



TUNG-SOL

WORLD RADIO LOG

A MODERN MAGIC **15¢** CARPET OF RADIO

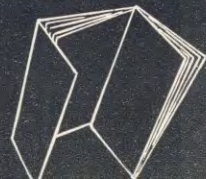
A LONG
LIFE....
AND
A MERRY ONE!

Why is Tung-Sol the long-life tube? Simply because it is the tested tube. Each step of the manufacture is checked—every tube rejected if it reveals the least indication of being unable to live up to the Tung-Sol reputation for quality.

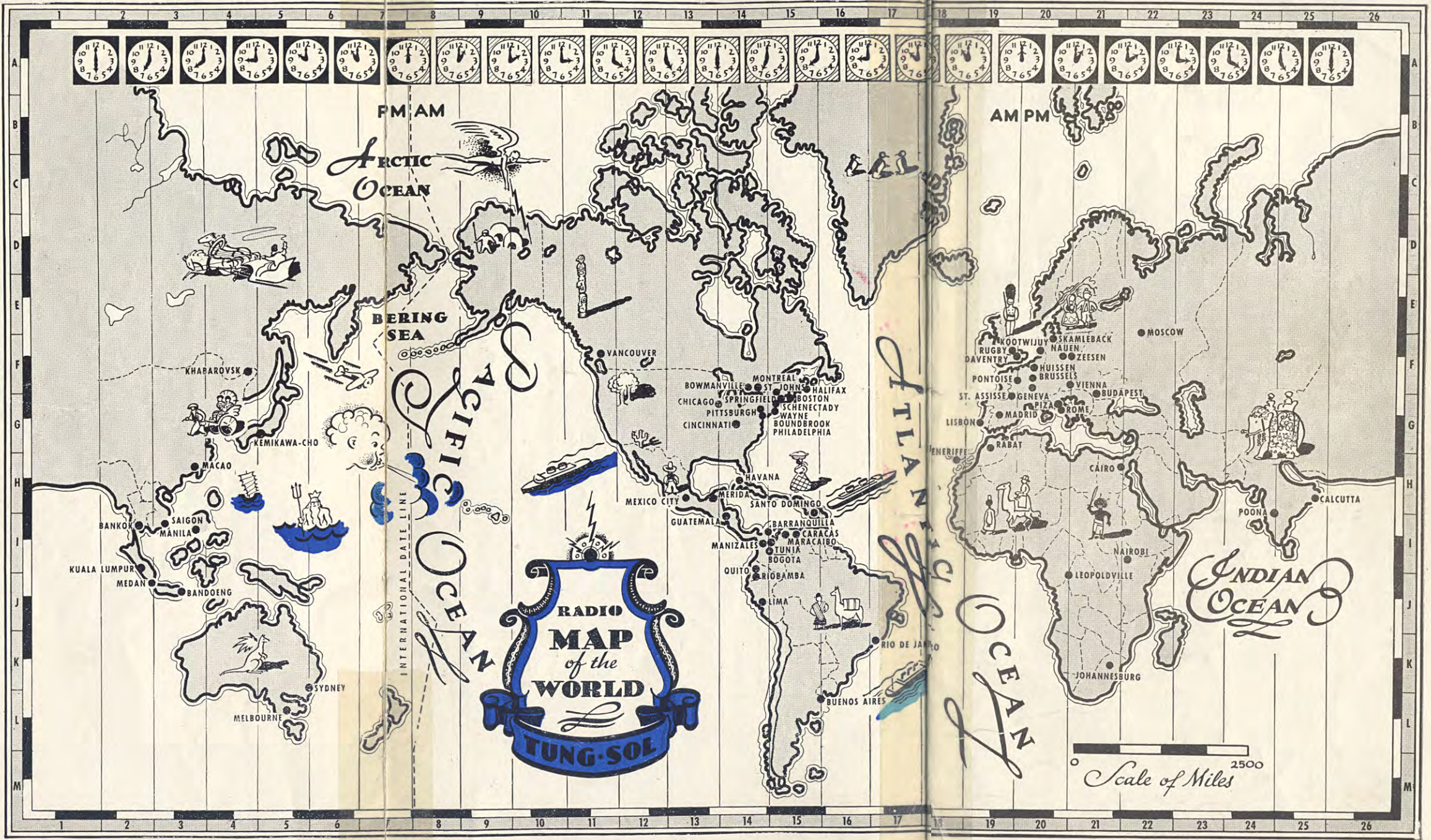
Then, before it is sent to the reliable dealer chosen to represent Tung-Sol in your neighborhood it is again subjected to the closest scrutiny. Hundreds upon hundreds of its "brothers" are literally burned to death to prove before hand that the tube you buy will live long. Good radio entertainment is so cheap that surely you can afford the long-run economy of having the right tubes.

TUNG-SOL
RADIO
TUBES

NOTE: Your favorite page can be found easily by using this page as a book mark. It can be placed anywhere in the book. See illustration.



This map is not intended to show every short-wave radio station in the world. . . . But it does give an accurate picture of the principal short wave stations. It is based on information supplied by Capt. C. J. Hall, perhaps our greatest authority on short-wave radio reception. On page 13 in this book Captain Hall will tell you how to go around the world in a single Sunday.



★ GETTING WHAT THE BROADCASTING STATIONS SENDS

By E. K. COHAN, Technical Director, Columbia Broadcasting System

HAVE YOU WONDERED: What is meant by high fidelity, wide band broadcast transmission?

How to obtain the full benefit of such achievements?

How to obtain the most satisfactory service from your radios?

Ever since the event of radio broadcasting, unceasing efforts have been made to improve the faithfulness with which the radio station transmits its program material. Years ago a great deal of effort was being made to obtain true reproduction of all the low tones—Do you remember the battle-cry of the salesman: "Listen to the low notes!"? Today, reproduction of the low frequencies is an accepted accomplishment and of late a great deal of attention has been given to the matter of obtaining faithful reproduction of the high audio frequencies.

Modern, high grade, present-day radio sets reproduce with good fidelity frequencies from the lowest desirable up to 5000 cycles or so. This performance, however, is only obtained with the better grade of receivers and with perfect tubes.

In anticipation of radio sets which will reproduce all the high audio frequencies, the broadcasters have continued the development of their equipment. Most of the large stations have greatly improved the fidelity of their transmissions by extending the frequency range of their transmissions to 8000 cycles or higher. Wide tone-range broadcasting of this kind results in more realistic reproduction of such musical instruments as the violin, clarinet, oboe, flute, piccolo and trumpet.

To take full advantage of these latest advances, the listener must provide himself with equipment capable of receiving and reproducing this wide band of audio frequencies. But it is not sufficient to merely obtain a good radio set and good tubes. Good antennas, erected in a workmanship manner, located so as to pick up a minimum electrical noise and connected to the radio set by a good shielded lead-in are absolutely essential!

Further, a modern radio set is a very complicated mechanism and just as in the case of the modern automobile, requires proper servicing. The average radio set is probably in use many more hours of the day than is the average car

but the small amount of attention it receives is, indeed, deplorable. No one waits to replace spark plugs until they just will not function further. Yet so many people try to get along with tubes long past their real efficiency. If the listener will periodically have a competent radio man service his receiver from antenna to loud speaker, he will immeasurably improve the performance of his radio set.

UNITED STATES BROADCASTING STATIONS BY CALL LETTERS

Dial	Call	Kilo.	City	Power	Dial	Call	Kilo.	City	Power
.....	KABC	1420	San Antonio, Tex.	100	.....	KFOX	1250	Long Beach, Cal.	1,000
.....	KALE	1300	Portland, Ore.	500	.....	KFPL	1310	Dublin, Tex.	100
.....	KARK	890	Little Rock, Ark.	250	.....	KFPM	1310	Greenville, Tex.	15
.....	KASA	1210	Elk City, Okla.	100	.....	KFPW	1210	Fort Smith, Ark.	100
.....	KBPS	1420	Portland, Ore.	100	.....	KFPY	1340§	Spokane, Wash.	1,000
.....	KBTM	1200	Paragould, Ark.	100	.....	KFRC	610§	San Francisco, Cal.	1,000
.....	KCMC	1420	Texarkana, Ark.	100	.....	KFRU	630	Columbia, Mo.	500
.....	KCRC	1370	Enid, Okla.	100	.....	KFSD	600¶	San Diego, Cal.	1,000
.....	KCRJ	1310	Jerome, Ariz.	100	.....	KFSG	1120	Los Angeles, Cal.	500
.....	KDB	1500	Santa Barbara, Cal.	100	.....	KFUO	550	Clayton, Mo.	500
.....	KDFN	1440	Casper, Wyo.	500	.....	KFVD	1000	Los Angeles, Cal.	250
.....	KDKA	980	Pittsburgh, Pa.	50,000	.....	KFVS	1210	Cape Girardeau, Mo.	1,000
.....	KDLR	1210	Devils Lake, N. D.	100	.....	KFWB	950	Hollywood, Cal.	1,000
.....	KDYL	1290†	Salt Lake City, Utah	1,000	.....	KFXD	1200	Nampa, Ida.	100
.....	KECA	1430	Los Angeles, Cal.	1,000	.....	KFXF	920	Denver, Colo.	500
.....	KELW	780	Burbank, Cal.	500	.....	KFXJ	1200	Grand Jet., Colo.	100
.....	KERN	1200	Bakersfield, Cal.	100	.....	KFXM	1210	San Bernardino, Cal.	100
.....	KEX	1180	Portland, Ore.	5,000	.....	KFXR	1310	Oklahoma City, Okla.	100
.....	KFAB	770‡	Lincoln, Neb.	5,000	.....	KFYO	1310	Lubbock, Tex.	100
.....	KFAC	1300	Los Angeles, Cal.	1,000	.....	KFYR	550†	Bismarck, N. D.	1,000
.....	KFBB	1280	Great Falls, Mont.	1,000	.....	KGA	1470	Spokane, Wash.	5,000
.....	KFBI	1050	Abilene, Kans.	5,000					
.....	KFBK	1310	Sacramento, Cal.	100					
.....	KFBL	1370	Everett, Wash.	50					
.....	KFDM	560	Beaumont, Tex.	500					
.....	KFDY	550	Brookings, S. D.	1,000					
.....	KFEL	920	Denver, Colo.	500					
.....	KFEQ	680	St. Joseph, Mo.	2,500					
.....	KFGQ	1310	Boone, Ia.	100					
.....	KFH	1300‡	Wichita, Kans.	1,000					
.....	KFI	640¶	Los Angeles, Cal.	50,000					
.....	KFIO	1120	Spokane, Wash.	100					
.....	KFIZ	1420	Fond du Lac, Wis.	100					
.....	KFJB	1200	Marshalltown, Ia.	100					
.....	KFJI	1210	Klamath Falls, Ore.	100					
.....	KFJM	1370	Grand Forks, N. D.	100					
.....	KFJR	1300	Portland, Ore.	500					
.....	KFJZ	1370	Fort Worth, Tex.	100					
.....	KFKA	880	Greeley, Colo.	500					
.....	KFKU	1220	Lawrence, Kans.	500					
.....	KFNF	890	Shenandoah, Ia.	500					
.....	KFOR	1210	Lincoln, Neb.	100					



TESTED FOR
MATCH

EACH TUNG-SOL TUBE IS "READ" AT THE
FACTORY. YOU CAN SAFELY PICK THEM

OUT AT RANDOM.

Dial	Call	Kilo.	City	Power
.....	KGAR	1370	Tucson, Ariz.	100
.....	KGB	1330	San Diego, Cal.	1,000
.....	KGXB	1310	Springfield, Mo.	100
.....	KGBZ	930	York, Neb.	500
.....	KGCA	1270	Decorah, Ia.	100
.....	KGCR	1210	Watertown, S. D.	100
.....	KGCU	1240	Mandan, N. D.	250
.....	KGXV	1310	Wolf Point, Mont.	100
.....	KGDE	1200	Fergus Falls, Minn.	100
.....	KGDM	1100	Stockton, Cal.	250
.....	KGDY	1340	Huron, S. D.	250
.....	KGEK	1200	Yuma, Colo.	100
.....	KGER	1360	Long Beach, Cal.	1,000
.....	KGEZ	1310	Kalispell, Mont.	100
.....	KGFF	1420	Shawnee, Okla.	100
.....	KGFG	1370	Oklahoma City, Okla.	100
.....	KGFI	1500	Corpus Christi, Tex.	100
.....	KGFJ	1200	Los Angeles, Cal.	100
.....	KGFK	1500	Moorhead, Minn.	100
.....	KGFL	1370	Roswell, N. Mex.	100
.....	KGFW	1310	Kearney, Neb.	100
.....	KGFX	630	Pierre, S. D.	200
.....	KGGC	1420	San Francisco, Cal.	100
.....	KGGF	1010	Coffeyville, Kans.	500
.....	KGGM	1230	Albuquerque, N. M.	250
.....	KGHF	1320	Pueblo, Colo.	250
.....	KGHI	1200	Little Rock, Ark.	100
.....	KGHL	950	Billings, Mont.	1,000
.....	KGIR	1360	Butte, Mont.	500
.....	KGIW	1420	Alamosa, Colo.	100
.....	KGIX	1420	Las Vegas, Nev.	100
.....	KGKB	1500	Tyler, Tex.	100
.....	KGKL	1370	San Angelo, Tex.	100
.....	KGKO	570	Wichita Falls, Tex.	250
.....	KGKY	1500	Scottsbluff, Neb.	100
.....	KGNF	1430	North Platte, Neb.	500
.....	KGNO	1340	Dodge City, Kans.	250
.....	KGO	790	San Francisco, Cal.	7,500
.....	KGRS	1410	Amarillo, Tex.	1,000
.....	KGVO	1200	Missoula, Mont.	100
.....	KGW	620	Portland, Ore.	1,000
.....	KGY	1210	Olympia, Wash.	100
.....	KHJ	900	Los Angeles, Cal.	1,000
.....	KHQ	590	Spokane, Wash.	1,000
.....	KICA	1370	Clovis, N. M.	100
.....	KICK	1370	Carter Lake, Ia.	100
.....	KID	1320	Idaho Falls, Ida.	250
.....	KIDO	1350	Boise, Ida.	1,000
.....	KIDW	1420	Lamar, Colo.	100
.....	KIEM	1210	Eureka, Cal.	100
.....	KIEV	850	Glendale, Cal.	100
.....	KIT	1310	Yakima, Wash.	100
.....	KJBS	1070	San Francisco, Cal.	100
.....	KJR	970	Seattle, Wash.	5,000
.....	KLCN	1290	Blytheville, Ark.	100
.....	KLO	1400	Ogden, Utah	500
.....	KLPM	1240	Minot, N. D.	250
.....	KLRA	1390	Little Rock, Ark.	1,000
.....	KLS	1440	Oakland, Cal.	250
.....	KLUF	1370	Galveston, Tex.	100
.....	KLX	880	Oakland, Cal.	1,000
.....	KLZ	580	Denver, Colo.	1,000
.....	KMA	930	Shenandoah, Ia.	500
.....	KMAC	1370	San Antonio, Tex.	100
.....	KMBC	950	Kansas City, Mo.	1,000
.....	KMED	1310	Medford, Ore.	100
.....	KMJ	580	Fresno, Cal.	500
.....	KMLB	1200	Monroe, La.	100

Dial	Call	Kilo.	City	Power
.....	KMMJ	740	Clay Center, Neb.	1,000
.....	KMO	1330	Tacoma, Wash.	250
.....	KMOC	1090	St. Louis, Mo.	50,000
.....	KMPC	710	Beverly Hills, Cal.	500
.....	KMTR	570	Los Angeles, Cal.	500
.....	KNOW	1500	Austin, Tex.	100
.....	KNX	1050	Los Angeles, Cal.	25,000
.....	KOA	830	Denver, Colo.	12,500
.....	KOAC	550	Corvallis, Ore.	1,000
.....	KOB	1180	Albuquerque, N.M.	10,000
.....	KOH	1380	Reno, Nev.	500
.....	KOIL	1260	Council Bluffs, Ia.	1,000
.....	KOIN	940	Portland, Ore.	1,000
.....	KOL	1270	Seattle, Wash.	1,000
.....	KOMA	1480	Oklahoma Cy., Ok.	5,000
.....	KOMO	920	Oklahoma City, Okla.	1,000
.....	KONO	1370	San Antonio, Tex.	100
.....	KOOS	1370	Marshfield, Ore.	100
.....	KORE	1420	Eugene, Ore.	100
.....	KOTN	1500	Pine Bluff, Ark.	100
.....	KOY	1390	Phoenix, Ariz.	500
.....	KPCB	650	Seattle, Wash.	100
.....	KPJM	1500	Prescott, Ariz.	100
.....	KPO	680	San Francisco, Cal.	50,000
.....	KPOF	880	Denver, Colo.	500
.....	KPPC	1210	Pasadena, Cal.	500
.....	KPQ	1500	Wenatchee, Wash.	100
.....	KPRC	920	Houston, Tex.	1,000
.....	KQV	1380	Pittsburgh, Pa.	500
.....	KQW	1010	San Jose, Cal.	500
.....	KRE	1370	Berkeley, Cal.	100
.....	KREG	1500	Santa Ana, Cal.	100
.....	KRGV	1260	Harlingen, Tex.	500
.....	KRKD	1120	Los Angeles, Cal.	500
.....	KRLD	1040	Dallas, Tex.	10,000
.....	KRLM	1310	Shreveport, La.	100
.....	KROW	930	Oakland, Cal.	500
.....	KRSC	1120	Seattle, Wash.	100
.....	KSAC	580	Manhattan, Kans.	500
.....	KSCJ	1330	Sioux City, Ia.	1,000
.....	KSD	550	St. Louis, Mo.	500
.....	KSEI	900	Pocatello, Ida.	250
.....	KSL	1130	Salt Lake Cy., Utah	50,000
.....	KSO	1370	Des Moines, Ia.	100
.....	KSOO	1110	Sioux Falls, S. D.	2,500
.....	KSTP	1460	St. Paul, Minn.	10,000
.....	KSUN	1200	Lowell, Ariz.	100
.....	KTAB	560	San Francisco, Cal.	1,000
.....	KTAR	620	Phoenix, Ariz.	500
.....	KTAT	1240	Fort Worth, Tex.	1,000



Dial	Call	Kilo.	City	Power
.....	KTBS	1450	Shreveport, La.	1,000
.....	KTFI	1240	West Twin Falls, Ida.	500
.....	KTHS	1040	H. Spgs. N. Pk., Ark.	10,000
.....	KTM	780	Los Angeles, Cal.	500
.....	KTRH	630	Houston, Tex.	500
.....	KTRB	740	Modesto, Cal.	250
.....	KTSA	1290	San Antonio, Tex.	1,000
.....	KTSM	1310	El Paso, Tex.	100
.....	KTUL	1400	Tulsa, Okla.	250
.....	KTW	1220	Seattle, Wash.	1,000
.....	KUJ	1370	Walla Walla, Wash.	100
.....	KUMA	1420	Yuma, Ariz.	100
.....	KUOA	1260	Fayetteville, Ark.	1,000
.....	KUSD	890	Vermillion, S. D.	500
.....	KVI	570	Tacoma, Wash.	500
.....	KVL	1370	Seattle, Wash.	100
.....	KVOA	1260	Tucson, Ariz.	500
.....	KVOO	1140	Tulsa, Okla.	25,000
.....	KVOR	1270	Colorado Spgs., Colo.	1,000
.....	KVOS	1200	Bellingham, Wash.	100
.....	KWCR	1300	Cedar Rapids, Ia.	250
.....	KWEA	1210	Shreveport, La.	100
.....	KWG	1200	Stockton, Cal.	100
.....	KWJJ	1060	Portland, Ore.	500
.....	KWK	1350	St. Louis, Mo.	1,000
.....	KWKC	1370	Kansas City, Mo.	100
.....	KWKC	850	Shreveport, La.	10,000
.....	KWLC	1270	Decorah, Ia.	100
.....	KWSC	1220	Pullman, Wash.	1,000
.....	KWTO	560	Grant City, Mo.	500
.....	KWWG	1260	Brownsville, Tex.	500
.....	KXA	760	Seattle, Wash.	250
.....	KXL	1420	Portland, Ore.	100
.....	KXO	1500	El Centro, Cal.	100
.....	KXRO	1310	Aberdeen, Wash.	100
.....	KXYZ	1440	Houston, Tex.	250
.....	KYA	1230	San Francisco, Cal.	1,000
.....	KYW	1020	Chicago, Ill.	10,000
.....	WAAB	1410	Boston, Mass.	500
.....	WAAC	920	Chicago, Ill.	500
.....	WAAM	1250	Newark, N. J.	1,000
.....	WAAT	940	Jersey City, N. J.	500
.....	WAAW	660	Omaha, Neb.	500
.....	WABC	860	New York (Man.), N. Y.	50,000
.....	WABI	1200	Bangor, Me.	100
.....	WACO	1420	Waco, Tex.	100
.....	WADC	1320	Tallmadge, O.	1,000
.....	WAGM	1420	Presque Isle, Me.	100
.....	WAIU	640	Columbus, O.	500
.....	WALR	1210	Zanesville, O.	100
.....	WAMC	1420	Anniston, Ala.	100
.....	WAML	1310	Laurel, Miss.	100
.....	WAPI	1140	Birmingham, Ala.	5,000
.....	WARD	1400	Brooklyn, N. Y.	500
.....	WATR	1190	Waterbury, Conn.	100
.....	WASH	1270	Grand Rapids, Mich.	500
.....	WAVE	940	Louisville, Ky.	1,000
.....	WAWZ	1350	Zarephath, N. J.	250
.....	WAZL	1420	Hazleton, Pa.	100
.....	WBAA	1400	West Lafayette, Ind.	500
.....	WBAK	1430	Harrisburg, Pa.	1,000
.....	WBAL	1060	Baltimore, Md.	10,000
.....	WBAP	800	Fort Worth, Tex.	50,000
.....	WBAX	1210	Wilkes-Barre, Pa.	100
.....	WBBC	1400	Brooklyn, N. Y.	500
.....	WBBL	1210	Richmond, Va.	100
.....	WBBM	770	Chicago, Ill.	25,000

Dial	Call	Kilo.	City	Power
.....	WBBS	1300	Brooklyn, N. Y.	1,000
.....	WBBX	1200	New Orleans, La.	100
.....	WBNO	1200	Ponca City, Okla.	100
.....	WBCM	1410	Bay City, Mich.	500
.....	WBEN	900*	Buffalo, N. Y.	1,000
.....	WBEO	1310	Marquette, Mich.	100
.....	WBHS	1200	Huntsville, Ala.	100
.....	WBIG	1440	Greensboro, N. C.	500
.....	WBNS	1430	Columbus, Ohio	1,000
.....	WBNS	1350	New York, N. Y.	250
.....	WBOW	1310	Terre Haute, Ind.	100
.....	WBRC	930	Birmingham, Ala.	500
.....	WBRE	1310	Wilkes-Barre, Pa.	100
.....	WBSS	920	Needham, Mass.	500
.....	WBT	1080	Charlotte, N. C.	50,000
.....	WBTM	1370	Danville, Va.	100
.....	WBZ	990	Boston, Mass.	50,000
.....	WBZ	990	Boston, Mass.	1,000
.....	WCAC	600	Storrs, Conn.	500
.....	WCAD	1220	Canton, N. Y.	500
.....	WCAE	1220*	Pittsburgh, Pa.	1,000
.....	WCAL	1250	Northfield, Minn.	1,000
.....	WCAM	1280	Camden, N. J.	500
.....	WCAO	600	Baltimore, Md.	500
.....	WCAP	1280	Asbury Park, N. J.	500
.....	WCAT	1200	Rapid City, S. D.	100
.....	WCAU	1170	Philadelphia, Pa.	50,000
.....	WCAX	1200	Burlington, Vt.	100
.....	WCAZ	1070	Carthage, Ill.	50
.....	WCBA	1440	Allentown, Pa.	250
.....	WCAT	1200	Rapid City, S. D.	100
.....	WCAU	1170	Philadelphia, Pa.	50,000
.....	WCAX	1200	Burlington, Vt.	100
.....	WCAZ	1070	Carthage, Ill.	50
.....	WCBA	1440	Allentown, Pa.	250
.....	WCAT	1200	Rapid City, S. D.	100
.....	WCBS	1210	Springfield, Ill.	100
.....	WCCO	810	Minneapolis-St. Paul	50,000
.....	WCFL	970	Chicago, Ill.	1,500
.....	WCHS	580	Charleston, W. Va.	250
.....	WCKY	1490	Covington, Ky.	5000
.....	WCLO	1200	Janesville, Wis.	100
.....	WCLS	1310	Joliet, Ill.	100
.....	WCNW	1500	Brooklyn, N. Y.	100
.....	WCOA	1340	Pensacola, Fla.	500
.....	WCOC	880	Meridian, Miss.	500
.....	WCRW	1210	Chicago, Ill.	100
.....	WCSC	1360	Charleston, S. C.	500
.....	WCSH	940*	Portland, Me.	1,000
.....	WDAA	1220	Tampa, Fla.	1,000
.....	WDAF	610*	Kansas City, Mo.	1,000
.....	WDAG	1410	Amarillo, Tex.	1,000
.....	WDAH	1310	El Paso, Tex.	100
.....	WDAS	1370	Philadelphia, Pa.	100
.....	WDAY	940	Fargo, N. D.	1,000
.....	WDBJ	930	Roanoke, Va.	250
.....	WDBO	580	Orlando, Fla.	250
.....	WDEL	1120	Wilmington, Del.	250
.....	WDEV	550	Waterbury, Vt.	500
.....	WDGY	1180	Minneapolis-St. Paul	1,000
.....	WDDO	1280	Chattanooga, Tenn.	1,000
.....	WDRG	1300	Hartford, Conn.	1,000
.....	WDSU	1250	New Orleans, La.	1,000
.....	WDZ	1070	Tuscola, Ill.	100
.....	WEAF	660*	New York, N. Y.	50,000
.....	WEAN	780	Providence, R. I.	250
.....	WEBC	1290	Superior, Wis.	1,000
.....	WEBQ	1210	Harrisburg, Ill.	100
.....	WEBS	1310	Buffalo, N. Y.	100
.....	WEDC	1210	Chicago, Ill.	100

Dial	Call	Kilo.	City	Power
WEED	1420		Greenville, N. C.	100
WEEL	590*		Boston, Mass.	1,000
WEUU	830		Reading, Pa.	1,000
WEHC	1350		Charlottesville, Va.	500
WEHS	1420		Cicero, Ill.	100
WELL	1420		Battle Creek, Mich.	50
WENC	1420		Americus, Ga.	100
WENR	870		Chicago, Ill.	50,000
WESG	1040		Elmira, N. Y.	1,000
WEVD	1300		New York, N. Y.	500
WEW	760		St. Louis, Mo.	1,000
WEXL	1310		Royal Oak, Mich.	50
WFAA	800†		Dallas, Tex.	50,000
WFAB	1300		New York, N. Y.	1,000
WFAM	1200		South Bend, Ind.	100
WFAS	1210		White Plains, N. Y.	100
WFBC	1200		Greenville, S. C.	100
WFBE	1200		Cincinnati, O.	100
WFBG	1310		Altoona, Pa.	100
WFBF	1360°		Syracuse, N. Y.	1,000
WFBM	1230°		Indianapolis, Ind.	1,000
WFBR	1270*		Baltimore, Md.	500
WFDF	1310		Flint, Mich.	100
WRGA	1500		Rome, Ga.	100
WFEA	1430‡		Manchester, N. H.	500
WFI	560*		Philadelphia, Pa.	500
WFLA	620‡		Clearwater, Fla.	250
WGAL	1310		Lancaster, Pa.	100
WGAR	1450		Cleveland, O.	500
WGBB	1210		Freeport, N. Y.	100
WGBF	630		Evansville, Ind.	500
WGBI	880		Scranton, Pa.	250
WGCM	1210		Mississippi City, Miss.	100
WGCP	1250		Newark, N. J.	250
WGES	1360		Chicago, Ill.	500
WGH	1310		Newport News, Va.	100
WGL	1370		Fort Wayne, Ind.	100
WGLC	1370		Hudson Falls, N. Y.	100
WGN	720		Chicago, Ill.	25,000
WGNV	1210		Chester Twp., N. Y.	100
WGR	550°		Buffalo, N. Y.	1,000
WGST	890‡		Atlanta, Ga.	250
WGY	790*		Schenectady, N. Y.	50,000
WHA	940		Madison, Wis.	1,000
WHAD	1120		Milwaukee, Wis.	250
WHAM	1150		Rochester, N. Y.	50,000
WHAS	820°		Louisville, Ky.	50,000
WHAT	1310		Philadelphia, Pa.	100
WHAZ	1300		Troy, N. Y.	500
WHB	860		Kansas City, Mo.	500
WHBC	1200		Canton, O.	100
WHBD	1370		Mount Orab, O.	100
WHBF	1210		Rock Island, Ill.	100
WHBL	1410		Sheboygan, Wis.	500
WHBQ	1370		Memphis, Tenn.	100
WHBU	1210		Anderson, Ind.	100
WHBY	1200		Green Bay, Wis.	100
WHDF	1370		Calumet, Mich.	100
WHDH	830		Boston, Mass.	1,000
WHDL	1420		Tupper Lake, N. Y.	100
WHEB	740		Portsmouth, N. H.	250
WHEC	1430‡		Rochester, N. Y.	500
WHEF	1500		Kosciusko, Miss.	100
WHET	1370		Troy, Ala.	100
WHFC	1420		Cicero, Ill.	100
WHIS	1410		Bluefield, Va. Va.	250
WHK	1390°		Cleveland, O.	1,000
WHN	1010		New York, N. Y.	250



Dial	Call	Kilo.	City	Power
WHOM	1450		Jersey City, N. J.	250
WHP	1430‡		Harrisburg, Pa.	500
WIAS	1310		Ottumwa, Ia.	100
WIBA	1280‡		Madison, Wis.	500
WIBG	970		Glenside, Pa.	100
WIBM	1370		Jackson, Mich.	100
WIBU	1210		Poynette, Wis.	100
WIBW	580‡		Topeka, Kans.	1,000
WIBX	1200		Utica, N. Y.	100
WICC	600‡		Bridgeport, Conn.	500
WIL	1200		St. Louis, Mo.	100
WILL	890		Urbana, Ill.	250
WILM	1420		Wilmington, Del.	100
WIND	560		Gary, Ind.	1,000
WINS	1180		New York, N. Y.	500
WIOD	1300†		Miami, Fla.	1,000
WMBF	1300†		Miami Beach	1,000
WIP	610°		Philadelphia, Pa.	500
WIS	1010‡		Columbia, S. C.	500
WISN	1120‡		Milwaukee, Wis.	250
WJAC	1310		Johnstown, Pa.	100
WJAG	1060		Norfolk, Neb.	1,000
WJAR	890*		Providence, R. I.	250
WJAS	1290°		Pittsburgh, Pa.	1,000
WJAX	900‡		Jacksonville, Fla.	1,000
WJAY	610		Cleveland, O.	500
WJBC	1200		La Salle, Ill.	100
WJBI	1210		Red Bank, N. J.	100
WJBK	1370		Detroit, Mich.	500
WJBL	1200		Decatur, Ill.	100
WJBO	1420		Baton Rouge, La.	100
WJBW	1200		New Orleans, La.	100
WJBY	1210		Gadsden, Ala.	100
WJDX	1270‡		Jackson, Miss.	2,500
WJED	1210		Hagerstown, Md.	100
WJEM	990		Tupelo, Miss.	500
WJJD	1130		Mooseheart, Ill.	20,000
WJMS	1420		Ironwood, Mich.	100
WJRW	750		Detroit, Mich.	10,000
WJSV	1460°		Alexandria, Va.	10,000
WJTL	1370		Oglethorpe Univ., Ga.	100

Dial	Call	Kilo.	City	Power
WJW	1210		Akron, O.	100
WJZ	760		New York, N. Y.	30,000
WKAR	1040		East Lansing, Mich.	1,000
WKBB	1500		East Dubuque, Ill.	100
WKBF	1400†		Indianapolis, Ind.	500
WKBH	1380‡		La Crosse, Wis.	1,000
WKBI	1420		Cicero, Ill.	100
WKBN	570‡		Youngstown, O.	500
WKBO	1200		Harrisburg, Pa.	100
WKBV	1500		Connerville, Ind.	100
WKBW	1480°		Buffalo, N. Y.	5,000
WKBZ	1500		Ludington, Mich.	100
WKEU	1500		La Grange, Ga.	100
WKFI	1210		Greenville, Miss.	100
WKJC	1200		Lancaster, Pa.	100
WKOK	1210		Sunbury, Pa.	100
WKRC	550°		Cincinnati, O.	500
WKY	900‡		Oklahoma Cy., Okla.	1,000
WKZO	590		Kalamazoo, Mich.	1,000
WLAC	1470‡		Nashville, Tenn.	5,000
WLAP	1420		Louisville, Ky.	100
WLB	1250		Minneapolis-St. Paul	1,000
WLCB	1310		Muncie, Ind.	50
WLFB	1420		Kansas City, Kans.	100
WLBL	900		Stevens Point, Wis.	2,500
WLBW	1260‡		Erie, Pa.	500
WLBZ	620‡		Bangor, Me.	500
WLEU	1420		Erie, Pa.	100
WLEY	1370		Lexington, Mass.	100
WLIT	560*		Philadelphia, Pa.	500
WLNH	1310		Laconia, N. H.	100
WLS	870		Chicago, Ill.	50,000
WLTH	1400		Brooklyn, N. Y.	500
WLVA	1370		Lynchburg, Va.	100
WLW	700*		Cincinnati, O.	500,000
WLWL	1100		New York, N. Y.	5,000
WMAL	630		Washington, D. C.	2,500
WMAQ	670*		Chicago, Ill.	500
WMAS	1420‡		Springfield, Mass.	250
WMAZ	1180		Macon, Ga.	500
WMBC	1420		Detroit, Mich.	100
WMBD	1440‡		Peoria, Ill.	500
WMBG	1210‡		Richmond, Va.	100
WMBH	1420		Joplin, Mo.	100
WMBI	1080		Chicago, Ill.	500
WMBJ	1310		Auburn, N. Y.	1,000
WMBQ	1500		Brooklyn, N. Y.	100
WMBR	1370		Tampa, Fla.	100
WMC	780‡		Memphis, Tenn.	500
WMCA	570		New York, N. Y.	500
WMEX	1500		Chelsea, Mass.	100
WMFM	890		Fairmont, W. Va.	250
WMFO	1500		Lapeer, Mich.	100
WMT	600‡		Waterloo, Ia.	1,000
WMNA	1230°		Boston, Mass.	1,000
WNAD	1010		Norman, Okla.	500
WNAX	570‡		Yankton, S. D.	1,000
WNBF	1500		Binghamton, N. Y.	100
WNBH	1310		New Bedford, Mass.	100
WNBO	1200		Silverhaven, Pa.	100
WNBR	1430		Memphis, Tenn.	500
WNBX	1260		Springfield, Vt.	250
WNBZ	1290		Saranac Lake, N. Y.	50
WNEW	1250		Newark, N. J.	1,000
WNOX	560		Knoxville, Tenn.	1,000
WNRA	1420		Muscle Shoals Cy., Ala.	100
WNYC	810		New York, N. Y.	500
WQAI	1190‡		San Antonio, Tex.	50,000

Dial	Call	Kilo.	City	Power
WOC	1000*		Des Moines, Ia.	50,000
WHO	1210		Jamestown, N. Y.	50
WODL	1250		Paterson, N. J.	1,000
WODU	1410		Mobile, Ala.	500
WOLA	1400		Ames, Ia.	5,000
WOKO	1440°		Albany, N. Y.	500
WOL	1310		Washington, D. C.	100
WOMT	1210		Manitowish, Wis.	100
WOOD	1270		Grand Rapids, Mich.	500
WOPI	1500		Bristol, Tenn.	100
WOQ	1300		Kansas City, Mo.	1,000
WOR	710		Newark, N. J.	50,000
WORC	1200‡		Worcester, Mass.	100
WORK	1000		York, Pa.	1,000
WOS	630		Jefferson City, Mo.	500
WOSU	570		Columbus, O.	750
WOV	1130		New York, N. Y.	1,000
WOW	590*		Omaha, Neb.	1,000
WOWO	1160°		Fort Wayne, Ind.	10,000
WPAD	1420		Paducah, Ky.	100
WPAP	1010		New York N. Y.	250
WPEN	1500		Philadelphia, Pa.	100
WPFB	1370		Hattiesburg, Miss.	100
WPG	1100‡		Atlantic City, N. J.	5,000
WPHR	1200		Petersburg, Va.	100
WPRO	630		Providence, R. I.	250
WPTF	680‡		Raleigh, N. C.	1,000
WQAM	560‡		Miami, Fla.	1,000
WQAN	880		Scranton, Pa.	250
WQAO	1010		New York, N. Y.	250
WQBC	1360		Vicksburg, Miss.	500
WQDM	1370		St. Albans, Vt.	100
WQDX	1210		Thomasville, Ga.	100
WRAK	1370		Williamsport, Pa.	100
WRAM	1500		Wilmington, N. C.	100
WRAP	1310		Reading, Pa.	100
WRAX	1020		Philadelphia, Pa.	250
WRBL	1200		Columbus, Ga.	100
WRBX	1410		Roanoke, Va.	250
WRC	950*		Washington, D. C.	500
WRDO	1370		Augusta, Me.	100
WRDW	1500		Augusta, Ga.	100
WREC	600‡		Memphis, Tenn.	500
WREN	1220		Lawrence, Kans.	1,000
WRHM	1250		Minneapolis-St. Paul	1,000
WRJN	1370		Racine, Wis.	100
WRNY	1010		New York, N. Y.	250
WROK	1410		Rockford, Ill.	500
WROL	1310		Knoxville, Tenn.	100
WRR	1280‡		Dallas, Tex.	500
WRUF	830		Gainesville, Fla.	5,000
WRVA	1110‡		Richmond, Va.	5,000
WSAI	1330*		Cincinnati, O.	500
WSAJ	1310		Grove City, Pa.	100
WSAN	1440		Allentown, Pa.	250
WSAR	1450		Fall River, Mass.	250
WSAZ	1190		Huntington, W. Va.	1,000
WSB	740‡		Atlanta, Ga.	50,000
WSBC	1210		Chicago, Ill.	100
WSBT	1230		South Bend, Ind.	500
WSEN	1210		Columbus, O.	100
WSFA	1410‡		Montgomery, Ala.	500
WSGN	1310		Birmingham, Ala.	100
WSIX	1210		Springfield, Tenn.	100
WSJS	1310		Winston-Salem, N. C.	100
WSM	650‡		Nashville, Tenn.	50,000

Dial	Call	Kilo.	City	Power	Dial	Call	Kilo.	City	Power
.....	WSMB	1320†	New Orleans, La.	500	.....	WTBO	1420	Cumberland, Md.	100
.....	WSMK	1380	Dayton, O.	200	.....	WTELY	1310	Philadelphia, Pa.	100
.....	WSOC	1210	Charlotte, N. C.	250	.....	WTFI	1450	Athens, Ga.	500
.....	WSPA	1420	Spartanburg, S. C.	100	.....	WTIC	1060*	Hartford, Conn.	50,000
.....	WSPD	1340°	Toledo, O.	1,000	.....	WTJS	1310	Jackson, Tenn.	100
.....	WSUI	880	Iowa City, Ia.	500	.....	WTMJ	1280	Trenton, N. J.	500
.....	WSUN	620†	Clearwater, Fla.	250	.....	WTOC	1260†	Savannah, Ga.	500
.....	WSVS	1370	Buffalo, N. Y.	50	.....	WTRC	1310	Elkhart, Ind.	50
.....	WSYB	1500	Rutland, Vt.	100	.....	WVFW	1400	Brooklyn, N. Y.	500
.....	WSYR	.....	.....	.....	.....	WVAE	1200	Hammond, Ind.	100
.....	WSYU	570	Syracuse, N. Y.	250	.....	WWJ	920*	Detroit, Mich.	1,000
.....	WTAD	1440	Quincy, Ill.	500	.....	WWL	850	New Orleans, La.	10,000
.....	WTAG	580*	Worcester, Mass.	250	.....	WWNC	570†	Asheville, N. C.	1,000
.....	WTAM	1070*	Cleveland, O.	50,000	.....	WWRL	1500	Woodside, N. Y.	100
.....	WTAQ	1330†	Eau Claire, Wis.	1,000	.....	WWSW	1500	Pittsburgh, Pa.	100
.....	WTAR	780†	Norfolk, Va.	500	.....	WVVA	1160†	Wheeling, W. Va.	5,000
.....	WTAW	1120	College Station, Tex.	500	.....	WXYZ	1240	Detroit, Mich.	1,000
.....	WTAX	1210	Springfield, Ill.	100	.....	.....	.....	.....	.....

ALASKA, PHILIPPINES, HAWAII, PORTO RICO BROADCASTING STATIONS

Dial	Call	Kilo.	City	Power	Dial	Call	Kilo.	City	Power
.....	KFQD	600	Anchorage, Alaska	250	.....	KGU	750†	Honolulu, Hawaii	2500
.....	WKAQ	1240	San Juan, P. R.	1,000	.....	KWV	1210	Hilo, Hawaii	100
.....	KGBU	900	Ketchikan, Alaska	500	.....	WNEL	1290	San Juan, P. R.	500
.....	KGMB	1320§	Honolulu, Hawaii	250	.....	.....	.....	.....	.....

CUBA BROADCASTING STATIONS

Dial	Call	Kilo.	City	Power	Dial	Call	Kilo.	City	Power
.....	CMAB	1249	Pinar del Rio	20	.....	CMGA	834	Colon	100
.....	CMAF	680	Havana	1,000	.....	CMGB	1205	Matanzas	30
.....	CMBC	1270	Havana	150	.....	CMGC	820	Matanzas	30
.....	CMBD	965	Havana	250	.....	CMGE	1375	Cardenas	30
.....	CMBG	1052	Havana	225	.....	CMGF	972	Matanzas	100
.....	CMBJ	1140	Havana	500	.....	CMGH	1040	Matanzas	15
.....	CMBK	1445	Havana	15	.....	CMHD	946	Caibarien	500
.....	CMBL	1445	Havana	200	.....	CMHI	1037	Santa Clara	250
.....	CMBN	1185	Havana	150	.....	CMHJ	1125	Cienfuegos	60
.....	CMBS	765	Havana	200	.....	CMHK	1225	Cruces	50
.....	CMBW	1140	Havana	600	.....	CMHL	1290	Cienfuegos	20
.....	CMBY	1230	Havana	250	.....	CMHW	1200	Cienfuegos	100
.....	CMCZ	1005	Havana	150	.....	CMJC	1382	Camaguey	150
.....	CMC	835	Havana	500	.....	CMJE	1170	Camaguey	50
.....	CMCA	1230	Havana	150	.....	CMJF	910	Camaguey	200
.....	CMCB	1052	Havana	150	.....	CMJG	1050	Camaguey	50
.....	CMCD	915	Havana	500	.....	CMJH	1150	Ciego de Avila	50
.....	CMCF	873	Havana	250	.....	CMJI	1335	Ciego de Avila	45
.....	CMCH	1410	Havana	50	.....	CMJK	790	Camaguey	500
.....	CMCJ	1180	Havana	500	.....	CMJL	960	Camaguey	50
.....	CMCM	1410	Havana	15	.....	CMJN	1240	Camaguey	50
.....	CMCN	1375	Havana	250	.....	CMJO	1010	Ciego de Avila	50
.....	CMCP	1270	Havana	150	.....	CMJP	1360	Moron	75
.....	CMCQ	775	Havana	1,000	.....	CMK	730	Havana	5,000
.....	CMCR	1375	Havana	150	.....	CMKC	1034	Santiago de Cuba	150
.....	CMCU	1110	Havana	500	.....	CMKJ	1300	Guantanamo	20
.....	CMCW	965	Havana	150	.....	CMQ	630	Havana	500
.....	CMCY	1320	Havana	500	.....	CNW	595	Havana	.....
.....	CMDD	588	Havana	150	.....	.....	.....	(Voz de las Antillas)	1,400
.....	CMDE	925	Havana	150	.....	CMX	875	Havana	1,000



CANADA BROADCASTING STATIONS

Dial	Call	Kilo.	City	Power	Dial	Call	Kilo.	City	Power
.....	CFAC	930	Calgary, Alberta	100	.....	CHNC	1210	New Carlisle, Que.	100
.....	CFCF	600†	Montreal, Que.	400	.....	CHNS	1050	Halifax, N. S.	500
.....	CFCH	930	North Bay, Ont.	100	.....	CHRC	930	Quebec, Que.	100
.....	CFCN	1030	Calgary, Alberta	10,000	.....	CHSJ	1370	St. John's, N. B.	100
.....	CFCO	600	Chatham, Ont.	50	.....	CHWC	1040	Regina, Sask.	500
.....	CFCT	1450	Victoria, B. C.	50	.....	CHWK	780	Chilliwack, B. C.	100
.....	CFCY	630	Charlottetown, P. E. I.	500	.....	CJAT	1200	Trail, B. C.	50
.....	CFJC	1310	Kamloops, B. C.	100	.....	CJCA	730	Edmonton, Alberta	1,000
.....	CFLE	930	Prescott, Ont.	100	.....	CJCB	880	Sydney, N. S.	50
.....	CFNB	1030	Fredricton, N. B.	500	.....	CJCJ	690	Calgary, Alberta	100
.....	CFPL	730	London, Ont.	100	.....	CJGJ	630	Yorkton, Sask.	500
.....	CFQC	1230	St. John's, N. B.	500	.....	CJKL	1310	Kirkland Lake, Ont.	100
.....	CFRB	600†	Toronto, Ont.	10,000	.....	CJLS	1310	Yarmouth, N. S.	100
.....	CFRC	1510	Kingston, Ont.	100	.....	CJOC	840	Lethbridge, Alberta	100
.....	CFTP	1120	Edmonton, Alberta	100	.....	CJOR	600	Vancouver, B. C.	500
.....	CHAB	1200	Moose Jaw, Sask.	100	.....	CJRC	1390	Winnipeg, Man.	100
.....	CHCK	1310	Charlottetown, P. E. I.	50	.....	CKAC	730†	Montreal, Que.	5,000
.....	CHGS	1220	Summerside, P. E. I.	50	.....	CKBI	1200	Prince Albert, Sask.	100
.....	CHLP	1120	Montreal, Que.	100	.....	CKCD	1000	Vancouver, B. C.	100
.....	CHMA	580	Edmonton, Alberta	250	.....	CKCH	1210	Hull, Que.	100
.....	CHML	1010	Hamilton, Ont.	50	.....	CKCK	1010	Regina, Sask.	500
.....	.....	.....	.....	.....	.....	CKCL	580	Toronto, Ont.	100
.....	.....	.....	.....	.....	.....	CKCO	1010	Ottawa, Ont.	100
.....	.....	.....	.....	.....	.....	CKCR	1510	Waterloo, Ont.	100
.....	.....	.....	.....	.....	.....	CKCV	1310	Quebec, Que.	50
.....	.....	.....	.....	.....	.....	CKFB	1410	Vancouver, B. C.	50
.....	.....	.....	.....	.....	.....	CKGB	1420	Timmons, Ont.	100
.....	.....	.....	.....	.....	.....	CKIC	1010	Wolfville, N. S.	50
.....	.....	.....	.....	.....	.....	CKLW	840°	Windsor, Ont.	5,000
.....	.....	.....	.....	.....	.....	CKMC	1210	Cobalt, Ont.	50
.....	.....	.....	.....	.....	.....	CKMO	1410	Vancouver, B. C.	100
.....	.....	.....	.....	.....	.....	CKNC	1030	Toronto, Ont.	100
.....	.....	.....	.....	.....	.....	CKOC	1120	Hamilton, Ont.	500
.....	.....	.....	.....	.....	.....	CKOV	1210	Kelowna, B. C.	50
.....	.....	.....	.....	.....	.....	CKPC	930	Brantford, Ont.	100
.....	.....	.....	.....	.....	.....	CKPP	780	Fort William, Ont.	100
.....	.....	.....	.....	.....	.....	CKTB	1200	St. Catharines, Ont.	100
.....	.....	.....	.....	.....	.....	CKUA	480	Edmonton, Alberta	50
.....	.....	.....	.....	.....	.....	CKWX	1010	Vancouver, B. C.	100
.....	.....	.....	.....	.....	.....	CKX	1450	Winnipeg, Man.	500
.....	.....	.....	.....	.....	.....	CKY	910	Winnipeg, Man.	5,000
.....	.....	.....	.....	.....	.....	CRCM	910	Montreal, Que.	5,000
.....	.....	.....	.....	.....	.....	CRCO	880	Ottawa, Ont.	1,000
.....	.....	.....	.....	.....	.....	CRCS	1500	Chicoutimi, Que.	100
.....	.....	.....	.....	.....	.....	CRCT	920†	Toronto, Ont.	5,000
.....	.....	.....	.....	.....	.....	CRCV	1100	Vancouver, B. C.	1,000

MEXICO BROADCASTING STATIONS

Dial	Call	Kilo.	City	Power	Dial	Call	Kilo.	City	Power
.....	XEA	1100	Guadalajara, Jal.	125	.....	XEFG	1105	Mexico D. F.	250
.....	XEAB	1450	Nuevo Laredo, Tamps.	7½	.....	XEFI	1260	Chihuahua, Chih.	250
.....	XEAE	980	Tia Juana, B. C.	800	.....	XEFV	1370	Chihuahua, Chih.	100
.....	XEAF	990	Mexicali, B. C.	750	.....	XEFW	1310	Tampico, Tamps.	70
.....	XEAI	1090	Mexico, D. F.	100	.....	XEFZ	1370	Mexico, D. F.	100
.....	XEAO	560	Mexicali, B. C.	250	.....	XEH	1132	Monterrey, N. L.	250
.....	XEAT	815	Agua Caliente, B. C.	10,000	.....	XEI	1310	Morelia, Mich.	250
.....	XEAW	956	Reynosa, Tamps.	10,000	.....	XEJ	1015	Ciudad Juarez, Chih.	250
.....	XEB	1030	Mexico, D. F.	10,000	.....	XEK	990	Mexico, D. F.	100
.....	XEC	1000	Toluca, Mex.	50	.....	XEL	1000	Saltillo, Coah.	10
.....	XECW	1310	Mexico, D. F.	10	.....	XEN	710	Mexico, D. F.	1,000
.....	XED	1155	Guadalajara, Jal.	500	.....	XENT	1155	Nuevo Laredo, Tamps.	150,000
.....	XEFA	1250	Mexico, D. F.	500	.....	XEO	940	Mexico, D. F.	5,000
.....	XEFB	1315	Monterrey, N. L.	100	.....	XEOK	750	Tia Juana B. C.	100
.....	XEFC	1050	Merida, Yuc.	100	.....	.....	.....	.....	.....

Dial	Call	Kilo.	City	Power	Dial	Call	Kilo.	City	Power
.....	XEP	780	Nuevo Laredo, Tmps.	500	.....	XEWW	1100	Vera Cruz, B. C.	250
.....	XEPN	585	Pied. Negras, Coa.	50,000	.....	XEX	630	Monterrey, N. L.	50
.....	XES	1020	Tampico, Tams.	250	.....	XEY	547	Merida, Yuc.	10
.....	XET	690	Monterrey, N. L.	500	.....	XEYZ	780	Mexico, D. F.	10,000
.....	XETB	1380	Torreon, Coah.	125	.....	XEZ	630	Merida, Yuc.	500
.....	XETH	1200	Puebla, Puebla	100	.....	XFC	805	Aguascalientes, Agua.	350
.....	XETW	830	Mexico, D. F.	500	.....	XFE	985	Nuevo Laredo, Tamps.	100
.....	XETZ	1210	Mexico, D. F.	500	.....	XFO-			
.....	XEU	1010	Vera Cruz, V. C.	100	.....	XFO	940	Mexico, D. F.	5,000
.....	XEW	910	Mexico, D. F.	5,000	.....	XVX	610	Mexico, D. F.	500

(Hacienda de Coapa)

WORLD LONG WAVE BROADCASTING STATIONS

WHICH CAN BE HEARD IN AMERICA

Dial	Call	Kilo.	City	Power	Dial	Call	Kilo.	City	Power
.....		841	Berlin, Germany	100	.....		904	Hamburg, Germany	100
.....		546	Budapest, Hungary	120	.....		785	Leipzig, Germany	120
.....	LR2	910	Buenos Aires	10,000	.....		959	Paris, France	100
.....	LR3	950	Buenos Aires	12,000	.....		638	Prague, Czechosl'kia	120
.....	LR4	990	Buenos Aires	10,000	.....		574	Stuttgart, Germany	100
.....	LR5	830	Buenos Aires	20,000	.....		592	Vienna, Austria	120
.....	YV1BC	960	Caracas, Venezuela	5,000					

Note: Call letters are not generally used in foreign countries.

Note: The symbols listed below are listed under United States by call letters.

° Columbia Network.

† Columbia Supplementary Stations.

§ Columbia Pacific Coast Group.

* National Red Network.

■ National Blue Network.

† National Supplementary Stations.

¶ National Pacific Coast Group.

AMATEUR BANDS

Below are listed the bands on which amateurs operate. The amateurs developed the use of Short Wave bands about 1927 and they are used by them to transmit either voice or code. Notice that whether voice or code is permitted on the different amateur bands, some are divided between voice or code broadcasting, others are devoted exclusively to one or the other.

Bands	Frequencies	Type of Broadcasting Permitted
160 meters	2000 to 1800 kilocycles	Voice
	1800 to 1715 kilocycles	Code
80 meters	4400 to 4300 kilocycles	Voice
	4300 to 4000 kilocycles	Code
40 meters	7300 to 7000 kilocycles	Code
20 meters	14400 to 14000 kilocycles	Voice
	14250 to 14150 kilocycles	Code
10 meters	30000 to 28000 kilocycles	Voice
5 meters	60000 to 56000 kilocycles	Voice

More detailed information on short wave broadcasting stations, meters and call letters are listed in the last few pages.

UNITED STATES BROADCASTING STATIONS LISTED BY FREQUENCIES

550 Kilo. 545.1 M	1000 500	KFDY, KFYZ, KOAC, WGR KFUO, KSD, WDEV, WKRC	660 Kilo. 454.3 M	50000 500	WEAF WAAW
560 Kilo. 535.4 M	1000 500	KLZ, KTAB, WIND, WNOX, WQAM KFDN, KWTO, WFI, WLIT	670 Kilo. 447.5 M	5000	WMAQ
570 Kilo. 526 M	1000 750 500	WNAX, WWNC WOSU KMTR, KVI, WKBN, WMCA	680 Kilo. 440.9 M	50000 2500 1000	KPO KFEQ WPTF
580 Kilo. 516.9 M	1000 500 250	WIBW KMJ, KSAC WCHS, WDBO WTAG	700 Kilo. 428.3 M	50000	WLW
590 Kilo. 508.2 M	1000	KHQ, WEEI, WKZO WOW	710 Kilo. 423.3 M	50000 500	WOR KMPC
600 Kilo. 499.7 M	1000 500	KFSD, WMT WCAC, WCAO, WICC, WREC	720 Kilo. 416.4 M	25000	WGN
610 Kilo. 491 M	1000 500	KFRG, WDAF WIP, WJAY	740 Kilo. 405.2 M	50000 1000 250	WSB KMMJ KTRB, WHEB
620 Kilo. 483.6 M	1000 500 250	KGW, WTMJ KTAR, WLBZ WFLA, WSUN	750 Kilo. 399.8 M	10000	WJR
630 Kilo. 675.9 M	500 250 200	KFRU, KTRH, WGBF, WOS WMAL, WPRO KGFX	760 Kilo. 394.5 M	30000 1000 250	WJZ WEW KXA
640 Kilo. 468.5 M	50000 5000 500	KFI WOI WAIU	770 Kilo. 389.4 M	25000 5000	KBMM KFB
650 Kilo. 461.3 M	50000 100	WSM KPCB	780 Kilo. 384.4 M	500 250	KELW, KTM, WMC, WTAR WEAN
			790 Kilo. 379.5 M	50000 7500	WGY KGO
			800 Kilo. 374.8 M	50000	WBAP, WFAA
			810 Kilo. 370.2 M	50000 500	WCCO WNYC
			820 Kilo. 365.6 M	50000	WHAS
			830 Kilo. 361.2 M	12500 5000 1000	KOA WRUF WEEU, WHDH
			850 Kilo. 352.7 M	10000 100	KWKH, WWL KIEV
			860 Kilo. 346.5 M	50000 500	WABC, WBOQ WHB
			870 Kilo. 344.6 M	50000	WENR, WLS
			880 Kilo. 340.7 M	1000 500	KLX KFKA, KPOF, WCCO, WSUI
				250	WGBI, WQAN
			890 Kilo. 336.9 M	500 250	KFNF, KUSD KARK, WGST, WILL WJAR, WMMN





900 Kilo. 333.1 M	2500 1000	WLBL KHJ, WBEN, WJAX, WKY KSEI
920 Kilo. 325.9 M	1000 500	KOMO, KPRC, WWJ KFEL, KFXF, WAAF, WBSO
930 Kilo. 322.4 M	1000 500	KGBZ, KMA, KROW, WBRG WDBJ
940 Kilo. 319 M	1000 500	KOIN, WCSH, WDAY, WHA WAAT, WAVE
950 Kilo. 315.6 M	1000 500	KFWB, KGHL, KMBC WRC
970 Kilo. 309.1 M	5000 1500 100	KJR WCFL WIBG
980 Kilo. 305.9 M	50000	KDKA
990 Kilo. 302.8 M	50000 1000 500	WBZ WBZA WJEM
1000 Kilo. 299.8 M	50000 1000 250	WHO, WOC WORK KFVD
1010 Kilo. 296.9 M	500 250	KGGF, KQW, WIS WNAD WHN, WPAP, WQAO, WRNY
1020 Kilo. 293.9 M	10000 250	KYW WRAX
1040 Kilo. 288.3 M	10000 1000	KRLD, KTHS WESG, WKAR
1050 Kilo. 285.5 M	25000 5000	KNX KFBI
1060 Kilo. 282.8 M	50000 10000 1000 500	WTIC WBAL WJAG KWJJ

1070 Kilo. 280.3 M	50000 100 50	WTAM KJBS, WDZ WCAZ
1080 Kilo. 277.6 M	50000 5000	WBT WCBD, WMBI
1090 Kilo. 275.1 M	50000	KMOX
1100 Kilo. 272.6 M	5000 250	WLWL, WPG KGDM
1110 Kilo. 270.1 M	5000 2500	WRVA KSOO
1120 Kilo.	500 250 100	KFSG, KRKD, WHB, WTAW WDEL, WHAD, WISN KFIO, KRSC
1130 Kilo. 265.3 M	50000 20000 1000	KSL WJJD WOV
1140 Kilo. 263 M	25000 5000	KVOJ WAPI
1150 Kilo. 260.7 M	50000	WHAM
1160 Kilo. 258.5 M	10000 5000	WOWO WWVA
1170 Kilo. 253.3 M	50000	WCAU
1180 Kilo. 254.1 M	10000 5000 1000 500	KOB KEX WDGY WINS, WMAZ
1190 Kilo. 252 M	50000 1000 100	WOAI WSAZ WATR
1200 Kilo. 249.9 M	100	KBTM, KERN, KFJB, KFXD, KFJX, KGDE, KGEK, KGFJ, KGHI, KGVO, KMLB, KSUN, KVOS, KWG, WABI, WBBZ, WBHS, WBNO, WCAT, WCAX, WCLO, WFAM, WFBC, WFBE, WHBC, WHBY, WIBX, WIL, WJBC, WJBL, WJBW, WKBO, WKJC, WNBO, WORC, WPHR, WRBL, WWAE
1210 Kilo. 247.8 M	250 100	WSOC KASA, KDLR, KFJI, KFOR, KFPW, KFVS, KFXM, KGCR, KGY, KIEM, KWEA, WALR, WBAX, WBBL, WCBS, WCRW, WEBQ, WEDC, WFAS, WGBB, WGCM, WGNV, WHBF, WHBU, WIBU, WJBI, WJBY, WJEJ, WJIM, WJW, WKFI, WKOK, WMBG, WOMT, WQDX, WSBG, WSEN, WSIX, WTAX 50 KPPC, WOCL
1220 Kilo. 245.8 M	1000 500	KTW, KWSC, WCAE, WDAE, WREN KFKU, WCAD,

230 Kilo. 243.8 M	1000 500 250	KYA, WFBM, WNAC WSBT KGGM
1240 Kilo. 242.7 M	1000 500 250	KTAT, WXYZ KTFI KGCU, KLPM
1250 Kilo.	1000 250	KFOX, WAAM, WCAL, WDSU, WLW, WNEW, WODA, WRHM WGCP
1260 Kilo. 233 M	1000 500 250	KOIL, KUOA KRGV, KVOA, KWWG, WLBW, WTOC WNBX
1270 Kilo. 236.1 M	2500 1000 500 100	WJDX KOL, KVOR WASH, WFBR, WOOD KGCA, KWLC
1280 Kilo. 234.2 M	1000 500	KFBB, WDOO WCAM, WCAP, WRR, WIBA, WTNJ
1290 Kilo. 232.4 M	1000 100 50	KDYL, K TSA, WEBC, WJAS KLCN WNBZ
1300 Kilo. 230.6 M	1000 500	KFAC, KFH, WBBR, WFAB, WIOD, WMBF, WOQ 500 KALE, KFJR, WEVD, WHAZ
1310 Kilo. 228.9 M	100 KFP	KCRJ, KFBK, KFGQ, KFPL, KFJR, KFYO, KGBX, KGCC, KGEZ, KGFV, KIT, KMED, KRMD, KTSM, KXRO, WAML, WBEO, WBOW, WBRE, WCLS, WDAH, WEBR, WFBG, WFDG, WGAL, WGH, WHAT, WIAS, WJAC, WLNH, WMO, WNBH, WOL, WRAW, WROL, WSAJ, WSGN, WSJS, WTEL, WTJS 50 WEXL, WLBC, WTRC 15 KFPM
1320 Kilo. 227.1 M	1000 500 250	WADC WSMB KGHF, KID
1330 Kilo. 225.4 M	1000 500 250	KGB, KSCJ, WDRG, WTAQ WSAI KMO
1340 Kilo. 223.7 M	1000 500 250	KFPY, WSPD WCOA KGOY, KGNO
1350 Kilo. 222.1 M	1000 500 250	KIDO, KWK WEHC WAWZ, WBNX
1360 Kilo. 220.4 M	1000 500	KGER, WFBL KGIR, WCSC, WGES, WQBC

1370 Kilo. 218.8 M	100 KGA	KCRC, KFJM, KFJZ, KGAR, KGGG, KGFL, KGKL, KICA, KICK, KLUF, KMAC, KONO, KOOS, KRE, KSO, KUJ, KVL, KWKC, WBTM, WCBM, WDAS, WHET, WGL, WGLC, WHBD, WHBQ, WHDF, WIBM, WJTL, WLEY, WLVA, WMBR, WPF, WQDM, WRAK, WRDO, WRJN 50 KFBL, WJBK, WSVS
1380 Kilo. 217.3 M	1000 500 200	KKBH KOH, KQV WSMK
1390 Kilo. 215.7 M	1000 500	KLRA, WHK KOY
1400 Kilo. 214.2 M	500 250	KLO, WARD, WBAA, WBBC, WKBF, WLTH, WVFW KTUL
1410 Kilo. 212.6 M	1000 500 250	KGRS, WDAG WAAB, WALA, WBCM, WHBL, WROK, WSFA WHIS, WRBX
1420 Kilo. 211.1 M	250 100	WMAS KABC, KBPS, KCMC, KFIZ, KGFF, KGGC, KGIW, KGIX, KIDW, KORE, KUMA, KXL, WACO, WAGM, WAMC, WAZL, WEED, WEHS, WENC, WHDL, WHFC, WILM, WJBO, WJMS, WKBI, WLAP, WLB, WLEU, WMBG, WMBH, WNRA, WPAD, WSPA, WTBO 50 WELL
1430 Kilo. 209.7 M	1000 500 250	KECA, WBAK, WBNS KGNF, WFEA, WHEC, WHP, WNBR KWCR
1440 Kilo. 208.2 M	500 250	KDFN, WBIG, WMBD, WOKO, WTAD KLS, KXYZ, WCBA, WSAN
1450 Kilo. 206.8 M	1000 500 250	KTBS WGAR, WTFI WHOM, WSAR
1460 Kilo. 205.4 M	10000 10000	WJSV KSTP
1470 Kilo. 204 M	5000	KGA, WLAC
1480 Kilo. 202.6 M	5000	KOMA, WKBW
1490 Kilo. 201.2 M	5000	WCKY
1500 Kilo. 199.9 M	100 KGB	KDB, KGFI, KGFK, KGKB, KGKY, KNOW, KOTN, KPJM, KPQ, KREG, KXO, WCNW, WHEF, WKBB, WKBV, WKBZ, WKEU, WMBQ, WMEX, WMPG, WNB, WOPI, WPEN, WRAM, WRDW, WRGA, WSYB, WWRL, WWSW

ON SUNDAY

By CAPT. C. J. HALL


Any Sunday an alert listener familiar with his receiver can "tour the world" without leaving his easy chair. We say Sunday, because Sunday is now the only day of the week on which Sydney, Australia, and Rabat, Morocco, are transmitting.

Let's get up early—say 5:30 A. M.,* so we can snare VK2ME, Sydney, on 31.28 meters, a distance of 8,700 miles. A half hour later GSC, Daventry, England, comes in on 31.30 meters, only a degree above Sydney and a distance of 3,470 miles. At 7:30 Pointoise, France, rolls in on 19.68 meters, distance of 3,290 miles. At 7:45 A. M. Rabat, Morocco on 23.38 meters follows with announcements in French, a distance of 3,040 miles. At 8:00 A. M., we can log DJB, Zeesen, Germany, on 19.73 meters and 3,830 miles away. Now we skip to PMC, 16.50 meters at Bandoeng, Java, 8,700 miles and listen to recordings or some testing. Then we come back and hear PHI, Huizen, Holland, on 25.57 meters, a distance of 3,360 miles. After listening to Holland a few minutes, we skip to Radio Colonial or Pointoise, France, on 25.20 meters. Then we try GSD, England, on 25.53 meters, distance 3,470 miles. After listening to what the Englishman has to say, we hop to Moscow on 25.00 meters where RNE, a distance of 4,540 miles can be heard. Next we make a long jump of 9,600 miles to Saigon, Indo-China, where FZS on 25.02 meters is heard talking to Paris. After listening to Saigon, we can now take a short nap.

Awakened refreshed at noon, we continue our international excursion with Rome, 2RO, on 25.40 meters, distance 3,945 miles. At 3 P. M. Daventry reappears, this time again on 31.3 meters under the call letters GSC. CNR, Rabat, Morocco, on 37.33 meters, a distance of 3,240 miles, is also heard at 3 P. M. At 4 Pointoise also comes in on a higher wave than previously, that is 25.00 meters, "Ay Ah Koo", reliable EAQ, Madrid, Spain, on 30 meters and 3,240 miles away, clicks in with its opening announcements at 5:30 P. M. Now going to the 49 meter band, we try GSA, Daventry, England, on

Continued on page 31

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TESTED FOR
CLARITY

TUNG-SOL TUBES ARE "BROKEN IN" AT
THE FACTORY. THEY GIVE YOU CLEAR

RECEPTION FROM THE FIRST.

TIME TABLE

For several centuries, time all over the world has been reckoned in terms of Greenwich Standard Time. The table which follows shows the time at all points, in the United States, when it is noon at Greenwich. [London.]

GMT.	EST.	CST.	MST.	PST.
Noon—Hr.	7 A.M.	6 A.M.	5 A.M.	4 A.M.
01 "	8 "	7 "	6 "	5 "
02 "	9 "	8 "	7 "	6 "
03 "	10 "	9 "	8 "	7 "
04 "	11 "	10 "	9 "	8 "
05 "	Noon	11 "	10 "	9 "
06 "	1 P.M.	Noon	11 "	10 "
07 "	2 "	1 P.M.	Noon	11 "
08 "	3 "	2 "	1 P.M.	Noon
09 "	4 "	3 "	2 "	1 P.M.
10 "	5 "	4 "	3 "	2 "
11 "	6 "	5 "	4 "	3 "
12 "	7 "	6 "	5 "	4 "
13 "	8 "	7 "	6 "	5 "
14 "	9 "	8 "	7 "	6 "
15 "	10 "	9 "	8 "	7 "
16 "	11 "	10 "	9 "	8 "
17 "	M. N.	11 "	10 "	9 "
18 "	1 A.M.	M. N.	11 "	10 "
19 "	2 "	1 A.M.	M. N.	11 "
20 "	3 "	2 "	1 A.M.	M. N.
21 "	4 "	3 "	2 "	1 A.M.
22 "	5 "	4 "	3 "	2 "
23 "	6 "	5 "	4 "	3 "
24 "	7 "	6 "	5 "	4 "

GMT. Means Greenwich Mean Time.
EST. Means Eastern Standard Time.

CST. Means Central Standard Time.
PST. Means Pacific Standard Time.

SHORT WAVE BROADCASTING STATIONS

This information has been listed by Captain C. J. Hall, an authority on Short Wave Receiving. You no doubt will find new stations, different meters and Kilos, and variation in the time of broadcast—this is due to the ever changing condition of Short Wave Broadcasting. See page 25 for listing your own variations.

Dial	Meters	K. C.	Call	EUROPE
.....	16.30	18,400	(P) PCK, Kootwijk, Holland. About 6.30 A. M.	
.....	16.35	18,350	(P) GAS, Rugby, England. Heard early mornings.	
.....	16.44	18,250	(P) FTE, St. Assise, France. Early mornings.	
.....	16.48	18,200	(P) GAW, Rugby, England. Early mornings phones New York.	
.....	16.88	17,770	(B) PHI, Huizen, Holland. 7 to 9 A. M. Irr.	
.....	16.89	17,760	(P) IAC, Piza, Italy. Every morning phones Italian ships.	
.....	17.12	17,520	(P) DFB, Nauen, Germany. Heard around 8 A. M.	
.....	17.37	17,270	(P) DAF, Nauen, Germany. Heard early mornings.	
.....	18.50	16,210	(P) GBX, Rugby, England. Early mornings.	
.....	18.89	15,880	(P) FTK, St. Assise, France. Phones Saigon mornings.	
.....	19.55	15,340	(B) CT1AA, Lisbon, Portugal. Testing Saturday mornings.	
.....	19.68	15,240	(B) FYA, Pointoise, France. 8 to 11:30 A. M.	
.....	19.73	15,200	(B) Zeesen, Germany. 5.15 to 11 A. M.	
.....	19.82	15,130	(B) GSF, Daventry, England. 5 to 8.45 A. M.	
.....	19.84	15,120	(B) HVJ, Vatican City, Italy. 10 to 10.15 A. M.	
.....	25.00	12,000	(B) RNE, Moscow, U. S. S. R. 1 to 6 P. M. (Sunday only).	
.....	25.20	11,900	(B) FYA, Pointoise, France. 11 A. M. to 2 P. M.	
.....	25.28	11,870	(B) GSE, Daventry, England. 11 A. M. to 1 P. M.	
.....	25.40	11,810	(B) 2RO, Rome, Italy. 2 to 6 P. M.	
.....	25.51	11,760	(B) DJD, Zeesen, Germany. 8 to 11 A. M.	

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Dial	Meters	Kilo.	Call	EUROPE
.....	25.53	11,750	(B) GSD, Daventry, England. 7.15 to 4.15 A. M., 1.15 to 2.45 P. M.	
.....	25.57	11,730	(B) PHI, Huiser, Holland. 8 to 10 A. M. Irr.	
.....	25.63	11,705	(B) Poitouse, France.	
.....	28.04	10,700	(P) GBP, Rugby, England. 7 A. M.	
.....	28.25	10,620	(P) EDX, Madrid, Spain, 4 P. M. Phones Canary Ids.	
.....	28.80	10,410	(P) PDK, Kootwijk, Holland. Phones Java 6 A. M. Irr.	
.....	29.04	10,330	(E) ORK, Brussels, Belgium. 1 to 5 P. M. Irr.	
.....	29.79	10,070	(P) EHY, Madrid, Spain. 4 P. M.	
.....	30.15	9,950	(P) GCU, Rugby, England. Phones N. Y. 8 P. M.	
.....	30.40	9,870	(B) EAQ, Madrid, Spain. Daily 5.30 to 7.30 P. M., Sat. 1 to 3 P. M.	
.....	30.52	9,830	(P) IRM, Rome, Italy. Afternoons. Irr.	
.....	30.90	9,710	(P) GCA, Rugby, England. Around 8 P. M.	
.....	31.08	9,650	(P) DGU, Nauen, Germany. Phones Egypt around 9 A. M.	
.....	31.25	9,600	(B) CT1AA, Lisbon, Portugal. Tuesday and Friday 4.30 to 7 P. M.	
.....	31.27	9,590	(B) HBL, Geneva, Switzerland. Saturday only 5.30 to 6.15 P. M.	
.....	31.30	9,580	(B) GSC, Daventry, England. 6 to 8 P. M.	
.....	31.38	9,560	(B) DJA, Zeesen, Germany. 6.45 to 9.45 P. M.	
.....	31.55	9,510	(B) GSB, Daventry, England. 11 A. M. to 1 P. M. 6 to 8 P. M.	
.....	32.33	9,280	(P) GCB, Rugby, England. Phones Egypt afternoons.	
.....	34.56	8,680	(P) GBC, Rugby, England. Calls ships early mornings.	
.....	35.42	8,470	(P) DAF, Norden, Germany. Heard mornings.	
.....	35.80	8,380	(P) IAC, Piza, Italy. Phones ships.	
.....	38.47	7,800	(B) HBP, Geneva, Switzerland. Saturday only 5.30 to 6.15 P. M.	
.....	39.34	7,625	(P) RIM, Russia. 5 to 8 A. M.	
.....	43.86	6,840	(B) HAT, Budapest, Hungary, 4 to 6 P. M. Irr.	
.....	45.10	6,650	(P) IAC, Piza, Italy. Heard evenings.	
.....	45.38	6,610	(B) REN, Moscow, U. S. S. R. 1 to 6 P. M.	
.....	49.40	6,070	(B) OXY, Skamleback, Denmark. 2.30 to 6.30 P. M.	
.....	49.30	6,070	(B) UOR2, Vienna, Austria. Very irr.	
.....	49.59	6,050	(B) GSA, Daventry, England. 6 to 8 P. M.	
.....	49.83	6,020	(B) DJC, Zeesen, Germany. 9 to 11.30 P. M.	
.....	50.00	6,000	(B) RV59, Moscow, U. S. S. R. 5 to 6 P. M.	
.....	60.30	4,980	(E) G6RX, Rugby, England. 7 to 9 P. M. Irr.	

ASIA

.....	16.50	17,700	(P) PMC, Bandoeng, Java. 3 to 5 P. M. Irr.
.....	16.92	17,730	(P) HSP, Bangkok, Siam. 4 to 6 A. M. Irr.
.....	17.10	17,540	(P) VWY, Poona, India. 3 to 7 A. M. Irr.
.....	19.03	15,760	(E) J1AA, Kemikawa-Cho, Japan. 4.30 to 6 A. M. Irr.
.....	20.03	14,980	(P) KAY, Manila, Philippine Ids. 5 to 8 A. M.
.....	25.02	11,990	(P) FZS, Saigon, Indo-China. Irr.
.....	28.80	10,410	(P) UIG, Medan, Sumatra. 4 to 5 A. M. Irr.
.....	30.40	9,870	(E) J1AA, Kemikawa-Cho, Japan. 5 to 7 A. M. Irr.
.....	48.09	6,240	(B) ZGE, Kuala Lumpur, Malaya. Tuesday and Friday 6.30 A. M.
.....	49.10	6,110	(B) VUC, Calcutta, India. 9.15 A. M., 2 P. M., 3 A. M.
.....	49.96	6,010	(P) CQN, Macao, China. 7 to 8 A. M.
.....	71.00	4,230	(B) RV15, Khabarovsk, Siberia. 3 to 9 A. M.

AFRICA

.....	21.70	13,825	(P) SUZ, Cairo, Egypt. 7 to 10 A. M. Irr.
.....	23.38	12,830	(B) CNR, Rabat, Morocco. Sunday 7.30 to 9 A. M. only.
.....	29.58	10,140	(P) OPM, Leopoldville, Belgium Congo. 9 to 10 A. M.
.....	29.83	10,060	(P) SUV, Cairo, Egypt. 4 A. M. Irr.
.....	37.33	8,035	(B) CNR, Rabat, Morocco. Sunday only 3 to 5 P. M.
.....	41.60	7,210	(B) EAR58, Tenerife, Canary Ids. 5 to 6 P. M.
.....	48.00	6,130	(B) Johannesburg, South Africa. 4 to 5 A. M.
.....	49.50	6,060	(B) VQ7LO, Nairobi Kenya. 11 A. M. to 2 P. M.

NORTH AMERICA

.....	16.87	17,780	(B) W3XAL, Boundbrook, New Jersey. 10 A. M. to 4 P. M. Irr.
.....	19.56	15,330	(B) W2XAD, Schenectady, N. Y. Mon., Wed., Fri., Sun. 4 to 5 P. M.
.....	19.64	15,270	(B) W2XE, Wayne, N. J. 11 A. M. to 1 P. M.
.....	19.67	15,250	(B) W8XK, Pittsburgh, Pa. 10 A. M. to 4 P. M. Irr.
.....	25.27	11,870	(B) W8XK, Pittsburgh, Pa. 4 to 6 P. M. Irr.
.....	25.36	11,830	(B) W2XE, Wayne, N. J. 5 to 10 P. M.
.....	25.45	11,790	(B) W1XAL, Boston, Mass. Sat. 5 to 11 P. M., Sur. 6-8 P. M.
.....	31.28	9,590	(B) W3XAU, Philadelphia, Pa. 1 to 6 P. M.
.....	31.36	9,570	(B) W1XAL, Springfield, Mass. 8 A. M. to Midnight.
.....	31.48	9,530	(B) W2XAF, Schenectady, N. Y. 8 to 11 P. M.

Dial	Meters	Kilo.	Call	NORTH AMERICA
.....	46.69	6,430	(B) W3XL, Boundbrook, N. J. Irr.	
.....	48.86	6,140	(B) W8XK, Pittsburgh, Pa. 4.30 P. M. to 1 A. M.	
.....	49.02	6,120	(B) W2XE, Wayne, N. J. 6 to 11 P. M.	
.....	49.18	6,100	(B) W3XAL, Boundbrook, N. J. Saturday 4.30 to 12 P. M.	
.....	49.18	6,100	(B) W9XF, Chicago, Ill. 8 to 9.30 P. M.	
.....	49.10	6,110	(B) VE9HX, Halifax, Nova-Scotia. 6 to 10 P. M.	
.....	49.22	6,090	(B) VE9GW, Bowmanville Canada. 3 to 6 P. M.	
.....	49.29	6,095	(B) VE9BJ, St. Johns, N. B. 5 to 10 P. M.	
.....	49.34	6,080	(B) W9XAA, Chicago, Ill. 3 to 6 P. M.	
.....	49.42	6,070	(B) VE9CS, Vancouver, B. C. Friday 12 to 1.30 P. M.	
.....	49.50	6,060	(B) W3XAU, Philadelphia, Pa. 8 to 12 P. M.	
.....	49.50	6,060	(B) W8XAL, Cincinnati, Ohio. 9 to 10 P. M.	
.....	49.96	6,010	(B) VE9DR, Montreal, Canada, 8 to 10 A. M., Sun. 1 to 10 P. M.	

SOUTH AMERICA

.....	19.19	15,630	(P) Lima, Peru. 2 P. M. Irr.
.....	25.73	11,660	(E) EPQ, Rio de Janeiro, Brazil. 7 P. M. Irr.
.....	27.35	10,970	(P) OCI, Lima, Peru. 10 P. M. Irr.
.....	28.98	10,350	(E) LSX, Buenos Aires, Argentina. 8 to 9.30 P. M.
.....	30.03	9,990	(E) LSN, Buenos Aires, Argentina. 9 to 10 P. M. Irr.
.....	36.65	8,190	(E) PSK, Rio de Janeiro, Brazil. 8 P. M.
.....	40.55	7,400	(E) HJ3ABD, Bogota, Colombia. 9 to 11 P. M.
.....	41.55	7,220	(B) HKE, Bogota, Colombia. Mon. 6-7 P. M., Tues. 9-11 P. M.
.....	41.60	7,210	(B) HJ4AB, Manizales, Colombia. 9-10 P. M.
.....	45.00	6,870	(B) HC2RL, Quito, Ecuador. Sun. 5-7, Tues. 9-11 P. M.
.....	45.31	6,820	(B) PRADO, Riobamba, Ecuador. Thursday 9-11 P. M.
.....	45.60	6,580	(B) HJ1AB, Barranquilla, Colombia. 6-10 P. M.
.....	47.00	6,380	(B) HJ5AB, Bogota, Colombia. Thursday, Saturday, Sunday, 7-9.30 P. M.
.....	48.00	6,250	(B) HJ3ABF, Bogota, Colombia. 7-10.30 P. M.
.....	48.50	6,190	(B) TGW, Guatemala. 6-12 P. M.
.....	48.78	6,150	(B) YV3BC, Caracas, Venezuela. Evening Irr.
.....	48.95	6,130	(B) YV11BMO, Maracaibo, Venezuela. 8-11 P. M.
.....	50.20	5,890	(B) YV1BC, Caracas, Venezuela. 10 P. M. Irr.
.....	50.20	5,890	(B) HJ4ABE, Tunja, Colombia. 9-10.30 P. M.
.....	73.00	4,110	(B) HCJB, Quito, Ecuador. Evenings Irr.

MEXICO AND WEST INDIES

.....	25.50	11,760	(P) XDM, Mexico City. 8-9 P. M. Irr.
.....	26.00	11,530	(P) XAM, Merida, Yucatan. 6-7 P. M.
.....	31.25		XETE, Mexico City. Irr. Program.
.....	32.09	9,350	(E) XDC, Mexico City. 5-7 P. M.
.....	47.50	6,315	(B) HIZ, Santo Domingo. 5-6 P. M.
.....	47.80	6,275	(B) H11A, Dominican Republic. Mon., Wed., Fri., 7.30-9.30 P. M., Thurs. 7.50-9.50.
.....	50.02	6,000	(B) COC, Havana, Cuba. 5-9 P. M.

OCEANIA

.....	31.28	9,590	(B) VK2ME, Sydney, Australia. Sun. 1-3 A. M., 5-8.30 A. M., 9-11 A. M.
.....	31.55	9,510	(B) VK3ME, Melbourne, Australia. Wed. 5-6.30 A. M., Sat. 5-7 A. M.

Note: The standard abbreviations:

B Broadcast.

E Experiment.

P Phone

SHORT WAVE

BROADCASTING STATIONS ADDRESSES

EUROPE

DAVENTRY—Broadcasting House, London W C 1, England.

GERMANY—Berlin-Tempelhof, Schoeneberger Strasse 11-15, Berlin, Germany.

FRANCE—Ministere des Postes, Rue de Grenelle 103, Paris, France.



MAJOR ARMSTRONG
DEVELOPS THE REGEN-
ERATIVE RADIO CIRCUIT

SPAIN—P. O. Box 951, Madrid, Spain.
 HBL and HBP—G. Galarati, Information Section, League of Nations, Geneva, Switzerland.
 HVJ—Castine Pio IV, Vatican City, Italy.
 ROME—E. I. A. R., Via Asiago N 10, Rome, Italy.
 CTIAA—Antonio Augusto de Aguiar, Lisbon 144, Portugal.
 OXY—Statsradiofonien, Heibergsgade 7, Copenhagen, Denmark.
 PHI—N. V. Phillips, Eindhoven, Holland.
 RV59, REN—Radio Centre, Solianka 12, Moscow, U. S. S. R.
 IAC—Mr. A. Nicastro, Coltano, Piza, Italy.
 ENGLISH COMMERCIAL PHONES—G. P. O. (Radio Section) 86 Wood Street, London E C 2, England
 FRENCH COMMERCIAL PHONES—Rue de Montmartre 166, Paris, France.
 ORK—Radio Ruysselede, West Flanders, Belgium.

SOUTH AMERICAN, CUBAN, DOMINICAN REPUBLICS

VV3BC—Radiofutura Venezuela, Bajos Paseje Ramella, Caracas, Venezuela, S. A.
 VV1BC—Apartado 290, Caracas, Venezuela, S. A.
 XAM—Poder Ejecutivo Federal, Merida, Yucatan, Mexico.
 PRADO—Apartado 98, Riobamba, Ecuador, S. A.
 HC2RL—P. O. Box 759, Guayaquil, Ecuador, S. A.
 HJ3ABD—Calle 16, No. 5-40, Bogota, Colombia, S. A.
 HCJB—Casilla 691, Quito, Ecuador, S. A.
 VV5BMO—S. M. Vegas, Compana Anonima Nacional, Maracaibo, Venezuela, S. A.
 HJ2ABA—"La Voz de Pais en Tunja", Boyaca, Colombia, S. A.
 HJ4ABE—Radiodifusora de Medellin, Medellin, Colombia, S. A.
 HJ1ABB—Mr. E. J. Pellet, Director, P. O. Box 715, Barranquilla, Colombia, S. A.
 LSX—Transradio International, San Martin 329, Buenos Aires, Argentina, S. A.
 PRA3 or PSK—Radio Club do Brasil, Rio de Janeiro, Brazil, S. A.
 HIX—Estacion Radiodifusora HIX, Santo Domingo, R. D.
 XETE—P. O. Box 1396, Mexico, D. F.
 COC—P. O. Box 98, Havana, Cuba.
 CMB2 and CMA—Cuban Transatlantic Radio Corporation, Havana, Cuba.

AFRICA

RABAT or CNR—Director de l'office des Postes, Rabat, Morocco.
 VQ7LO—P. O. Box 777, Nairobi, Kenya Colony, Africa.
 OPM—Radio Leopoldville, Congo Belge, Africa.

ASIA

SIAM—Post and Telegraph Department, Radio Section, Bangkok, Siam.
 INDO CHINA—Commercial Phones: Centre Radioelectrique de Saigon, Indo-China.
 JIAA—Kemikawa-Cho, Chiba-Ken, Japan.
 CON—Post Office, Macao, China.
 PLE—Post, Telegraaf and Telefoonendienst, Bandoeng, Java.
 VUC—Indian State Broadcasting Service, Irwin House, Ballard Estate, Bombay, India.

NORTH AMERICA

W2XAF, W2XAD—General Electric Co., 1 River Road, Schenectady, New York.
 W9XF—North Wacker Drive, Chicago, Ill.
 W8XAL—Crosley Radio Corp., Cincinnati, Ohio.
 W4XB—Mr. Jesse Jay, Miami Beach, Florida.
 W8XK—William Penn Hotel, Pittsburgh, Pa.
 W3XAL—30 Rockefeller Plaza, New York City, N. Y.
 W2XE—485 Madison Avenue, New York City, N. Y.
 VE9JR—Royal Alexandra Hotel, Winnipeg, Manitoba, Canada.
 VE9GW—Bowmanville, Ontario, Canada.
 VE9DR—Canadian Marconi Company, P. O. Box 1690, Montreal, Canada
 VE9CS—743 Davie Street, Vancouver, Canada.
 VE9BJ—St. Johns, New Brunswick, Canada.
 VE9HX—Lord Nelson Hotel, Halifax, New Brunswick, Canada.

OCEANIC

VK2ME—47 York Street, Sydney, Australia.
 VK3ME—Wireless House, 167-169 Queen Street, Box 1272L, Melbourne C 1, Australia.

SHIPS

GERMAN SHIPS—Hamburg—American Line, 39 Broadway, New York City.
 GERMAN SHIPS—North German Lloyd, 57 Broadway, New York City.
 ITALIAN SHIPS—"S.S. Rex" and "Conti di Savoie", Pier 86 N. River, New York City.
 ENGLISH SHIPS—International Mercantile Marine, 1 Broadway, New York City.



POLICE BROADCASTING STATIONS

Dial	Call	Kilo-	City
.....	KGZT	2470	Santa Cruz, Cal.
.....	KGZU	2470	Lincoln, Neb.
.....	KGZX	2414	Albuquerque, N. M.
.....	KSW	1658	Berkeley, Cal.
.....	KVP	1712	Dallas, Tex.
.....	WCK	2414	Detroit, Mich.
.....	WKDO	1712	Cincinnati, O.
.....	WMDZ	2442	Indianapolis, Ind.
.....	WMJ	2422	Buffalo, N. Y.
.....	WMO	2414	Highland Park, Mich.
.....	WPBH	2458	Cleveland, Ohio
.....	WPDB	1712	Chicago, Ill.
.....	WPDC	1712	Chicago, Ill.
.....	WPDD	1712	Chicago, Ill.
.....	WPDE	2442	Louisville, Ky.
.....	WPDF	2442	Flint, Mich.
.....	WPDG	2458	Youngstown, O.
.....	WPDH	2442	Richmond, Ind.
.....	WPDI	2430	Columbus, O.
.....	WPKD	2450	Milwaukee, Wis.
.....	WPDL	2442	Lansing, Mich.
.....	WPDN	2430	Dayton, O.
.....	WPDN	2458	Auburn, N. Y.
.....	WPDO	2458	Akron, O.
.....	WPDV	2470	Philadelphia, Pa.
.....	WPRR	2458	Rochester, N. Y.
.....	WPDS	1712	St. Paul, Mo.
.....	WPDT	2470	Kokomo, Ind.
.....	WPDU	1712	Pittsburgh, Pa.
.....	WPDV	2458	Charlotte, N. C.
.....	WPDW	2422	Washington, D. C.
.....	WPDY	2414	Detroit, Mich.
.....	WPDZ	2414	Atlanta, Ga.
.....	WPEA	2458	Ft. Wayne, Ind.
.....	WPEB	2442	Syracuse, N. Y.
.....	WPEC	2470	Grand Rapids, Mich.
.....	WPEE	2450	Memphis, Tenn.
.....	WPEF	1712	Arlington, Mass.
.....	WPEH	2450	New York, N. Y.
.....	WPEI	1712	New York, N. Y.
.....	WPEJ	2450	New York, N. Y.
.....	WPEK	2450	Somerville, Mass.
.....	WPEL	1712	E. Providence, R. I.
.....	WPEM	2430	New Orleans, La.
.....	WPEO	2470	Woonsocket, R. I.
.....	WPEP	2442	Saginaw, Mich.
.....	WPEQ	1712	Lexington, Ky.
.....	WPER	1712	Newton, Mass.
.....	WPEU	2442	Muskegon, Mich.
.....	WPEV	2442	Reading, Pa.
.....	WPEW	2442	Jacksonville, Fla.
.....	WPEX	2414	Baltimore, Md.
.....	WPEY	2414	Columbus, Ga.
.....	WPEZ	2430	Hackensack, N. J.
.....	WPF1	2414	Birmingham, Ala.
.....	WPF2	2470	Knoxville, Tenn.
.....	WPF3	1414	Clarksburg, W. Va.
.....	WPF4	2470	Swarthmore, Pa.
.....	WPF5	2470	Portland, Me.
.....	WPF6	2470	Pawtucket, R. I.
.....	WPF7	2442	Bay City, Mich.
.....	WPF8	2414	Port Huron, Mich.
.....	WPF9	2458	Rockford, Ill.
.....	WPF0	1712	New Bedford, Mass.
.....	WPF1	2414	Minneapolis, Minn.
.....	WPF2	2470	Toledo, O.
.....	WPF3	2470	Gross Point, Mich.

TELEVISION BROADCASTING STATIONS

Television sets are not available for the general public, but the television broadcasting stations listed below send out experimental programs.

Dial	Call	Power	City and Company
.....	W6XAH	1000	Bakersfield, Cal., Pioneer Mercantile Co.
.....	W9XAO	500	Chicago, Ill., Western Television Research Co.
.....	W9XK	50	Iowa City, Ia., University of Iowa
.....	W8XAN	100	Jackson, Mich., Sparks-Withington Co.
.....	W2XR	1000	Long Island City, Radio Pictures, Inc.
.....	W9XAK	125	Manhattan, Kan., Kansas State College of Agr. and Applied Science
2750-2850 KILOCYCLES			
.....	W9XAP	2500	Chicago, Ill., National Broadcasting Co.
.....	W9XAL	500	Kansas City, Mo., First National Television.
.....	W6XS	1000	Los Angeles, Cal., Don Lee Broadcasting System
.....	W2XBS	5000	New York, N. Y., National Broadcasting Co.
.....	W2XAB	500	New York, N. Y., Atlantic Broadcasting Corp.
.....	W3XAK	5000	Portable, National Broadcasting Co.
.....	W9XG	1500	W. Lafayette, Ind., Purdue University.
42000-56000-60000-86000 KILOCYCLES			
.....	W1XG	200	*Boston, Shortwave and Television Corp.
.....	W3XAD	2000	Camden, N. J., RCA Victor Co., Inc.
.....	W8XL	200	Cuyahoga Hts. Village, Ohio (C.P.), WGAR, Broadcasting Co.
.....	W8XAN	100	Jackson, Mich., Sparks-Withington Co.
.....	W2XR	1000	Long Island City, Radio Pictures
.....	W6XAO	150	Los Angeles, Cal., Don Lee Broadcasting System.
.....	W9XE	1000	Marion, Ind., General Household Utilities Co.
.....	W9XD	500	Milwaukee, Wis., The Journal Company
.....	W2XF	5000	New York, N. Y., National Broadcasting Co.
42000-56000-60000-86000 KILOCYCLES			
.....	W2XAK	50	New York, N. Y., Atlantic Broadcasting Corp.
.....	W3XE	1500	Philadelphia, Pa., Philadelphia Storage Battery Co.
.....	W8XF	200	Pontiac, Mich., (C.P.), WJR, Goodwill Station.
.....	W2XBT	750	Portable, National Broadcasting Co.
.....	W9XAT	500	Portable, Dr. Geo. W. Young
.....	W10XX	50	Portable and Mobile, RCA Victor Co., Inc.

*Temporary License.

COMMERCIAL TELEPHONE STATIONS

Since radio telephone conversations are now deliberately "scrambled" by the transmitting stations so as to be indistinguishable to the listener-in, incentive to pick them up has largely diminished. However, if specific information on any of these stations is desired, a letter addressed to Tung-Sol Radio Tubes, Inc., will bring it to you.



UNITED STATES BROADCASTING

STATIONS LISTED ALPHABETICALLY

MAP	CITIES	CALL	MAP	CITIES	CALL
C- 2	Aberdeen, Wash.	KXRO	E-12	Calumet, Mich.	WHDF
H-10	Abilene, Kan.	KFBI	G-18	Camden, N. J.	WCAM
G-15	Akron, O.	WJW	E-17	Canton, N. Y.	WCAD
I- 7	Alamosa, Colo.	KGIW	G-15	Canton, O.	WHBC
F-18	Albany, N. Y.	WOKO	I-13	Cape Girardeau, Mo.	KFVS
J- 7	Albuquerque, N. M.	KGGM, KOB	G-11	Carter Lake, Ia.	KICK
G-17	Allentown, Pa.	WCBA, WSAN	H-12	Carthage, Ill.	WGAZ
G-16	Altoona, Pa.	WFBG	F- 7	Casper, Wyo.	KDFN
H-17	Alexandria, Va.	WJSV	G-12	Cedar Rapids, Ia.	WCRC
J- 8	Amarillo, Tex.	KGRS, W DAG	J-16	Charleston, S. C.	WCSC
K-15	Americus, Ga.	WENC	H-15	Charleston, W. Va.	WCHS
G-11	Ames, Ia.	WOI	I-16	Charlotte, N. C.	WBT, WSOC
H-14	Anderson, Ind.	WHBU	H-17	Charlottesville, Va.	WEHC
J-14	Anniston, Ala.	WAMC	J-14	Chattanooga, Tenn.	WDDO
G-18	Asbury Park, N. J.	WCAP	E-18	Chelsea, Mass.	WMEX
I-15	Asheville, N. C.	WWNC	F-18	Chester Township, N. Y.	WGNV
J-15	Athens, Ga.	WTFI	G-13	Chicago, Ill.	KYW, WAAF, WBBM,
J-15	Atlanta, Ga.	WGST, WSB			WCFL, WCRW, WEDC, WENR,
G-18	Atlantic City, N. J.	WPG			WGES, WGN, WLS, WMAQ, WMBI,
F-17	Auburn, N. Y.	WMBO			WSBC
J-16	Augusta, Ga.	WRDW	G-13	Cicero, Ill.	WEHS, WHFC, WKBI
E-19	Augusta, Me.	WRDO	H-14	Cincinnati, O.	WFBE, WKRC,
L-10	Austin, Tex.	KNOW			WLW, WSAI
B					
I- 2	Bakersfield, Cal.	KERN	H-10	Clay Center, Neb.	KMMJ
G-17	Baltimore, Md.	WBAL, WCAO, WCBM,	H-12	Clayton, Mo.	KFUO
		WFBR	M-16	Clearwater, Fla.	WFLA, WJUN
G-19	Bangor, Me.	WABI, WLZ	G-15	Cleveland, O.	WGAR, WHK, WJAY,
L-12	Baton Rouge, La.	WJBO			WTAM
F-14	Battle Creek, Mich.	WELL	J- 8	Clovis, N. M.	KICA
F-14	Bay City, Mich.	WBCM	I-11	Coffeyville, Kan.	KGGF
L-11	Beaumont, Tex.	KFDM	L-10	College Station, Tex.	WTAW
C- 3	Bellingham, Wash.	KVOS	H- 7	Colorado Springs, Colo.	KVOR
J- 2	Beverly Hills, Cal.	KMPC	H-12	Columbia, Mo.	KFRU
H- 1	Berkeley, Cal.	KRE	J-16	Columbia, S. C.	WIS
E- 6	Billings, Mont.	KGHL	K-15	Columbus, Ga.	WRBL
F-17	Binghamton, N. Y.	WNBF	G-15	Columbus, O.	WAIU, WBNS, WOSU,
J-14	Birmingham, Ala.	WAPI, WBRC,			WSEN
		WSGN	G-14	Connersville, Ind.	WKBV
E- 9	Bismarck, N. D.	KFYR	M-10	Corpus Christi, Tex.	KGFI
I-13	Blytheville, Ark.	KLCN	D- 2	Corvallis, Ore.	KOAC
H-16	Bluefield, W. Va.	WHIS	G-10	Council Bluffs, Ia.	KOIL
G-11	Boone, Ia.	KFGQ	H-14	Covington, Ky.	WCKY
F- 4	Boise, Ida.	KIDO	G-16	Cumberland, Md.	WTBO
E-19	Boston, Mass.	WAAB, WBZ, WBZA,	D		
		WEEI, WHDH, WNAC	K-10	Dallas, Tex.	KRLD, WFAA, WRR
F-18	Bridgeport, Conn.	WICC	I-16	Danville, Va.	WBTM
I-15	Bristol, Tenn.	WOPI	H-14	Dayton, O.	WSMK
F-10	Brookings, S. D.	KFDY	H-13	Decatur, Ill.	WJBL
F-18	Brooklyn, N. Y.	WARD, WBBC, WBBR,	F-12	Decorah, Ia.	KGCA, KWLC
		WCNW, WLTH, WMBQ, WVFV	H- 7	Denver, Colo.	KFEL, KF XF, KLZ,
N-10	Brownsville, Tex.	KWWG			KO A, KPOF
F-16	Buffalo, N. Y.	WBEN, WEBR, WGR,	G-11	Des Moines, Ia.	KSO, WOC, WHO
		WKBW, WSVS	F-15	Detroit, Mich.	WJKB, WJR, WMBC,
J- 2	Burbank, Cal.	KELW			WWJ, WXYZ
E-18	Burlington, Vt.	WCAX	D- 9	Devils Lake, N. D.	KDLR
E- 5	Butte, Mont.	KGIR	I- 9	Dodge City, Kan.	KGNO
			K-10	Dublin, Tex.	KFPL

MAP	CITIES	CALL
G- 8	Scottsbluff, Neb.	KGKY
C- 2	Seattle, Wash.	KJR, KOL, KOMO, KPCB, KRSC, KTW, KVL, KXA
J-10	Shawnee, Okla.	KGFF
F-13	Sheboygan, Wis.	WHBL
G-11	Shenandoah, Ia.	KFNF, KMA
K-11	Shreveport, La.	KRMD, KTBS, KWEA, KWKH
	Silver Haven, Pa.	WNBO
G-10	Sioux City, Ia.	KSCJ
F-10	Sioux Falls, S. D.	KSOO
G-14	South Bend, Ind.	WFAM, WSBT
J-16	Spartanburg, S. C.	WSPA
D- 4	Spokane, Wash.	KFIO, KFPY, KGA, KHQ
H-13	Springfield, Ill.	WCBS, WTAX
F-18	Springfield, Mass.	WMAS
I-12	Springfield, Mo.	KGBX
I-14	Springfield, Tenn.	WSIX
E-18	Springfield, Vt.	WNBX
E-18	St. Albans, Vt.	WQDM
H-11	St. Joseph, Mo.	KFEQ
H-12	St. Louis, Mo.	KMOX, KSD, KWK, WEW, WIL
F-11	St. Paul, Minn.	KSTP
F-12	Stevens Point, Wis.	WLBL
G- 1	Stockton, Cal.	KGDM, KWG
F-18	Storrs, Conn.	WCAC
G-17	Sunbury, Pa.	WKOK
E-12	Superior, Wis.	WEBC
F-17	Syracuse, N. Y.	WFBL, WSYR, WSYU

T		
D- 2	Tacoma, Wash.	KMO, KVI
G-15	Tallmadge, O.	WADC
M-16	Tampa, Fla.	WDAE, WMBR
H-13	Terre Haute, Ind.	WBOW
K-11	Texarkana, Ark.	KCMC
K-15	Thomasville, Ga.	WQDX
G-15	Toledo, O.	WSPD
H-10	Topeka, Kan.	WIBW
G-18	Trenton, N. J.	WTNJ
F-18	Troy, N. Y.	WHAZ
K-14	Troy, Ala.	WHET
K- 5	Tucson, Ariz.	KGAR, KVOA
I-10	Tulsa, Okla.	KTUL, KVOO
J-13	Tupelo, Miss.	WJEM
E-17	Tupper Lake, N. Y.	WHDL
H-13	Tuscola, Ill.	WDZ
K-11	Tyler, Tex.	KGKB

U		
H-13	Urbana, Ill.	WILL
F-17	Utica, N. Y.	WIBX

V		
F-10	Vermillion, S. D.	KUSD
K-12	Vicksburg, Miss.	WQBC

W		
K-10	Waco, Tex.	WACO
D- 3	Walla Walla, Wash.	KUJ
H-17	Washington, D. C.	WMAL, WOL, WRC
F-18	Waterbury, Conn.	WATR
E-18	Waterbury, Vt.	WDEV
G-12	Waterloo, Ia.	WMT
F-10	Watertown, S. D.	KGCR
D- 3	Wenatchee, Wash.	KPQ
G-13	West Lafayette, Ind.	WBAA
F- 4	West Twin Falls, Ida.	KTFI
G-16	Wheeling, W. Va.	WWVA

MAP	CITIES	CALL
F-18	White Plains, N. Y.	WFAS
I-10	Wichita, Kan.	KFH
J- 9	Wichita Falls, Tex.	KGKO
F-17	Wilkes-Barre, Pa.	WBAX, WBRE
F-17	Williamsport, Pa.	WRAX
G-17	Wilmington, Del.	WDEL, WILM
J-17	Wilmington, N. C.	WRAM
I-16	Winston-Salem, N. C.	WSJS
D- 8	Wolf Point, Mont.	KGX
G-18	Woodside, N. Y.	WWRL
F-18	Worcester, Mass.	WORC, WTAG
Y		
D- 3	Yakima, Wash.	KIT
F-10	Yankton, S. D.	WNAZ
H-10	York, Neb.	KGBZ
G-17	York, Pa.	WORK
G-16	Youngstown, O.	WKBN
J- 4	Yuma, Ariz.	KUMA
H- 8	Yuma, Colo.	KGEK
Z		
G-15	Zanesville, O.	WALR
G-18	Zarepath, N. J.	WAWZ
G-13	Zion, Ill.	WCBD

SHORT WAVE

BROADCASTING STATIONS LISTED ALPHABETICALLY

B		
J- 3	Bandoeng, Java	PMC
I- 2	Bangkok, Siam	HSP
I-14	Barranquilla, Colombia	HJ1ABB
I-14	Bogota, Colombia	HJ3ABD HJ3ABF
		HKE
G-15	Boston, Mass.	W1XAL
G-15	Bound Brook, N. J.	W3XAL W3XAL W3XL
F-14	Bowmanville, Can.	VE9GW
F-20	Brussels, Belgium	ORK
G-21	Budapest, Hungary	HAT
L-15	Buenos Aires, Argentina	LSN LSX
C		
H-21	Cairo, Egypt	SUV SUZ
H-25	Calcutta, India	VUC
I-15	Caracas, Venezuela	YV1BC YV3BC
G-13	Chicago, Ill.	W9XAA W9XF
G-14	Cincinnati, O., Colombia	W8XAL HJ5ABD
D		
F-20	Daventry, England	GSA GSB GSC GSD GSE GSF H11A

Dominican Republic

MAP	CITIES	CALL	MAP	CITIES	CALL
			J-14	Riobamba, Equador	PRADO
F-20	Geneva, Switzerland	HBL HBP	K-17	Rio de Janeiro, Brazil	EQO PSK 2RO IRM
I-14	Guatemala, Central America	TGW	G-20	Rome, Italy	
			F-19	Rugby, England	GAS, GAW, GBC, GBX, GBP, GCA, GCB, GCU, G6RX RIM
G-15	Halifax, Nova Scotia	VE9HX			
H-14	Havana, Cuba	COC			
F-20	Huissen, Holland	PHI PHI			
J					
K-21	Johannesburg, South Africa	ZTJ			
K					
G- 5	Kemikawa-Cho, Japan	J1AA			
F- 4	Khabarovsk, Siberia	RV15			
F-20	Kootwijk, Holland	PCK, PDK			
I- 2	Kuala Lumpur, Malaya	ZGE			
L					
J-21	Leopoldville, Belgium Congo	OPM			
J-14	Lima, Peru	OCI			
G-19	Lisbon, Portugal	CT1AA CT1AA			
M					
H- 3	Macao, China	CQN			
G-19	Madrid, Spain	EAQ EDX EHY KAY HJ4ABB YV11BMO			
I- 3	Manila, Philippine Ids.				
I-14	Manizales, Colombia				
I-15	Maracaibo, Venezuela				
J- 2	Medan, Sumatra	VK3ME			
L- 5	Melbourne, Australia	XAM			
H-13	Merida, Yucatan	XDC			
H-13	Mexico City, Mexico	XDM VE9DR			
F-14	Montreal, Can.	REN			
E-22	Moscow, U. S. S. R.	RNE RV59			
N					
I-22	Nairobi, Kenya	VQ7LO			
F-20	Nauen, Germany	DAF DGU DFB			
P					
G-14	Philadelphia, Pa.	W3XAU W3XAU W8XK W8XK W8XK			
G-14	Pittsburgh, Pa.	IAC IAC IAC			
G-20	Piza, Italy	FYA FYA VWY			
F-19	Pontoise, France				
H-24	Poona, India				
Q					
I-14	Quito, Ecuador	HC2RL HCJB			
R					
H-19	Rabat, Morocco	CNR CNR			

Continued from page 18
49.6 meters and after listening to them awhile we will try RV 59, Moscow, Russia, on 50 meters.

After supper we can have dessert with YV1BC, Caracas, Venezuela, on 49.10 meters. During the evening, on the 49 meter band, half a dozen other Spanish speaking stations in Cuba and South America come through in a jumble. At 8 P. M. we hear programs of the most wonderful music from DJC, Zeesen, Germany, on 49.85 meters some 3,830 miles away.

I have not succeeded in this feat on every Sunday, but every Sunday, atmospheric conditions permitting. The times mentioned are not the only hours these stations are on the air, but give a route map for "skipping" around the world.

*Eastern Standard Time.



1

2

4

3

5

6

7

8

9

Columbia

NBC