Domingo	
HIDALGO		YUCATAN		CMBS 780 200		HIJ 1195 15	
Pachuca		Merida		CMBW 1140 600		HIJK 1180 15000	
XETU	890 100	XEFC 1050 100		CMBY 1230 250		HIK 580 1500	
JALISCO		XEY 546.8 10		CMCZ 1010 150		HAITI	
Guadalajara		XEZ 630 500		CMC 840 500		Port-au-Prince	
XEA	1000 250	WEST INDIES		CMCA 1230 150		HHK 920 1000	
XED	1155 500	CUBA		CMCB 1070 150		SOUTH AMERICA	
MICHOACAN		Caibarien		CMCD 925 500		COLOMBIA	
Morelia		CMHD 950 500		CMCF 890 250		Bogota	
XEI	1310 250	Camaguey		CMCH 1410 50		HJN 681 500	
NUEVO LEON		CMJC 1382 150		CMCJ 1185 500		VENEZUELA	
Monterrey		CMJE 1175 50		CMCM 1410 15		Caracas	
XEFB	1315 100	CMJF 930 200		CMCN 1375 250		YVIBC 960 5000	
XEFJ	1000 100	CMJG 1050 50		CMCP 1270 150		YV2BC 882 100	
XEH	1132 250	CMJK 790 500		CMCQ 780 1000		YV3BC 1200 1000	
XET	690 500	CMJL 960 50		CMCR 1375 150			
		CMJN 1240 50		CMCU 1100 500			
				CMCW 965 150			

SHORT WAVE RELAY BROADCASTING STATIONS

Grouped According to Network Programs Transmitted

Frequency in megacycles in first column, wavelength in meters in second column, schedule in third column, time being EST. The location of the broadcast band station is given in parentheses following the geographical location of the short wave transmitter.

COLUMBIA BROADCASTING SYSTEM

W2XE-WABC, Wayne, N. J. (New York, N. Y.)

15.258 19.65 11 a.m. to 1 p.m.

11.823 25.36 3 p.m. to 5 p.m.

6.116 49.02 6 to 11 p.m.

W3XAU-WCAU, Byberry, Pa. (Philadelphia, Pa.)

9.585 31.28 Noon to 6 p.m.

6.057 49.50 8 p.m. to 1 a.m.

NATIONAL "RED" NETWORK

W1XAL-WEEI, Boston, Mass. (Boston, Mass.)

15.242 19.67 Sunday, 10 a.m. to 1 p.m.

11.780 25.45 Sat., 5:30 to 11 p.m.; Sun., 6:30-8:30 p.m.

W2XAD-WGY, Schenectady, N. Y. (Schenectady, N. Y.)

15.320 19.57 Mon., Wed., Fri., Sun., 4-6 p.m.

W2XAF-WGY, Schenectady, N. Y. (Schenectady, N. Y.)

9.530 31.46 7:45 to 11 p.m.

W9XAA-WOFL, Chicago, Ill. (Chicago, Ill.)

17.780 16.86 Very Irregular

11.840 25.35 Irregular

6.076 49.34 3 to 6 p.m.

NATIONAL "BLUE" NETWORK

W1XAZ-WBZ-WBZA, Millis, Mass. (Boston and Springfield, Mass.)

9.560 31.36 6 a.m. to midnight

W3XAL-WJZ, Boundbrook, N. J. (New York, N. Y.)

17.772 16.87 12:30 to 6:30 p.m., except Sat.

6.096 49.17 Saturday, 3 p.m. to midnight

W3XL-WJZ, Boundbrook, N. J. (New York, N. Y.)

6.425 46.66 Fri., 5 p.m. to 1 a.m.

W8XK-KDKA, Saxonburg, Pa. (Pittsburgh, Pa.)

21.451 13.93 7 a.m. to 2 p.m.

15.204 19.72 10 a.m. to 4:15 p.m.

11.870 25.25 4:30 to 10 p.m.

6.140 48.83 4:30 p.m. to 12:30 a.m.

NATIONAL "RED" AND "BLUE" NETWORK

VE9DR-CFCF, Montreal, Quebec (Montreal, Quebec)

6.005 49.93 Sun., noon to 11:15 p.m. Other days, 7:30 a.m. to midnight

VE9GW-CRCT, Bowmanville, Ont. (Toronto, Ontario)

6.092 49.22 Thurs., 7 a.m. to 4 p.m.; Fri. and Sat., 3 to 11 p.m.; Sun., 11 a.m. to 8 p.m.

W4XB-WIOD, Miami Beach, Fla. (Miami Beach, Fla.)

6.036 49.67 Irregular

W8XAL-WLW, Mason, Ohio (Cincinnati, Ohio)

6.060 49.48 Irregular

W9XF-WENR, Downer's Grove, Ill. (Chicago, Ill.)

6.100 49.15 Sat., silent; Sun., 1 to 2:30 p.m., 4:30 to 7 p.m., 9 p.m. to 2 a.m.; other days, 4:30 to 8 p.m., 9:30 p.m. to 2 a.m.

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CFAC 930 500 Calgary, Alta. Calgary Herald.	CKCD 1010 100 Vancouver, B. C. Vancouver Daily Province.
CFBO 1210 100 St. John, N. B. C. A. Munro, Ltd.	CKCH 1210 100 Hull, Que. Dr. J. L. Chabot.
CFGP 800 500 Montreal, Que. Canadian Marconi Co.	CKCK 1010 500 Regina, Sask. Leader-Post, Ltd.
CFGH 930 100 North Bay, Ont. Northern Broadcasting Co., Ltd.	CKCL 580 100 Toronto, Ont. Dominion Battery Co., Ltd.
CFGN 1030 10000 Calgary, Alta. W. W. Grant & H. G. Love.	CKCO 1010 100 Ottawa, Ont. Dr. G. M. Geldert.
CFGO 1210 100 Chatham, Ont. John Beardall.	CKCR 645 100 Kitchener, Ont. William C. Mitchell and G. Liddle.
CFGT 1430 50 Victoria, B. C. Victoria Broadcasting Assn.	CKCV 1310 50 Quebec, Que. Vandry, Inc.
CFGY 830 500 Charlottetown, P. E. I. Island Radio Broadcasting Co., Ltd.	CKFC 1410 50 Vancouver, B. C. Radio Service Engineers, Ltd.
CFJC 1310 100 Kamloops, B. C. Review Publishing Co., Ltd.	CKIC 1010 50 Wolfville, N. S. Acadia University.
CFLC 930 100 Prescott, Ont. Radio Assn. of Prescott.	CKLW 840 5000 Windsor, Ont. Western Ontario Broadcasting Co., Ltd.
CFNB 1030 500 Fredericton, N. B. James S. Neill & Sons, Ltd.	CKMC 1210 100 Cobalt, Ont. R. L. MacAdam.
CFPL 730 100 London, Ont. Free Press & Printing Co., Ltd.	CKMO 1410 100 Vancouver, B. C. Sprott-Shaw Radio Co.
CFQC 1230 500 Saskatoon, Sask. Electric Shop, Ltd.	CKNC 1030 100 Toronto, Ont. Canadian National Carbon Co., Ltd.
CFRB 690 10000 Toronto, Ont. Canadian Radio Corp., Ltd.	CKOC 1120 1000 Hamilton, Ont. Wentworth Radio Broadcasting Co., Ltd.
CFRC 915 100 Kingston, Ont. Queens University.	CKOV 1200 100 Kelowna, B. C. Okanagan Broadcasters, Ltd., Box 243.
CHAB 1200 25 Moose Jaw, Sask. Moose Jaw Radio Assn.	CKPC 930 100 Preston, Ont. Cyrus Dolph.
CHCK 1310 100 Charlottetown, P. E. I. J. A. Gesner.	CKPR 780 100 Fort William, Ont. Dougall Motor Co., Ltd.
CHGS 1120 100 Summerside, P. E. I. R. T. Holman, Ltd.	CKTB 1200 100 St. Catharines, Ont. E. T. Sandell.
CHLP 1120 100 Montreal, Que. La Patrie Publishing Co., Ltd.	CKUA 580 500 Edmonton, Alta. University of Alberta.
CHMA 580 250 Edmonton, Alta. Christian and Missionary Alliance.	CKWX 1010 100 Vancouver, B. C. Western Broadcasting Co., Ltd.
CHML 1010 50 Hamilton, Ont. Maple Leaf Radio Co., Ltd.	CKX 1450 500 Brandon, Man. Manitoba Telephone System.
CHNC 1210 100 New Carlisle, Que. Dr. Charles Houde.	CKY 910 5000 Winnipeg, Man. Manitoba Telephone System.
CHNS 1050 500 Halifax, N. S. Maritime Broadcasting Co., Ltd.	CMAB 1249 20 Pinar del Rio, Cuba. Jose Silvera, Marti No. 101.
CHRC 930 100 Quebec, Que. CHRC, Ltd.	CMAF 680 1000 Havana, Cuba. International Broadcasting Co., Miramar.
CHWC 1010 500 Regina, Sask. R. H. Williams & Sons, Ltd.	CMBC 1270 150 Havana, Cuba. Domingo Fernandez, Maximo Gomez No. 139.
CHWK 780 100 Chilliwack, B. C. Chilliwack Broadcasting Co., Ltd.	CMBD 965 250 Havana, Cuba. Luis Perez Garcia, Enamorados y Flores.
CJCA 730 500 Edmonton, Alta. Edmonton Journal, Ltd.	CMBG 1070 225 Havana, Cuba. John L. Stowers, Hospital No. 100.
CJCB 880 50 Sydney, N. S. Nathanson's Radio Headquarters.	CMBJ 1140 500 Havana, Cuba. Emilio Perera, Consulado y Virtudes.
CJGJ 690 500 Calgary, Alta. Albertan Publishing Co., Ltd.	CMBK 1445 15 Havana, Cuba. Alberto Alvarez, Paula y Oficios.
CJCS 780 500 Sudbury, Ont. George McLeod Coates	CMBL 1445 200 Havana, Cuba. Julio C. Hidalgo, Vedado.
CJGX 630 500 Yorkton, Sask. Winnipeg Grain Exchange.	CMBN 1185 150 Havana, Cuba. G. de Sequeira, Agrimonte No. 32.
CJOC 840 100 Lethbridge, Alta. H. R. Carson, Ltd.	CMBS 780 200 Havana, Cuba. Enrique Artalejo, Calzada y H. St.
CJOR 1210 500 Vancouver, B. C. G. C. Chandler.	CMBW 1140 600 Havana, Cuba. Alvarez, Moris y Cia, Obrapia No. 13.
CJRM 540 500 Moose Jaw, Sask. James Richardson & Sons, Ltd.	CMBY 1230 250 Havana, Cuba. Callejas-Estefani, Principe No. 33.
CJRW 540 500 Fleming, Sask. James Richardson & Sons, Ltd.	CMBZ 1010 150 Havana, Cuba. Manuel y G. Salas, San Rafael No. 14.
CKAC 730 5000 Montreal, Que. LaPresse Publishing Co., Ltd.	CMC 840 500 Havana, Cuba. Radio Corp. of Cuba.

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CMCA 1230 150 Havana, Cuba.
Manuel Cruz, Ave. de Italia No. 102.
CMCB 1070 150 Havana, Cuba.
Metropolitan-Radio de Cuba.
CMCD 925 500 Havana, Cuba.
Angel Bertematy.
CMCF 890 250 Havana, Cuba.
Raoul Karman.
CMCH 1410 50 Havana, Cuba.
Wifredo y Humberto Fontanals Sanchez.
CMCJ 1185 500 Havana, Cuba.
Rafael Rodriguez, Estevez No. 4.
CMCM 1410 15 Havana, Cuba.
Aurelio Balino, Belas Cosin No. 639.
CMCN 1375 250 Havana, Cuba.
Antonio Ginard, Reina y Ave. Buen Retiro
CMCP 1270 150 Havana, Cuba.
Jose A. Yanis
CMCQ 780 1000 Havana, Cuba.
Andres Martinez, Vista Alegre No. 80.
CMCR 1375 150 Havana, Cuba.
Aurelio Hernandez.
CMCU 1100 500 Havana, Cuba.
Jorge Garcia Serra.
CMCW 865 150 Havana, Cuba.
Vilarino y Cervantes.
CMCY 1325 500 Havana, Cuba.
Manuel D. Autran, Ave. de La Pdt s.215.
CMDE 925 150 Havana, Cuba.
Radio Aerial Ad.
CMGA 834 100 Colon, Cuba.
L. Valdes Figueras, Marti No. 19.
CMGB 1205 30 Matanzas, Cuba.
Jose Anorga, Magdalena No. 1.
CMGC 820 30 Matanzas, Cuba.
Oscar S. Mechoso, Independencia No. 56.
CMGE 1375 30 Cardenas, Cuba.
Genaro Sebatier, Cespedes No. 180.
CMGF 877 100 Matanzas, Cuba.
Bernabe R. de la Torre.
CMGH 1040 15 Matanzas, Cuba.
Octavio y Julio Alvares.
CMHD 960 500 Calbarien, Cuba.
Manuel Alvarez, M. Escobar 17.
CMHI 1037 250 Santa Clara, Cuba.
Lavis y Paz.
CMHJ 1125 80 Cienfuegos, Cuba.
Victorino Lopes Hontanon.
CMHK 1225 50 Cruces, Cuba.
Virgilio Villaneuva Fernandez.
CMHL 1290 20 Cienfuegos, Cuba.
Oscar Zayas, San Carlos 143.
CMJC 1382 150 Camaguey, Cuba.
Feliciano Isaac, Cisneros y G. Gomez.
CMJE 1175 50 Camaguey, Cuba.
Manuel Fernandez, Plaza de Maceo.
CMJF 930 200 Camaguey, Cuba.
John L. Stowers, Hotel Plaza.
CMJG 1050 50 Camaguey, Cuba.
Jose Antonio Lefran, Martires 133.
CMJH 1150 50 Ciego de Avila, Cuba.
Luis Marauri Mendosa.
CMJI 1280 45 Ciego de Avila, Cuba.
Gilberto Gessa Lopez, Independencia 95.
CMJK 790 500 Camaguey, Cuba.
Compania Cubana Nacional de Radio S. A.
CMJL 980 50 Camaguey, Cuba.
Enrique Artime, Cuba No. 27.
CMJN 1240 50 Camaguey, Cuba.
Ernesto de Ugarriza, Martires 11.
CMJO 1010 50 Ciego de Avila, Cuba.
Jose M. Rey, C. Central & Maceo.

CMJP 1360 75 Moren, Cuba.
Cesar Canall, Callejas No. 28.
CMK 730 5000 Havana, Cuba.
National Broadcasting Co. of Cuba.
CMKC 1034 150 Santiago, Cuba.
Pinol Batlle y Co.
CMKJ 1300 20 Guantanamo, Cuba.
Luis Morlote, East Giro 11.
CMQ 630 500 Havana, Cuba.
Jose Fernandez, 25 Numero 445.
CMW 590 1400 Havana, Cuba.
Troncoso y Gil, Paseo de Marti 103.
CMX 890 1000 Havana, Cuba.
Casa "Lavin," Ave. de la Republica 99A.
CRCA 580 500 Moncton, N. B.
Canadian Radio Broadcasting Commission.
CRCM 910 5000 Montreal, Que.
Canadian Radio Broadcasting Commission
CRCO 880 1000 Ottawa, Ont.
Canadian Radio Broadcasting Commission.
CRCS 1500 100 Chicoutimi, Que.
Canadian Marconi Co., Ltd.
CRCT 960 5000 Toronto, Ont.
Canadian Radio Broadcasting Commission.
CRCV 1100 500 Vancouver, B. C.
Canadian Radio Broadcasting Commission.
HHK 920 1000 Port-au-Prince, Haiti.
Haitian Government.
HIH 1395 15 San Pedro de M., D. R.
Domingo Dominguez
HIJ 1195 15 Santo Domingo, D. R.
Tuto Baez, Hostos 34
HIJK 1180 15000 Santo Domingo, D. R.
HIX 580 1500 Santo Domingo, D. R.
J. R. Saladin, Director General
HJN 681 500 Bogota, Colombia
Government of Colombia, National Library.
KABC 1420 100 San Antonio, Texas.
Alamo Broadcasting Co., Inc.
KALE 1300 500 Portland, Ore.
Kale, Inc., New Heathman Hotel
KARK 990 250 Little Rock, Ark.
Arkansas Radio & Equipment Co.
KASA 1210 100 Elk City, Okla.
E. M. Woody, Casa Grande Hotel.
KBPS 1420 100 Portland, Ore.
Benson Polytechnic School
KBTM 1200 100 Paragould, Ark.
Jay P. Beard.
KCMC 1420 100 Texarkana, Ark.
M. P. Mims, Box 865.
KCRC 1370 100 Enid, Okla.
Enid Radiophone Co.
KCRJ 1310 100 Jerome, Ariz.
Chas. C. Robinson, Drawer D.
KDB 1500 100 Santa Barbara, Calif.
Santa Barbara Broadcasters, Ltd.
KDFN 1440 500 Casper, Wyo.
Donald Lewis Hathaway.
KDKA 980 50000 Pittsburgh, Pa.
Westinghouse Electric & Mfg. Co.
KDLR 1210 100 Devils Lake, N. D.
KDLR, Inc., 1025 3rd Street.
KDYL 1290 1000 Salt Lake City, Utah.
Intermountain Broadcasting Corp.
KECA 1430 1000 Los Angeles, Calif.
Earle C. Anthony, Inc.
KELW 780 500 Burbank, Calif.
Magnolia Park, Ltd., 3702 Magnolia
KERN 1200 100 Bakersfield, Calif.
Bee Bakersfield Broadcasting Co.

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KEX 1180 5000 Portland, Ore. National Broadcasting Co.	KFUO 550 500 St. Louis, Mo. Evangelical Lutheran Church.
KFAB 770 5000 Lincoln, Neb. KFAB Broadcasting Co.	KFVD 1000 250 Los Angeles, Calif. E. L. Cord, 645 S. Mariposa.
KFAC 1300 1000 Los Angeles, Calif. E. L. Cord, 645 So. Mariposa.	KFVS 1210 100 Cape Girardeau, Mo. Oscar C. Hirsch, Box 275.
KFBB 1280 1000 Great Falls, Mont. Buttrey Broadcast, Inc.	KFWB 950 1000 Hollywood, Calif. Warner Bros. Motion Pictures, Inc.
KFBI 1050 5000 Abilene, Kans. Farmers & Bankers Life Ins. Co.	KFWI 930 500 San Francisco, Calif. Radio Entertainments, Ltd.
KFBK 1310 100 Sacramento, Calif. James McClatchy Publishing Co.	KFXD 1200 100 Nampa, Idaho. Frank E. Hurt, 1024 12th Ave., S.
KFBL 1370 50 Everett, Wash. Leese Bros., 2814 Rucker Ave.	KFXF 920 500 Denver, Colo. Colorado Radio Corp.
KFDM 660 500 Beaumont, Texas. Sabine Broadcasting Co.	KFXJ 1200 100 Grand Jct., Colo. Western Slope Broadcasting Co.
KFDY 550 500 Brookings, S. D. South Dakota State College.	KFXM 1210 100 San Bernardino, Calif. Lee Bros. Broadcasting Co.
KFEL 920 500 Denver, Colo. Eugene P. O'Fallon, Inc.	KFXR 1310 100 Oklahoma City, Okla. Exchange Avenue Baptist Church.
KFEQ 680 2500 St. Joseph, Mo. Scroggin & Co. Bank	KFYO 1310 100 Lubbock, Texas. Kirksey Bros., Hotel Lubbock.
KFGQ 1310 100 Boone, Iowa. Boone Biblical College.	KFYR 550 1000 Bismarck, N. D. Mayer Broadcasting Co.
KFH 1300 1000 Wichita, Kans. Radio Station KFH Co.	KGA 1470 5000 Spokane, Wash. Northwest Broadcasting Co., Inc.
KFI 640 50000 Los Angeles, Calif. Earle C. Anthony, Inc.	KGAR 1370 100 Tucson, Ariz. Tucson Motor Service Co.
KFIO 1120 100 Spokane, Wash. Spokane Broadcasting Corp.	KGB 1330 1000 San Diego, Calif. Don Lee Broadcasting System
KFIZ 1420 100 Fond du Lac, Wis. Reporter Printing Co.	KGBU 900 500 Ketchikan, Alaska. Alaska Radio & Service Co., Inc.
KFJB 1200 100 Marshalltown, Iowa. Marshall Electric Co.	KGBX 1310 100 Springfield, Mo. KGBX, Inc.
KFJI 1210 100 Klamath Falls, Ore. KFJI Broadcasters, Inc., Willard Hotel.	KGBZ 930 500 York, Neb. Dr. Geo. R. Miller, 715 Grant Ave.
KFJM 1370 100 Grand Forks, N. D. University of North Dakota.	KGCA 1270 100 Decorah, Iowa Charles W. Greenley
KFJR 1300 500 Portland, Ore. Ashley C. Dixon-KFJR, Inc.	KGCR 1210 100 Watertown, S. D. Greater Kampeska Radio Corp.
KFJZ 1370 100 Fort Worth, Texas. Fort Worth Broadcasters, Inc.	KGCU 1240 250 Mandan, N. D. Mandan Radio Assn.
KFKA 880 500 Greeley, Colo. Mid-Western Radio Corp.	KGCX 1310 100 Wolf Point, Mont. E. E. Krebebach.
KFKU 1220 500 Lawrence, Kans. University of Kansas.	KGDE 1200 100 Fergus Falls, Minn. C. L. Jaren.
KFLV 1410 500 Rockford, Ill. Rockford Broadcasters, Inc.	KGDM 1100 250 Stockton, Calif. E. F. Pfeffer, 42 S. Calif. St.
KFNF 890 500 Shenandoah, Iowa. Henry Field Co.	KGDY 1340 250 Huron, S. D. Voice of S. D., Inc., 347 Dakota Ave.
KFOR 1210 100 Lincoln, Neb. Howard Shuman	KGEK 1200 100 Yuma, Colo. Elmer G. Beehler, 109 W. 2nd St.
KFOX 1250 1000 Long Beach, Calif. Nicholas & Warinner, Inc.	KGER 1360 1000 Long Beach, Calif. Consolidated Broadcasting Co.
KFPL 1310 100 Dublin, Texas. C. C. Baxter, Box 176	KGEZ 1310 100 Kalispell, Mont. Donald C. Treloar, Box 1.
KFPM 1310 15 Greenville, Texas. New Furniture Co.	KGFF 1420 100 Shawnee, Okla. KGFF Broadcasting Co., Inc.
KFPW 1210 100 Fort Smith, Ark. Southwestern Hotel Co.	KGFG 1370 100 Oklahoma City, Okla. Oklahoma Broadcasting Co., 1113 N. Broadway.
KFPY 1340 1000 Spokane, Wash. Symons Broadcasting Co.	KGFI 1500 100 Corpus Christi, Texas. Eagle Broadcasting Co., Inc.
KFQD 600 250 Anchorage, Alaska Anchorage Radio Club, Inc.	KGFJ 1200 100 Los Angeles, Calif. Ben S. McGlashan, 1417 S. Figueroa.
KFRG 510 1000 San Francisco, Calif. Don Lee, Inc.	KGFK 1500 100 Moorhead, Minn. Red River Broadcasting Co., Inc.
KFRU 630 500 Columbia, Mo. KFRU, Inc., 9th and Elm Sts.	KGFL 1370 100 Roswell, N. M. KGFL, Inc., 507 N. Main St.
KFSD 600 1000 San Diego, Calif. Airfan Radio Corp., Ltd.	KGFW 1310 100 Kearney, Neb. Central Nebraska Broadcasting Corp.
KFSG 1120 500 Los Angeles, Calif. Echo Park Evangelistic Assn.	KGFX 630 200 Pierre, S. D. Dana McNeil, 510 Summit Ave.

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KGBC 1420 100 San Francisco, Calif.
 Golden Gate Broadcasting Co.
KGDF 1010 500 Coffeyville, Kans.
 Hugh J. Powell and Stanley Platz.
KGDM 1230 250 Albuquerque, N. M.
 New Mexico Broadcasting Co.
KGHF 1320 250 Pueblo, Colo.
 C. P. Ritchie & Geo. J. Ikeman
KGHI 1200 100 Little Rock, Ark.
 Lloyd Judd Co., Marion Hotel.
KGHL 950 1000 Billings, Mont.
 Northwestern Auto Supply Co.
KGIR 1380 500 Butte, Mont.
 KGIR, Inc., 121 W. Broadway.
KGIW 1420 100 Alamosa, Colo.
 Leonard E. Wilson, 326 N. Commercial
KGIX 1420 100 Las Vegas, Nev.
 J. M. Heaton, Box 658.
KGIZ 580 500 Springfield, Mo.
 Grant City Park Corp.
KGKB 1500 100 Tyler, Texas.
 East Texas Broadcasting Co.
KGKL 1370 100 San Angelo, Texas.
 KGKL, Inc., St. Angelus Hotel.
KGKO 570 250 Wichita Falls, Texas.
 Wichita Falls Broadcasting Co.
KGKY 1500 100 Scottsbluff, Neb.
 Hilliard Co., Inc., 1517 1/2 Broadway.
KGMB 1320 250 Honolulu, T. H.
 Honolulu Broadcasting Co., 119 Merchant St.
KGNF 1430 500 North Platte, Neb.
 Great Plains Broadcasting Co.
KGNO 1340 250 Dodge City, Kans.
 KGNO Broadcasting Station
KGQ 790 7500 San Francisco, Calif.
 National Broadcasting Co., Inc.
KGRS 1410 1000 Amarillo, Texas.
 E. B. Gish, Bellaire Park.
KGU 750 2500 Honolulu, T. H.
 Advertiser Publishing Co., Ltd.
KGYO 1200 100 Missoula, Mont.
 Mosbys, Inc., 240 N. Higgins.
KGW 620 1000 Portland, Ore.
 Oregonian Publishing Co.
KGY 1210 100 Olympia, Wash.
 KGY, Inc., 11th and Capitol Way.
KHJ 900 1000 Los Angeles, Calif.
 Don Lee Broadcasting System.
KHQ 580 1000 Spokane, Wash.
 Louis Wasmer, Inc.
KICA 1370 100 Clovis, N. M.
 Southwest Broadcasting Co.
KICK 1420 100 Carter Lake, Iowa.
 Red Oak Radio Corp.
KID 1320 250 Idaho Falls, Idaho.
 KID Broadcasting Co., Inc.
KIDO 1350 1000 Boise, Idaho.
 C. G. Phillips & Frank L. Hill.
KIDW 1420 100 Lamar, Colo.
 Lamar Broadcasting Co., Box 688
KIEM 1210 100 Eureka, Calif.
 Harold H. Hanseth, Vance Hotel.
KIEV 850 100 Glendale, Calif.
 Cannon System, Ltd., Glendale Hotel.
KIFH 1310 100 Juneau, Alaska
 Juneau Broadcasting Co.
KIT 1310 100 Yakima, Wash.
 Valley Broadcasters, Inc.
KJBS 1070 100 San Francisco, Calif.
 Julius Brunton & Sons Co.
KJR 970 5000 Seattle, Wash.
 Fishers Blend Station, Inc.

KLON 1290 100 Blytheville, Ark.
 C. L. Lintsenich, Main and Division St.
KLO 1400 500 Ogden, Utah.
 Interstate Broadcasting Co.
KLPN 1240 250 Minot, N. D.
 John B. Cooley.
KLRA 1390 1000 Little Rock, Ark.
 Arkansas Broadcasting Co.
KLS 1440 250 Oakland, Calif.
 Warner Bros., 2201 Telegraph Ave.
KLUF 1370 100 Galveston, Texas.
 Geo. R. Clough, 3327 Ave. F.
KLX 880 1000 Oakland, Calif.
 Tribune Building Co.
KLZ 580 1000 Denver, Colo.
 Reynolds Radio Co., Inc.
KMA 930 500 Shonandoah, Iowa.
 Earl E. May Seed & Nursery Co.
KMAC 1370 100 San Antonio, Texas.
 W. W. McAllister, Blue Bonnet Hotel.
KMBC 950 1000 Kansas City, Mo.
 Midland Broadcasting Co.
KMED 1310 100 Medford, Ore.
 Mrs. W. J. Virgin, Sparta Bldg.
KMJ 580 500 Fresno, Calif.
 James McClatchy Co.
KMLB 1200 100 Monroe, La.
 Liners Broadcasting Station, Inc.
KMMJ 740 1000 Clay Center, Neb.
 The M. M. Johnson Co.
KMO 1330 250 Tacoma, Wash.
 KMO, Inc., Hotel Winthrop.
KMOX 1080 5000 St. Louis, Mo.
 The Voice of St. Louis, Inc.
KMPC 710 580 Beverly Hills, Calif.
 Beverly Hills Broadcasting Corp.
KMTR 570 500 Hollywood, Calif.
 KMTR Radio Corp., 915 N. Formosa Ave.
KNOW 1500 100 Austin, Texas.
 Southwest Broadcasting Co.
KNX 1050 25000 Hollywood, Calif.
 Western Broadcast Co., Inc.
KOA 830 12,500 Denver, Colo.
 General Electric Co., 1370 Krameria St.
KOAC 550 1000 Corvallis, Ore.
 Oregon State Agricultural College.
KOB 1180 10000 Albuquerque, N. M.
 Albuquerque Journal, Box 667.
KOCW 1400 250 Tulsa, Okla.
 J. T. Griffin.
KOH 1380 500 Reno, Nev.
 The Bee, Inc.
KOIL 1280 1000 Council Bluffs, Iowa.
 Mona Motor Oil Co.
KOIN 940 1000 Portland, Ore.
 KOIN, Inc., New Heathman Hotel.
KOL 1270 1000 Seattle, Wash.
 Seattle Broadcasting Co.
KOMA 1480 5000 Oklahoma City, Okla.
 National Radio Manufacturing Co.
KOMO 920 1000 Seattle, Wash.
 Fishers Blend Station, Inc.
KONO 1370 100 San Antonio, Texas.
 Mission Broadcasting Co., St. Anthony Hotel.
KOOS 1370 100 Marshfield, Ore.
 H. H. Hanseth, Hall Bldg.
KORE 1420 100 Eugene, Ore.
 Frank L. Hill and Curtis G. Phillips.
KOY 1390 500 Phoenix, Ariz.
 Nielsen Radio & Sporting Goods Co.
KPCB 850 100 Seattle, Wash.
 Queen City Broadcasting Co.

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KPJM 1500 100 Prescott, Ariz. Frank Mauthe, Box 852	KUJ 1370 100 Walla Walla, Wash. KUJ, Inc., Marcus Whitman Hotel.
KPO 680 50000 San Francisco, Calif. National Broadcasting Co., Inc.	KUMA 1420 100 Yuma, Ariz. Dr. A. H. Schermann, Box 267.
KPOF 880 500 Denver, Colo. Pillar Of Fire, 1845 Champa St.	KUOA 1260 1000 Fayetteville, Ark. KUOA, Inc., Washington Hotel.
KPPC 1210 50 Pasadena, Calif. Pasadena Presbyterian Church.	KUSD 890 500 Vermillion, S. D. University of South Dakota.
KPQ 1500 100 Wenatchee, Wash. Wescost Broadcasting Co.	KVI 570 500 Tacoma, Wash. Puget Sound Broadcasting Co., Tacoma Hotel.
KPRC 920 1000 Houston, Texas. Houston Printing Co.	KVL 1370 100 Seattle, Wash. KVL, Inc., 5th and Virginia St.
KQV 1390 500 Pittsburgh, Pa. KQV Broadcasting Co., Investment Bldg.	KVOA 1260 500 Tucson, Ariz. Arizona Broadcasting Co., Inc.
KQW 1010 500 San Jose, Calif. Pacific Agricultural Foundation, Ltd.	KVOO 1140 5000 Tulsa, Okla. Southwestern Sales Corp.
KRE 1370 100 Berkeley, Calif. First Congregational Church.	KVOR 1270 1000 Colorado Springs, Colo. S. H. Patterson
KREG 1500 100 Santa Ana, Calif. The Voice of the Orange Empire, Inc.	KVOS 1200 100 Bellingham, Wash. KVOS, Inc., Bellingham Hotel.
KRGV 1260 500 Harlingen, Texas. KRGV, Inc.	KWCR 1420 100 Cedar Rapids, Iowa. Cedar Rapids Broadcast Co.
KRKD 1120 500 Los Angeles, Calif. Fireside Broadcasting Corp.	KWEA 1210 100 Shreveport, La. International Broadcasting Corp.
KRLD 1040 10000 Dallas, Texas. KRLD Radio Corp., Adolphus Hotel.	KWFV 1210 100 Hilo, Hawaii Hilo Broadcasting Co., Ltd.
KRMD 1310 100 Shreveport, La. Radio Station KRMD, Inc.	KWG 1200 100 Stockton, Calif. McClatchy Newspapers, Inc.
KROW 930 500 Oakland, Calif. Educational Broadcasting Corp.	KWJJ 1060 500 Portland, Ore. KWJJ Broadcast Co., Inc., 328 Salmon St.
KRSG 1120 100 Seattle, Wash. Radio Sales Corp., Washington Athletic Club.	KWK 1360 1000 St. Louis, Mo. Thomas Patrick, Inc., Hotel Chase.
KSAC 580 500 Manhattan, Kans. State College of Agriculture.	KWKC 1370 100 Kansas City, Mo. Wilson Duncan Broadcasting Co.
KSCJ 1330 1000 Sioux City, Iowa. Perkins Bros. Co., 415 Douglas St.	KWKH 850 10000 Shreveport, La. International Broadcasting Corp.
KSD 550 500 St. Louis, Mo. Pulitzer Publishing Co.	KWLG 1270 100 Decorah, Iowa. Luther College.
KSEI 890 250 Pocatello, Idaho. Radio Service Corp., 141 S. 8th Ave.	KWSC 1220 1000 Pullman, Wash. State College of Washington.
KSL 1130 50000 Salt Lake City, Utah. Radio Service Corp. of Utah.	KWWG 1260 500 Brownsville, Texas. Frank P. Jackson.
KSO 1370 100 Des Moines, Iowa. Des Moines Register & Tribune.	KXA 780 250 Seattle, Wash. American Radio Tel. Co., 218 Bigelow Bldg.
KSOO 1110 1000 Sioux Falls, S. D. Jos. Henkin, 1613 S. Duluth Ave.	KXL 1420 100 Portland, Ore. KXL Broadcasters, 269 Pine St.
KSTP 1460 10000 St. Paul, Minn. National Battery Broadcasting Co.	KXO 1500 100 El Centro, Calif. E. R. Irey and F. M. Bowles.
KSUN 1200 100 Lowell, Ariz. Copper Electrical Co.	KXRO 1310 100 Aberdeen, Wash. KXRO, Inc., Hotel Morek.
KTAB 560 1000 San Francisco, Calif. Associated Broadcasters, Inc.	KXYZ 1440 250 Houston, Texas. Harris County Broadcast Co.
KTAR 620 500 Phoenix, Ariz. KTAR Broadcasting Co.	KYA 1230 1000 San Francisco, Calif. Pacific Broadcasting Corp.
KTAT 1240 1000 Fort Worth, Texas. Southwest Broadcasting Co.	KYW 1020 10000 Chicago, Ill. Westinghouse Elec. & Mfg. Co.
KTBS 1450 1000 Shreveport, La. Tri-State Broadcasting System.	KZRM 618.5 60000 Manila, P. I. Erlanger and Galingier, Inc. (KZEG)
KTFI 1240 1000 Twin Falls, Idaho. Radio Broadcasting Corp.	NAA 690 1000 Arlington, Va. United States Navy.
KTHS 1040 10000 Hot Springs, Ark. Chamber of Commerce.	RUS 664 500 San Salvador, E.S. Republic of El Salvador.
KTM 780 500 Los Angeles, Calif. Pickwick Broadcasting Corp., Ltd.	TGW 1350 500 Guatemala, Gua. Gobierno de Guatemala.
KTRH 1120 1000 Houston, Texas. KTRH Broadcasting Co., Rice Hotel.	TGX 1380 75 Guatemala City
KTSA 1290 1000 San Antonio, Texas. Southwest Broadcasting Co.	TICR 912 75 San Jose, C. R. Government of Costa Rica.
KTSM 1310 100 El Paso, Texas. Tri-State Broadcasting Co., Inc.	TIEA 833 7.5 San Jose, C. R.
KTW 1220 1000 Seattle, Wash. First Presbyterian Church.	TIEP 1450 7.5 San Jose, C. R.

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TIFB 714 30 San Jose, C. R.
TIFS 1441 7.5 Cartago, C. R.
TIGA 1014 30 Cartago, C. R.
TIGP 666 75 San Jose, C. R.
TIRCA 1100 500 San Jose, C. R.
 Perry Girtan, Apt. 225.
TISO 550 250 San Jose, C. R.
 P. F. Saborio, Apt. 1354
TITV 999 7.5 San Jose, C. R.
TIVL 869 30 San Jose, C. R.
TIXA 614 7.5 San Jose, C. R.
VAS 685 2000 Glace Bay, N. S.
 Canadian Marconi Co., Ltd.
VESEK 1195 10 Montmagny, Que.
 J. A. Marquis, P. O. Box 57
VOAC 800 40 St. John's, Nfld.
VOAS 810 100 St. John's, N. F.
 Ayre & Sons, Ltd.
VOGY 1400 75 St. John's, N. F.
 Newfoundland Broadcasting Co.
VOKW 1085 30 St. John's, N. F.
 Cyril L. Parkins.
VONF 1195 400 St. John's, N. F.
 Dominion Broadcasting Co., Ltd., Box 1355.
VOWR 900 500 St. John's, N. F.
 Wesley United Church, Box 157.
WAAB 1410 500 Boston, Mass.
 Bay State Broadcasting Corp., 1 Winter Pl.
WAAP 920 500 Chicago, Ill.
 Chicago Daily Drivers Journal.
WAAM 1250 1000 Newark, N. J.
 WODAAM Corp., 1060 Broad St.
WAAT 940 300 Jersey City, N. J.
 Bremer Broadcasting Corp., 50 Journal Sq.
WAAW 660 500 Omaha, Neb.
 Omaha Grain Exchange.
WABC 860 50000 New York, N. Y.
 Atlantic Broadcasting Corp.
WABI 1200 100 Bangor, Maine.
 First Universalist Society.
WACO 1420 100 Waco, Texas.
 Southwest Broadcasting Co.
WADC 1320 1000 Akron, Ohio.
 Allen T. Simmons, P. O. Box 29.
WAGM 1420 100 Presque Isle, Me.
 Aroostook Broadcasting Corp.
WAU 840 500 Columbus, Ohio.
 Associated Radiocasting Corp.
WALR 1210 100 Zanesville, Ohio.
 WALR Broadcasting Corp.
WAMC 1420 100 Anniston, Ala.
 R. C. Hammett, 1200 Noble St.
WAML 1310 100 Laurel, Miss.
 Southland Radio Corp.
WAPI 1140 5000 Birmingham, Ala.
 WAPI Broadcasting Corp.
WARD 1400 500 Brooklyn, N. Y.
 United States Broadcasting Corp.
WASH 1270 500 Grand Rapids, Mich.
 Kunsky-Trendle Broadcasting Corp.
WAWZ 1350 250 Zarephath, N. J.
 Pillar of Fire.
WAZL 1420 100 Hazleton, Pa.
 Hazleton Broadcasting Service, Inc.

WBAA 1400 500 West Lafayette, Ind.
 Purdue University.
WBAK 1430 1000 Harrisburg, Pa.
 Commonwealth of Pennsylvania.
WBAL 1060 10000 Baltimore, Md.
 Consolidated Gas, Elec. Light & Power Co.
WBAP 800 50000 Fort Worth, Texas.
 Carter Publications, Inc.
WBAX 1210 100 Wilkes-Barre, Pa.
 John H. Stenger, Jr., 70 S. Main St.
WBBC 1400 500 Brooklyn, N. Y.
 Brooklyn Broadcasting Corp.
WBBL 1210 100 Richmond, Va.
 Grace Covenant Presbyterian Church.
WBBM 770 25000 Chicago, Ill.
 WBBM Broadcasting Corp., Wrigley Bldg.
WBBR 1300 1000 Brooklyn, N. Y.
 Peoples Pulpit Assn.
WBBX 1200 100 New Orleans, La.
 Samuel D. Reeks, Marbero Hotel.
WBBZ 1200 100 Ponca City, Okla.
 C. L. Carrell.
WBCM 1410 500 Bay City, Mich.
 James E. Davidson, Hotel Wenonah.
WBEN 900 1000 Buffalo, N. Y.
 WBEN, Inc. (Buffalo Evening News.)
WBEO 1310 100 Marquette, Mich.
 Lake Superior Broadcasting Co., Inc.
WBHS 1200 100 Huntsville, Ala.
 Radio Station WBHS, Inc.
WBIG 1440 500 Greensboro, N. C.
 North Carolina Broadcasting Co., Inc.
WBNX 1350 250 New York, N. Y.
 Standard Cahill Co., Inc.
WBOQ 860 50000 New York, N. Y.
 Atlantic Broadcasting Corp.
WBOW 1310 100 Terre Haute, Ind.
 Banks of Wabash, Inc., 24½ S. 6th.
WBRC 930 500 Birmingham, Ala.
 Frank M. King, Receiver.
WBRE 1310 100 Wilkes-Barre, Pa.
 Louis G. Baltimore, 16 N. Main.
WBSO 820 500 Babson Park, Mass.
 Broadcasting Service Organization, Inc.
WBT 1080 25000 Charlotte, N. C.
 Station WBT, Inc., Wilder Bldg.
WBTM 1370 100 Danville, Va.
 Piedmont Broadcasting Corp.
WBZ 990 25000 Boston, Mass.
 Westinghouse Elec. & Mfg. Co.
WBZA 990 1000 Springfield, Mass.
 Westinghouse Elec. & Mfg. Co.
WCAC 600 250 Storrs, Conn.
 Connecticut Agricultural College.
WCAD 1220 500 Canton, N. Y.
 St. Lawrence University.
WCAE 1220 1000 Pittsburgh, Pa.
 WCAE, Inc., Sun-Telegraph.
WCAH 1430 500 Columbus, Ohio.
 International Bible Students Assn.
WCAL 1250 1000 Northfield, Minn.
 St. Olaf College.
WCAM 1280 500 Camden, N. J.
 City of Camden, City Hall.
WCAO 600 250 Baltimore, Md.
 Monumental Radio Co.
WCAP 1280 500 Asbury Park, N. J.
 Radio Industries Broadcast Co.
WCAT 1200 100 Rapid City, S. D.
 South Dakota State School of Mines.
WCAU 1170 50000 Philadelphia, Pa.
 WCAU Broadcasting Co., 1622 Chestnut.

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WCAX 1200 100 Burlington, Vt. Burlington Daily News, Inc.	WGBR 1310 100 Buffalo, N. Y. Howell Broadcasting Co., Inc., 735 Main.
WCAZ 1070 50 Carthage, Ill. Superior Broadcasting Service, Inc.	WDCB 1210 100 Chicago, Ill. Emil Denemark, 3860 Ogden Ave.
WCBA 1440 250 Allentown, Pa. B. Bryan Musselman, 39-41 10th St.	WEED 1420 100 Greenville, N. C. Wm. Avera Wynne.
WCBD 1080 5000 Zion, Ill. Wilbur Glenn Voliva.	WEEI 590 1000 Boston, Mass. Edison Elec. Illuminating Co.
WCBM 1370 100 Baltimore, Md. Baltimore Broadcasting Corp.	WEEU 830 1000 Reading, Pa. Berks Broadcasting Co., 533 Penn.
WCBS 1210 100 Springfield, Ill. WCBS, Inc., 208½ S. 5th.	WEHC 1350 500 Charlottesville, Va. Community Brdcastg. Corp.
WCCO 810 50000 Minneapolis, Minn. Northwestern Broadcasting, Inc.	WEHS 1420 100 Cicero, Ill. WEHS, Inc., 6138 W. 22nd St.
WCFL 970 1500 Chicago, Ill. Chicago Federation of Labor.	WELL 1420 50 Battle Creek, Mich. Enquirer News Co., 7 N. McCamly St.
WCKY 1490 5000 Covington, Ky. L. B. Wilson, Inc.	WENG 1420 100 Americus, Ga. Americus Broadcast Corp.
WCLO 1200 100 Janesville, Wis. WCLO Radio Corp.	WENR 870 50000 Chicago, Ill. Great Lakes Broadcasting Co.
WCLS 1310 100 Joliet, Ill. WCLS, Inc., 301 E. Jefferson St.	WESG 1040 1000 Elmira, N. Y. Elmira Star Gazette, Inc.
WCNW 1600 100 Brooklyn, N. Y. Arthur Faeske, 1525 Pitkin Ave.	WEVD 1300 500 New York, N. Y. Jewish Daily Forward, Hotel Claridge.
WCOA 1340 500 Pensacola, Fla. Pensacola Broadcasting Co.	WEW 780 1000 St. Louis, Mo. St. Louis University, 221 N. Grand Blvd.
WCOC 880 500 Meridian, Miss. Mississippi Broadcasting Co., Inc.	WEXL 1310 50 Royal Oak, Mich. Royal Oak Broadcasting Co.
WCRW 1210 100 Chicago, Ill. Clinton R. White, 2756 Pine Grove Ave.	WFAA 800 50000 Dallas, Texas. Morning News and Journal.
WCSC 1380 500 Charleston, S. C. South Carolina Broadcasting Co., Inc.	WFAB 1300 1000 New York, N. Y. Fifth Avenue Broadcasting Corp.
WCSH 940 1000 Portland, Me. Congress Square Hotel Co., 157 High.	WFAM 1200 100 South Bend, Ind. South Bend Tribune, 200 W. Colfax.
WDAE 1220 1000 Tampa, Fla. Tampa Publishing Co., Tampa Terrace.	WFAS 1210 100 White Plains, N. Y. Westchester Broadcasting Corp.
WDAF 610 1000 Kansas City, Mo. Kansas City Star Co.	WFBC 1200 100 Greenville, S. C. Greenville News-Piedmont Co.
WDAQ 1410 100 Amarillo, Texas. National Radio & Broadcasting Corp.	WFBE 1200 100 Cincinnati, Ohio. WFBE, Inc., Hotel Sinton.
WDAH 1310 100 El Paso, Texas. Tri-State Broadcasting Co., Inc.	WFBG 1310 100 Altoona, Pa. Gable Broadcasting Co., 12th Av. & 13th St.
WDAS 1370 100 Philadelphia, Pa. WDAS Broadcastg. Co., Inc. Broadwood Hotel.	WFBL 1360 1000 Syracuse, N. Y. Onondaga Radio Broadcasting Corp.
WDAY 940 1000 Fargo, N. D. WDAY, Inc., Black Bldg., 118 Broadway.	WFBM 1230 1000 Indianapolis, Ind. Indianapolis Power & Light Co.
WDBJ 930 250 Roanoke, Va. Times World Corp., 122 W. Church Ave.	WFBT 1270 500 Baltimore, Md. Baltimore Radio Show, Inc.
WDBO 580 250 Orlando, Fla. Orlando Broadcasting Co., Inc.	WFDF 1310 100 Flint, Mich. Flint Broadcasting Co.
WDEL 1120 250 Wilmington, Del. WDEL, Inc., 10th and King Sts.	WFDV 1500 100 Rome, Ga. Rome Broadcasting Corp., 10 3rd Ave.
WDEV 550 500 Waterbury, Vt. Harry C. Whitehill, Stowe St.	WFEA 1430 500 Manchester, N. H. New Hampshire Broadcasting Co.
WDGY 1180 1000 Minneapolis, Minn. Dr. Geo. W. Young, 909 W. Broadway.	WFI 580 500 Philadelphia, Pa. WFI Broadcasting Co., 801 Market.
WDOD 1280 1000 Chattanooga, Tenn. WDOD Broadcasting Corp., Hotel Patten.	WFIW 940 1000 Louisville, Ky. WFIW, Inc., 8th and Main Sts.
WDRC 1330 1000 Hartford, Conn. WDRC, Inc., Corning Bldg., 11 Asylum St.	WFLA 620 1000 Clearwater, Fla. Florida West Coast Broadcasting Co., Inc.
WDSU 1250 1000 New Orleans, La. Jos. H. Uhalt, On Hotel DeSoto.	WFOX 1400 500 Brooklyn, N. Y. Paramount Broadcasting Co., 1 Nevins St.
WDZ 1070 100 Tuscola, Ill. James L. Bush.	WGAL 1310 100 Lancaster, Pa. WGAL, Inc., 8 W. King St.
WEAF 660 50000 New York, N. Y. National Broadcasting Co., Inc.	WGAR 1450 500 Cleveland, Ohio. WGAR Broadcasting Co., Hotel Statler.
WEAN 780 500 Providence, R. I. Shepard Broadcasting Service, Inc.	WGBB 1210 100 Freeport, N. Y. H. H. Carman, 64 S. Grove St.
WEBC 1290 1000 Superior, Wis. Head of the Lakes Broadcasting Co.	WGBF 630 500 Evansville, Ind. Evansville On the Air, Inc.
WEBQ 1210 100 Harrisburg, Ill. Harrisburg Broadcasting Co.	WGBI 880 250 Scranton, Pa. Scranton Broadcasters, Inc.

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WGCM 1210	100	Mississippi City, Miss.	WHOM 1450	250	Jersey City, N. J.
Great Southern Land Co., Gulfport, Miss.			New Jersey Broadcasting Corp.		
WGCP 1250	250	Newark, N. J.	WHP 1430	500	Harrisburg, Pa.
May Radio Broadcasting Co.			WHP, Inc., Harrisburg Telegraph.		
WGES 1360	600	Chicago, Ill.	WIAS 1310	100	Ottumwa, Iowa.
Oak Leaves Broadcasting Station, Inc.			Iowa Broadcasting Co., Hotel Ottumwa.		
WGH 1310	100	Newport News, Va.	WIBA 1230	500	Madison, Wis.
Hampton Roads Broadcasting Corp.			Badger Broadcasting Co., Inc.		
WGL 1370	100	Fort Wayne, Ind.	WIBG 930	25	Glenside, Pa.
F. C. Zieg, 213 W. Main St.			WIBG, Inc., Kewick Bldg.		
WGLC 1370	100	Hudson Falls, N. Y.	WIBM 1370	100	Jackson, Mich.
O. T. Griffin & G. F. Bissell.			WIBM, Inc., Otsego Hotel.		
WGN 720	25000	Chicago, Ill.	WIBU 1210	100	Poyntette, Wis.
WGN, Inc., Tribune Tower.			Wm. C. Forrest, R. F. D. No. 3.		
WGNV 1210	100	Chester, N. Y.	WIBW 580	1000	Topeka, Kans.
Peter Goellet (Orange County).			Topeka Broadcasting Assn. Inc.		
WGR 550	1000	Buffalo, N. Y.	WIBX 1200	100	Utica, N. Y.
Buffalo Broadcasting Corp.			WIBX, Inc., 1st Natl. Bank Bldg.		
WGST 890	250	Atlanta, Ga.	WICC 600	250	Bridgeport, Conn.
Georgia School of Technology.			Shepard Broadcasting Service, Inc.		
WGY 780	50000	Schenectady, N. Y.	WIL 1200	100	St. Louis, Mo.
National Broadcasting Co., Inc.			Missouri Broadcasting Corp.		
WHA 940	1000	Madison, Wis.	WILL 890	250	Urbana, Ill.
University of Wisconsin.			University of Illinois.		
WHAD 1120	250	Milwaukee, Wis.	WILM 1420	100	Wilmington, Del.
Marquette University.			Delaware Broadcasting Co., Inc.		
WHAM 1150	25000	Rochester, N. Y.	WIND 560	1000	Gary, Ind.
Stromberg-Carlson Tel. Mfg. Co.			Johnson-Kennedy Broadcasting Corp.		
WHAS 820	25000	Louisville, Ky.	WINS 1130	500	New York, N. Y.
Courier Journal & Louisville Times.			American Radio News Corp.		
WHAT 1310	100	Philadelphia, Pa.	WIOD 1300	1000	Miami, Fla.
Curtis-Martin Newspapers, Inc.			Isle of Dreams Broadcasting Corp.		
WHAZ 1300	500	Troy, N. Y.	WIP 610	500	Philadelphia, Pa.
Rensselaer Polytechnic Institute.			Pennsylvania Broadcasting Co.		
WHB 860	500	Kansas City, Mo.	WIS 1010	500	Columbia, S. C.
WHB Broadcasting Co., Searratt Bldg.			Station WIS, Inc., 1811 Main St.		
WHBC 1200	100	Canton, Ohio.	WISN 1120	250	Milwaukee, Wis.
Edw. P. Graham, 319 Tusc. St., W.			American Radio News Corp.		
WHBD 1370	100	Mount Orab, Ohio.	WJAC 1310	100	Johnstown, Pa.
F. P. Moler.			WJAC, Inc., Tribune Bldg. Annex.		
WHBF 1210	100	Rock Island, Ill.	WJAG 1060	1000	Norfolk, Neb.
Rock Island Broadcasting Co.			Norfolk Daily News.		
WHBL 1410	500	Sheboygan, Wis.	WJAR 890	500	Providence, R. I.
Fress Publishing Co.			Outlet Co., Weybossett St.		
WHBQ 1370	100	Memphis, Tenn.	WJAS 1290	1000	Pittsburgh, Pa.
Broadcasting Sta. WNBQ, Inc., Hotel Claridge.			Pittsburgh Radio Supply House.		
WHBU 1210	100	Anderson, Ind.	WJAX 900	1000	Jacksonville, Fla.
Anderson Broadcasting Corp.			City of Jacksonville.		
WHBY 1200	100	Green Bay, Wis.	WJAY 610	500	Cleveland, Ohio.
WHBY, Inc., Bellin Bldg.			Cleveland Radio Broadcasting Corp.		
WHDF 1370	100	Calumet, Mich.	WJBC 1200	100	LaSalle, Ill.
Upper Michigan Broadcasting Co.			Kaskaskia Broadcasting Co.		
WHDH 830	1000	Boston, Mass.	WJBI 1210	100	Red Bank, N. J.
Matheson Radio Co., 62 Boylston.			Monmouth Broadcasting Co., Inc.		
WHDL 1420	100	Tupper Lake, N. Y.	WJBK 1370	50	Detroit, Mich.
Tupper Lake Broadcasting Co.			James F. Hopkins, Inc., Curtis Bldg.		
WHEB 740	250	Portsmouth, N. H.	WJBL 1200	100	Decatur, Ill.
Granite State Broadcasting Corp.			Commodore Broadcasting, Inc.		
WHEC 1430	500	Rochester, N. Y.	WJBO 1420	100	Baton Rouge, La.
WHEC, Inc., 40 Franklin St.			Baton Rouge Broadcasting Co., Inc.		
WHEF 1500	100	Kosciusko, Miss.	WJBW 1200	100	New Orleans, La.
Attala Milling & Produce Co.			C. C. Carlson, 2743 Dumaine St.		
WHET 1210	100	Troy, Ala.	WJBY 1210	100	Gadsden, Ala.
Troy Broadcasting Co.			Gadsden Broadcasting Co., 112 N. 8th St.		
WHFC 1420	100	Cicero, Ill.	WJDX 1270	1000	Jackson, Miss.
WHFC, Inc., 6138 W. 22nd St.			Lamar Life Insurance Co.		
WHIS 1410	250	Bluefield, W. Va.	WJEJ 1210	100	Hagerstown, Md.
Daily Telegraph Printing Co., Inc.			Hagerstown Broadcasting Co., Inc.		
WHK 1390	1000	Cleveland, Ohio.	WJEM 990	500	Tupelo, Miss.
Radio Air Service Corp.			Britt A. Rogers, Jr.		
WHN 1010	250	New York, N. Y.	WJJD 1130	20000	Chicago, Ill.
Marcus Loew Booking Agency.			WJJD, Inc., 201 N. Wells St.		

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WJMS 1420 100 Ironwood, Mich. WJMS, Inc., St. James Hotel.	WLS 870 50000 Chicago, Ill. Agricultural Broadcasting Co.
WJR 750 10000 Detroit, Mich. WJR, Inc., Fisher Bldg.	WLTH 1400 500 Brooklyn, N. Y. Voice of Brooklyn, Inc.
WJSV 1460 10000 Washington, D. C. Old Dominion Broadcasting Co.	WLVA 1370 100 Lynchburg, Va. Lynchburg Broadcasting Corp.
WJTL 1370 100 Atlanta, Ga. Oglethorpe University.	WLW 700 50000 Cincinnati, Ohio. Crosley Radio Corp.
WJW 1210 100 Akron, Ohio. WJW, Inc., 41 S. High St.	WLWL 1100 5000 New York, N. Y. Missionary Society of St. Paul.
WJZ 760 50000 New York, N. Y. National Broadcasting Co., Inc.	WMAL 630 250 Washington, D. C. National Broadcasting Co., Inc.
WKAQ 1240 1000 San Juan, P. R. Radio Corp. of Porto Rico.	WMAQ 670 5000 Chicago, Ill. National Broadcasting Co., Inc.
WKAR 1040 1000 East Lansing, Mich. Michigan State College.	WMAS 1420 100 Springfield, Mass. WMAS, Inc., Hotel Stonehaven.
WKBB 1310 100 East Dubuque, Ill. Richard W. Hoffman	WMAZ 1180 500 Macon, Ga. Southeastern Broadcasting Co.
WKBC 1310 100 Birmingham, Ala. R. B. Broyles, Tutwiler Hotel.	WMBC 1420 100 Detroit, Mich. Michigan Broadcasting Co.
WKBF 1400 500 Indianapolis, Ind. Indianapolis Broadcasting, Inc.	WMBD 1440 500 Peoria, Ill. Peoria Broadcasting Co.
WKBH 1380 1000 LaCrosse, Wis. WKBH, Inc., 409 Main St.	WMBG 1210 100 Richmond, Va. Havens and Martin, Inc.
WKBI 1420 100 Cicero, Ill. WKBI, Inc., 6138 W. 22nd St.	WMBH 1420 100 Joplin, Mo. W. M. Robertson.
WKBN 570 500 Youngstown, Ohio. WKBN Broadcasting Corp.	WMBI 1080 5000 Chicago, Ill. Moody Bible Institute.
WKBO 1200 100 Harrisburg, Pa. Keystone Broadcasting Corp.	WMBO 1310 100 Auburn, N. Y. WMBO, Inc., Metalf Bldg.
WKBV 1500 100 Richmond, Ind. Wm. O. Knox, Box 286	WMBQ 1500 100 Brooklyn, N. Y. Paul J. Gollhofer, 95 Leonard St.
WKBW 1480 5000 Buffalo, N. Y. Buffalo Broadcasting Corp.	WMBR 1370 100 Tampa, Fla. F. J. Reynolds, 907 Florida Ave.
WKBY 1500 100 Ludington, Mich. Karl L. Ashbacher & Sons.	WMC 780 500 Memphis, Tenn. WMC, Inc., Hotel Gayoso.
WKEU 1500 100 LaGrange, Ga. Radio Station WKEU, 906 Hill St.	WMCA 570 500 New York, N. Y. Knickerbocker Broadcasting Co.
WKFI 1210 100 Greenville, Miss. J. Pat Souly, Box 302.	WMNN 890 250 Fairmont, W. Va. A. M. Rowe, Inc., 325 Main St.
WKJC 1200 100 Lancaster, Pa. Lancaster Broadcasting Service, Inc.	WMPC 1500 100 Lapeer, Mich. First Methodist Protestant Church.
WKOK 1210 100 Sunbury, Pa. Sunbury Broadcasting Co.	WMT 600 500 Waterloo, Iowa. Waterloo Broadcasting Co.
WKRC 550 1000 Cincinnati, Ohio. WKRC, Inc., Hotel Alms.	WNAC 1230 1000 Boston, Mass. Shepard Broadcasting Service, Inc.
WKY 900 1000 Oklahoma City, Okla. Oklahoma Publishing Co.	WNAD 1010 500 Norman, Okla. University of Oklahoma.
WKZO 590 1000 Kalamazoo, Mich. John E. Fetzer, Burdick Hotel.	WNAX 570 1000 Yankton, S. D. The House of Gurney, Inc., 2nd and Capital St.
WLAC 1470 5000 Nashville, Tenn. Life & Casualty Insurance Co.	WNB 1500 100 Binghamton, N. Y. Howitt-Wood Radio Co., Inc.
WLAP 1200 100 Louisville, Ky. American Broadcasting Corp. of Ky.	WNBH 1310 100 New Bedford, Mass. New Bedford Broadcasting Co.
WLB 1250 1000 Minneapolis, Minn. University of Minnesota.	WNBO 1200 100 Silver Haven, Pa. John Brownlee Spriggs. (Washington, Pa.)
WLBC 1310 100 Muncie, Ind. D. A. Burton, Anthony Bldg.	WNB 1430 500 Memphis, Tenn. Memphis Broadcasting Co., Hotel DeVoy.
WLB 1420 100 Kansas City, Kans. WLB Broadcasting Co., Huron Bldg.	WNBW 1200 10 Carbondale, Pa. WNBW, Inc., 50 Main St., N.
WLB 900 2500 Stevens Point, Wis. Wisconsin Dept. of Agriculture and Markets.	WNBX 1260 250 Springfield, Vt. WNBX Broadcasting Corp., 39 Main St.
WLBW 1260 500 Erie, Pa. Broadcasters of Pennsylvania, Inc.	WNBZ 1290 50 Saranac Lake, N. Y. Smith & Mace, 70 Broadway.
WLBZ 620 500 Bangor, Me. Maine Broadcasting Co., Inc., 100 Main.	WNOX 560 1000 Knoxville, Tenn. WNOX, Inc.
WLEC 1340 250 Portland, Me. Casco Bay Broadcasting Co.	WNRA 1420 100 Muscle Shoals, Ala. Kathryn Jones
WLEY 1370 100 Lexington, Mass. Albert S. Moffat	WNYC 810 500 New York, N. Y. Dept. of Plant and Structures.
WLIT 560 500 Philadelphia, Pa. Lit Bros. Broadcasting System, Inc.	WOAI 1190 50000 San Antonio, Texas. Southern Industries, Inc., 1088 Navarro.

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WOBV 580 250 Charleston, W. Va.
 WOBV, Inc., Ruffner Hotel.
WOC- 1000 50000 Des Moines, Iowa.
WHO 1000 50000 Central Broadcastg. Co., 914 Walnut St.
WOCL 1210 50 Jamestown, N. Y.
 A. E. Newton, 840 N. Main St.
WODA 1250 1000 Paterson, N. J.
 WODAAM Corp., 115 Ellison St.
WODX 1410 500 Mobile, Ala.
 Mobile Broadcasting Corp., Battle House.
WOI 840 5000 Ames, Iowa.
 Iowa State College.
WOKO 1430 500 Albany, N. Y.
 WOKO, Inc., Hotel Ten Eyck.
WOL 1310 100 Washington, D. C.
 American Broadcasting Co., Annapolis Hotel.
WOMT 1210 100 Manitowoc, Wis.
 Francis M. Kadow, Box 326.
WOOD 1270 500 Grand Rapids, Mich.
 Kunsky-Trendle Broadcasting Corp.
WOPI 1500 100 Bristol, Tenn.
 Radiophone Broadcasting Station WOPI, Inc.
WOQ 1300 1000 Kansas City, Mo.
 Unity School of Christianity.
WOR 710 5000 Newark, N. J.
 Bamberger Broadcasting Station, Inc.
WORC 1280 500 Worcester, Mass.
 Alfred F. Kleindienst, 60 Franklin St.
WORK 1000 1000 York, Pa.
 York Broadcasting Co., 15 S. Beaver St.
WOS 830 500 Jefferson City, Mo.
 State Highway Control, Capitol Bldg.
WOSU 570 750 Columbus, Ohio.
 Ohio State University.
WOV 1130 1000 New York, N. Y.
 International Broadcasting Corp.
WOW 590 1000 Omaha, Neb.
 Woodmen of the World, 4th and Farnam.
WOWO 1160 10000 Fort Wayne, Ind.
 Main Auto Supply Co., 213 W. Main.
WPAD 1420 100 Paducah, Ky.
 Paducah Broadcasting Co., Inc.
WPAP 1010 250 New York, N. Y.
 Marcus Loew Booking Agency.
WPEN 1500 100 Philadelphia, Pa.
 William Penn Broadcasting Co.
WPFH 1370 100 Hattiesburg, Miss.
 Otis P. Eure, Box 530.
WPG 1100 5000 Atlantic City, N. J.
 Columbia Broadcasting System.
WPHR 1200 100 Petersburg, Va.
 WLBC, Inc., Medical Arts Bldg.
WPRO 1210 100 Providence, R. I.
 Cherry & Webb Broadcasting Co., 15 Chestnut.
WPTF 680 5000 Raleigh, N. C.
 Durham Life Insurance Co.
WQAM 580 1000 Miami, Fla.
 Miami Broadcasting Co., Inc., 327 N. E. 1st Ave.
WQAN 880 250 Scranton, Pa.
 Scranton Times, 149 Penn Ave.
WQAO 1010 250 New York, N. Y.
 Marcus Loew Booking Agency.
WQBC 1360 500 Vicksburg, Miss.
 Delta Broadcasting Co., Hotel Vicksburg.
WQDM 1370 100 St. Albans, Vt.
 A. J. St. Antoine and E. J. Regan.
WQDX 1210 100 Thomasville, Ga.
 Stevens Luke, 135 E. Jackson St.
WRAK 1370 100 Williamsport, Pa.
 WRAK, Inc., 244 W. 4th St.
WRAM 1370 100 Wilmington, N. C.
 Wilmington Radio Assn., Princess St.

WRAW 1310 100 Reading, Pa.
 Reading Broadcasting Co., 533 Penn St.
WRAX 1020 250 Philadelphia, Pa.
 WRAX Broadcasting Co., 217 S. Broad St.
WRBL 1200 100 Columbus, Ga.
 WRBL Radio Station, Inc.
WRBX 1410 250 Roanoke, Va.
 Richmond Development Corp.
WRC 950 500 Washington, D. C.
 National Broadcasting Co., Inc.
WRDO 1370 100 Augusta, Me.
 WRDO, Inc., Augusta House.
WRDW 1500 100 Augusta, Ga.
 Virgil V. Evans Co., 309 8th St.
WREC 600 500 Memphis, Tenn.
 WREC, Inc., Hotel Peabody.
WREN 1220 1000 Lawrence, Kans.
 Jenny Wren Co., 8th and Vermont St.
WRHM 1250 1000 Minneapolis, Minn.
 Minnesota Broadcasting Corp., 115 E. Grant.
WRJN 1370 100 Racine, Wis.
 Racine Broadcasting Corp., Hotel Racine.
WRNY 1010 250 New York, N. Y.
 Marcus Loew Booking Agency.
WROL 1310 100 Knoxville, Tenn.
 Stuart Broadcasting Corp., 524 S. Gay.
WRR 1280 500 Dallas, Texas.
 City of Dallas, Hilton Hotel.
WRUF 830 5000 Gainesville, Fla.
 State University.
WRVA 1110 5000 Richmond, Va.
 Larus & Bro. Co., Inc., 22nd and Cary St.
WSAI 1330 1000 Cincinnati, Ohio.
 Crosley Radio Corp., 1329 Arlington.
WSAJ 1310 100 Grove City, Pa.
 Grove City College.
WSAN 1440 250 Allentown, Pa.
 WSAN, Inc., 39 10th St.
WSAR 1450 250 Fall River, Mass.
 Doughty & Welch Electric Co., Inc.
WSAZ 1190 1000 Huntington, W. Va.
 WSAZ, Inc., 929½ 4th Ave.
WSB 740 50000 Atlanta, Ga.
 Atlanta Journal, 7 N. Forsyth St.
WSBC 1210 100 Chicago, Ill.
 Gene T. Dyer, 1258 S. Michigan Ave.
WSBT 1230 500 South Bend, Ind.
 South Bend Tribune.
WSEN 1210 100 Columbus, Ohio.
 Columbus Broadcasting Corp., 144 S. High.
WSFA 1410 500 Montgomery, Ala.
 Montgomery Bldg. Co., Inc., Jeff. Dav. H'l.
WSIX 1210 100 Springfield, Tenn.
 638 Tire & Vulcanizing Co.
WSJS 1310 100 Winston-Salem, N. C.
 Winston-Salem Journal Co., 416 N. Marshall.
WSM 650 50000 Nashville, Tenn.
 National Life & Accident Insurance Co.
WSMB 1320 500 New Orleans, La.
 WSMB, Inc., Maison Blanche Bldg.
WSMK 1380 200 Dayton, Ohio.
 S. M. Krohn, Jr., 4th and Main St.
WSOC 1210 100 Charlotte, N. C.
 WSOC, Inc., Box 730.
WSPA 1420 100 Spartanburg, S. C.
 Virgil V. Evans, Ravenel and Avant St.
WSPD 1340 1000 Toledo, Ohio.
 Toledo Broadcasting Co., 505 Jefferson.
WSUI 880 500 Iowa City, Iowa.
 State University of Iowa.
WSUN 620 1000 St. Petersburg, Fla.
 Florida Westcoast Broadcasting Co., Inc.

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WSVS 1370 50 Buffalo, N. Y. Seneca Vocational High School.	XEB 1030 10000 Mexico City, D. F. El Buen Tono, S. A., Buen Tono No. 6.
WSYB 1500 100 Rutland, Vt. Philip Weiss Music Co., 80 West St.	XEC 1000 50 Toluca, D. F. Jesus R. Benavides.
WSYR 570 250 Syracuse, N. Y. Central New York Broadcasting Corp.	XED 1155 500 Guadalajara, Jal. Radiofonografica de Guadalajara, S. A.
WTAD 1440 600 Quincy, Ill. Illinois Broadcasting Corp., State and 6th.	XEF 735 150000 Villa Acuna, Coah. Compania Radiodifusora de Acuna, S. A.
WTAQ 680 250 Worcester, Mass. Worcester Telegram Publishing Co.	XEFA 1250 500 Mexico City, D. F. Eduardo Limon Segui.
WTAM 1070 50000 Cleveland, Ohio. National Broadcasting Co., Inc.	XEFB 1315 100 Monterrey, N. L. Jesus Quintanilla.
WTAQ 1330 1000 Eau Claire, Wis. Gillette Rubber Co., Hotel Eau Claire.	XEFC 1050 100 Merida, Yuc. J. Molina Font.
WTAR 780 500 Norfolk, Va. WTAR Radio Corp., Wainwright Bldg.	XEFD 757 5000 Tijuana, B. C. Goodwill Broadcasting Co. (Box 1441 San Diego)
WTAW 1120 500 College Station, Texas. Agricultural and Mechanical College.	XEFE 1000 100 Laredo, Tams. Rafael T. Garza.
WTAX 1210 100 Springfield, Ill. WTAX, Inc., 416 E. Capitol Ave.	XEFG 1085 500 Mexico City, D. F. Ricardo Gonzales Montero, Tepic 48
WTBO 1420 100 Cumberland, Md. Associated Broadcasting Corp., Box 794.	XEFI 1260 250 Chihuahua, Chih. Feliciano Lopez Isles, Ap. 157.
WTEL 1310 100 Philadelphia, Pa. Foulkrod Radio Engineering Co., Inc.	XEFJ 1000 100 Monterrey, N. L. R. Junco de la Vega.
WTFI 1450 500 Athens, Ga. Liberty Broadcasting Co., Costa Bldg.	XEFO 940 5000 Mexico City, D. F. Partido Nacional Revolucionario.
WTIC 1060 50000 Hartford, Conn. Travelers Broadcasting Service Corp.	XEFS 1000 40 Queretaro, Qro. Salvador Sanchez.
WTJS 1310 100 Jackson, Tenn. Sun Publishing Co., Sun Bldg.	XEFV 1370 100 Juarez, Chih. J. Onofre Meza.
WTMJ 620 1000 Milwaukee, Wis. The Journal Co., 333 W. State St.	XEFW 1280 70 Tampico, Tams. J. Expedito Martinez.
WTNJ 1280 500 Trenton, N. J. Trenton Broadcasting Co., Stacy Trent Hotel.	XEFZ 1370 100 Mexico City, D. F. Jose Onofre Meza.
WTOC 1260 500 Savannah, Ga. Savannah Broadcasting Co., Inc., DeSoto Hotel.	XEG 1075 500 Mexico City, D. F. Ricardo Gonzales Montero.
WTRC 1310 50 Elkhart, Ind. Truth Radio Corp., Hotel Elkhart.	XEH 1132 250 Monterrey, N. L. Tarnava y Cia, P. Mier 215.
WWAE 1200 100 Hammond, Ind. Hammond Calumet Broadcasting Corp.	XEI 1310 250 Morelia, Mich. Carlos Gutierrez M.
WWJ 920 1000 Detroit, Mich. Evening News Assn., 616 Lafayette Blvd.	XEJ 1015 500 Juarez, Chih. Juan G. Buttner and Leo Allande.
WWL 850 10000 New Orleans, La. Loyola University, Roosevelt Hotel.	XEK 990 100 Mexico City, D. F. Arturo Martinez. Jalapa No. 51
WWNC 570 1000 Asheville, N. C. Citizen Broadcasting Co., Inc., Flatiron Bldg.	XEL 1000 40 Saltillo, Coah. Antonio Garza Castro.
WWRL 1500 100 Woodside, N. Y. Long Island Broadcasting Corp.	XEN 711 1000 Mexico City, D. F. Cerveceria Modelo S. A.
WWSW 1500 100 Pittsburgh, Pa. Walker & Downing Radio Corp.	XENT 1115 150000 Nuevo Laredo, Tams. Cia Industrial Universal S. A.
WWVA 1160 5000 Wheeling, W. Va. West Virginia Broadcasting Corp.	XEO 940 5000 Mexico City, D. F. Partido Nacional Revolucionario.
WXYZ 1240 1000 Detroit, Mich. Kunsky-Trendle Broadcasting Corp.	XEP 780 500 Mexico City, D. F. Cia Difusora de Mexico S. A.
XEA 1000 250 Guadalajara, Jal. Alberto Palos Souza.	XEPN 585 75000 Piedras Negras, Coah. Piedras Negras Broadcasting Co.
XEAB 1450 7.5 Nuevo Laredo, Tams. Horacio Mattel A. y Humberto Garcia.	XEQ 1330 500 Mexico City, D. F.
XEAC 1295 100 San Luis Potosi, S.L.P. Francisco de P. Cabrera.	XER 735 150000 Villa Acuna, Coah. Compania Radiodifusora de Acuna, S. A.
XEAD 875 250 Mexico City, D. F. Julio Zetina Osorio.	XES 1020 250 Tampico, Tams. Fernando Sada, Hotel Inglaterra.
XEAE 980 800 Tijuana, B. C. Adolfo Labastida Jr. Apt. 10	XET 690 500 Monterrey, N. L. Cadena Radiodifusora Mexicana, S. A.
XEAI 1090 100 Mexico City, D. F. Carlos Gonzales Caballero.	XETA 1180 250 Mexico City, D. F. Manuel Espanozo Tagle.
XEAN 750 5000 Juarez, Chih. Radio Difusora Nacional S. A.	XETB 1380 125 Torreon, Coah. Jose A. Berumen.
XEAO 560 100 Mexicali, B. C. Luis L. Castro.	XETH 860 100 Puebla, Pue. Ramon Huerta G.
XEAW 965 10000 Reynosa, Tams. Internacional Broadcasting Co., S. A.	XETR 610 1000 Mexico City, D. F. Cia Difusora Mexicana S. A.

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XETU	890	100	Pachuca, Hgo.
			Rodrigo Manríquez.
XETW	830	600	Mexico City, D. F.
			Rafael M. Pena, Gante 4, 3er piso
XEU	1010	100	Veracruz, Ver.
			Fernando Pazos Sosa.
XEW	910	5000	Mexico City, D. F.
			Cadena Radiodifusora Mexicana S. A.
XEX	1210	600	Mexico City, D. F.
			"Excelsior" Cia Editorial S. A.
KEY	546.5	10	Merida, Yuc.
			Partido Socialista del Surest.
KEYZ	780	10000	Mexico City, D. F.
			Radiodifusora Continental S. A.
KEZ	830	500	Merida, Yuc.
XFB	1290	1000	Jalapa, Ver.
			Gobierno del Estado de Veracruz.
XFC	805	350	Aguascalientes, Ags.
			Gobierno del Estado de Aguascalientes.
XFG	638.3	2000	Mexico City, D. F.
			Secretaría de Guerra y Marina.
XFO	940	5000	Mexico City, D. F.
			National Revolucionario Party.

AFX	840	500	Mexico City, D. F.
			Secretaría de Educacion Publica.
YV1BC	950	6000	Caracas, Venez.
			Cia Ama Alamacen Americana.
YV2BC	882	100	Caracas, Venez.
YV3BC	1200	1000	Caracas, Venez.
			Degwitz & Sibless.
10-AK	1200	15	Stratford, Ont.
			M. I. Higgins, 151 Ontario St.
10-AT	1155	25	Trail, B. C.
			Trail Amateur Radio Assn.
10-B1	1200	25	Prince Albert, Sask.
			Prince Albert Radio Club.
10-BP	1200	15	Wingham, Ont.
			W. T. Cruickshank.
10-BQ	1200	5	Brantford, Ont.
			Tom and Harold Brown.
10-BU	1200	15	Canora, Sask.
			Canora Radio Assn.

LISTENING *for* KJTY

REAR-ADMIRAL BYRD'S station KJTY is going to be the most tuned-for station in the world in the next few months. KJTY will use fifteen different voice frequencies and will test with the Rocky Point stations of which there are 62. Of course all the 62 stations will not be used but as it is impossible to tell just

which ones will be, we deem it best to give them all with their frequencies and wave-lengths so our readers may try to bring in the much-to-be-desired KJTY.

Here are the frequencies and waves on which station KJTY, the S. S. "Jacob Ruppert," may be heard testing with voice transmissions:

Megs.	Mtrs.	Megs.	Mtrs.	Megs.	Mtrs.
6.650	45.09	13.185	22.74	17.600	17.03
6.660	45.01	13.200	22.71	17.620	17.01
6.670	44.95	13.230	22.66	21.515	13.93
8.820	33.99	13.245	22.63	21.600	13.88
8.840	33.91	13.260	22.61	21.625	13.86

Following are the 62 Rocky Point Experimental Stations with which KJTY will converse:

Megs.	Meters	Call	Megs.	Meters	Call	Megs.	Meters	Call
4.276	70.11	WIR	31.66	9.470	WET	15.970	18.77	WKO
5.263	56.96	WQN	31.62	9.480	WDA	16.015	18.72	WQR
5.505	54.46	WQN	31.58	9.490	WEF	17.880	16.78	WQC
5.825	51.47	WQN	28.91	10.370	WCG	17.880	16.76	WQI
6.710	44.68	WER	28.25	10.610	WEA	17.900	16.75	WLL
6.718	44.62	WDB	28.20	10.680	WED	17.920	16.73	WQF
6.725	44.57	WQO	22.34	13.420	WHR	17.940	16.71	WQB
6.740	44.48	WEJ	22.31	13.435	WKD	18.860	15.89	WKM
6.928	43.27	WEZ	22.28	13.450	WEX	18.880	15.88	WQH
6.935	43.23	WEB	22.26	13.465	WKC	18.900	15.86	WDS
6.950	43.13	WKP	22.24	13.480	WAJ	18.920	15.84	WQE
6.958	43.09	WEO	21.66	13.840	WPE	18.940	15.83	WTF
7.370	40.68	WJN	21.63	13.855	WQU	18.960	15.81	WQD
7.400	40.51	WEM	21.61	13.870	WTY	18.980	15.79	WFX
7.415	40.43	WEG	21.57	13.900	WQP	20.100	14.91	WQY
8.930	33.57	WAD	21.54	13.915	WQS	20.180	14.85	WQX
8.930	33.57	WEC	20.26	14.800	WQV	20.260	14.79	WQQ
8.940	33.53	WKL	20.23	14.815	WQL	21.220	14.12	WQA
8.950	33.50	WEL	20.21	14.830	WKU	21.240	14.11	WQJ
9.445	31.74	WES	19.93	15.040	WQG	21.260	14.10	WBU
9.460	31.79	WKJ	19.41	15.445	WKW	21.300	14.07	WQW

AROUND *the* CLOCK on *the* SHORT WAVES

MIDNIGHT TO NOON (EST)

GMT	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
MST	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
PST	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00
	W8XK W9XF	VK2ME W9XF	GSD GSF VK2ME	RV15 GSD GSF	RV15	J1AA RV15 VK2ME VK3ME	J1AA RV15 VK2ME VK3ME ZGE	EAR58 GSE GSG Rabat RV15 VE9DR VE9GW VK2ME W1XAZ W8XK ZGE	DJB EAR58 GSE GSG H11A PHI Pont. Rabat VE9DR VE9GW VE9JR VK2ME W1XAZ W8XK YV2AM YV3BC ZGE	DJB GSD GSE GSF PHI Pont. VE9DR VE9GW VE9JR VK2ME W1XAZ W8XK YV2AM YV3BC	CT3AQ DJB DJD GSD GSF GSF HVI PHI Pont. VE9DR VE9GW VE9JR W1XAL W1XAZ W2XE W8XK YV3BC	CT3AQ DJB DJD GSD GSF I2RO Pont. VE9DR VE9GW VE9JR W1XAL W1XAZ W2XE W8XK YV3BC

NOON TO MIDNIGHT (EST)

GMT	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	1:00	2:00	3:00	4:00
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
MST	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
PST	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00
	DJB DJD GSD GSF H11A I2RO Pont. TGW VE9DR VE9GW VE9JR W1XAL W1XAZ W2XE W3XAL W3XAU W8XK	DJB DJD GSD GSF H11A I2RO Pont. TGW VE9DR VE9GW VE9JR W1XAL W1XAZ W2XE W3XAL W3XAU W8XK W9XF	DJB DJD GSD GSF H11A I2RO Pont. TGW VE9DR VE9GW VE9JR W1XAL W1XAZ W2XE W3XAL W3XAU W8XK W9XF	DJB DJD GSD GSF H11A I2RO Pont. TGW VE9DR VE9GW VE9JR W1XAL W1XAZ W2XE W3XAL W3XAU W8XK W9XF	CT1AA DJD GSD GSF H11A I2RO Pont. TGW VE9DR VE9GW VE9JR W1XAL W1XAZ W2XE W3XAL W3XAU W8XK YV3BC	CT1AA DJD GSD GSF H11A I2RO Pont. TGW VE9DR VE9GW VE9JR W1XAL W1XAZ W2XE W3XAL W3XAU W8XK YV3BC	CT1AA DJD GSD GSF H11A I2RO Pont. TGW VE9DR VE9GW VE9JR W1XAL W1XAZ W2XE W3XAL W3XAU W8XK YV3BC	DJA DJC EAQ GSA GSD HBL HBP HJ1ABB OXY Pont. VE9DR VE9GW VE9JR W1XAL W1XAZ W2XAF W2XE W3XAL W8XK W9XF XETE YV1BC YV3BC	DJA DJC H11A HJ1ABB 2ABA 4ABB 4ABE LSX Pont. VE9DR VE9GW VE9JR W1XAL W1XAZ W2XAF W2XE W3XAL W8XK W9XF XETE YV1BC YV3BC	HC2RL HJ 1ABB 2ABA 3ABB 4ABB 4ABE Pont. PRADO TGW VE9DR VE9GW VE9JR W1XAL W1XAZ W2XAF W2XE W3XAL W8XK W9XF XETE YV1BC YV3BC	HC2RL HJ 3ABB Pont. PRADO TGW VE9DR VE9GW VE9JR W1XAL W1XAZ W2XAF W2XE W3XAL W8XK W9XF XETE YV1BC YV3BC	HJ 4ABB VE9DR W1XAZ W3XAL W3XAU W8XK W9XF XETE

One Hundred Best Short Wave Stations

Arranged Alphabetically

Stations marked with an asterisk (*) will not verify. Frequencies are given in megacycles. Times are given in Eastern Standard.

- *British Ships, 13.220, 8.831, 4.174
 *CEC, Chile, 19.678, 15.855
 CGA, Canada, 13.296, 9.340
 CNR, Morocco, 12.820
 CP5, Bolivia, 6.081
 CT1AA, Portugal, 9.592. Tues. and Fri., 4:30-7 p.m.
 CT3AQ, Madeira, Tues., Thurs., 5-6:30 p.m.; Sun. 10:30 a.m.-noon.
 DAF, Germany, 12.394
 DFB, Germany, 17.512
 DIQ, Germany, 10.285
 DJA, Germany, 9.552. 5 to 9:15 p.m.
 DJB, Germany, 15.190. 8 a.m. to 4:30 p.m.
 DJC, Germany, 6.017. 7 to 9:15 p.m.
 DJD, Germany, 11.753. 10 a.m. to 6 p.m.
 DJL, Germany, 15.110
 EAQ, Spain, 9.862. 5:30 to 7:30 p.m.
 EAR58, Canaries, 7.207. 5 to 6:30 p.m.
 EHY, Spain, 10.164
 FTK, France, 15.863
 FTM, France, 19.282
 FZS, Indo-China, 11.983
 *German Ships, 13.135, 10.163, 8.328, 4.174
 GAS, England, 18.304
 GBB, England, 13.500
 GBS, England, 12.148
 GBW, England, 14.450
 GSA, England, 6.050. 11 a.m. to 1 p.m.; 6 to 8 p.m.
 GSB, England, 9.510. 11 a.m. to 1 p.m.; 1:15 to 5:45 p.m.; 6 to 8 p.m.
 GSC, England, 9.585
 GSD, England, 11.750. 2 to 4 a.m.; 9 to 11 a.m.; 1:15 to 5:45 p.m.; 6 to 8 p.m.
 GSE, England, 11.865. 7 to 8:45 a.m.; 9 to 11 a.m.
 GSF, England, 15.140. 2 to 4 a.m.; 9 a.m. to 1 p.m.
 GSG, England, 17.770. 7 to 8:45 a.m.
 HBL, Switzerland, 9.580. Sat., 5:30 to 6:15 p.m.
 HBP, Switzerland, 7.872. Sat., 5:30 to 6:15 p.m.
 HC2SB, Ecuador, 4.283. 9 to 11 p.m.
 HC2RL, Ecuador, 6.659. Tues., 9:14 to 11:14 p.m.
 HCJB, Ecuador, 3.998. 8:14 to 10:14 daily, exc. Mon.
 HCK, Ecuador, 5.694. 8 to 11 p.m.
 HIX, Santo Domingo, 5.948. Tues. and Fri., 8 to 10 p.m.; Sun., 4 to 5 p.m.
 HIZ, Santo Domingo, 6.379. 5-6 p.m.
 HI-1-A, Santo Domingo, 6.272. 8-8:30 a.m.; 12:30-1:30 p.m.; 8-9 p.m.
 *HJB, Colombia, 14.930
 *HJY, Colombia, 18.444
 HJ1AB, Colombia, 6.447. 5 to 10 p.m.
 HJ2AB, Colombia, 5.879. 7:30 to 10 p.m.
 HJ3AB, Colombia, 7.402. 9-11:15 p.m., daily
 HJ4AB, Colombia, 7.139. Sat., 11 p.m. to Mid.; Sun. 3-5 p.m.; Wed., 8-10 p.m.
 HJ4ABE, Colombia, 5.879. Mon., Wed., Fri., 7:30-9:30 p.m.
 HJ5AB, Colombia, 6.378
 HJ5ABF, Colombia, 8.271
 HKN, Colombia, 7.138. 8-10 p.m., daily
 *HPF, Panama, 14.545
 HSP, Siam, 17.719
 HVJ, Vatican City, 15.120
 IAC, Italy, 12.785
 I2RO, Italy, 11.800. 11:30 a.m. to 12:30 p.m.; 1:15 to 6 p.m.
 J1AA, Japan, 9.862. 5 to 8 a.m.
 KAY, Philippines, 14.980
 KAZ, Philippines, 9.990
 *KKP, Hawaii, 16.024
 LSN, Argentina, 9.895
 LSX, Argentina, 10.345
 LSY, Argentina, 11.116
 *OCI, Peru, 18.670
 OXY, Denmark, 9.520. 2 to 6:30 p.m.
 PHI, Holland, 11.725. 9-11 a.m., except Tues. and Wed.
 PLE, Java, 18.820
 PLV, Java, 9.410
 Pontoise, France, 15.454
 Pontoise, France, 15.234. 8-11 a.m.
 Pontoise, France, 11.898. 11:30 a.m. to 1:15 p.m.
 Pontoise, France, 11.711. 3-5 p.m. and 6-11 p.m.
 *PPU, Brazil, 19.270
 PRADO, Ecuador, 6.618. Thursday, 9-11 p.m.
 *PSF, Brazil, 14.682
 Rabat, Morocco, 12.820. Sun, 7:30 to 9 a.m.
 8.218. Sun, 2:30 to 5 p.m.
 RV15, Siberia, 4.273. 3-9 a.m., daily
 RV59, USSR, 5.996. 3-6 p.m., daily
 RW50, USSR, 11.923
 SRI, Poland, 9.488. 1-3 p.m., Tues.; 8-9 a.m., Wed.
 TGA, Guatemala, 14.545
 TIN-TTU, Costa Rica, 14.545
 TI4NRH, Costa Rica, 9.670. 10-11 p.m., daily
 UOR2, Austria, 6.072. 8:30-9 a.m.; 10 a.m.-1 p.m. and 2-4 p.m. on Tuesdays.
 VE9BJ, Canada, 6.090
 VE9CS, Canada, 6.074
 VE9DR, Canada, 6.005. 7:30 a.m. to Midnight; Sun., noon to 11:15 p.m.
 VE9GW, Canada, 6.092. 3 p.m.-midnight
 VE9HX, Canada, 6.110. 5-11 p.m., daily
 VE9JR, Canada, 11.710. Sun., 9-10 p.m.; Sat., 9:30-10 a.m.; 11-11:30 a.m.; 12:45-1:15 p.m.; 7-8:30 p.m.; 9-10:30 p.m. Other days: 9:30-10 a.m.; 11-11:35 a.m.; 2-2:15 p.m.; 3:15-3:35 p.m.; 7-10:30 p.m.
 VK2ME, Australia, 10.520.
 9.585. Sun., 1 to 3 a.m.; 5 to 11 a.m.
 VK3ME, Australia, 9.503. Wed., 5-6:30 a.m.; Sat., 5-7 a.m.
 VWZ, India, 17.533
 *WNC, U. S. A., 15.055
 W1XAL, U. S. A., 15.242. Sunday, 10 a.m.-1 p.m.
 11.780. Sat., 5:30-11 p.m.; Sun., 6:30-8:30 p.m.
 W2XAD, USA, 15.320. Sun., Mon., Wed., Fri., 4-5 p.m.
 W2XAF, USA, 9.530. 7:45 to 11 p.m.
 W2XE, U. S. A., 15.258. 11 a.m. to 1 p.m.
 11.823. 3 to 5 p.m.
 6.116. 6 to 11 p.m.
 W3XAL, U. S. A., 17.772. 12:30 to 6:30 p.m. except Sat.
 6.096. 3 p.m. to midnight, Saturday
 W3XAU, USA, 9.585. Noon to 6 p.m.
 6.057. 8 p.m. to 1 a.m.
 W3XL, U. S. A., 6.421. Irregular
 W8XX, U. S. A., 21.451. 7 a.m. to 2 p.m.
 15.204. 10 a.m. to 4:15 p.m.
 11.870. 4:30-10 p.m.
 6.140. 4:30 p.m. to 12:30 a.m.
 W9XAA, U. S. A., 6.076. 3 to 6 p.m.
 W9XF, U. S. A., 6.100. Silent Sat.; Sun, 1-2:30 p.m.; 4:30-7 p.m.; 9 p.m. to 2 a.m.; other days, 4:30-8 p.m.; 9:30 p.m. to 2 a.m.
 XAM, Mexico, 11.187
 XETE, Mexico, 9.600. 2:30-5 p.m.; 6:30 p.m. to midnight
 *YNA, Nicaragua, 14.480. Phones Hialeah
 *YVQ, Venezuela, 13.337. Phones Hialeah
 *YVR, Venezuela, 18.298 and 9.168
 YV1BC, Venezuela, 6.018. 5-15 to 10 p.m.
 YV2AM, Venezuela, 7.138. Sun., 8-10 a.m.
 YV3BC, Venezuela, 9.510. 9:30 to 10 p.m.
 6.150. 10:30 a.m. to 1 p.m. and 4:30-9:30 p.m.; Sun., 8:30 a.m. to noon and 3-6:30 p.m.
 *ZFA, Bermuda, 5.045
 *ZFB, Bermuda, 10.060
 ZFS, Bahamas, 4.513
 ZGE, Malaya, 5.996. Tues., Fri., 6:30-8:30 a.m. and Sun., 7-9 a.m.

POLICE BROADCASTING STATIONS

By Cities

City	Call	Megs.	Mtrs.	City	Call	Megs.	Mtrs.
Portable in Massachusetts	WPEV	1.574	190.48	Denver, Colo.	KGFX	2.442	122.77
Portable in Washington	.....	2.506	119.64	Des Moines, Iowa	KGHO	1.534	195.45
Port. on Snowplow in Snoqualmie				Des Moines, Iowa	KGZG	2.470	121.40
Pass, Wash.		2.506	119.64	Detroit, Mich.	WCE	2.414	124.30
Aberdeen, Wash.	KGZY	2.414	124.20	Detroit, Mich. (fireboat)	WKDT	1.558	122.43
Akron, Ohio	WPDO	2.458	121.97	Detroit, Mich.	WPDY	2.414	124.20
Albany, N. Y.	WPGC	1.534	195.45	E. Lansing, Mich.	WRDS	1.574	190.48
Albuquerque, N. Mex.	KGZX	2.414	124.20	El Paso, Texas	KGZM	2.414	124.20
Arlington, Mass.	WPED	1.712	175.13	Fairhaven, Mass.	WPFN	1.712	175.13
Asheville, N. C.	WPES	2.458	121.97	Flint, Mich.	WPDF	2.442	122.77
Atlanta, Ga.	WPDY	2.414	124.20	Fort Wayne, Ind.	WPDZ	2.470	121.40
Auburn, N. Y.	WPDN	2.458	121.97	Fort Worth, Texas	KGPR	1.712	175.13
Bakersfield, Calif.	KGPS	2.414	124.20	Framingham, Mass.	WMP	1.574	190.48
Baltimore, Md.	WPHH	2.414	124.20	Fresno, Calif.	KGZA	2.414	124.20
Baton Rouge, La.	WPEQ	1.570	191.08	Grand Rapids, Mich.	WPEB	2.442	122.77
Bay City, Mich.	WPGA	2.442	122.77	Grosse Pointe, Mich.	WRDR	2.414	124.20
Beaumont, Texas	KGPI	1.712	175.13	Hackensack, N. J.	WPFK	2.430	123.45
Berkeley, Calif.	KSW	1.658	180.83	Hammond, Ind.	WPFJ	1.712	175.13
Berkley, Calif.	KSW	2.422	123.79	Highland Park, Ill.	WPFH	2.430	123.45
Birmingham, Ala.	WPFM	2.414	124.20	Highland Park, Mich.	WMO	2.414	124.20
Boston, Mass. (Fireboat)	WEY	1.558	192.43	Honolulu, Hawaii.	KGPK	2.450	122.40
Bronx, N. Y.	WPEF	2.450	122.40	Houston, Texas	KGZB	1.712	175.13
Brookline, Mass.	WPEJ	1.712	175.13	Indianapolis, Ind.	WMDZ	2.442	122.77
Brooklyn, N. Y.	WPEE	2.450	122.40	Jacksonville, Fla.	WPFJ	2.442	122.77
Brooklyn, N. Y.	WRDU	1.596	187.85	Jacksonville, Tenn.	WPFH	2.470	121.40
Buffalo, N. Y.	WMJ	2.422	123.79	Kansas City, Mo.	KGPE	2.422	123.79
Cedar Rapids, Iowa	KGZV	2.470	121.40	Klamath Falls, Ore.	KGZH	2.442	122.77
Chanute, Kans.	KGZT	2.450	122.40	Knoxville, Tenn.	WPFO	2.470	121.40
Charlotte, N. C.	WPDV	2.458	121.97	Kokomo, Ind.	WPDT	2.470	121.40
Chicago, Ill.	WPDB	1.712	175.13	Lakeland, Fla.	WPFT	2.442	122.77
Chicago, Ill.	WPDC	1.712	175.13	Lansing, Mich.	WPDL	2.442	122.77
Chicago, Ill.	WPDD	1.712	175.13	Lexington, Ky.	WPET	1.712	175.13
Cincinnati, Ohio	WKDU	1.712	175.13	Lincoln, Nebr.	KGZU	2.470	121.40
Clarksburg, W. Va.	WPEP	2.414	124.20	Los Angeles, Calif.	KGPL	1.712	175.13
Cleveland, Ohio	WRBH	2.458	121.97	Louisville, Ky.	WPDE	2.442	122.77
Coffeyville, Kans.	KGZF	2.450	122.40	Lubbock, Texas	KGZW	2.458	121.97
Columbus, Ga.	WPEI	2.414	124.20	Memphis, Tenn.	WPEC	2.470	121.40
Columbus, Ohio	WPDI	2.430	123.45	Miami, Fla.	WPFZ	2.442	122.77
Dallas, Texas	KVP	1.712	175.13	Milwaukee, Wis.	WPKD	2.450	122.40
Davenport, Iowa	KGPN	2.470	121.40	Mineola, N. Y.	WFGS	2.414	124.20
Dayton, Ohio	WPDM	2.430	123.45	Minneapolis, Minn.	KGFB	2.416	124.08

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C. Schafraneck, 808 Park Place, Brooklyn, N. Y.

City	Call	Megs.	Mtrs.	City	Call	Megs.	Mtrs.
Muskegon, Mich.	WFFC	2.442	122.77	Syracuse, N. Y.	WPEA	2.458	121.97
New Orleans, La.	WPEK	2.422	123.79	Tacoma, Wash.	KGZN	2.414	124.20
Newton, Mass.	WFFA	1.712	175.13	Toledo, Ohio	WRDQ	2.470	121.40
New York, N. Y.	WCF	1.596	187.85	Topeka, Kans.	KGZC	2.422	123.79
New York, N. Y.	WPEG	2.450	122.40	Tulare, Calif.	WPDA	2.414	124.20
Northampton, Mass.	WPEW	1.570	191.08	Tulsa, Okla.	KGPO	2.450	122.40
Oklahoma City, Okla.	KGPH	2.450	122.40	Utica, N. Y.	.....	2.414	124.20
Omaha, Nebr.	KGPI	2.470	121.40	Vallejo, Calif.	KGPG	2.422	123.79
Palm Beach, Fla.	WFFX	2.442	122.77	Waco, Texas	KGZQ	1.712	175.13
Pasadena, Calif.	KGJX	1.712	175.13	Washington, D. C.	WPDW	2.422	123.79
Passaic, N. J.	WPDJ	2.414	124.20	W. Bridgewater, Mass.	WPEL	1.574	190.48
Pawtucket, R. I.	WPFV	2.470	121.40	Wichita, Kans.	KGPF	2.450	122.40
Philadelphia, Pa.	WPDJ	2.470	121.40	Wichita Falls, Texas	KGZT	1.712	175.13
Phoenix, Ariz.	KGZJ	2.430	123.45	Woonsocket, R. I.	WPEM	2.470	121.40
Pittsburgh, Pa.	WPDU	1.712	175.13	Youngstown, Ohio	WPDG	2.458	121.97
Port Huron, Mich.	WPGH	2.414	124.20				
Portland, Me.	WPFU	2.422	123.79				
Portland, Ore.	KGPP	2.442	122.77				
Portsmouth, Ohio	.....	2.430	123.45				
Providence, R. I.	WPEI	1.712	175.13				
Reading, Pa.	WFFE	2.442	122.77				
Richmond, Ind.	WPDH	2.442	122.77				
Rochester, N. Y.	WPDR	2.458	121.97				
Rockford, Ill.	WPGD	2.458	121.97				
Saginaw, Mich.	WPES	2.442	122.77				
St. Louis, Mo.	KGPC	1.712	175.13				
St. Paul, Minn.	WPDJ	2.414	124.20				
Salem, Ore.	KGZR	2.442	122.77				
Salt Lake City, Utah	KGPD	2.470	121.40				
San Antonio, Texas	KGZE	2.506	119.64				
San Bernardino, Calif.	.....	1.712	175.13				
San Diego, Calif.	KGZD	2.430	123.45				
San Francisco, Calif.	KGPD	1.558	192.43				
San Francisco, Calif.	KGPD	2.470	121.40				
San Jose, Calif.	KGPM	2.470	121.40				
Santa Barbara, Calif.	KGZO	2.414	124.20				
Santa Cruz, Calif.	KGZT	2.470	121.40				
Seattle, Wash.	KGPA	2.414	124.20				
Seattle, Wash.	KIDA	2.506	119.64				
Shreveport, La.	KGPI	1.574	190.48				
Shreveport, La.	KGZL	1.712	175.13				
Sioux City, Iowa	KGPK	2.470	121.40				
Snoqualmie Pass, Wash.	.....	2.506	119.64				
Somerville, Mass.	WPEH	1.712	175.13				
S. Schenectady, N. Y.	WPGC	1.534	195.45				
Swarthmore, Pa.	WPFQ	2.470	121.40				

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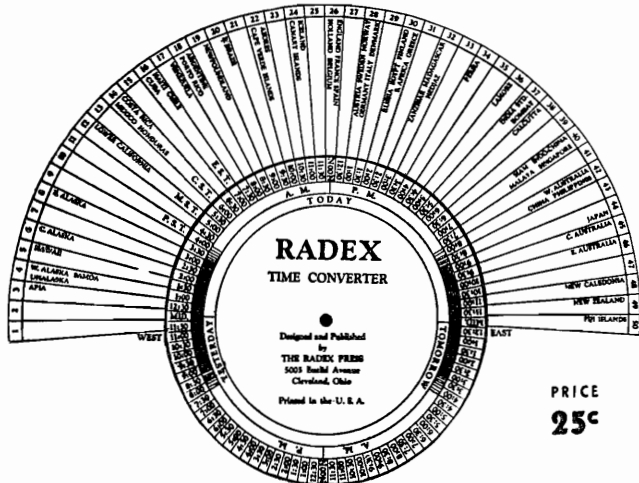
RADIO PROGRAMS

Time	MONDAY			TUESDAY		
	Program	Call	Dial	Program	Call	Dial
6:00						
6:15						
6:30						
6:45						
7:00						
7:15						
7:30						
7:45						
8:00						
8:15						
8:30						
8:45						
9:00						
9:15						
9:30						
9:45						
10:00						
10:15						
10:30						
10:45						
11:00						
11:15						
11:30						
11:45						
12:00						

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and log those distant stations you can't quite identify with the loud speaker?

or enjoy your radio after the rest of the family have retired?

Use the Perfect Phone Adapter for All Receivers

Don't run the risk of unbalancing your set by making any change in the wiring.

Don't change the load on the speaker by using set without all its tubes.

Don't be annoyed by taking tubes out and putting them back in every time you use phones.

The Perfect Phone Adapter is entirely automatic. Pushing in the phone plug cuts out speaker. Phone signals are taken off before amplification by power tubes thus giving volume suitable for the ears and preventing phones from burning out.

The adapter (or adapters) are placed under the power tube (or tubes) and left there. The little clamp goes to ground. Sufficient cable is furnished so little box can be placed in back of set or screwed to underside out of sight but readily accessible.

The use of the Perfect Phone Adapter does not change the load or interfere with use of speaker in any way. Not recommended for midgeet sets, but otherwise fully guaranteed.

MADE IN FOUR TYPES:

Model A: One socket, Four holes.
Model B: Two sockets, Four holes.

Model C: One socket, Five holes.
Model D: Two sockets, Five holes.

Models for one or two sockets and either six or seven holes made to order at same price.

Price of
any Model
Postpaid.....

\$3⁹⁵

Complete with
DX Phones and
Plug.....

\$6⁷⁰

When ordering give make and model of receiver and number and type of power tubes.

RADIO PARTS CO.

1401 Prospect Ave.

Cleveland, Ohio