

DEPARTMENT OF COMMERCE

RADIO SERVICE BULLETIN

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ABBREVIATIONS

The necessary corrections to the List of Radio Stations of the United States and to the International List of Radiotelegraph Stations, appearing in this bulletin under the heading "Alterations and corrections," are published after the stations affected in the following order:

Name	= Name of station.
Loc.	= Geographical location. O = west longitude. N = north latitude. S = south latitude.
Call	= Call letters assigned.
System	= Radio system used and sparks per second.
Range	= Normal range in nautical miles.
W. L.	= Wave lengths assigned; normal wave lengths in italics.
Service	= Nature of service maintained.
	FX = Point-to-point (fixed service).
	PG = General public.
	PR = Limited public.
	RC = Radiocompass station.
	FS = Fog signal.
	P = Private.
	O = Government business exclusively.
Hours	= Hours of operation.
	N = Continuous service.
	X = No regular hours.
F. T. Co.	= Federal Telegraph Co.
I. R. T. Co.	= Intercity Radio Telegraph Co.
I. W. T. Co.	= Independent Wireless Telegraph Co.
K. & C.	= Kilbourne & Clark Manufacturing Co.
R. C. A.	= Radio Corporation of America.
U. R. Corp.	= Universal Radio Corporation.
W. S. A. Co.	= Wireless Specialty Apparatus Co.
C. w.	= Continuous wave.
I. c. w.	= Interrupted continuous wave.
Kc.	= Kilocycles.
Fy.	= Frequency.
A. c.	= Alternating current.
V. t.	= Vacuum tube.
U. S. L.	= After operating company denotes that the change applies only to the List of Radio Stations of the United States.

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NEW STATIONS

Commercial land stations, alphabetically by names of stations

[Additions to the List of Radio Stations of the United States, edition of June 30, 1925, and to the International List of Radiotelegraph Stations published by the Berns bureau]

Station	Call signal	Wave lengths	Service	Hours	Station controlled by—
Johnswood, Mich. ¹	KUVQ	409.....	FX	X	Krestan Co.
Poinciana, Fla. ¹	WFV	68.4.....	FX	X	Florida Radio Telegraph Co.
Point Barrow, Alaska	KFZG	.....	FX	X	Wilkins Polar Flight Expedition.
Point Barrow, Alaska (portable)	KFZH	.....	FX	X	Do.

¹ Range, 25; system, Western Electric Co. v. t. telegraph.
² Range, 25; system, composite v. t. telegraph.

Commercial ship stations, alphabetically by names of vessels

[Additions to the List of Radio Stations of the United States, edition of June 30, 1925, and to the International List of Radiotelegraph Stations published by the Berns bureau]

Name of vessel	Call signal	Range	Service	Hours	Owner of vessel	Station controlled by—
Arendia.....	KFZI	8.....	PG	X	Galen L. Stone.....	U. R. Corp.
Dupere ¹	KDDB	8.....	PG	X	.....	Do.
Derblay.....	KDDT	8.....	PG	X	.....	Do.
Fabia.....	WJJ	8.....	PG	X	John Chisholm Fisheries Co.....	Do.
Intrepid.....	KDHI	8.....	PG	X	Walter P. Murphy.....	Do.
Jeptha.....	KDFU	8.....	PG	X	.....	Do.
Lake Chelan ²	EQUO	8.....	PG	X	Consolidated Navigation Corporation.....	Owner.
Lake Crescent ³	KFZM	8.....	PG	X	do.....	Do.
Lake Flatonia.....	KOGS	8.....	PG	X	Baltimore & Tampa Steamship Co.....	R. C. A.
Lake Giddings.....	KUCR	8.....	PG	X	do.....	Do.
Lake Helen ⁴	KZOI	8.....	PG	X	Consolidated Navigation Corporation.....	Owner.
Lakina.....	WND	8.....	PG	X	Alaska Steamship Co.....	U. R. Corp.
Malsah.....	KUGM	8.....	PG	X	Malsah Steamship Co.....	I. W. T. Co.
Miami.....	KFZE	8.....	PG	X	Los Angeles Dredging Co.....	R. C. A.
Moline.....	KEXX	8.....	PG	X	Atlantic & Caribbean Steam Navigation Co.....	Owner.
Oritani.....	KFZI	8.....	PG	X	Oriental Navigation Co.....	Owner.
Ormes.....	KFZJ	8.....	PG	X	do.....	Owner.
Osceola ⁵	KUGN	8.....	PG	X	Arsonia Steamship Co.....	I. W. T. Co.
Samoa ⁶	KTUI	8.....	PG	X	Hammou Lumber Co.....	F. T. Co.
Seaborn.....	KFYX	.....	P	X	Richard P. Howe.....	Owner.
Torrent ⁷	KFZF	.....	P	X	City of Baltimore.....	Owner.

¹ Range, 200; system, Navy-Simon, 1,000; w. l., 600, 700, 800.
² Range, 200; system, Navy-Simon, 1,000; w. l., 600, 700, 800.
³ Range, 200; system, Navy, 1,000; w. l., 600, 700, 800.
⁴ Range, 200; system, Navy-Murconi, 1,000; w. l., 600, 700, 800.
⁵ Range, 200; system, Navy-Simon; w. l., 600, 700, 800.
⁶ Range, 200; system, Navy-Lowenstein, 1,000; w. l., 600, 700, 800.
⁷ Range, 50; system, composite v. t. telephons; w. l., 143.

Commercial land and ship stations, alphabetically, by call signals

(b, ship station; c, land station)

Call signal	Name of station	Call signal	Name of station		
KDDB	Dupere.....	b	KFZM	Lake Crescent.....	b
KDDT	Derblay.....	b	KOGS	Lake Flatonia.....	b
KDFU	Jeptha.....	b	KQUO	Lake Chelan.....	b
KDHI	Intrepid.....	b	KTUI	Samoa.....	b
KEXX	Moline.....	b	KUCR	Lake Giddings.....	b
KFYX	Seaborn.....	b	KUGM	Malsah.....	b
KFZF	Torrent.....	b	KUGN	Osceola.....	b
KFZG	Point Barrow, Alaska.....	c	KUVQ	Johnswood, Mich.....	c
KFZH	Point Barrow, Alaska (portable).....	c	KZOI	Lake Helen.....	b
KFZI	Oritani.....	b	WFV	Poinciana, Fla.....	c
KFZJ	Ormes.....	b	WJJ	Fabia.....	b

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Broadcasting stations, alphabetically, by names of States and cities

[Additions to the List of Radio Stations of the United States, edition of June 30, 1925]

State and city	Call signal	State and city	Call signal
District of Columbia: Washington.....	WRHF	Philippine Islands: Manila.....	KZIB
Florida: Miami Beach.....	WIOD	Texas: Terarkana.....	KFYO
Missouri: Kirkwood.....	KMOX		

Broadcasting stations, alphabetically, by call signals

Call signal	Location of station (address)	Owner of station	Power (watts)	Wave length	Frequency (kilocycles)
KFYO	Terarkana, Tex.....	Rochanan-Vaughan Co.....	10	290.7	1,440
KMOX	Kirkwood, Mo. (St. Louis).....	Voice of St. Louis, (Inc.).....	1,500	290.2	1,070
KZIB	Manila, P. I., 20 Plaza Moraga.....	I. Beck (Inc.).....	20	242.9	1,200
WIOD	Miami Beach, Fla.....	Carl U. Fisher.....	1,000	247.8	1,210
WRHF	Washington, D. C., 625 Eleventh St. NW.	Washington Radio Hospital Fund.	50	224	1,170

¹ Relicensed.*Government land stations, alphabetically, by names of stations*

[Additions to the List of Radio Stations of the United States, edition of June 30, 1925, and to the International List of Radiotelegraph Stations published by the Bureau]

Station	Call signal	Wave length	Service	Hours	Station controlled by—
Anacortes, Wash. (Section Base 12) ¹	NFG	110, 115, 130	O	X	U. S. Coast Guard.
Biloxi, Miss. (Section Base 15) ¹	NEG	110, 115, 130	O	X	Do.
New York, N. Y. (Section Base 2, Argis) ¹	NABD	110, 115, 130	O	X	Do.
Port Angeles, Wash. (Section Base 13) ¹	NIG	110, 115, 130	O	X	Do.
Port Townsend, Wash. (Section Base 10) ¹	NAG	110, 115, 130	O	X	Do.
San Francisco, Calif. ²	KFZP	70	FX	X	Post Office Department.
San Francisco, Calif. (Yerba Island, Section Base 11) ¹	NEG	110, 115, 130	O	X	U. S. Coast Guard.
Unalaska, Alaska ¹	NXG	110, 115, 130	O	X	Do.

¹ Range, 50; system, Western Electric Co. v. t. telephone and telegraph.² System, composite v. t. telegraph.*Government land and ship stations, alphabetically, by call signals*

[b, ship station; c, land station]

Call signal	Name of station	Call signal	Name of station
KFZP	San Francisco, Calif.....c	NFG	Anacortes, Wash. (Section Base 12)....c
NABD	New York, N. Y. (Section Base 2, Argis).....c	NIG	Port Angeles, Wash. (Section Base 13)....c
NAG	Port Townsend, Wash. (Section Base 10).....c	NEG	Biloxi, Miss. (Section Base 15).....c
NEG	San Francisco, Calif. (Yerba Island, Section Base 11).....c	NXG	Unalaska, Alaska.....c

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Special land stations, alphabetically, by names of stations

[Additions to the List of Radio Stations of the United States, edition of June 30, 1925]

Station	Call signal	Station controlled by—
Baltimore, Md.....	3XI	Supervisor of radio, third district.
Chicago, Ill.....	9XO	Morkrum-Kleinschmidt Corporation, 1410 Wrightwood Avenue.
Madison, Wis.....	9XM	University of Wisconsin.
Missoula, Mont.....	7XA	University of Montana.
New York, N. Y.....	2XZ	John Wacamaker.
Pensacola, Fla. (temporary)...	4XH	City of Pensacola.

Special land stations grouped by districts

Call signal	District and station	Call signal	District and station
2XZ	Second district: New York, N. Y.	7XA	Seventh district: Missoula, Mont.
3XI	Third district: Baltimore, Md.	9XM	Ninth district: Madison, Wis.
4XH	Fourth district: Pensacola, Fla. (temporary).	9XO	Chicago, Ill.

ALTERATIONS AND CORRECTIONS

COMMERCIAL LAND STATIONS

[Alterations and corrections to be made to the List of Radio Stations of the United States, edition of June 30, 1925, and to the International List of Radiotelegraph Stations, published by the Bernese bureau]

- CHEBOYGAN, MICH.**—W. l., 409.
CLEVELAND, OHIO (WMI).—System, add K. & C., 1,000; w. l., 715, 875, 1,733; rates, 8 cents per word.
CLEVELAND, OHIO (WTK).—W. l., add 875.
FLINT, MICH.—System, composite v. t. telephone and telegraph.
GALVESTON, TEX.—Hours, N.
LUBINGTON, MICH.—System, Marconi arc and Marconi spark, 1,000; w. l., 715, 875, 1,866.
MANITOWOC, WIS.—W. l., add 875.
NORTHVILLE, MICH.—Hours, N.
PORTLAND, OREG.—System, composite v. t. telephone and telegraph.
QUINCY, MASS.—W. l., 600, 920.
ROCKY POINT, N. Y. (WQO).—W. l., 35, 44.
ST. JAMES, N. Y.—Read Rocky Point, N. Y.; system, Alexanderson alternator.
SPRINGFIELD, MASS.—Range, 2,000.
TUCKERTON, N. Y. (WSC).—System, R. C. A. v. t. telegraph; w. l., 600, 650, 2,200, 2,425.
UNDERWOOD, WASH. (NEAR).—System, composite v. t. telephone and telegraph.

COMMERCIAL SHIP STATIONS, ALPHABETICALLY BY NAMES OF VESSELS

[Alterations and corrections to be made to the List of Radio Stations of the United States, edition of June 30, 1925, and to the International List of Radiotelegraph Stations, published by the Bernese bureau]

- ABRON.**—Owner of vessel, Finkbine-Guld Transportation Co.
ACME.—W. l., 600, 706, 800.
AMERICAN FARMER.—Strike out ditto on page 12; insert American Farmer, call signal WEG (U. S. L.).
AMERICAN LEGION.—Range, 200-500; w. l., 600, 706, 800, 1,800, 1,900, 2,000, 2,100, 2,400.
ARYAN.—W. l., 600, 706, 800.
ATLANTA CITY.—W. l., 600, 706, 800.
BALLENAS.—Range, 150; system, Telefunken, 1,000; w. l., 600, 706, 800; owner of vessel, W. E. Hedger & Co.
BASCODEL.—W. l., 600, 706, 800; station controlled by I. W. T. Co.

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BIRMINGHAM.—System, composite, 1,000; w. l., 600, 1,100.
 BRANDON.—Range, 150; system, composite, 1,000; w. l., 600, 706, 800.
 BRAZOS.—System, Marconi, 1,000; w. l., 600, 706, 800.
 CACIQUE.—W. l., 600, 706, 800.
 CAMBRIDGE.—Range, 150; system, Lowenstein, 1,000; w. l., 600, 706, 800, 875.
 CATHERINE G. SIDDEN.—Owner of vessel, Sudden & Christenson.
 CERRO-AZUL.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.
 CHEROKEE.—Range, 150-300; system, I. W. T. Co. arc and Lowenstein spark, 1,000; w. l., 600, 700, 800, 1,800, 1,900, 2,000, 2,100, 2,400.
 CITY OF BIRMINGHAM.—W. l., 600, 706, 800.
 CITY OF CHATTANOOGA.—System, R. C. A. v. t. telegraph and R. C. A. spark, 1,000; w. l., 600, 706, 800, 1,800, 1,900, 2,100, 2,400.
 COAMO.—Range, 150; system, Marconi, 1,000; w. l., 600, 706, 800, 1,800, 1,900, 2,000, 2,100, 2,400.
 COLORADO SPRINGS.—W. l., 600, 706, 800.
 COLUMBIAN.—Range, 200; system, F. T. Co., 480; w. l., 600, 706, 800.
 COMBER.—W. l., 600, 706, 800.
 CORRALES.—Owner of vessel, Pillsbury & Curtis.
 DEER LODGE.—Station controlled by R. C. A. (U. S. L.).
 DERBYLINE.—W. l., 450, 600, 706, 800.
 DIANA DOLLAR.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 800.
 DOCHET.—Owner of vessel, Finkbine-Guild Transportation Co.
 EASTERN MOON.—W. l., 600, 706, 800.
 EAST INDIAN.—Range, 500; system, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 1,800, 1,900, 2,000, 2,100, 2,400; owner of vessel, Ford Motor Co.
 EDNA CHRISTENSON.—Owner of vessel, Sudden & Christenson.
 E. G. CROSBY.—System, Navy-W. S. A. Co., 1,000; w. l., 600, 706, 800.
 ELLENOR.—W. l., 600, 706, 800.
 ELMORE.—W. l., 600, 706; station controlled by owner of vessel.
 ESSEX.—W. l., 600, 706, 800.
 F. C. LATROBE.—Range, 50; system, composite v. t. telegraph; w. l., 143, 600.
 FOREST KING.—Range, 200; w. l., 600, 706, 800.
 FREEPORT SULPHUR No. 6.—W. l., 450, 600, 706, 800.
 GEORGE WASHINGTON (WFR).—Owner of vessel, Eastern S. S. Lines.
 GEORGE W. BARNES.—W. l., 600, 706, 800.
 GEORGIA.—System, Marconi, 1,000; w. l., 600, 706, 800.
 HEITI.—System, Navy-International Radio Telegraph Co., 1,000; w. l., 600, 706, 800; rates, strike out Great Lakes rate.
 HALO.—W. l., add 1,900, 2,000.
 HAMLIN F. McCORMICK.—Owner of vessel Charles R. McCormick Lumber Co.
 HEGIRA.—W. l., 600, 706, 800; owner of vessel, Hegira S. S. Co.
 HUGUENOT.—System, Navy, 1,000; w. l., 450, 600, 706, 800.
 INDIANA HARBOR.—Range, 200; system, Navy, 1,000; w. l., 600, 706, 800.
 JEFFERSON (KOD).—Owner of vessel, Eastern S. S. Lines.
 LAKE BENTON.—Owner of vessel, Mobile, Miami & Gulf S. S. Co.
 LAKE CAPENS.—Range, 150; system, Navy-Marconi, 1,000; w. l., 600, 706, 800.
 LAKE ELLSBURY.—Range, 150; system, R. C. A. v. t. telegraph; w. l., 600, 706, 800.
 LAKE FAIRPORT.—Range, 200; system, Navy-Lowenstein, 1,000; w. l., 600, 706, 800; station controlled by I. W. T. Co.
 LAKE FERNANDO.—Range, 300; system, I. W. T. Co., 1,000; w. l., 600, 706, 800; owner of vessel, Muelson Steamship Line.
 LAKE GETAWAY.—Name changed to Upshur; range, 200; system, Navy-Simon, 1,000; w. l., 600, 706, 800.
 LAKE GILTEDGE.—Range, 300; system, Navy-Lowenstein, 1,000; w. l., 600, 706, 800.
 LAKE MEDFORD.—Range, 200; system, Navy-R. C. A., 1,000; w. l., 600, 706, 800.
 LEROY.—W. l., 600, 706.
 LEWIS LUCKENBACH.—Hours, X.
 MANCHURIA.—W. l., 600, 706, 800; owner of vessel, Atlantic Transport Co.
 MERRIMACK.—Hours, X.
 MONTGOMERY CITY.—W. l., strike out 450.
 MONTROLITE.—Name changed to J. C. Fitzsimmons.
 MUNAIRE.—System, R. C. A. v. t. telegraph.
 NORTHLAND (WGJ).—Station controlled by owner of vessel.
 O. A. HERMANSON.—Range, 150; system, R. C. A., 1,000; w. l., 600, 706; owner

- OAKSPRING.—Station controlled by R. C. A.
 OCEAN.—W. l., 600, 706, 800.
 OSCAR D. BENNETT.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.
 PAN AMERICA.—Range, 300; system, Federal arc and Navy-Marconi spark, 1,000; w. l., 600, 706, 800, 1,800, 1,900, 2,000, 2,100, 2,400; owner of vessel Munson Steamship Line.
 PAWLET.—System, Navy-Marconi, 1,000; w. l., 600, 706, 800; station controlled by I. W. T. Co.
 PAWNEE (KFTL).—Name changed to Vagabondia; service, PG; owner of vessel, W. L. Meiton; station controlled by owner of vessel; rates, 8 cents per word.
 PAWNEE (KFZE).—Range, 300; system, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 1,800, 1,900, 2,000, 2,100; service, PG; hours, X; station controlled by R. C. A.; rates, 8 cents per word.
 PECOS.—System, Marconi, 1,000; w. l., 600, 706, 800.
 PERE MARQUETTE.—Name changed to Pere Marquette 15.
 PRESIDENT GRANT.—Range, 150-300; w. l., add 800.
 RELIEF.—Range, 150-300; system, I. W. T. Co. arc and Telefunken spark, 1,000; owner of vessel, Merritt & Chapman Derrick & Wrecking Corporation.
 RICHMOND (KDOQ).—W. l., 600, 706; rates, 8 cents per word.
 SAN JACINTO.—W. l., 600, 706, 800.
 SAN JUAN (KGJ).—System, Marconi, 1,000; w. l., 600, 706, 800; hours, X.
 SANTA MARTA.—W. l., 600, 706, 800; owner of vessel, United Fruit Steamship Corporation.
 SAUGUS.—System, Navy-W. S. A. Co., 1,000; w. l., 450, 600, 706, 800.
 SAYONARA.—Range, 150; system, R. C. A., 1,000; w. l., 600, 706, 800; service, PG; hours, X; station controlled by owner of vessel; rates, 8 cents per word.
 SCHENECTADY.—Station controlled by R. C. A. (U. S. L.).
 SCHOLARIE.—Owner of vessel, U. S. Shipping Board.
 SIBONEY.—W. l., 600, 706, 800, 1,800, 2,100, 2,400.
 SOCONY 82.—W. l., 600, 706, 800.
 SOCONY 83.—W. l., 600, 706, 800; owner of vessel, Standard Transportation Co.
 STANDARD (KIC).—W. l., 600, 706, 800.
 STANLEY.—Station controlled by R. C. A. (U. S. L.).
 SUNDANCE.—Owner of vessel, U. S. Shipping Board.
 SUPORTCO.—W. l., 600, 706, 800.
 SUSAN A. MORAN.—Range, 200; system, Navy-Marconi, 1,000; w. l., 600, 706, 800.
 SYLVAN ARROW.—W. l., 600, 706, 800; hours, X.
 UNITED STATES.—System, Marconi, 1,000; w. l., 600, 706, 715, 800.
 WALUCCIA.—Range, 150; system, Navy-Lowenstein, 1,000; w. l., 600, 706, 800; service, PG; hours, X; rates, 8 cents per word.
 WEST CHETAC.—System, Navy-Lowenstein, 1,000; w. l., 600, 706, 800, 875.
 WEST INSKIP.—System, Navy-Lowenstein, 1,000; w. l., 600, 706, 800.
 WEST ISLETA.—Owner of vessel, South American-South African Line; station controlled by R. C. A. (U. S. L.).
 WESTERN WORLD.—System, Federal arc and Navy-Marconi spark, 1,000; w. l., 600, 706, 800, 1,800, 1,900, 2,000, 2,100, 2,400; owner of vessel Munson Steamship Line.
 W. H. LIBBY.—W. l., 600, 706, 800.
 WILLPOLO.—W. l., 600, 706, 800.
 W. J. HANNA.—W. l., 600, 706, 800.
 Strike out all particulars of the following-named vessels: *Australia*, *Cotopaxi*, *Jefferson* (WAJ); *Morro Castle*, *Peerless*, *San Juan* (KULV); *Windber*.

COMMERCIAL LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS

KFTL, read Vagabondia; KINJ, read Munleon; KOLZ, read Upshur; WDA, read Pere Marquette 15; WFA, read J. C. Fitzsimmons; WQK, read Rocky Point, N. Y.; strike out all particulars following call signals KDXO, KFYI,

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BROADCASTING STATIONS, BY CALL SIGNALS

[Alterations and corrections to be made to the List of Radio Stations of the United States, edition of June 30, 1925]

- KFBC (San Diego, Calif.).—W. l., 215.7; fy. kc., 1,300.
 KFBS (Trinidad, Colo.).—Fy. kc., 1,260.
 KFH (Wichita, Kans.).—Power, 500.
 KFI (Los Angeles, Calif.).—Power, 4000.
 KFLZ (Atlantic, Iowa).—Changed to Anita, Iowa.
 KFPR (Los Angeles, Calif.).—W. l., 230.6; fy. kc., 1,300.
 KFQZ (Hollywood, Calif.).—W. l., 225.4; fy. kc., 1,330.
 KFVG (Independence, Mo.).—Power, 15.
 KFWM (Oakland, Calif.).—Fy. kc., 1,450.
 KF XD (Logan, Utah).—Owner of station, Service Radio Co.
 KLS (Oakland, Calif.).—W. l., 250.
 KMMJ (Clay Center, Nebr.).—Power, 1000.
 KNX (Los Angeles, Calif.).—Power, 1000.
 WABB (Harrisburg, Pa.).—Owner of station, Harrisburg Radio Co.; w. l., 204; fy. kc., 1,470.
 WBDC (Grand Rapids, Mich.).—Power, 500.
 WBPI (Newark, N. J.).—Owner of station, I. R. Nelson.
 WCX (Pontiac, Mich.).—Power, 5000.
 WDBR (Boston, Mass.).—Call signal changed to WSSH.
 WEBR (Buffalo, N. Y.).—Power, 50.
 WEBZ (Savannah, Ga.).—Power, 50.
 WEEI (Boston, Mass.).—W. l., 348.6; fy. kc., 800.
 WEW (St. Louis, Mo.).—Power, 1000.
 WFBH (New York, N. Y.).—Changed to Richmond Hill, N. Y.
 WGBF (Evansville, Ind.).—Power, 500.
 WHBD (Bellefontaine, Ohio).—Strike out the word portable.
 WHBL (Logansport, Ind.).—Changed to Chicago, Ill. (portable); owner of station, C. L. Carrell.
 WHBM (Chicago, Ill.—portable).—W. l., 215.7; fy. kc., 1,390.
 WHK (Cleveland, Ohio).—Power, 1000; w. l., 272.6.
 WHT (Deerfield, Ill.).—Power, 3500.
 WIBH (New Bedford, Mass.).—Power, 30.
 WIBZ (Montgomery, Ala.).—Owner of station A. D. Trum, 217 Catoma Street.
 WJAK (Greentown, Ind.).—Changed to Kokomo, Ind., 1531 Washington Street.
 WJR (Pontiac, Mich.).—Power, 5000.
 WJZ (New York, N. Y.).—Power, variable.
 WKAQ (San Juan, P. R.).—Owner of station, Radio Corporation of Porto Rico.
 WLIB (Elgin, Ill.—near).—Power, 4000.
 WLS (Crete, Ill.).—Power, 5000.
 WNAD (Norman, Okla.).—Power, 500.
 WOOD (Grand Rapids, Mich.).—Power, 500.
 WSBC (Chicago, Ill.).—Power, 1000.
 WTAT (Boston, Mass.—portable).—Call signal changed to WATT; w. l., 245.8; fy. kc., 1,230.
 WTIC (Hartford, Conn.).—W. l., 475.9; fy. kc., 630.
 Strike out all particulars of the following-named stations: KDPM (Cleveland, Ohio), KFFY (Alexandria, La.); KFGC (Baton Rouge, La.), KFGH (Stauford University, Calif.), KFJX (Cedar Falls, Iowa), KFOJ (Moberly, Mo.), KFUF (Breckenridge, Minn.), KFUM (Colorado Springs, Colo.), KFUV (Springfield, Mo.), KFWD (Arkadelphia, Ark.), KGB (Tacoma, Wash.), KWUC (La Mars, Iowa), WCBC (Ann Arbor, Mich.), WDCH (Hanover, N. H.), WEAY (Houston, Tex.), WGBK (Johnstown, Pa.), WGBT (Greenville, S. C.), WIBC (St. Petersburg, Fla.), WIBK (Toledo, Ohio), WIBV (Henderson, N. C.), WJBN (Sycamore, Ill.), WKAD (East Providence, R. I.), WLB (Minneapolis, Minn.), WOCG (Sycamore, Ill.), WRAK (Escanaba, Mich.), WSAU (Chesham, N. H.), WTAC (Johnstown, Pa.).

GOVERNMENT LAND STATIONS, ALPHABETICALLY BY NAMES OF STATIONS

[Alterations and corrections to be made to the List of Radio Stations of the United States, edition of June 30, 1925, and to the International List of Radiotelegraph Stations, published by the Bureau.]

RADIO SERVICE BULLETIN

GOVERNMENT SHIP STATIONS, ALPHABETICALLY BY NAMES OF STATIONS

[Alterations and corrections to be made to the List of Radio Stations of the United States, edition of June 30, 1925, and to the International List of Radiotelegraph Stations, published by the Berne bureau]

Strike out all particulars of the following-named vessel: *Argus*, CG-114, CG-245.

GOVERNMENT LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS

NABD, read New York, N. Y. (*Argus*); strike out all particulars following call signals, NAMS, NAVX, NSF (R. C.).

SPECIAL LAND STATIONS, BY NAMES OF STATIONS

[Alterations and corrections to be made to the List of Radio Stations of the United States, edition of June 30, 1925]

ARLINGTON, ILL. (9XN).—Changed to Chicago, Ill.; owner of station, Zenith Radio Corporation, 3020 Iron Street.
 MEDFORD HILLSIDE, MASS. (1XE).—Owner of station, Amrad Corporation. Strike out all particulars of the following-named stations: Baltimore, Md. (3XAQ); Brooklyn, N. Y. (2XV); Carthage, Ill. (9YAU); Detroit, Mich. (8XAR); Hilo, Hawaii (6XAZ); Honolulu, Hawaii (6XAY); Moosmouth, Ill. (9XP); New York, N. Y. (2XAL).

MISCELLANEOUS

BROADCASTING STATIONS, ALPHABETICALLY BY STATES AND CITIES

[Complete to Jan. 30, 1926]

State and city	Call signal	State and city	Call signal	State and city	Call signal
Alabama:		San Diego	KFWW	Georgia:	
Auburn	WAPI	San Francisco	KFRC	Atlanta	WDBE
Birmingham	WJEC	Do	EGTT	Do	WGST
Montgomery	WIBZ	Do	KJBS	Do	WSB
Alaska:		Do	RPO	Macon	WMAZ
Anchorage	KFQD	Do	KUO	Savannah	WEHZ
Juneau	KFIU	Do	KFAP	Hawaii: Honolulu	KGU
Arizona:		San Jose	KQW	Idaho:	
Flagstaff	KFXV	Do	KFVD	Boise	KFAU
Phoenix	KFAD	San Pedro	KPXC	Do	KFDD
Do	KFCB	Santa Maria	KFWI	Kellogg	KFEY
Arkansas:		South San Francisco	KWQ	Illinois:	
Fayetteville	KFMQ	Stockton	KFWO	Batavia	WORD
Hot Springs	KTHS	Upland	KPAJ	Cambridge	WTAP
California:		Colorado:	KPXF	Chicago	WTAD
Alma (Holy City)	KFQU	Boulder	KPFL	Do	KYV
Avalon	KFWO	Colorado Springs	KPUP	Do	WAAF
Bakersfield	KDZB	Denver	KLZ	Do	WBBM
Berkeley	KRE	Do	KOA	Do	WBCN
Big Bear Lake	KFXB	Do	KPVR	Do	WEHR
Burlingame	KFOB	Denver (near)	KPKA	Do	WENR
Chico	KFWH	Greeley	KFHA	Do	WFEB
Fresno	KMJ	Gunnison	KFBS	Do	WGN
Hollywood	KFQZ	Tinian		Do	WIBO
Do	KFWB	Connecticut:		Do	WLTS
Long Beach	KFON	Hartford	WTIC	Do	WMAQ
Los Angeles	KFI	Mansfield	WCAC	Do	WMBB
Do	KFPR	New Haven	WDRC	Do	WPCC
Do	KFSG	Delaware: Wilmington	WHAU	Do	WQJ
Do	KHJ	District of Columbia:		Do	WSBC
Do	KNTR	Washington	WCAP	Crete	WLS
Do	KNRC	Do	WMAL	Decatur	WBAO
Do	KNX	Do	WRC	Do	WJBL
Do	KTBI	Do	WRHF	Deerfield	WHT
Oakland	KFUS	Florida:		Elgin (near)	WCEE
Do	KFUU	Clearwater	WGHB	Do	WLJB
Do	EGO	Fulford-by-the-Sea	WGBU	Evanson	WEHS
Do	KLS	Jacksonville	WJAX	Galesburg	WFBZ
Do	KLX	Miami	WQAM	Do	WRAM
Do	KTAB	Miami Beach	WIOD	Harrisburg	WEHQ
Do	KZM	Do	WMBF	Homewood	WOK
Oxnard	KFYF	St. Petersburg	WHBN	Joliet	WOLS
Patadena	KPPC	Do	WJBB	Do	WJBA
Do	KPSN	Tampa	WDAE	Do	WEBB
Sacramento	KFBK	Winter Park	WDBO	La Salle	WJBC
San Diego	KFBC			Moosheart	WJJD
				Mount Prospect	WJAZ

RADIO SERVICE BULLETIN

BROADCASTING STATIONS, ALPHABETICALLY BY STATES AND CITIES—continued

State and city	Call signal	State and city	Call signal	State and city	Call signal
Illinois—Continued.		Massachusetts:		Montana:	
Oak Park.....	WGES	Boston.....	WSSH	Hayre.....	KFDB
Plainfield.....	WWAE	Do.....	WUZA	Missoula.....	KUOM
Rockford.....	KPLV	Do.....	WFEI	Nebraska:	
Rock Island.....	WHDY	Do.....	WNAB	Clay Center.....	KMMJ
Streator.....	WTAX	Do.....	WNAC	David City.....	KFOR
Tuscola.....	WDZ	Dartmouth.....	WMAF	Hastings.....	KPKX
Urbana.....	WLM	Fall River.....	WSAB	Lincoln.....	KFAB
Zion.....	WCBD	Do.....	WTAB	Do.....	WFAV
Indiana:		Medford Hillside.....	WARC	Norfolk.....	WIAG
Anderson.....	WEBD	New Bedford.....	WIBH	Oak.....	KFEQ
Do.....	WBUB	Do.....	WNBH	Omaha.....	KFCZ
Culver.....	WIBH	Springfield.....	WBZ	Do.....	KFOX
Evansville.....	WGBF	Taunton.....	WAIT	Do.....	KOCH
Fort Wayne.....	WBBJ	Webster.....	WIRE	Do.....	WAAW
Do.....	WOWO	Worcester.....	WTAG	Do.....	WOAW
Indianapolis.....	WFIM	Michigan:		University Place.....	WCAJ
Kokomo.....	WJAK	Bay City.....	WSKC	New Hampshire:	
Laporte.....	WRAF	Berrien Springs.....	WEMC	Chesham.....	WSAU
Logansport.....	WIBW	Dearborn.....	WWI	Laconia.....	WKAJ
Seymour.....	WFBE	Detroit.....	WGHF	New Jersey:	
South Bend.....	WBBT	Do.....	WMBC	Atlantic City.....	WHAR
Vaughansville.....	WBBC	Do.....	WWJ	Do.....	WPO
West Lafayette.....	WBAA	East Lansing.....	WKAR	Camden.....	WFB
Iowa:		Flint.....	WFDF	Gloucester City.....	WRAX
Ames.....	WOT	Grand Rapids.....	WBDC	Roboken.....	WMCA
Anita.....	KFLZ	Do.....	WDDO	Lambertville.....	WTAZ
Boone.....	KFGQ	Houghton.....	KFMW	Newark.....	WBFL
Burlington.....	WLAS	Do.....	WVAO	Do.....	WGCP
Cedar Rapids.....	KWCR	Lansing.....	WREO	Do.....	WNJ
Do.....	WJAM	Mount Clemens.....		Do.....	WOR
Clarinda.....	KSD	(near).....	WABX	North Plainfield.....	WEAM
Council Bluffs.....	KOIL	Owosso.....	WSMH	Puterson.....	WODA
Davenport.....	WOC	Pruskey.....	WBBP	Red Bank.....	WJBI
Des Moines.....	WHO	Pontiac.....	WCK	Trenton.....	WOAX
Fort Dodge.....	KFYJ	Minnesota:		New Mexico:	
Iowa City.....	KFQP	Collegeville.....	WFBJ	Albuquerque.....	KFLR
Do.....	WSUI	Minneapolis.....	KFDZ	Do.....	KFVY
Marshalltown.....	KFJB	Do.....	WAMD	State College.....	KOB
Muscatine.....	KTNT	Do.....	WHAT	New York:	
Oskaloosa.....	KFHT	Do.....	WHDI	Bay Shore.....	WRBT
Stenandoub.....	KPNF	Do.....	WHHM	Brooklyn.....	WFRL
Do.....	KMA	Northfield.....	KFMX	Buffalo.....	WEHR
Stout City.....	KFMR	Do.....	WCAL	Do.....	WGR
Do.....	WFAU	Do.....	WFAM	Do.....	WJBP
Kansas:		Do.....	KFOY	Canton.....	WCAD
Independence.....	KFVG	St. Cloud.....	WCCO	Cazenovia.....	WMAD
Junction City.....	KFJC	St. Paul.....	KFVN	Flushing.....	WBI
Lawrence.....	KFKU	St. Paul-Minneapolis.....		Freeport.....	WGBB
Manhattan.....	KFVH	Welcome.....		Ithaca.....	WEAI
Do.....	KRAC	Mississippi:		Jamestown.....	WUCI
Wichita.....	KFH	Coldwater.....	WREC	Kingston.....	WDBZ
Do.....	KFOT	Oxford (near).....	WOBH	Lockport.....	WMAK
Kentucky:		Missouri:		New York.....	WBNY
Louisville.....	WLAE	Cape Girardeau.....	KFVS	Do.....	WRAP
Do.....	WLAP	Casterville.....	KFPW	Do.....	WBJ
Louisiana:		Columbia.....	KFRU	Do.....	WDBS
Kennerwood.....	KWHH	Independence.....	KLDS	Do.....	WHAP
New Orleans.....	WABZ	Jefferson City.....	WOS	Do.....	WHN
Do.....	WHHS	Kansas City.....	KWEC	Do.....	WJY
Do.....	WCBE	Do.....	WDAF	Do.....	WJZ
Do.....	WOWI	Do.....	WHB	Do.....	WLWL
Do.....	WSMB	Do.....	WOO	Do.....	WNYC
Do.....	WWL	Kirkville.....	KFKZ	Do.....	WOKO
Pineville.....	KFWU	Kirkwood.....	KMOX	Do.....	WQAO
Shreveport.....	KFDX	Moherly.....	KFFP	Do.....	WRNY
Maine:		St. Louis.....	KFQA	Do.....	WSDA
Bangor.....	WAHI	Do.....	KFCO	Do.....	WAGH
Ellsworth.....	WHBK	Do.....	KEVE	Do.....	WBOC
Orono.....	WGBX	Do.....	KFWF	Do.....	WFBH
Portland.....	WCSH	Do.....	KSD	Do.....	WWGL
Maryland:		Do.....	KFW	Do.....	WABO
Baltimore.....	WBAL	Do.....	KFW	Do.....	WHAM
Do.....	WCAO	Do.....	WIL	Do.....	WHBC
Do.....	WCBM	Do.....	WMAJ	Do.....	WHBR
Do.....	WFBH	Do.....	WSDP	Do.....	WGL
Takoma Park.....	WBES	Montana:		Do.....	WFR
		Nebraska:		Do.....	WRW

BROADCASTING STATIONS, ALPHABETICALLY BY STATES AND CITIES—continued

State and city	Call signal	State and city	Call signal	State and city	Call signal
New York—Contd.		Pennsylvania—Con.		Texas—Continued	
Troy.....	WHAZ	Philadelphia.....	WABY	San Benito.....	KFLU
Utica.....	WIBX	Do.....	WCAU	Tenarkona.....	KPYO
North Carolina:		Do.....	WFDD	Waco.....	WJAD
Asheville.....	WABC	Do.....	WFI	Utah:	
Charlotte.....	WBT	Do.....	WIBW	Logan.....	KPKD
Do.....	WIBG	Do.....	WIAD	Ogden.....	KFUR
Raleigh.....	WRCO	Do.....	WIP	Do.....	KFWA
North Dakota:		Do.....	WLIT	Salt Lake City.....	KDYI
Agricultural College.....	WPAK	Do.....	WNAT	Do.....	KFOO
Bismarck.....	KFYR	Do.....	WGD	Do.....	KFUT
Devils Lake.....	KDLR	Do.....	WWAD	Do.....	KSL
Fargo.....	WDAY	Pittsburgh.....	KQV	Vermont:	
Grand Forks.....	KFIN	Do.....	WCAE	Burlington.....	WCAK
Ohio:		Do.....	WJAE	Springfield.....	WQAE
Akron.....	WADC	Reading.....	WRAW	Virginia:	
Bellefontaine.....	WHDH	Scranton.....	WGDI	Arlington.....	NAA
Cambridge.....	WBFB	Do.....	WGAN	Norfolk.....	WBBW
Canton.....	WHDC	State College.....	WFSC	Do.....	WEAR
Cincinnati.....	WAAD	Wilkes-Barre.....	WBAX	Richmond.....	WBBL
Do.....	WERO	Do.....	WBRE	Do.....	WRVA
Cleveland.....	WDBK	Philippine Islands:		Roanoke.....	WDBJ
Do.....	WEAR	Baguio.....	KZUY	Washington:	
Do.....	WIK	Manila.....	KZIB	Everett.....	KFBL
Do.....	WTAM	Do.....	KZKZ	Lucy.....	KGY
Columbus.....	WAIU	Do.....	KZHQ	North Bend.....	KPQW
Do.....	WEAO	Porto Rico: San Juan.....	WKAQ	Olympia.....	KFRW
Do.....	WLAN	Rhode Island:		Pullman.....	KWSC
Dayton.....	WBNK	Cranston.....	WDWF	Seattle.....	KFOA
Hamilton.....	WBE	Do.....	WLSI	Do.....	K/R
Do.....	WBRD	Providence.....	WEAN	Do.....	KTCL
Harrison.....	WLW	Do.....	WGBM	Do.....	KTW
Mason.....	WEAI	Do.....	WJAR	Spokane.....	KFIO
Pomeroy.....	WBAZ	South Carolina:		Do.....	KFPY
Springfield.....	WCBO	Charleston.....	WBBY	Do.....	KHQ
Toledo.....	WARR	South Dakota:		Tacoma.....	KMO
Do.....	WTAL	Brookings.....	KFDY	Walla Walla.....	KQWW
Wester.....	WABW	Rapid City.....	WCAT	Yakima.....	KFIQ
Yellow Springs.....	WRAV	Vermillion.....	KUSD	West Virginia: War-	
Oklahoma:		Yankton.....	WNAK	ton.....	WIDR
Bristow.....	KVOO	Tennessee:		Wisconsin:	
Chickasha.....	KOUW	Chattanooga.....	WDOD	Beloit.....	WEBW
Norman.....	WNAD	Knoxville.....	WFBC	Camp Lake.....	WCLO
Oklahoma:		Do.....	WNOX	Fondulac.....	KFIZ
Do.....	KFXR	Lawrenceburg.....	WOAN	Madison.....	WBA
Do.....	WKY	Memphis.....	WGBC	Do.....	WBA
Tulsa.....	WLAL	Do.....	WHDQ	Marshfield.....	WGBR
Oregon:		Do.....	WMC	Milwaukee.....	WHAD
Astoria.....	KFJI	Nashville.....	WDBQ	Do.....	WFAF
Corvallis.....	KOAC	Do.....	WDDQ	Do.....	WBOE
Portland.....	KPEC	Do.....	WBM	Osteo.....	WTAQ
Do.....	KFIP	Texas:		Peynote.....	WIBU
Do.....	KFJR	Amarillo.....	WDAQ	Stevens Point.....	WLBL
Do.....	KFWV	Do.....	WQAC	Superior.....	WBOC
Do.....	KGW	Austin.....	KUT	West De Pere.....	WIBY
Do.....	KQP	Bennington.....	KFDM	Wyoming: Laramie.....	KFBU
Do.....	KTBR	Do.....	KFXM	Portable stations:	
Pennsylvania:		Beaville.....	KFEB	Boston, Mass.....	WATT
Allentown.....	WCBA	Brownsville.....	KFWG	Chicago, Ill.....	WBBZ
Do.....	WSAN	College Station.....	WTAW	Do.....	WIBL
Altoona.....	WFBG	Dallas.....	WFAA	Do.....	WBBM
East Pittsburgh.....	HDKA	Do.....	WBR	Do.....	WIBJ
Elkins Park.....	WIBG	Dublin.....	KFPL	Do.....	WIBM
Greene City.....	WEAJ	El Paso.....	KFXH	Do.....	WKBC
Harrisburg.....	WARR	Do.....	WDAH	Do.....	WBAK
Do.....	WBAK	Fort Worth.....	KFJZ	Denver, Colo.....	KFNJ
Do.....	WBBU	Do.....	KFQU	Elizabeth, N. J.....	WIBS
Do.....	WPRC	Do.....	WBAP	Houston, Tex.....	KFYJ
Haverford.....	WAHQ	Galveston.....	KFLX	MU-1 (yacht).....	WRMU
Johnstown.....	WIBF	Do.....	KFUL	Providence, R. I.....	WCDR
Lancaster.....	WBHC	Greenville.....	KFFM	Richmond, N. Y.....	WGMU
Do.....	WGAL	Houston.....	KFVI	United States.....	WCWS
Lewisburg.....	WBHQ	Do.....	KPRC	Do.....	WBBL
Oil City.....	WFAA	San Antonio.....	WCAH	Do.....	WBBM

RADIO SERVICE BULLETIN

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BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS

[Complete up to Jan. 30, 1926]

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilo-cycles)
KDKA	East Pittsburgh, Pa.	Westinghouse Electric & Manufacturing Co.	(1)	309.1	970
KDLR	Devils Lake, N. Dak.	Radio Electric Co. and Wilson Insurance Co.	5	231	1,300
KDYL	Salt Lake City, Utah	Newhouse Hotel	50	248	1,220
KDZB	Bakersfield, Calif.	Frank E. Siefert	100	209.7	1,430
KFAB	Lincoln, Nebr.	Nebraska Buick Auto Co.	1,000	142.7	880
KFAD	Phoenix, Ariz.	Electrical Equipment Co. (McArthur Bros. Mercantile Co.)	100	273	1,100
KFAF	San Jose, Calif., Montgomery Hotel.	Alfred E. Fowler	50	217.3	1,350
KFAJ	Boulder, Colo.	University of Colorado	100	261	1,150
KFAU	Boise, Idaho	Independent School District of Boise City (Boise High School).	750	280.2	1,070
KFBB	Havre, Mont.	F. A. Buttrey Co.	50	275	1,090
KFBC	San Diego, Calif., 5038 Cliff Place.	W. K. Asbill	10	215.7	1,390
KFBK	Sacramento, Calif., 657 K Street.	Kimball-Upton Co.	100	248	1,210
KFBL	Everett, Wash., 2514 Rucker Avenue.	Leese Bros.	100	224	1,340
KFBS	Trinidad, Colo.	School District No. 1	15	238	1,260
KFBU	Laramie, Wyo., The Cathedral.	Bishop N. S. Thomas	500	270	1,110
KFCB	Phoenix, Ariz., 311 North Central Avenue.	Nielsen Radio Supply Co.	100	238	1,260
KFDD	Boise, Idaho	St. Michael's Cathedral	50	278	1,080
KFDM	Beaumont, Tex.	Magnolia Petroleum Co.	500	318.6	950
KFDX	Shreveport, La.	First Baptist Church	100	250	1,200
KFDY	Brookings, S. Dak.	South Dakota State College of Agriculture and Mechanic Arts.	100	273	1,100
KFDZ	Minneapolis, Minn., 2510 Thomas Avenue South.	Harry O. Iverson	10	231	1,300
KFEC	Portland, Oreg.	Meier & Frank Co.	50	248	1,210
KFEL	Denver, Colo., 435 Fourteenth Street.	W. L. Winner Radio Shop	50	254	1,180
KFEQ	Oak, Nebr.	Scroggin & Co. Bank	500	268	1,120
KFEY	Kellogg, Idaho	Bunker Hill & Sullivan Mining & Concentrating Co.	10	233	1,290
KFFP	Moberly, Mo.	First Baptist Church	50	242	1,240
KFGQ	Boone, Iowa	Crory Hardware Co.	10	226	1,330
KFH	Wichita, Kans.	Hotel Lassen (Ribby-Gray Hotel Co.)	500	268	1,120
KFHA	Gunnison, Colo.	Western State College of Colorado.	50	252	1,190
KFHL	Oshkossa, Iowa	Penn. College	10	240	1,250
KFI	Los Angeles, Calif., Tenth and Hope Streets.	Earl C. Anthony (Inc.)	4,000	468.5	640
KFIF	Portland, Oreg.	Benson Polytechnic Institute	100	248	1,210
KFIO	Spokane, Wash.	North Central High School	100	255.3	1,150
KFIQ	Yakima, Wash.	First Methodist Church	100	250	1,170
KFIU	Juneau, Alaska	Alaska Electric Light & Power Co.	10	226	1,330
KFIZ	Fond du Lac, Wis.	Daily Commonwealth & Wisconsin Sales (Inc.)	100	273	1,100
KFJB	Marshalltown, Iowa	Marshall Electric Co.	10	248	1,210
KFJC	Junction City, Kans.	Episcopal Church (R. B. Fegan)	10	218.8	1,370
KFJF	Oklahoma, Okla.	National Radio Manufacturing Co.	500	261	1,150
KFJI	Astoria, Oreg.	Liberty Theater (E. E. Marsh)	10	240	1,220
KFJM	Grand Forks, N. Dak.	University of North Dakota	100	278	1,080
KFJR	Portland, Oreg., 1350 East Thirti-sixth Street.	Ashley C. Dixon & Son	50	263	1,140
KFJY	Fort Dodge, Iowa	Tunwall Radio Co.	50	240	1,220
KPJZ	Fort Worth, Tex.	Southwestern Baptist Theological Seminary	50	254	1,180
KPKA	Greely, Colo.	Colorado State Teachers College	50	273	1,100
KPKU	Lawrence, Kans.	University of Kansas	500	275	1,090
KPKX	Hastings, Nebr.	Westinghouse Electric & Manufacturing Co.	5,000	258.3	1,040
KPKZ	Kirksville, Mo., 402 South High Street.	F. M. Henry	10	220	1,330
KPLR	Albuquerque, N. Mex.	University of New Mexico	100	254	1,180
KPLU	San Benito, Tex.	San Benito Radio Club	10	240	1,250
KPLV	Rockford, Ill.	Swedish Evangelical Mission Church.	100	220	1,310
KPLX	Galveston, Tex., 1214 Fortleith	George R. Clough	10	240	1,250

BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS—continued

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilo-cycles)
KFLZ	Anita, Iowa.....	Atlantic Automobile Co.....	100	273	1,100
KFMQ	Fayetteville, Ark.....	University of Arkansas.....	750	292.8	1,000
KFMI	Sioux City, Iowa.....	Morningside College.....	100	291	1,150
KFMW	Houghton, Mich.....	M. G. Sateron.....	50	293	1,140
KFMX	Northfield, Minn.....	Carleton College.....	500	336.9	890
KPNF	Bernadonah, Iowa.....	Henry Field Seed Co.....	500	293	1,140
KPOA	Seattle, Wash.....	Rhodes Department Store.....	1,000	454.3	660
KFOB	Hurlingame, Calif.....	K F O B (Inc.).....	50	226	1,330
KFON	Long Beach, Calif., Maxwell Building.....	Echobbons Radio Shop.....	500	233	1,290
KFOO	Salt Lake City, Utah.....	Latter Day Saints University.....	250	236	1,270
KFOR	David City, Nebr.....	David City Tire & Electric Co. (Howard A. Shuman).....	100	236	1,230
KFOT	Wichita, Kans.....	College Hill Radio Club (College Hill Methodist Church).....	50	231	1,300
KFOX	Omaha, Nebr.....	Technical High School.....	100	248	1,210
KFOY	St. Paul, Minn., 711 Dayton Avenue.....	Hudson Radio Service (M. G. Goldberg).....	50	252	1,190
KFPL	Dublin, Tex.....	C. C. Baxter.....	15	252	1,190
KFPM	Greenville, Tex.....	New Furniture Co.....	10	242	1,240
KPPR	Los Angeles, Calif.....	Los Angeles County Forestry Department.....	500	230.6	1,300
KPPW	Cartersville, Mo.....	St. Johns M. E. Church, South.....	20	258	1,160
KFPY	Spokane, Wash.....	Symons Investment Co.....	100	268	1,130
KPQA	St. Louis, Mo., 5319 Page Avenue.....	The Principia.....	100	261	1,150
KPQB	Fort Worth, Tex.....	Searchlight Publishing Co.....	1,000	263	1,140
KPQD	Anchorage, Alaska.....	Obovin Supply Co.....	100	227.1	1,330
KPQP	Iowa City, Iowa.....	George S. Carson, Jr.....	10	234	1,340
KPQU	Alma (Holy City), Calif.....	W. E. Riker.....	100	217.3	1,350
KPQW	North Bend, Wash.....	Carl F. Kriesem.....	50	215.7	1,360
KPQZ	Hollywood, Calif., 5653 De Longpre Avenue.....	Taft Products Co.....	50	225.4	1,330
KPRB	Beville, Tex.....	Hall Bros.....	250	245	1,210
KPRC	San Francisco, Calif.....	City of Paris Dry Goods Co.....	50	258	1,120
KPRU	Columbia, Mo.....	Stephens College.....	500	499.7	600
KPRW	Olympia, Wash.....	United Churches of Olympia.....	50	218.8	1,370
KPSG	Los Angeles, Calif.....	Echo Park Evangelistic Association.....	500	275	1,090
KFUL	Galveston, Tex., 2129 Market Street.....	Thomas Goggan & Bros. Music Co.....	50	258	1,160
KFUO	St. Louis, Mo.....	Concordia Seminary.....	500	545.1	550
KFUP	Denver, Colo.....	Fitzsimons General Hospital.....	50	234	1,290
KFUR	Ogden, Utah, 429 Twenty-fifth Street.....	Peery Building Co.....	50	224	1,340
KFUB	Oakland, Calif., 429 Twenty-eighth Street.....	Louis L. Sherman.....	50	256	1,170
KFUT	Salt Lake City, Utah.....	University of Utah.....	100	261	1,150
KFUU	Oakland, Calif., 3020 Broadway.....	Colburn Radio Laboratories.....	50	250	1,500
KFVD	San Pedro, Calif., 1525 South Pacific Avenue.....	McWilliams Electric Co.....	50	205.4	1,460
KFVE	St. Louis, Mo., 6800 Delmar Boulevard.....	Film Corporation of America.....	500	240	1,250
KFVG	Independence, Kans.....	First Methodist Episcopal Church.....	15	236	1,270
KFVH	Manhattan, Kans.....	Whan Radio Shop.....	15	218.8	1,370
KFVI	Houston, Tex.....	Fifty-sixth Cavalry Brigade, Headquarters Troop.....	10	240	1,250
KFVN	Welcome, Minn.....	Carl E. Bagley.....	50	227	1,320
KFVR	Denver, Colo. (near), Moonlight Ranch, Route 6.....	Eugene Ross.....	50	244	1,230
KFVS	Capo Girardeau, Mo.....	Capo Girardeau Battery Station (Oscar C. Hirsch).....	50	224	1,340
KFWW	San Diego, Calif., 402 B Street.....	African Radio Corp.....	500	246	1,220
KFVY	Albuquerque, N. Mex., 407 West Central Avenue.....	Radio Supply Co.....	10	250	1,200
KFWA	Ogden, Utah, 2451 Kjosel Avenue.....	Browning Bros. Co.....	500	261	1,150
KFWB	Hollywood, Calif., 5842 Sunset Boulevard.....	Warner Bros. Pictures (Inc.).....	500	252	1,190
KFWO	Upland, Calif.....	L. E. Wall.....	50	211.1	1,420
KFWF	St. Louis, Mo., 4030 Lindell Boulevard.....	St. Louis Truth Center.....	250	214.2	1,400
KFWH	Chico, Calif.....	F. Wellington Morse, Jr.....	100	254	1,160
KFWI	South San Francisco, Calif. (205 Wiley B. Allen Building, San Francisco, Calif.).....	Radio Entertainments (Inc.).....	500	226	1,330
KFWM	Oakland, Calif., 1126 Bella Vista Avenue.....	Oakland Education Society.....	500	208.8	1,450
KFWO	Avalon, Calif.....	Lawrence Mott.....	250	211.1	1,420

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BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS—continued

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilocycles)
KFWV	Portland, Oreg., 385 East Fifty-eighth Street, South.	Wilbur Jerman.....	50	212.6	1,410
KFXB	Big Bear Lake, Calif.....	Bertram O. Heller.....	500	202.6	1,480
KFXC	Santa Maria, Calif.....	Santa Maria Valley R. R. Co....	100	209.7	1,430
KFXD	Logan, Utah.....	Service Radio Co.....	10	206.4	1,460
KFXE	Colorado Springs, Colo., 226 Hagerman Building.	Pikes Peak Broadcasting Co....	500	250	1,200
KFXH	El Paso, Tex., 2837 Montann Street	Hedrae Radio Co.....	50	242	1,240
KFXJ	Denver, Colo. (portable), 917 Fourteenth Street.	Mountain States Radio Distributors (Inc.)	10	215.7	1,390
KFXM	Beaumont, Tex., 259 Crockett Street.	Neches Electric Co.....	10	227	1,320
KFXR	Oklahoma, Okla., 137 1/2 West Main Street.	Classen Film Finishing Co.....	15	214.2	1,400
KFXY	Flagstaff, Ariz.....	Miss Mary M. Costigan (Orpheum Theatre).	50	203.4	1,460
KFYF	Oxnard, Calif., 207 Fifth Street...	Carl's Radio Den (Newcomb Radio Co.).	10	205.4	1,460
KFYJ	Houston, Tex. (portable).....	Houston Chronicle Publishing Co.	10	208	1,260
KFYO	Texarkana, Tex.....	Buchanan-Vaughan Co.....	10	200.7	1,445
KFYR	Bismarck, N. Dak., 200 Fourth Street.	Hoskins-Meyer (Inc.).....	10	248	1,210
KGO	Oakland, Calif.....	General Electric Co.....	4,000	361.2	810
KOTT	San Francisco, Calif.....	Glad Tidings Tabernacle.....	50	200.8	1,450
KGU	Honolulu, Hawaii, 236 South King Street.	Marion A. Mulroney.....	500	270	1,100
KGW	Portland, Oreg.....	Portland Morning Oregonian...	500	491.5	610
KGY	Lees, Wash.....	St. Martin's College.....	50	245	1,220
KHJ	Los Angeles, Calif.....	Times-Mirror Co.....	500	405.2	740
KUQ	Spokane, Wash., Peyton Building.	Louis Warner.....	500	273	1,100
KJBS	San Francisco, Calif., 1380 Bush Street.	Julius Brunton & Sons Co.....	5	220	1,360
KJR	Seattle, Wash., 511 Terminal Sales Building.	Northwest Radio Service Co.....	1,000	384.4	780
KLDS	Independence, Mo.....	Reorganized Church of Jesus Christ of Latter Day Saints.	1,000	440.9	680
KLS	Oakland, Calif., 2201 Telegraph Avenue.	Warner Bros. Radio Supplies Co.	250	250	1,200
KLX	Oakland, Calif.....	Oakland Tribune.....	500	500.2	590
KLZ	Denver, Colo., 1534 Glenarm Place.	Reynolds Radio Co.....	250	260	1,120
KMA	Shenandoah, Iowa.....	May Seed & Nursery Co.....	500	282	1,190
KMJ	Fresno, Calif., Tuolumne and Fulton Streets.	Fresno Bee.....	50	234	1,280
KMMJ	Clay Center, Neb.....	M. M. Johnson Co.....	1,000	228.9	1,310
KMO	Tacoma, Wash., 738 Pacific Avenue.	Love Electric Co.....	100	250	1,200
KMOX	Ridgwood, Mo. (St. Louis, Mo.)	Voices of St. Louis (Inc.).....	1,500	280.2	1,070
KMTR	Los Angeles, Calif., 1517 North Wilton St.	K. M. Turner Radio Corp. (Oliver S. Garrettson).	500	238	1,260
ENRC	Los Angeles, Calif., 1620 South Los Angeles Street.	Clarence B. Juneau.....	250	203.2	1,440
KNX	Los Angeles, Calif.....	Los Angeles Evening Express...	1,000	326.9	800
KOA	Denver, Colo.....	General Electric Co.....	5,000	322.4	930
KOAC	Corvallis, Oreg.....	Oregon Agricultural College...	500	280.2	1,070
KOB	State College, N. Mex.....	New Mexico College of Agriculture and Mechanic Arts.	1,000	348.6	860
KOCH	Omaha, Neb.....	Omaha Central High School...	250	258	1,100
KOCW	Chickasha, Okla.....	Oklahoma College for Women...	200	252	1,190
KOIL	Council Bluffs, Iowa.....	Monarch Manufacturing Co.....	500	278	1,080
KOWW	Walla Walla, Wash.....	Blue Mountain Radio Association (Frank A. Moore).	500	358	1,170
KPO	San Francisco, Calif.....	Hale Bros.....	1,000	428.3	700
KPFC	Pasadena, Calif.....	Pasadena Presbyterian Church.	50	229	1,310
KPRC	Houston, Tex.....	Post Dispatch.....	500	260.9	1,010
KPSN	Pasadena, Calif.....	Pasadena Star News.....	1,000	315.6	950
KQP	Portland, Oreg., 441 Sixth St.	H. B. Head.....	500	212.6	1,410
KQV	Pittsburgh, Pa., 710 Liberty Avenue.	Doubleday-Hill Electric Co.....	500	275	1,090
KQW	San Jose, Calif.....	First Baptist Church.....	500	251	1,200
KRE	Berkeley, Calif.....	Berkeley Daily Gazette.....	100	256	1,170
KBAC	Manhattan, Kans.....	Kansas State Agricultural College.	500	340.7	880
KED	St. Louis, Mo.....	Post-Dispatch.....	500	545.1	550
KSL	Salt Lake City, Utah.....	Radio Service Corporation of Utah.	1,000	299.8	1,000
KSO	Clarinda, Iowa.....	A. A. Berry Seed Co.....	500	242	1,240

BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS—continued

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilo-cycles)
KTAB	Oakland, Calif.	Tenth Avenue Baptist Church.	1,000	240	1,250
KTBI	Los Angeles, Calif.	Bible Institute of Los Angeles.	750	293.9	1,020
KTBR	Portland, Oreg., 172 Tenth street.	Brown's Radio Shop (M. E. Brown).	50	263	1,140
KTCL	Seattle, Wash.	American Radio Telephone Co.	1,000	305.9	980
KTCS	Hot Springs, Ark.	New Arlington Hotel Co.	500	374.5	800
KTNT	Muscatine, Iowa.	Norman Baker.	500	256	1,170
KTW	Seattle, Wash.	First Presbyterian Church.	1,000	454.3	660
KUO	San Francisco, Calif.	Examiner Printing Co.	150	250	1,200
KUCOM	Missoula, Mont.	University of Montana.	250	244	1,230
KUSD	Vermillion, S. Dak.	University of South Dakota.	100	278	1,080
KUT	Austin, Tex.	University of Texas.	500	231	1,300
KVOO	Bristow, Okla.	Voice of Oklahoma (Inc.).	500	374.8	800
KWCR	Oedar Rapids, Iowa, 1444 Second Avenue East.	Harry F. Paar.	500	275	1,080
KWG	Stockton, Calif., 530 East Market Street.	Portable Wireless Telephone Co.	50	245	1,210
KWKC	Kansas City, Mo., Werby Building.	Wilson Durean Studios.	100	236	1,270
KWKH	Kennonwood, La., (Yucoro Hotel, Shreveport, La.).	W. G. Patterson.	500	261	1,150
KWSC	Pullman, Wash.	State College of Washington.	500	348.6	860
KWYG	Brownsville, Tex.	City of Brownsville, Board of City Development.	500	275	1,080
KYW	Chicago, Ill.	Westinghouse Electric & Manufacturing Co.	2,500	535.4	560
KZIB	Manila, P. I., 20 Plaza Moraga.	I. Beck (Inc.).	20	243.9	1,200
KZKZ	Manila, P. I., 109 Plaza Moraga.	Electrical Supply Co.	100	270	1,110
KZM	Oakland, Calif., Thirteenth and Harrison Streets.	Preston D. Allen.	100	240	1,250
KZRO	Manila, P. I., Manila Hotel.	Far Eastern Radio (Inc.).	500	222	1,350
KZUY	Baguio, P. I., Outlook Drive.	F. Johnson Elser.	500	300	833
NAA	Arlington, Va.	United States Navy Department	1,000	434.5	690
WAAD	Cincinnati, Ohio.	Ohio Mechanics Institute.	25	258	1,160
WAAP	Chicago, Ill.	Chicago Daily Drivers Journal.	200	278	1,080
WAAW	Omaha, Nebr.	Omaha Grain Exchange.	500	275	1,080
WABB	Harrisburg, Pa.	Harrisburg Radio Co.	10	204	1,470
WABC	Asheville, N. C.	Asheville Battery Co.	20	254	1,180
WABI	Hager, Me.	First Universalist Church.	100	240	1,250
WABO	Rochester, N. Y.	Lake Avenue Baptist Church (Hickson Electric Co.).	100	278	1,080
WABQ	Haverford, Pa.	Haverford College Radio Club.	100	261	1,150
WABR	Toledo, Ohio.	Scott High School.	50	263	1,140
WABW	Wooster, Ohio.	College of Wooster.	50	206.8	1,450
WABX	Mount Clemens, Mich. (near).	Henry B. Jay.	500	240	1,220
WABY	Philadelphia, Pa., 815 Kimball Street.	John Magaldi, Jr.	50	242	1,240
WABZ	New Orleans, La.	Coliseum Place Baptist Church.	50	275	1,090
WADC	Akron, Ohio.	Allen Theatre (Allen T. Simmons).	500	258	1,160
WAFD	Port Huron, Mich.	Albert B. Parfet Co.	500	275	1,090
WAGM	Royal Oak, Mich.	Robert L. Miller.	50	225.4	1,330
WAHG	Richmond Hill, N. Y.	A. H. Grebo & Co.	500	315.6	950
WAIT	Taunton, Mass.	A. H. Waite & Co.	10	229	1,310
WAIG	Columbus, Ohio.	American Insurance Union.	500	250.9	1,030
WAMD	Minneapolis, Minn., Hotel Madison.	Hubbard & Co.	500	244	1,230
WAPI	Auburn, Ala.	Alabama Polytechnic Institute.	500	248	1,210
WARC	Medford Hills, Mass.	American Radio & Research Corporation.	100	261	1,160
WATT	Boston, Mass. (portable).	Edison Electric Illuminating Co. of Boston.	100	242.8	1,230
WBAA	West Lafayette, Ind.	Purdue University.	200	273	1,100
WBAK	Harrisburg, Pa.	Pennsylvania State Police.	500	275	1,090
WBAL	Baltimore, Md.	Consolidated Gas, Electric Light & Power Co.	1,000	245.8	1,220
WBAO	Decatur, Ill.	James Millikin University.	100	270	1,110
WBAP	Fort Worth, Tex.	Star Telegram.	1,500	475.9	620
WBAX	Wilkes-Barre, Pa., 66 Gildersleeve Street.	John H. Stanger, Jr.	100	255	1,170
WBBL	Richmond, Va.	Grace Covenant Presbyterian Church.	100	229	1,310
WBRM	Chicago, Ill., 1534 Howard Street.	Atlas Investment Co.	1,500	220	1,330
WBSP	Petoskey, Mich.	Petoskey High School.	200	228	1,250
WBBR	Rossville, N. Y.	Peoples Pulpit Association.	500	273	1,100
WBSP	New Orleans, La.	First Baptist Church.	50	252	1,160

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BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS—continued

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilo-cycles)
WBBZ	Chicago, Ill. (portable), 1506 North American Building.	C. L. Carrell.....	50	215.7	1,390
WBCN	Chicago, Ill., 728 West Sixty-fifth Street.	Foster & McDonnell.....	500	256	1,180
WBDC	Grand Rapids, Mich.....	Baxter Laundry Co.....	500	256	1,170
WBES	Takoma Park, Md.....	Blinn Electrical School.....	100	222	1,350
WBNY	New York, N. Y., 145 West Forty-fifth Street.	Shirley Katz.....	500	259.7	1,430
WBOQ	Richmond Hill, N. Y.....	A. H. Grebe & Co.....	100	236	1,270
WBPI	Newark, N. J., 1 Bond Street.....	I. H. Nelson.....	500	253	1,140
WBRC	Birmingham, Ala., 1913 Fifth Avenue north.	Bell Radio Corp.....	50	248	1,210
WBRE	Wilkes-Barre, Pa., 17 West Northampton Street.	Baltimore Radio Exchange.....	100	231	1,300
WBT	Charlotte, N. C.....	Charlotte Chamber of Commerce.	250	275	1,090
WBZ	Springfield, Mass.....	Westinghouse Electric & Manufacturing Co.	2,000	331.1	900
WBZA	Boston, Mass.....	do.....	250	242	1,240
WCAO	Mansfield, Conn.....	Connecticut Agricultural College.	500	275	1,090
WCAD	Canton, N. Y.....	St. Lawrence University.....	250	253	1,140
WCAE	Pittsburgh, Pa.....	Kaufmann & Bear Co.....	500	461.3	650
WCAJ	University Place, Nebr.....	Nebraska Wesleyan University.	500	254	1,150
WCAL	Northfield, Minn.....	St. Olaf College.....	500	336.9	890
WCAO	Baltimore, Md., 843 North Howard Street.	Albert A. and A. Stanley Brager.	100	275	1,090
WCAP	Washington, D. C.....	Chesapeake & Potomac Telephone Co.	500	468.5	640
WCAR	San Antonio, Tex.....	Southern Radio Corporation of Texas.	600	263	1,140
WCAT	Rapid City, S. Dak.....	South Dakota State School of Mines.	50	240	1,250
WCAU	Philadelphia, Pa.....	Universal Broadcasting Co. (Durham & Co.)	500	278	1,060
WCAX	Burlington, Vt.....	University of Vermont.....	100	250	1,200
WCBA	Allentown, Pa.....	Charles W. Helmreich.....	15	254	1,150
WCBD	Zion, Ill.....	Wilbur G. Voliva.....	5,000	344.6	870
WCBE	New Orleans, La., 1219 North Rampart Street.	Uhalt Bros. Radio Co.....	5	253	1,140
WCBF	Oxford, Miss. (near).....	University of Mississippi.....	50	242	1,240
WCBM	Baltimore, Md., Charles Street and North Avenue.	Hotel Obateau (Charles Schwab).	50	220	1,310
WCBQ	Nashville, Tenn.....	First Baptist Church.....	100	236	1,270
WCBR	Providence, R. I. (portable), 42 Doyle Avenue.	Charles H. Meester.....	20	205.4	1,460
WCCO	St. Paul-Minneapolis, Minn.....	Libburn-Cresby Co.....	5,000	416.4	720
WCEE	Elgin, Ill. (near).....	Liberty Weekly.....	1,000	275	1,090
WCLO	Camp Lake, Wis.....	C. E. Whitmore.....	50	251	1,360
WCLS	Joliet, Ill., 104 Summit Street.....	Harold M. Couch.....	150	214.2	1,400
WCHH	Fallert, Mo.....	Congress Square Hotel Co.....	500	256	1,170
WCBO	Springfield, Ohio.....	Wittenberg College.....	100	248	1,210
WOWB	United States (portable), 69 Exchange Street, Providence, R. I.	Charles W. Selen.....	100	202.7	1,430
WCX	Pontiac, Mich.....	Detroit Free Press.....	5,000	516.9	590
WDAD	Nashville, Tenn., 160 Eighth Avenue North.	Dad's Auto Accessories (Inc.)...	150	276	1,350
WDAE	Tampa, Fla.....	Tampa Daily Times.....	250	273	1,100
WDAF	Kansas City, Mo.....	Kansas City Star.....	300	265.6	820
WDAG	Amarillo, Tex., 603 East Fourth Street.	J. Lousance Martin.....	100	253	1,140
WDAH	El Paso, Tex.....	Trinity Methodist Church (South).	50	267.7	1,120
WDAY	Fargo, N. Dak., 119 Broadway.....	Radio Equipment Corporation.....	50	261	1,150
WDHO	Lancaster, Pa.....	Kirk, Johnson & Co.....	50	258	1,160
WDHE	Atlanta, Ga., 35 Cens Street.....	Ollham-Schoen Electric Co.....	100	270	1,110
WDBJ	Roanoke, Va., 106 Church Avenue SW.	Richardson-Wayland Electrical Corporation.	50	229	1,310
WDBK	Cleveland, Ohio, 12918 Union Avenue.	M. F. Brox Furniture, Hardware and Radio Store.	100	227	1,320
WDBO	Winter Park, Fla.....	Rollins College.....	500	240	1,250
WDBZ	Winston, N. Y.....	Boy Scouts of America, Ulster County Council.	10	233	1,290
WDOD	Chattanooga, Tenn., 540 McCallie Avenue.	Chattanooga Radio Co.....	500	256	1,170
WDRG	New Haven, Conn., 115 Crown Street.	Dealittle Radio Corporation.....	100	268	1,130
WDWF	Cranston, R. I.....	Dutes W. Flint.....	500	440.9	650

BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS—continued

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilo-cycles)
WEAI	Ithaca, N. Y.	Cornell University	200	254	1,150
WEAM	North Plainfield, N. J.	Borough of North Plainfield	250	291	1,150
WEAN	Providence, R. I.	Shepard Co.	500	270	1,110
WEAO	Columbus, Ohio	Ohio State University	400	293.9	1,020
WEAR	Cleveland, Ohio	Goodyear Tire & Rubber Co.	750	282.4	770
WEAU	Sioux City, Iowa	Davidson Bros. Co.	100	275	1,090
WEBC	Superior, Wis., 1225 Tower Street	Walter C. Bridges	100	242	1,240
WEBD	Anderson, Ind.	Electrical Equipment & Service Co.	15	340	1,230
WEBE	Cambridge, Ohio	Roy W. Walker	10	234	1,280
WEBI	Chicago, Ill.	Edgewater Beach Hotel Co.	1,500	370.2	810
WEBJ	New York, N. Y.	Third Avenue Ry. Co.	500	273	1,100
WEBL	United States (portable)	Radio Corporation of America	100	226	1,330
WEBM	Do.	do.	100	223	1,310
WEBQ	Harrisburg, Ill.	Joseph R. Tate	10	225	1,330
WEER	Buffalo, N. Y., 54 Niagara Street	H. H. Howell	100	244	1,230
WEBW	Beloit, Wis.	Beloit College	500	268	1,120
WEBZ	Savannah, Ga., 11 East York Street	Savannah Radio Corporation	50	253	1,140
WEEL	Boston, Mass.	Edison Electric Illuminating Co. of Boston	500	348.6	860
WEHS	Evanston, Ill.	Robert F. Hughes	10	202.6	1,480
WENC	Berrien Springs, Mich.	Emmanuel Missionary College	500	285.6	1,050
WENR	Chicago Ill., 4701 Belmont Avenue	All American Radio Corporation	1,000	356	1,130
WEW	St. Louis, Mo.	St. Louis University	1,000	348	1,210
WFAA	Dallas, Tex.	Dallas News & Dallas Journal	500	475.9	630
WFAM	St. Cloud, Minn.	Times Publishing Co.	10	273	1,100
WFAV	Lincoln, Nebr.	University of Nebraska	500	275	1,090
WFBC	Knoxville, Tenn.	First Baptist Church	50	250	1,200
WFBD	Philadelphia, Pa.	Getsemane Baptist Church	5	234	1,280
WFBE	Seymour, Ind.	Van De Walle Music & Radio Co.	10	225	1,330
WFBG	Altoona, Pa.	William F. Gable Co.	100	278	1,080
WFBH	New York, N. Y., Hotel Majestic	Concourse Radio Corporation	500	273	1,100
WFBJ	Camden, N. J., 515 Broadway	Galvin Radio Supply Co.	250	236	1,270
WFBK	Collegeville, Minn.	St. John's University	100	236	1,270
WFBM	Syracuse, N. Y.	Onondaga Hotel Co.	100	252	1,180
WFBN	Indianapolis, Ind.	Merchants Heat & Light Co.	250	268	1,120
WFBP	Baltimore, Md., Fifth Regiment Armory	Fifth Infantry Maryland National Guard	100	254	1,180
WFDZ	Galesburg, Ill.	Knox College	20	254	1,180
WFDF	Flint, Mich., Police Building	Frank D. Faldin	100	234	1,280
WFI	Philadelphia, Pa.	Strawbridge & Clothier	500	304.5	760
WFKB	Chicago, Ill., 4636 Woodlawn Avenue	Francis K. Bridgman	500	217.3	1,380
WFRL	Brooklyn, N. Y., 1421 East Tenth Street	Robert M. Lacey and James A. Bergner (Flatbush Radio Laboratories)	100	305.4	1,460
WGAL	Lancaster, Pa., 23 East Orange Street	Lancaster Electric Supply & Construction Co.	10	245	1,210
WGBB	Freeport, N. Y., 217 Bodell Street	Harry H. Carman	100	244	1,230
WGBC	Memphis, Tenn.	First Baptist Church	10	273	1,050
WGBF	Evansville, Ind., 307 South Seventh Street	Pinke Furniture Co.	500	236	1,270
WGBI	Seranton, Pa., 608 Linden Street	Frank S. Megargee	10	240	1,250
WGBO	Providence, R. I., 92 Dover Street	Theodore N. Sasty	20	234	1,280
WGBR	Marshfield, Wis., 731 West Fifth Street	George B. Ives	10	229	1,310
WGBS	New York, N. Y.	Gimbel Bros.	500	315.6	950
WGBU	Fulford-by-the-Sea, Fla.	Florida Cities Finance Co.	500	278	1,080
WGBX	Orono, Me.	University of Maine	100	252	1,100
WGCP	Newark, N. J., 325 Central Avenue	D. W. May (Inc.)	500	252	1,100
WGES	Oak Park, Ill.	Oak Leaves Broadcasting Station (Coyne Electric School)	500	250	1,200
WGHB	Clearwater, Fla.	The George H. Bowles Developments	500	266	1,130
WGHP	Detroit, Mich., 110 Rowena Street	George H. Phelps	1,500	270	1,110
WGMU	Richmond Hill, N. Y. (portable)	A. H. Grebe & Co.	100	236	1,270
WGN	Chicago, Ill.	The Tribune (Drake Hotel-Whitstone Co.)	1,000	302.8	950
WGR	Buffalo, N. Y., 1738 Elmwood Avenue	Federal Radio Corporation (Federal Telephone Manufacturing Corporation)	750	319	950
WGSA	Atlanta, Ga.	Georgia School of Technology	500	270	1,110

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BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS—continued

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilocycles)
WHAD	Milwaukee, Wis.....	Marquette University and Milwaukee Journal.	500	275	1,090
WHAM	Rochester, N. Y.....	University of Rochester (Eastman School of Music).	100	278	1,080
WHAP	New York, N. Y., 426 West Thirty-first Street.	Wm. H. Taylor Finance Corporation.	500	240	1,250
WHAR	Atlantic City, N. J.....	Seaside Hotel.....	500	275	1,090
WHAS	Louisville, Ky.....	Courier-Journal and Louisville Times.	500	399.5	750
WHAT	Minneapolis, Minn., 2710 North Bryant Avenue.	George W. Young.....	600	203	1,140
WHAU	Wilmington, Del., 405 Delaware Avenue.	Wilmington Electrical Specialty Co.	100	306	1,130
WHAZ	Troy, N. Y.....	Rensselaer Polytechnic Institute.	1,000	379.5	790
WHB	Kansas City, Mo.....	Sweeney School Co.....	500	365.6	820
WHBA	Oil City, Pa.....	Shaffer Music House.....	10	250	1,200
WHBC	Canton, Ohio, 627 McKinley Avenue NW.	Rev. E. P. Graham.....	10	254	1,180
WHBD	Bellefontaine, Ohio.....	Charles W. Howard.....	20	222	1,350
WHBF	Rock Island, Ill.....	Bearley Specialty Co.....	100	222	1,350
WHBG	Harrisburg, Pa., 1510 North Fourth Street.	John S. Skane.....	20	231	1,300
WHBH	Culver, Ind.....	Culver Military Academy.....	100	222	1,350
WHBJ	Fort Wayne, Ind., 2315 South Callahan Street.	Lauer Auto Co.....	50	234	1,280
WHBK	Ellsworth, Me.....	Franklin Street Garage.....	10	231	1,300
WHBL	Chicago, Ill. (portable).....	O. L. Carrell.....	50	215.7	1,390
WHBM	Do.....	do.....	20	215.7	1,390
WHBN	St. Petersburg, Fla.....	First Avenue Methodist Church.	10	238	1,290
WHBP	Johnstown, Pa., 101 Main Street.	Johnstown Automobile Co.....	100	250	1,170
WHBQ	Memphis, Tenn., Bellevue and Peabody Avenues.	Men's Fellowship Club of St. Johns M. E. Church, South.	50	233	1,290
WHBU	Anderson, Ind., 1002 Meridian Street.	Riviera Theatre and Bing's Clothing.	10	218.5	1,370
WHBW	Philadelphia, Pa., 4915 Chestnut Street.	D. R. Klenke.....	100	215.7	1,390
WHBY	West De Pere, Wis.....	St. Norbert's College.....	50	250	1,200
WHDI	Minneapolis, Minn., 818 Superior Boulevard.	William Hood Dunwoody Industrial Institute.	500	278	1,080
WHDC	Rochester, N. Y., 36 South Avenue.	Hickson Electric Co.....	100	258	1,160
WHK	Cleveland, Ohio, 1031 Winton Hotel.	Radio Air Service Corporation..	1,000	272.6	1,100
WHN	New York, N. Y., 1540 Broadway.	George Schabel.....	500	321.2	930
WHO	Des Moines, Iowa.....	Hankers Life Co.....	5,000	529	570
WHT	Deerfield, Ill. (410 North Michigan Boulevard, Chicago, Ill.)	Radiophone Broadcasting Corporation.	3,500	238	1,260
WIAD	Philadelphia, Pa., 6318 North Park Avenue.	Howard R. Miller.....	100	250	1,200
WIAB	Burlington, Iowa.....	Home Electric Co.....	100	254	1,180
WIBA	Madison, Wis., 237 West Gilman Street.	Capital Times Studio.....	100	236	1,270
WIBG	Elkins Park, Pa.....	St. Paul's Protestant Episcopal Church.	50	222	1,350
WIBH	New Bedford, Mass., 65 Hillman Street.	Elite Radio Stores (James T. Moriarty).	50	209.7	1,430
WIBI	Flushing, N. Y., 49 Boerum Avenue.	Frederick B. Zittel, jr.....	50	218.6	1,370
WIBJ	Chicago, Ill. (portable), 1606 North American Building.	C. L. Carrell.....	50	215.7	1,390
WIBM	Chicago, Ill. (portable), 39 West Randolph Street.	Billy Maine.....	10	215.7	1,390
WIBO	Chicago, Ill., 6310 Broadway.....	Nelson Bros. (Russo & Florio Orchestral Exchange).	1,000	226	1,330
WIBR	Weirton, W. Va.....	Thurman A. Owings.....	50	216	1,230
WIBS	Elizabeth, N. J. (portable).....	New Jersey National Guard, Fifty-seventh Infantry Brigade.	10	202.6	1,490
WIBU	Foyzetta, Wis.....	The Electric Farm.....	20	222	1,350
WIBW	Logansport, Ind., Barnes Building.	L. L. Dill.....	100	220	1,360
WIBX	Utica, N. Y., 235 Genesee Street.	Grid-Leak (Inc.).....	150	235.4	1,400
WIBZ	Montgomery, Ala., 217 Catoma Street.	A. D. Trum.....	10	231	1,300
WIL	St. Louis, Mo., 918 Pine Street....	St. Louis Star and Benson Radio Co.	250	273	1,100

BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS—continued

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilo-cycles)
WIP	Philadelphia, Pa.	Gimbel Bros.	500	598.2	500
WJAD	Waco, Tex., 801 Austin Street.	Frank P. Jackson.	500	362.7	850
WJAG	Norfolk, Nebr.	Norfolk Daily News.	200	270	1,110
WJAK	Kokomo, Ind., 1531 Washington Street.	Rev. Clifford L. White.	50	254	1,180
WJAM	Cedar Rapids, Iowa.	D. M. Perham.	100	268	1,120
WJAR	Providence, R. I.	The Outlet Co.	500	305.9	980
WJAB	Pittsburgh, Pa., 953 Liberty Avenue.	Pittsburgh Radio Supply House.	500	275	1,090
WJAX	Jacksonville, Fla.	City of Jacksonville.	1,000	356.9	800
WJAZ	Mount Prospect, Ill., 312 South Michigan Avenue.	Zenith Radio Corporation.	1,500	322.4	950
WJBA	Joliet, Ill., 301 Whitney Avenue.	D. H. Lenz, jr.	50	296.8	1,450
WJBB	St. Petersburg, Fla., 1922 Central Avenue.	L. W. McClung.	10	254	1,180
WJBC	La Salle, Ill., Second and Joliet Streets.	Hummer Furniture Co.	100	274	1,280
WJBG	Charlotte, N. C., 7 West Fourth Street.	Interstate Radio (Inc.).	10	224	1,340
WJBI	Red Bank, N. J., 63 Broad Street.	Robert S. Johnson.	250	218.8	1,370
WJBK	Ypsilanti, Mich., 803 Congress Street.	Ernest F. Goodwin.	10	233	1,290
WJBL	Decatur, Ill., 301 North Water Street.	William Gushard Dry Goods Co.	500	270	1,110
WJBO	New Orleans, La., 119 South St. Patrick Street.	Valdemar Jensen.	100	268	1,120
WJDU	Lewisburg, Pa.	Ducknell University.	100	211.1	1,420
WJJD	Mooreshead, Ill.	Loyal Order of Moose.	500	370.2	810
WJR	Pontiac, Mich.	Jewett Radio & Phonograph Co.	5,000	516.9	580
WJY	New York, N. Y.	Radio Corporation of America.	1,000	403.2	740
WJZ	Do.	do.	(1)	454.3	660
WKAF	Milwaukee, Wis., 330 Second Street.	WKAF Broadcasting Corporation.	500	291	1,150
WKAQ	San Juan, P. R., Telephone Building.	Radio Corporation of Porto Rico.	500	340.7	880
WEAR	East Lansing, Mich.	Michigan State College.	1,000	265.5	1,060
WKAV	Lacopia, N. H.	Lacopia Radio Club.	50	224	1,340
WKBB	Joliet, Ill., 607 Jefferson Street.	Sanders Bros.	100	274.2	1,400
WKBE	Webster, Mass., 29 Emerald Avenue.	E. & B. Electric Co.	100	231	1,300
WKBG	Chicago, Ill. (portable), 36 South State Street.	C. L. Carroll.	100	215.7	1,390
WERO	Cincinnati, Ohio, 507 East Pearl Street.	Kodak Radio Corporation.	1,000	325.9	920
WKY	Oklahoma, Okla., 1941 West Ash Street.	E. C. Hull and H. S. Richards.	100	422.3	710
WLAL	Tulsa, Okla.	First Christian Church.	100	250	1,200
WLAF	Louisville, Ky., 306 West Breckenridge Street.	W. V. Jordan.	50	275	1,090
WLBL	Stevens Point, Wis.	Wisconsin Department of Markets.	500	278	1,080
WLIB	Elgin, Ill. (near).	Liberty Weekly.	4,000	302.8	990
WLIT	Philadelphia, Pa.	Lit Bros.	500	264.5	760
WLS	Creta, Ill.	Sears, Roebuck & Co.	5,000	344.6	870
WLSI	Cranston, R. I. (338 Westminster Street, Providence, R. I.).	Lincoln Studios.	500	440.0	680
WLTS	Chicago, Ill.	Lane Technical High School.	100	258	1,160
WLW	Harrison, Ohio (Alfred and Cook Streets, Cincinnati, Ohio).	Crosley Radio Corporation.	500-5,000	422.3	710
WLWL	New York, N. Y., 415 West Fifty-ninth Street.	Missionary Society of St. Paul the Apostle.	1,500	288.3	1,040
WMAO	Cazenovia, N. Y.	Clive B. Meredith.	100	275	1,090
WMAF	Dartmouth, Mass.	Round Hills Radio Corporation.	1,000	410.0	690
WMAK	Lockport, N. Y.	Norton Laboratories.	500	266	1,350
WMAJ	Washington, D. C., 712 Eleventh Street NW.	M. A. Loese Optical Co.	15	212.0	1,410
WMAN	Columbus, Ohio.	First Baptist Church (W. E. Haskett).	50	278	1,080
WMAQ	Chicago, Ill.	Chicago Daily News.	1,000	447.5	670
WMAV	St. Louis, Mo.	Kingshighway Presbyterian Church.	100	248	1,210
WMAZ	Macon, Ga.	Mercer University.	500	261	1,150
WMBB	Chicago, Ill., 6301 Cottage Grove.	American Bond & Mortgage Co.	500	250	1,200
WNBC	Detroit, Mich., Hotel Addison.	Michigan Broadcasting Co.	100	256.4	1,170
WMBP	Miami Beach, Fla.	Fleetwood Hotel.	500	354.4	780
WMBT	Marysville, Wash.	Commercial Bank.	500	262.7	1,100

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BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS—continued

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilo-cycles)
WMCA	Hoboken, N. J.	Hotel McAlpin	500	340.7	880
WNAH	Boston, Mass.	Shepard Stores	100	250	1,200
WNAC	Do.	do.	500	280.2	1,070
WNAD	Norman, Okla.	University of Oklahoma	500	154	1,150
WNAL	Omaha, Nebr.	Omaha Central High School	50	258	1,160
WNAT	Philadelphia, Pa., 827 Spring Garden Street	Lennig Bros. Co.	100	250	1,200
WNAX	Yankton, S. Dak.	Dakota Radio Apparatus Co.	100	244	1,230
WNBH	New Bedford, Mass.	New Bedford Hotel (Irving J. Vermilya and A. J. Lepp)	220	248	1,210
WNJ	Newark, N. J., 87 Lehigh Avenue	Radio Shop of Newark (Herman Lubinsky)	150	252	1,190
WNOX	Knoxville, Tenn., 313 Commerce Avenue	Peoples Telephone & Telegraph Co.	100	268	1,120
WNYC	New York, N. Y.	City of New York (Department of Plant and Structures)	1,000	526	570
WOAI	San Antonio, Tex., 324 North Navarro Street	Southern Equipment Co.	2,000	394.5	700
WOAN	Lawrenceburg, Tenn.	James D. Vaughn	500	242.5	1,050
WOAW	Omaha, Nebr.	Woodmen of the World	1,000	520	570
WOAX	Trenton, N. J., 600 Ingham Avenue	Franklyn J. Wolf	500	240	1,250
WOC	Davenport, Iowa, 1002 Brady Street	Palmer School of Chiropractic	3,000	481.5	620
WOCL	Jamestown, N. Y.	Hotel Jamestown	15	276	1,090
WODA	Paterson, N. J., 115 Ellison Street	O'Dea Temple of Music	250	224	1,340
WOI	Ames, Iowa	Iowa State College	750	270	1,110
WOK	Homewood, Ill. (1721 Prairie Avenue, Chicago, Ill.)	Northwood Radio Manufacturing Co.	5,000	217.3	1,380
WOLO	New York, N. Y., 138 Dyckman Street	Otto Baur	50	233	1,290
WOO	Philadelphia, Pa.	John Wannmaker	500	508.2	560
WOOD	Grand Rapids, Mich., 211 Diamond Avenue SE.	Grand Rapids Radio Co.	500	212	1,240
WOQ	Kansas City, Mo.	Unity School of Christianity	1,000	278	1,080
WOR	Newark, N. J.	L. Bamberger & Co.	500	405.2	740
WORB	Batavia, Ill.	Peoples Pulpit Association	5,000	275	1,090
WOS	Jefferson City, Mo.	Missouri State Marketing Bureau	500	440.0	680
WOWL	New Orleans, La., 501 Carondelet Street	Owl Battery Co.	10	270	1,110
WOWO	Fort Wayne, Ind., 213 West Main Street	Main Auto Supply Co.	500	227	1,320
WPAK	Agricultural College, N. Dak.	North Dakota Agricultural College	50	275	1,090
WPCC	Chicago, Ill.	North Shore Congregational Church	500	258	1,160
WPG	Atlantic City, N. J.	Municipality of Atlantic City	500	209.8	1,000
WPRC	Harrisburg, Pa., Fifth and Keller Streets	Wilson Printing & Radio Co.	100	215.7	1,350
WPSC	State College, Pa.	Pennsylvania State College	500	251	1,150
WQAA	Parkersburg, Pa.	Horace A. Beale, Jr.	500	220	1,360
WQAC	Armedillo, Tex.	Gish Radio Service	100	234.2	1,250
WQAE	Springfield, Va.	Moore Radio News Station	50	246	1,220
WQAM	Miami, Fla., 42 Northwest Fourth Street	Electrical Equipment Co.	100	263	1,140
WQAN	Scranton, Pa.	Scranton Times	100	250	1,200
WQAO	New York, N. Y.	Calvary Baptist Church	100	360	833
WQJ	Chicago, Ill., Rainbo Gardens	Calumet Rainbo Broadcasting Co.	500	447.5	670
WRAP	Laporte, Ind.	The Radio Club (Inc.)	100	224	1,340
WRAM	Galesburg, Ill.	Lombard College	100	214	1,230
WRAV	Yellow Springs, Ohio	Antioch College	100	253	1,140
WRAW	Reading, Pa., 460 Schuylkill Avenue	Avenue Radio & Electric Shop	10	238	1,260
WRAX	Gloicester City, N. J., 410 Jersey Avenue	Flaxon's Garage	500	268	1,120
WRIC	Valparaiso, Ind.	Immanuel Lutheran Church	500	278	1,080
WRCO	Washington, D. C.	Radio Corporation of America	1,000	458.5	640
WRCO	Raleigh, N. C., 225½ Fayetteville Street	Wynne Radio Co.	100	252	1,190
WREC	Coldwater, Miss.	Woolen's Radio & Electric Co.	10	254	1,180
WREO	Laurens, Mich.	Reo Motor Car Co.	500	255.5	1,050
WRHF	Washington, D. C., 525 Eleventh Street NW	Washington Radio Hospital Fund	50	259	1,170
WRHM	Minneapolis, Minn.	Resonance Broadcast	500	250	1,200

BROADCASTING STATIONS, ALPHABETICALLY BY CALL SIGNALS—continued

Call signal	Location of station	Owner of station	Power (watts)	Wave length	Frequency (kilocycles)
WRMU	MU-1—yacht (Richmond Hill, N. Y.)	A. H. Grebe & Co.	100	293	1,270
WRNY	New York, N. Y., 33 Park Place	Experimenter Publishing Co.	500	298	1,190
WRR	Dallas, Tex.	City of Dallas	500	246	1,220
WBET	Day Shore, N. Y., 5 First Avenue	Radlet Manufacturing Co.	250	215.7	1,390
WRVA	Richmond, Va., Twenty-second and Cary Streets	Larus & Bro. Co.	1,000	250	1,170
WRW	Tarrytown, N. Y.	Tarrytown Radio Research Laboratory	500	273	1,100
WSAI	Mason, Ohio (Cincinnati, Ohio)	United States Playing Card Co.	5,000	325.9	920
WSAJ	Grove City, Pa.	Grove City College	250	229	1,310
WSAN	Allentown, Pa.	Allentown Call	100	229	1,310
WSAR	Fall River, Mass., 45 North Main Street	Dougherty & Welch Electrical Co.	100	254	1,150
WSAU	Chester, N. H.	Camp Marienfeld	10	229	1,310
WSAX	Chicago, Ill. (portable), 323 South Michigan Avenue	Zenith Radio Corporation	100	268	1,120
WSAZ	Perry, Ohio	Chase Electrical Shop	10	244	1,210
WSD	Atlanta, Ga.	Atlanta Journal	1,000	428.3	700
WSBC	Chicago, Ill., 1215 South Wabash Avenue	World Battery Co.	1,000	209.7	1,410
WSDP	St. Louis, Mo.	Six-Six & Fuller	250	273	1,100
WSBT	South Bend, Ind.	South Bend Tribune	250	275	1,090
WSDA	New York, N. Y., One hundred and twentieth Street and Lenox Avenue	The City Temple (Seventh Day Adventist Church)	250	263	1,140
WSEK	Day City, Mich.	World's Star Knitting Co.	100	261	1,150
WSM	Nashville, Tenn.	National Life & Accident Insurance Co.	1,000	282.5	1,060
WSMB	New Orleans, La., Maison Blanche Building	Swager Amusement Co. & Maison Blanche Co.	500	319	940
WSMH	Owosso, Mich.	Shattuck Music House	20	240	1,250
WSMK	Dayton, Ohio, 20 East Third Street	S. M. K. Radio Corporation	500	275	1,090
WSOE	Milwaukee, Wis., 415 Marshall Street	School of Engineering of Milwaukee	500	246	1,220
WSHO	Hamilton, Ohio	Radio Co. (Harry W. Fablander)	100	252	1,130
WSSH	Boston, Mass.	Tremont Temple Baptist Church	100	261	1,150
WSUI	Iowa City, Iowa	State University of Iowa	500	483.6	620
WSVS	Buffalo, N. Y., Feneca and Hydraulic Streets	Feneca Vocational School	50	218.8	1,370
WTAB	Fall River, Mass.	Fall River Daily Herald	100	265	1,130
WTAD	Carthage, Ill.	Robert E. Compton	50	236	1,270
WTAG	Worcester, Mass.	Worcester Telegram Publishing Co.	100	268	1,120
WTAL	Toledo, Ohio, 316 Jackson Street	Toledo Radio & Electric Co.	10	252	1,130
WTAM	Cleveland, Ohio	Wilbur Storage Battery Co.	3,000	360.4	770
WTAP	Cambridge, Ill.	Cambridge Radio & Electric Co.	50	242	1,240
WTAQ	Osco, Wis.	S. H. Van Garden & Son	100	254	1,180
WTAR	Norfolk, Va.	Hellase Electric Co.	100	241	1,160
WTAW	College Station, Tex.	Agricultural and Mechanical College of Texas	500	270	1,110
WTAX	Streator, Ill.	Williams Hardware Co.	50	231	1300
WTAZ	Lambertville, N. J.	Thomas J. McGuire	15	261	1,150
WTJC	Hartford, Conn.	Travelers Insurance Co.	500	475.9	630
WWAD	Philadelphia, Pa., 2215 North Broad Street	Wright & Wright	250	250	1,200
WWAE	Flainfeld, Ill.	Electric Park	500	242	1,240
WWAO	Houghton, Mich.	Michigan College of Mines	250	263	1,140
WWGL	Richmond Hill, N. Y., 8501 One hundred and twenty-fourth Street	Radio Engineering Corporation	100	212.6	1,410
WWI	Dearborn, Mich.	Ford Motor Co.	500	246	1,130
WWJ	Detroit, Mich.	Detroit News	1,000	242.7	850

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RADIOCOMPASS INSTALLATIONS ON VESSELS

The following-named vessels have been equipped with a radiocompass (direction finder): Amasa Stone, Arcturus (KFXV), Augustus B. Wolfvin, August Ziesing, Calamares, Carrillo, Charles M. Schwab, C. H. McCullough, jr., Col. James M. Schoonmaker, C. S. Robinson, D. O. Mills, E. A. S. Clarke, East Indian, Fayette Brown, Gargoyle, Harry W. Croft, Harvey H. Brown, Henry G. Dalton, Herman Frasch, Homer D. Williams, J. A. Campbell, James A. Farrell, James C. Wallace, Jay C. Morse, John Sherwin, Joseph Sellwood, Joshua A. Hatfield, Kroonland, M. A. Bradley, Pathfinder, Percival Roberts, jr., Philip D. Block, Samuel Mather (under construction), Shenango (owned by Shenango Furnace Co.) Richard Trimble, S. M. Spalding, Solano, The Harvester, Walter Jennings, Warrior, William A. McGonagle, William B. Dickson, William J. Filbert, William P. Palmer, William P. Snyder, William P. Snyder, jr., Wilpen, Youngstown.

BROADCASTING STATIONS EQUIPPED TO SUPPRESS HARMONICS

The following-named broadcasting stations are equipped to suppress harmonics: KGW, Portland, Oreg., Portland Morning Oregonian; KJR, Seattle, Wash., Northwest Radio Service Co.; KTW, Seattle, Wash., First Presbyterian Church; WLIT, Philadelphia, Pa., Lit Brothers.

CHANGES IN NAVAL RADIOCOMPASS STATIONS

The station at Cape Mala, Canal Zone, call signal NNT, is now open for service. The position of the receiving loop of the New Dungeness (Wash.) call signal, NNT, has been changed to latitude $48^{\circ} 10' 32''$ N., longitude $123^{\circ} 07' 50''$ W. Page 104 of the list of Commercial and Government Radio Stations of the United States should be changed accordingly.

RADIO FOG SIGNAL ESTABLISHED AT CREAC'H POINT, ILE D'OUessant, FRANCE

This new fog signal, located in latitude $48^{\circ} 28'$ N., longitude $5^{\circ} 08'$ W. (approximately), northwest coast of France, transmits on a wave length of 1,000 meters (l. c. w.), range 50 to 200 miles, producing in the telephones the sound of the musical note D of the fifth octave of the pianoforte. At all times, no matter what the State of the weather may be, the fog signal is transmitted on high power, giving a minimum range of 200 miles, during the first five minutes of each hour. During fog the emissions are made in addition from the 15th to the 20th, from the 30th to the 35th, and from the 45th to the 50th minute of each hour, on low power, giving a minimum range of 50 miles. Each of the groups of fog signals, whether on high or low power, consists of three successive characteristic emissions, which are as follows:

<u>— . — .</u> (repeated 8 times)	<u>— — —</u> (repeated 24 times)
15 sec.	30 sec.
<u>— . — .</u> (repeated 8 times)	Silent
15 sec.	1 min.

Total duration, 2 minutes. The minimum ranges indicated above correspond to reception on a direction finder frame aerial, with sound amplifier.—*From Notice to Mariners No. 1970, London, 1925.*

GENERAL PUBLIC SERVICE STATION ESTABLISHED AT BREMERHAVEN, GERMANY

This station, call signal KBH, located at the mouth of the Weser, North Sea, in latitude $53^{\circ} 30' 26''$ N., longitude $8^{\circ} 36' 11''$ E., operates on 600, 660, and 1,700 meters; system, Telefunken spark, 1,000 and Telefunken v. t. telegraph; hours, N.; rate; 40 centimes per word, no minimum.

NOTE.—The coast station Bremerhaven Lloydhulle renders service only for the exchange of correspondence between "Norddeutscher Lloyd," and its ships and its call signal has been changed to KAB.

PORTUGAL STATIONS CLOSED

TIME FOR TRANSMISSION OF METEOROLOGICAL BULLETIN BY KARLSBORG (SWEDEN)
STATION CHANGED

The meteorological bulletin at present transmitted by this station at 12.15 (G. M. T.) has been changed to 10.50. Note 14, page 190, of the International List of Radiotelegraph Stations (Berne), 1925, should be changed accordingly.

RADIOCOMPASS STATION ESTABLISHED AT LANDSORT, SWEDEN

A radiocompass station, call signal SAO, wave length 600 meters, range 100 miles, has been established close northeastward of Landsort Lighthouse. Bearings are furnished to ships within the sector 63 to 210° from the compass station. The Vaxholm station, call signal SAF, should be called first on 600 meters, as Landsort compass station does not transmit. Location (approximately) latitude 58° 44' 30" N., longitude 17° 52' 15" E.—*From Notice to Mariners No. 2019, London, 1925.*

ROUND ISLAND LIGHT STATION, ENGLAND, FOG SIGNAL DISCONTINUED

The radio fog signal established experimentally at Round Island Light Station, England, has been discontinued. Location (approximately) 49° 59' N. 6° 19' W. It is intended to establish a permanent radio fog signal at Round Island during the year 1926.—*From Notice to Mariners No. 1657, London, 1925.*

INTERNATIONAL ICE PATROL SERVICE

The Coast Guard cutters *Tampa* and *Modoc* have been detailed for the season of 1926 to carry on the international ice observation and ice patrol service provided for by the International Convention for the Safety of Life at Sea at London in 1913 and 1914.

The object of the ice patrol service is to locate the icebergs and field ice nearest to the trans-Atlantic steamship lane. It will be the duty of the patrol vessels to determine the southerly, easterly, and westerly limits of the ice and to keep in touch with these fields as they move to the southward in order that radio messages may be sent out daily, giving the whereabouts of the ice, particularly the ice that may be in the immediate vicinity of the regular trans-Atlantic steamship lanes.

During the months of March, April, May, and June, and as much longer as necessary, these two vessels will base on Halifax, Nova Scotia. The patrol will be continuous, and the vessel on patrol will not leave her station until relieved by the other vessel unless it is absolutely necessary to do so.

Having located the ice, the vessel on patrol will transmit four daily radio broadcasts, giving ice information for the benefit of shipping, each broadcast being repeated three times with an interval of two minutes between each repeat. Each broadcast will be preceded by the general call "QST" on 600 meters (500 kilocycles) wave length, immediately followed by the ice broadcast on the wave length specified, as follows:

Time	76th meridian	Wave length	Fre- quency
		Meters	Kilocycles
0000	1900	1,713	175
1100	0600	706	425
1250	0700	1,713	175
2300	1800	706	425

NOTE.—Attention is invited to the change to 1,713 meters (175 kilocycles) from 1,621 meters (165 kilocycles) which was used during the season of 1925.

Ice information will be given by radio at any time to any ship with which the patrol vessel can communicate. Such information will be furnished as regular radio traffic (without charge) on commercial traffic frequencies (wave lengths). Ice-information broadcasts will be given in as plain, concise English as practicable and will state (a) position of patrol vessel, (b) location and description of ice, and (c) other data. The ice-patrol vessels' general radio call letters are NIDK. This is a special call for the vessel actually on patrol and should not be confused

The work of the United States Coast Guard cutters engaged on this ice patrol duty will be greatly facilitated if the principal trans-Atlantic steamships report the following data by radio to the patrol vessels: (a) Icebergs or obstructions sighted, giving date, time (G. C. T.), latitude, longitude, set and drift, and, in case it is an iceberg, the temperature of the water at the time should be included. (b) Surface temperature of the sea water every four hours when between latitude 30° N. and 48° N. and crossing longitude 43° W. and 58° W. when bound either east or west and giving time of observation (G. C. T.), the latitude and longitude, course and speed.

These data will facilitate the drawing of a temperature curve which will be useful in locating the branches of the Labrador current. It is requested that radio operators desist, as far as practicable, from operating at the above times in order to lessen radio interference.

NEW METHOD OF MAINTAINING CONSTANT STATION FREQUENCY

Recognizing the basic importance of maintaining broadcast station frequencies constant, the Fourth National Radio Conference recommended "that the Department of Commerce require all stations to use some means of frequently checking their transmitted frequencies with a properly calibrated instrument." Experience has shown that the use of an ordinary frequency meter (wave meter) is not a satisfactory means of fulfilling this requirement. The most satisfactory constancy of frequency has been attained by stations which use a special frequency standard adjusted to the licensed frequency of the particular station. Two satisfactory forms of standard for this purpose have been developed by the Bureau of Standards. One of them is essentially a one-point wave meter, called a frequency indicator; it was briefly described in the October 1, 1925, RADIO SERVICE BULLETIN, page 13, and is fully described in Bureau of Standards Letter Circular 180, Specifications for Radio Frequency Indicator, Type B.

The second form of standard for use in maintenance of station frequencies is a piezo-electric quartz plate. The quartz plate may be used as a resonator or as an oscillator. As an oscillator, it may be used either as a master oscillator controlling the frequency of a station's output or as a frequency indicator. All three of these uses of a quartz plate are applicable to the work of maintaining station frequencies constant. The last mentioned, use as a frequency indicator, is particularly convenient and is the new method referred to in the title of this note. This use is briefly described on page 2 of Bureau of Standards Letter Circular 186, Specifications for Portable Piezo Oscillator, Bureau of Standards Type N.

The bureau has tested the applicability of the piezo oscillator as a frequency indicator in broadcasting stations and found it to be useful and satisfactory. It is necessary that the quartz plate in the piezo oscillator be ground so that one of its fundamentals or harmonics is either the exact licensed frequency of the broadcasting station or a frequency which differs from the station frequency by a small amount, such as 200 or 300 cycles. It is placed near the transmitting set, which (assuming the quartz plate is ground to the exact station frequency) is then adjusted to zero beat as determined by listening in the headphones connected in the plate circuit of the piezo oscillator. Should the station frequency vary by as small an amount as 100 cycles, it is immediately apparent by the production of a beat note of that frequency in the oscillator circuit. In case the quartz plate is ground so that its frequency differs slightly from the assigned frequency of the transmitting station—say, 300 cycles lower—the following procedure is adopted: The transmitting circuit is adjusted by passing through zero beat and then slightly increasing the frequency beyond this point until a beat note estimated to be 300 cycles is produced in the piezo-oscillator circuit. The first of these two methods is probably simpler, but the proper application of either one will give a means of maintaining an extremely accurate check of the transmitting-station frequency.

As compared with the use of a frequency meter or frequency indicator with visual indicating device, the piezo oscillator has two important advantages which are at once apparent. First, it is a particularly constant frequency standard, since when properly designed the frequency it delivers depends only on mechanical constants of the quartz plate. Second, the indicator is unaffected by amplitude or degree of modulation of the station's output. It indicates variations in frequency directly by the pitch of the beat note.

Persons interested in applying this device are advised to write to the Bureau

While this application of piezo oscillators is new and has not yet had the advantage of prolonged trial under varied conditions, it seems likely that it will be very useful. If all radio transmitting stations were equipped with the device and used it properly, frequency variations and whistling interference due to beat frequencies would probably disappear.

STANDARD FREQUENCY STATIONS

As a result of measurements by the Bureau of Standards upon the transmitted waves of a limited number of radio transmitting stations, data are given in each month's RADIO SERVICE BULLETIN on such of these stations as have been found to maintain a sufficiently constant frequency to be useful as frequency standards. There may be many other stations maintaining their frequency just as constant as these, but these are the only ones among those observed. There is, of course, no actual guaranty that the stations named below will maintain the constancy shown, but the data indicate the high degree of confidence that can be placed in them. The transmitted frequencies from these stations can be utilized for standardizing frequency meters and other apparatus by the procedure given in Bureau of Standards Letter Circular No. 171, which may be obtained by a person having actual use for it upon application to the Bureau of Standards, Department of Commerce, Washington, D. C.

Station	Owner	Location	Assigned frequency (kilocycles)	Period covered by measurements (months)	Number of times measured	Deviations from assigned frequencies noted in measurements	
						Average	Greatest since Dec. 21, 1925
WQL	Radio Corporation of America.	Coram Hill, Long Island, N. Y.	17.13	13	51	Per cent 0.2	Per cent 0.2
NSS	United States Navy	Annapolis, Md.	17.50	20	214	.2	.2
WCI	Radio Corporation of America.	Barneget, N. J.	17.95	11	60	.2	.2
WGG	Do.	Tuckerton, No. J.	18.56	29	225	.2	.4
WH	Do.	New Brunswick, N. J.	21.80	9	76	.1	.2
WRT	Do.	do.	22.60	8	27	.1	.1
WVA	United States Army.	Annapolis, Md.	100	10	109	.2	.4
NAA	Do.	Arlington, Va.	143	3	25	.1	.3
WJR	Jewett Radio & Phonograph Co.	Pontiac, Mich. ¹	550	4	19	0	0
WCX	Detroit Free Press	New York, N. Y.	610	13	95	0	0
WEAF	American Telephone & Telegraph Co.	Washington, D. C.	640	28	125	.1	.2
WCAP	Chesapeake & Potomac Telephone Co.	do.	640	25	100	.1	0
WRC	Radio Corporation of America.	Atlanta, Ga.	700	28	132	.2	0
WSU	Atlanta Journal	Schenectady, N. Y.	790	31	153	.1	0
WGY	General Electric Co.	Springfield, Mass.	900	21	68	.1	.2
WBZ	Westinghouse Electric & Manufacturing Co.						

¹ Time signal frequency.

² Same transmitting set for both call letters (WJR and WCX).

REFERENCES TO CURRENT RADIO LITERATURE

This is a monthly list of references prepared by the radio laboratory of the Bureau of Standards and is intended to cover the more important papers of interest to professional radio engineers which have recently appeared in periodicals, books, etc. The number at the left of each reference classifies the reference by subject, in accordance with the scheme presented in A Decimal

of Standards Circular No. 138, a copy of which may be obtained for 10 cents from the Superintendent of Documents, Government Printing Office, Washington, D. C. The various articles listed below are not obtainable from the Bureau of Standards. The various periodicals can be consulted at large public libraries.

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