

DEPARTMENT OF COMMERCE

RADIO SERVICE BULLETIN

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CONTENTS

	Page		Page
Abbreviations.....	1	Miscellaneous—Continued.	
New stations.....	2	Revised list of marine hospitals designated to furnish free medical advice by radio to ships at sea.....	23
Alterations and corrections.....	4	Callercasts, England compass station established.....	23
Miscellaneous:		Correct location of Gulf of Aden compass station.....	23
Stations broadcasting market or weather reports, music, concerts, lectures, etc (complete to January 31, 1925).....	11	Standard frequency stations.....	23
Name of city should be given when announcing call letters of broadcasting station.....	22	Standard radio frequency transmissions, February, March, April.....	24
Increase in rates for coast stations.....	22	References to current radio periodical literature.....	25
New station opened at Tamatave, Madagascar.....	22		
International Ice Patrol Service.....	22		

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.
	PG= General public.
	PR= Limited public.
	RC= Radio compass station.
	FS= Fog signal.
	P= Private.
	O= Government business exclusively.
Hours	= Hours of operation:
	N= Continental service.
	X= No regular hours.
F. T. Co.	= Federal Telegraph Co.
I. W. T. Co.	= Independent Wireless Telegraph Co.
K. & C.	= Kilbourne & Clark Manufacturing Co.
R. C. A.	= Radio Corporation of America.
S. O. R. S.	= Ship Owners' Radio Service.
W. S. A. Co.	= Wireless Specialty Apparatus Co.
C. w.	= Continuous wave.
I. c. w.	= Interrupted continuous wave.
V. t.	= Vacuum tube.
FX	= Fixed station.
U. S. L.	= After operating company denotes that the change applies only to the List of Radio Stations of the United States.
Ke.	= Kilocycles.
Fy.	= Frequency.
A. c.	= Alternating current.

RADIO SERVICE BULLETIN

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, 1924, and to the International List of Radiotelegraph Stations published by the Berns bureau]

Station	Call signal	Wave lengths	Service	Hours	Station controlled by—
Anchorage, Alaska ¹ ...	KWL	600, 1000, 1500	PG	.....	Alaska Railroad.
Avalon, Calif. ²	KDA	1613	P	X	Catalina Wireless Service.
Galveston, Tex. ³	WGV	600, 800, 2200, 2425	PG	N	B. C. A.
Kvichak, Alaska ⁴	KYM	600, 900	P	X	Bristol Bay Packing Co.
Mount Baker ⁵	KYD	600, 630	PG	X	Red Salmon Canning Co.
Nushagak, Alaska ⁶	KZV	600, 900	P	X	Alaska Salmon Co.
Washington, D. C. ⁷	WJH	143	FX	X	Potomac Electric Power Co.
Do. ⁸	WJX	143	FX	X	Do.
Wilmington, Calif. ⁹	KEB	1713	P	X	Catalina Wireless Service.

¹ Loc. (approximately) $0 150^{\circ} 03' 00''$, $N 61^{\circ} 13' 00''$; range, 200; system, Kelbourne & Clark, 1000; hours 8 a. m. to 6 p. m.; rates, 12 cents per word.

² Loc. (approximately) $0 118^{\circ} 19' 30''$, $N 33^{\circ} 20' 45''$; range, 20; system, composite v. t. telegraph.

³ Loc. $0 94^{\circ} 46' 25''$, $N 29^{\circ} 18' 54''$; range, 200; system, General Electric v. t. telegraph; rates, 10 cents per word (50 centimes).

⁴ Loc. (approximately) $0 157^{\circ} 00' 00''$; $N 59^{\circ} 00' 00''$; range, 150; system, Lowenstein, 1000.

⁵ Loc. (approximately) $0 150^{\circ} 25' 00''$, $N 58^{\circ} 43' 20''$ (permanently moored vessel near Naknek, Alaska); range, 200; system, Gray & Danielson, 240; rates, all classes 8 cents per word.

⁶ Loc. (approximately) $0 153^{\circ} 00' 00''$, $N 59^{\circ} 00' 00''$; range, 150; system, Lowenstein, 1000.

⁷ Loc. $0 77^{\circ} 00' 35''$, $N 38^{\circ} 33' 20''$; range, 50; system, composite v. t. telephone and telegraph.

⁸ Loc. $0 118^{\circ} 16' 15''$, $N 33^{\circ} 46' 10''$; range, 20; 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, 1924, and to the International List of Radiotelegraph Stations published by the Berns bureau]

Name of vessel	Call signal	Rates	Service	Hours	Owner of vessel	Station controlled by—
City of Seattle	WGA	8	PG	X	Miami S. S. Co.	R. C. A.
Collier County ¹	WQQ	8	PG	X	Florida R. R. & Nav. Corp.	I. W. T. Co.
Glacier	KFTH	.....	PG	X	Northern Fisheries, Inc.	
Joseph H. Frantz	WBL	.....	PG	X	Columbia S. S. Co.	
Katherine B.	KFSZ	.....	PG	X	R. T. Robinson	
Ntra. Sra. De Alba	KZAB	.....	PG	X	Heracles Lumber Co.	
Pawnee ²	KFTL	.....	P	X	Harry P. Bingham	Owner of vessel.
Redbird ³	KPTR	8	PG	X	Redbird S. S. Corp.	I. W. T. Co.

¹ Range, 200; system, I. W. T. Co., 1,000; w. l., 600, 700, 800.

² Range, 150; system, Navy-Simon, 1,000; w. l., 600, 700, 800.

³ Range, 200; system, R. C. A., 1,000; w. l., 600, 700, 800.

Commercial land and ship stations, alphabetically by call signals

[h=ship station; e=land station]

Call signal	Name of station	Call signal	Name of station
KDA	Avalon, Calif.....e	KYM	Kvichak, Alaska.....c
KEB	Wilmington, Calif.....c	KZAB	Ntra. Sra. De Alba.....b
KFSZ	Katherine B.....h	KZV	Nushagak, Alaska.....c
KPTR	Redbird.....b	WBL	Joseph H. Frantz.....b
KFTL	Pawnee.....b	WGA	City of Seattle.....b
KPTR	Glacier.....b	WQQ	Collier County.....b
KWL	Anchorage, Alaska.....c	WGV	Galveston, Tex.....c
KYD	Mount Baker (moored vessel near Naknek, Alaska).....c	WJH	Washington, D. C.....c
		WJX	Do.....c

RADIO SERVICE BULLETIN

3

Broadcasting stations, alphabetically by names of States and cities

[Additions to the List of Radio Stations of the United States, edition of June 30, 1924]

State and city	Call signal	State and city	Call signal
California:		North Dakota: Devils Lake.....	KDLR
Oakland.....	KFUS	Ohio: Cleveland.....	WEAR
San Leandro.....	KFCU	Oklahoma: Bristow.....	KFRU
Florida:		Pennsylvania:	
Miami Beach.....	WMBF	Johnstown.....	WGBK
St. Petersburg.....	WSAG	Oil City.....	WHAA
Idaho: Kellogg.....	KFEY	Scranton.....	WGBI
Illinois:		Wilkes-Barre.....	WBRE
Broadlands.....	WBRF	Porto Rico: San Juan.....	WGBO
Lake Forest.....	WABA	Rhode Island: Providence.....	WGBM
La Salle.....	WGBN	Utah:	
Iowa: Cedar Rapids.....	KFLP	Ogden.....	KFUR
Maryland: Takoma Park.....	WBES	Salt Lake City.....	KFUT
Massachusetts: Fall River (portable).....	WGBH	Wisconsin:	
Michigan: Grand Rapids.....	WBDC	Menomonie.....	WGBQ
Missouri:		Stevens Point.....	WIBB
Moberly.....	KFUW	United States: (portable).....	WEBM
Springfield.....	KFUY		
Montana: Butte.....	KFCY		

Stations broadcasting market or weather reports, music, concerts, lectures, etc., alphabetically by call signals

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilocycles)
KDLR	Devils Lake, N. Dak.....	Radio Electric Co.....	5	231	1,300
KFRY	Kellogg, Idaho.....	Bunker Hill & Sullivan Mining & Concentrating Co.....	10	233	1,290
KFLP	Cedar Rapids, Iowa.....	Everett M. Foster.....	20	256	1,170
KFRU	Bristow, Okla.....	Ethical Studios.....	600	208.9	1,010
KFUR	Ogden, Utah, 420 Twenty-fifth Street.....	H. W. Perry and C. Redfield.....	50	224	1,340
KFUS	Oakland, Calif., 328 Twenty-eighth Street.....	Louis L. Sherman.....	50	233	1,290
KFUT	Salt Lake City, Utah.....	University of Utah.....	100	261	1,150
KFCU	San Leandro, Calif.....	Colburn Radio Laboratories.....	100	224	1,340
KFUY	Springfield, Mo.....	G. Pearson Ward.....	10	252	1,190
KFUW	Moberly, Mo., 417 East Carpenter Street.....	Earl W. Lewis.....	10	243	1,260
KFUY	Butte, Mont., 5 South Excelsior Avenue.....	Irvine H. Bouchard.....	5	254	1,180
WABA	Lake Forest, Ill.....	Lake Forest University.....	100	227	1,320
WBDC	Grand Rapids, Mich.....	Baxter Laundry Co.....	50	256	1,170
WBES	Takoma Park, Md.....	Bliss Electrical School.....	100	222	1,350
WBRE	Wilkes-Barre, Pa., 17 West Northampton Street.....	Baltimore Radio Exchange.....	10	231	1,300
WEAR	Cleveland, Ohio.....	Goodyear Tire & Rubber Co.....	1,000	389.4	770
WEBM	United States (portable), 203 Broadway, New York, N. Y.....	R. C. A.....	100	226	1,330
WGBH	Fall River, Mass. (portable).....	Fall River Herald Publishing Co.....	10	209.7	1,430
WGBI	Scranton, Pa., 608 Linden Street.....	Frank S. McGeorge.....	10	246	1,230
WGBK	Johustown, Pa.....	Lawrence W. Campbell (Fontaine Chateau).....	5	248	1,210
WGBM	Providence, R. I., 92 Dover Street.....	Theodore N. Sasty.....	5	224	1,280
WGBN	La Salle, Ill.....	Hub Radio Shop.....	10	256	1,170
WGBO	San Juan, P. R., 197 Ponce Leon Avenue.....	Dr. Rocco Artan.....	10	375	1,000
WGBQ	Menomonie, Wis.....	Stout Institute.....	20	234	1,280
WHAA	Oil City, Pa.....	Shaffer Music House.....	20	250	1,200
WIBB	Stevens Point, Wis.....	Hebel's Store.....	50	240	1,250
WMBF	Miami Beach, Fla.....	Fleetwood Hotel.....	500	384.4	780
WSAG	St. Petersburg, Fla.....	Gasnel Tabernacle.....	500	268	1,130

4

RADIO SERVICE BULLETIN

Government ship stations, alphabetically by names of stations

[Additions to the List of Radio Stations of the United States, edition of June 30, 1924, and to the International List of Radiotelegraph Stations published by the Bureau]

Station	Call signal	Wave lengths	Service	Hours	Station controlled by—
Sprigg Carroll ¹	WYCS	.....	O	X	U. S. Army.

¹ Range, 75; system, U. S. Army, 1600.*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
WYCS	Sprigg Carroll.....		

Special land stations, alphabetically by names of stations

[Additions to the List of Radio Stations of the United States, edition of June 30, 1924]

Station	Call signal	Station controlled by—
Cleveland, Ohio.....	SXAC	Goodyear Tire & Rubber Co.
Lone Tree, Iowa.....	9XK	State University of Iowa.
Madison, Wis.....	9XH	C. F. Burgess Laboratories, 1611 East Washington Avenue.
Minneapolis, Minn.....	9XL	Washburn Crosby Co.
South Schenectady, N. Y.....	2XK	General Electric Co.

Special land stations grouped by districts

Call signal	District and station	Call signal	District and station
2XK	Second district: South Schenectady, N. Y.	9XH	Ninth district: Madison, Wis.
SXAC	Eighth district: Cleveland, Ohio.	9XK	Lone Tree, Iowa.
		9XL	Minneapolis, Minn.

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, 1924, and to the International List of Radiotelegraph Stations, published by the Bureau]

BALTIMORE, MD. (WEQ).—W. l., 143, service, P.; hours, N.

EVERETT, WASH.—Range, 300–500; w. l., 600, 900, 1,641, 1,800; rates, private business, 10 cents (52 centimes) per word, ships official business, 5 cents (26 centimes) per word.

FLINT, MICH.—W. l., 140.

LUBINGTON, MICH.—W. l., add 660.

MANITOWOC, WIS.—W. l., 600, 718, 1666; station operated and controlled by Ann Arbor Railway Co.

NEW YORK, N. Y. (WCG).—W. l., 600, 680.

PORT ARTHUR, TEX. (WKI).—W. l., 600, 875, 1630.

..... W. l. 600 750 1764 1760 1800

RADIO SERVICE BULLETIN

5

SEATTLE, WASH. (KPE).—W. L., 600, 900, 1641, 1800, 2200, 2300; rates, private business, 10 cents (52 centimes) per word, ships official business, 5 cents (26 centimes) per word.

SHEROYGAN, MICH.—Read, Sheboygan, Wis. (U. S. L.).

SKAGIT POWER SITE, WASH.—W. L., 600, 1934; system, composite v. t. telephone and telegraph.

Strike out all particulars of the following-named stations: Avalon, Calif.; Chicago, Ill. (WBU); Chisik Island, Alaska; Detroit, Mich. (WWJ); Tee Harbor, Alaska; Wichita, Kans.; Wilmington, Calif. (KFRE).

COMMERCIAL SHIP STATIONS, ALPHABETICALLY BY NAMES OF VESSELS

[Alterations and corrections to be made to the List of Radio Stations of the United States, editions of June 30, 1924, and to the International List of Radiotelegraph Stations, published by the Berne bureau]

AGWISMYTH.—W. L., 450, 600, 706, 800.

ALAMEDA.—Name changed to Olean; w. l., 600, 706, 800; Vacuum Oil Co. owner of vessel; station operated and controlled by R. C. A. (U. S. L.).

AMERICAN TRADER.—W. L., 450, 600, 706, 800; hours, X.

ANNA E. MORSE.—Name changed to Oakridge.

ARCHER.—W. L., 450, 600, 706, 800.

ARIZONA.—W. L., 450, 600, 706, 800.

BARWICK.—W. L., 600, 706.

B. H. TAYLOR.—System, W. S. A. Co., 1000 and R. C. A. v. t. telephone; w. l., 600, 706, 1053; station operated and controlled by owner of vessel.

BIENVILLE.—Southern Pacific Co. owner of vessel.

BIRMINGHAM CITY.—W. L., 450, 600, 706, 800.

BRADDOCK.—W. L., 450, 600, 706.

BRELLIANT.—W. L., 450, 600, 706, 800.

CALIFORNIAN.—W. L., 450, 600, 706, 800, 1800.

CARRISO.—W. L., 600, 706, 800.

CANTAGO.—Range, 300; w. l., 600, 706, 800.

CHINA ARROW.—W. L., 450, 600, 706, 800.

CITY OF MONTGOMERY.—W. L., 600, 706, 800.

CITY OF SPOKANE.—Station operated and controlled by I. W. T. Co. (U. S. L.).

CLEARWATER.—W. L., 600, 706, 800, 875.

COLIN H. LIVINGSTONE.—Name changed to Oakwood.

COMMONWEALTH.—Range, 150; system, Cutting and Washington, 1000; w. l., 600, 706, 800.

CORINTO.—W. L., 600, 706, 800; hours, N.; station operated and controlled by F. T. Co.

CRAMPTON ANDERSON.—W. L., 450, 600, 706, 800.

CRASTER HALL.—Range, 300; w. l., 450, 600, 706, 800.

CRETAN.—System, R. C. A., 1000; w. l., 600, 706, 800.

CROFTON HALL.—W. L., 450, 600, 706, 800.

DAUNTLESS.—System, composite, v. t. telegraph.; w. l., 600, 706, 800; service, P.

DOCHET.—W. L., 450, 600, 706, 800.

EAGLE (KIR).—W. L., 450, 600, 706, 800.

E. A. MORSE.—Name changed to Oakspring.

EDWARD PIERCE.—W. L., 600, 706, 800.

EL DIA.—W. L., 600, 706, 800; hours, X.

ECUADOR.—Range, 200-500; system, Federal arc and Kilbourne & Clark, 1000; w. l., 600, 706, 800, 2100, 2400.

FAIRFIELD CITY.—W. L., 450, 600, 706, 800.

F. J. LUCKENBACH.—W. L., 600, 706, 800, 875.

FLORENCE LUCKENBACH.—W. L., 600, 706, 800, 875.

FORTUNA.—Service, PG; rates, 8 cents per word; station operated and controlled by R. C. A.

FRANK H. BUCK.—System, Federal arc, 1000 with chopper; w. l., 600, 706, 800, 1800, 2400.

GARFIELD.—W. L., 450, 600, 706, 800.

GENERAL G. W. GOETHALS.—Black Cross Navigation & Trading Co., owner of vessel.

GREATER BUFFALO.—Range, 150; system, R. C. A. v. t. telephone and telegraph and R. C. A., 1000; w. l., 600, 706, 1053, 1800; rates, Great Lakes service, 4 cents per word; station operated and controlled by R. C. A.

- HAMILTON.—Station operated and controlled by I. W. T. Co.
 HANNAWA.—W. l., 600, 706, 2100, 2400; station operated and controlled by F. T. Co.
 HARVARD.—W. l., 600, 706, 800.
 HORACE LUCKENBACH.—W. l., 600, 706, 875; station operated and controlled by S. O. R. S.
 HOVEN.—W. l., 450, 600, 706, 800; hours, X.
 HULVER.—W. l., 600, 706, 800; station operated and controlled by S. O. R. S.
 I. C. WHITE.—W. l., 450, 600, 706, 800.
 JACOB LUCKENBACH.—W. l., 600, 706, 800, 1800, 2100, 2400.
 JALAPA.—W. l., 600, 706, 1800, 2100, 2400.
 JAMES B. DUKE.—W. l., 600, 1800, 2100, 2400.
 J. A. MOFFETT, JR.—W. l., 450, 600, 706, 800.
 JAPAN ARROW.—W. l., 600, 706, 800; hours, X.
 K. I. LUCKENBACH.—W. l., 450, 600, 706.
 LA BREA.—Range, 300; system, Federal arc, 1000 with chopper; w. l., 600, 706, 800, 1800, 2400.
 LAS VEGAS.—W. l., 450, 600, 706, 800.
 LENA LUCKENBACH.—System, Navy-Kilbourne & Clark, 1000; w. l., 600, 706, 800, 875.
 LEWIS LUCKENBACH.—W. l., 600, 706, 800.
 LIBERTY.—System, Navy-R. C. A., 1000; w. l., 450, 600, 706, 800; hours, X.
 LIGHTBURNE.—W. l., 450, 600, 706, 800.
 LIMON.—System, W. S. A. Co., 1000; w. l., 600, 706, 800.
 LIO.—General Petroleum Corp. owner of vessel.
 L. J. DRAKE.—Range, 150-300; system, I. W. T. Co. arc and Lowenstein, 1000; w. l., 450, 600, 706, 800, 2100, 2400; station operated and controlled by I. W. T. Co.
 LOS ANGELES.—Range, 500; system, Federal arc, 1000 with chopper; w. l., 600, 706, 800, 1800, 2400.
 LUZON.—Call signal changed to KZAL.
 MAKAWELI.—W. l., 600.
 MARTINIQUE.—Station operated and controlled by I. W. T. Co.
 MARY WEEMS.—Range, 200; system, Navy-R. C. A., 1000; w. l., 600, 706, 800, 875; hours, N.
 MERRIMACK.—System, R. C. A., 1000; w. l., 600, 706, 800; station operated and controlled by R. C. A.
 MINDORO.—Call signal changed to KZAR.
 MUNAMAR.—W. l., 600, 706, 2100, 2400.
 MUNARGO.—W. l., 600, 706, 800, 1800, 2100, 2400.
 MUNINDIES.—W. l., 600, 706, 800.
 MUNISLA.—Munson S. S. Line owner of vessel.
 MUNRIO.—Munson S. S. Line owner of vessel.
 MYSTIC.—W. l., 450, 600, 706, 800; station operated and controlled by owner of vessel.
 NANTUCKET.—W. l., 600, 706, 800.
 NEVADAN.—W. l., 450, 600, 706, 800; station operated and controlled by owner of vessel.
 NEWPORT.—John W. Chapman, trustee, owner of vessel.
 NEW YORK CENTRAL No. 18.—Range, 100; system, R. C. A. v. t. telegraph; w. l., 600, 660, 706, 800; rates, 8 cents per word; station operated and controlled by R. C. A.
 OHIO.—W. l., 450, 600, 800.
 ONEIDA.—(KDJO).—W. l., 600, 706, 800, 1250, 1875, 2100; rates, Great Lakes service 4 cents per word, transoceanic service 8 cents per word.
 OSPREY.—Rates, 8 cents per word; station operated and controlled by R. C. A.
 PENNSYLVANIAN.—W. l., 450, 600, 706, 800; station operated and controlled by owner of vessel.
 PETOSKEY.—W. l., 600, 706.
 PETREL.—W. l., 600, 706, 800.
 POINT LOBOS.—W. l., 600, 706, 800.
 PRESIDENT HAYES.—System, Navy-R. C. A., 1000; w. l., 450, 600, 706, 800; station operated and controlled by owner of vessel.
 PRESIDENT TAFT.—Range, 150-500; system, Federal arc and Navy-Simon, 1000; w. l., 450, 600, 800, 1800.
 PRISCILLA (KXI).—W. l., 600, 706, 800.
 RADNOR.—W. l., 450, 600, 706, 800.

RADIO SERVICE BULLETIN

7

- RIPPLE (KFLE).**—Thomas L. Chadbourne owner of vessel.
- ROBERT E. LEE.**—Range, 150-300; system, I. W. T. Co. arc and Lowenstein, 1000; w. l., 600, 660, 706, 730, 800, 875, 2100, 2300, 2400; hours, N.; station operated and controlled by I. W. T. Co.
- ROBERT LUCKENBACH.**—W. l., 600, 706, 800; station operated and controlled by S. O. R. S.
- SACCARAPPA.**—W. l., 450, 600, 706, 800.
- SAN JUAN (WWM).**—W. l., 600, 706, 800.
- SANTA ANA (WBX).**—W. l., 600, 706, 800.
- SANTA LUISA.**—System, R. C. A. v. t. telegraph; w. l., 600, 660, 706, 800, 875.
- SANTA OLIVIA.**—W. l., 600, 706, 800.
- SAUGERTERS.**—W. l., 450, 600, 706, 800, 875.
- SCHOHARIE.**—W. l., 450, 600, 706, 800, 875.
- SEA SALVOR.**—Range, 150; system, Kilbourne & Clark, 1000; w. l., 600, 706, 800; rates 8 cents per word; station operated and controlled by owner of vessel.
- STANDTUG No. 1.**—Sabine Towing Co. owner of vessel.
- STEEL AGE.**—W. l., 450, 600, 706, 800.
- SUCARSECO.**—System, Navy-R. C. A., 1000; w. l., 450, 600, 706, 800.
- SUDBURY.**—American Ship & Commerce Navigation Corp. owner of vessel.
- SUNEWARKCO.**—W. l., 450, 600, 706, 800.
- THALASSA.**—W. l., 450, 600, 800; service, PG; hours, X.
- THOMAS CROWLEY.** Name changed to Jane Nettleton; Andrew F. Mahoney owner of vessel.
- TRI MOUNTAIN.**—*Read* Trimountain; system, Navy-W. S. A. Co., 1000; w. l., 450, 600, 706, 800; B. L. Shipping Co. owner of vessel.
- TRIPP.**—W. l., 450, 600, 706, 800, 875.
- VELERO II.**—Range, 200; w. l., 600.
- VIRGINIA EXPRESS.**—Station operated and controlled by I. W. T. Co.
- VIRGINIA LIMITED.**—Station operated and controlled by I. W. T. Co.
- VULCAN.**—Name changed to Coos Bay.—Range, 150; system, R. C. A., 1000; w. l., 600, 706, 800; rates, 8 cents per word; station operated and controlled by owner of vessel.
- WABAN.**—W. l., 450, 600, 660, 706, 730, 800, 875.
- WEST CAHOKIA.**—W. l., 450, 600, 706.
- WEST CHESWALD.**—W. l., 450, 600, 706, 800, 875.
- WEST COBALT.**—System, Navy-R. C. A., 1000; W. l., 450, 600, 730, 800, 875.
- WESTERNER.**—W. l., 450, 600, 706, 800, 875.
- WEST HAVEN.**—W. l., 450, 600, 706, 800.
- WEST HUMHAW.**—W. l., 450, 600, 706, 800.
- WEST IRMO.**—W. l., 300, 450, 600, 706.
- WEST TOTANT.**—W. l., 450, 600, 706, 800.
- W. H. TALBOT.**—N. H. H. Borresen owner of vessel.
- WILLIAM CAMPION.**—W. l., add 450.
- WM. F. HERRIN.**—W. l., 600, 706, 800, 1800, 2400.
- WILLSOLO.**—System, Navy-Wireless Improvement Co., 1000; w. l., 450, 600, 706, 800.
- Strike out all particulars of the following-named vessels: Alloway, Baccarat, Blakeley, Canco, Chippewa, Colonial, Custodian, Delight, Depere, Delbray, Eastern Gale, Elsie, Gloria West, Iconium, Jephtha, Lake Farmingdale, Lake George, Levi G. Burgess, Lydia, Memnon, Minnesota, Missouri, Mohawk (KVM), Mount Baker, Naroca, Pioneer (KUSS), Pioneer (WPN), Point Arena, Queen II, Ruch, St. Nicholas, San Pasqual, Specjacks, S. V. Harkness, Tyce (WPC), Watauga, West Hartland, Western Knight, West Wauneke, Whitmarsh, Wogo.

COMMERCIAL LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS

KDIN, *read* Oakwood; **KDRS,** call signal changed to **KZAR**; **KDRU,** call signal changed to **KZAL**; **KDSD,** *read* Jane Nettleton; **KFTV,** *read* Coos Bay; **KOBN,** *read* Olean; **KOQF,** *read* Trimountain; **KOVN,** *read* Oakspring; **KUTD,** *read* Oakridge; strike out all particulars following the call signals **KDBA, KDDT, KDFU, KDIZ, KDJS, KDMH, KDSK, KDTK, KDUF, KDWM, KEFQ, KEGS, KEU, KFRD, KFRE, KFSV, KFTM, KIPZ, KIVZ, KOMG, KQOE, KQP, KTA, KUCP, KUDZ, KUSX, KUTP, KUXC, KUSS, KVM, KYD** (Mount Baker ship station); **KYF, WBU, WEK, WFX,**

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, 1924]

- KDKA (East Pittsburg, Pa.).—W. l., 309.1; frequency, kc. 970.
 KDPM (Cleveland, Ohio).—W. l., 250; frequency, kc. 1200.
 KDYL (Salt Lake City, Utah).—W. l., 305.9; frequency, kc. 980.
 KGO (Oakland, Calif.).—W. l., 299.8; frequency, kc. 1000.
 KGW (Portland, Oreg.).—W. l., 485.1; frequency, kc. 610.
 KGY (Lacey, Wash.).—W. l., 246; frequency, kc. 1250.
 KHJ (Los Angeles, Calif.).—W. l., 404.1; frequency, kc. 742.
 KHQ (Seattle, Wash.).—W. l., 273; frequency, kc. 1100.
 KJR (Seattle, Wash.).—W. l., 384.4; frequency, kc. 780.
 KJS (Los Angeles, Calif.).—W. l., 293.9; frequency, kc. 1020.
 KLX (Oakland, Calif.).—W. l., 509.9; frequency, kc. 588.
 KMO (Tacoma, Wash.).—W. l., 250; frequency, kc. 1200.
 KNX (Los Angeles, Calif.).—W. l., 336.9; frequency, kc. 890.
 KOA (Denver, Colo.).—W. l., 322.4; frequency, kc. 930.
 KOB (State College, N. Mex.).—W. l., 348.6; frequency, kc. 860.
 KPO (San Francisco, Calif.).—W. l., 429.5; frequency, kc. 698.
 KSAC (Manhattan, Kans.).—W. l., 340.7; frequency, kc. 880.
 KSD (St. Louis, Mo.).—W. l., 545.1; frequency, kc. 550.
 KTHS (Hot Springs, Ark.).—W. l., 374.8; frequency, kc. 800.
 KUO (San Francisco, Calif.).—W. l., 246; frequency, kc. 1220.
 KYW (Chicago, Ill.).—W. l., 535.4; frequency, kc. 560.
 KFAE (Pullman, Wash.).—W. l., 331.1; frequency, kc. 900.
 KFAN (Moscow, Idaho).—Station operated and controlled by University of Idaho; w. l., 230; frequency, kc. 1300.
 KFBG (Tacoma, Wash.).—W. l., 250; frequency, kc. 1200.
 KFDD (Boise, Idaho).—W. l., 275; frequency, kc. 1090.
 KFDH (Tucson, Ariz.).—W. l., 258; frequency, kc. 1160.
 KFDJ (Corvallis, Oreg.).—W. l., 254; frequency, kc. 1180.
 KFDM (Beaumont, Tex.).—W. l., 315.6; frequency, kc. 950.
 KFGD (Chickasha, Okla.).—Power, 100.
 KFI (Los Angeles, Calif.).—W. l., 467; frequency, kc. 642.
 KFIO (Spokane, Wash.).—W. l., 266; frequency, kc. 1130.
 KFIX (Independence, Mo.).—Call signal changed to KLDS.
 KFJM (Grand Forks, N. Dak.).—W. l., 278; frequency, kc. 1080.
 KFKB (Milford, Kans.).—W. l., 273; frequency, kc. 1100.
 KFKX (Hastings, Nebr.).—W. l., 288.3; frequency, kc. 1040.
 KPMX (Northfield, Minn.).—W. l., 336.9; frequency, kc. 890.
 KFMT (Minneapolis, Minn.).—W. l., 263; frequency, 1140.
 KFOA (Seattle, Wash.).—W. l., 450.2; frequency, kc. 666.
 KPOL (Marengo, Iowa).—Power, 10.
 KFOO (Salt Lake City, Utah).—Power, 5.
 KFPY (Spokane, Wash.).—W. l., 266; frequency, kc. 1130.
 KPPT (Salt Lake City, Utah).—Station operated and controlled by Radio Service Corp. of Utah; w. l., 261; frequency, kc. 1150.
 KFQR (Oklahoma, Okla.).—W. l., 209.7; frequency, kc. 1430.
 KQW (North Bend, Wash.).—W. l., 215.7; frequency, kc. 1390.
 KFRU (Bristow, Okla.).—Power, 500.
 KFUD (St. Louis, Mo.).—W. l., 545.1; frequency, kc. 550.
 KGO (Oakland, Calif.).—Power, 2000.
 WAAC (New Orleans, La.).—Power, 100; w. l., 275; frequency, kc. 1000.
 WAAD (Cincinnati, Ohio).—W. l., 258; frequency, kc. 1160.
 WABL (Storrs, Conn.).—W. l., 275; frequency, kc. 1090.
 WAHG (Richmond Hill, N. Y.).—W. l., 315.6; frequency, kc. 950.
 WBAA (West Lafayette, Ind.).—W. l., 273; frequency, kc. 1100.
 WBAP (Fort Worth, Tex.).—W. l., 475.9; frequency, kc. 630.
 WBAV (Columbus, Ohio).—W. l., 293.9; frequency, kc. 1020.
 WBBF (Atlanta, Ga.).—Call signal changed to WGST.
 WBBZ (Indianapolis, Ind.).—W. l., 238; frequency, kc. 1260.
 WBT (Charlotte, N. C.).—W. l., 275; frequency, kc. 1090.
 WBZ (Springfield, Mass.).—W. l., 331.1; frequency, kc. 900.
 WCAE (Pittsburgh, Pa.).—W. l., 461.3; frequency, kc. 650.
 WCAJ (University Place, Nebr.).—W. l., 275; frequency, kc. 1090.
 WCAL (Northfield, Minn.).—W. l., 336.9; frequency, kc. 890.

RADIO SERVICE BULLETIN

9

- WCAS (Minneapolis, Minn.).—Call signal changed to WHDI; w. l., 278; frequency, kc. 1080.
- WCAX (Burlington, Vt.).—W. l., 250; frequency, kc. 1200.
- WCBD (Zion, Ill.).—W. l., 344.6; frequency, kc. 870.
- WCBL (Houlton, Me.).—W. l., 266; frequency, kc. 1130.
- WCBR (Providence, R. I.—portable).—W. l., 205.4; frequency, kc. 1460.
- WCCO (Minneapolis, Minn.).—W. l., 416.4; frequency, kc. 720.
- WCEE (Elgin, Ill.—near).—Call signal changed to WTAS; w. l., 302.8; frequency, kc. 990.
- WCX (Detroit, Mich.).—W. l., 516.9; frequency, kc. 580.
- WDAF (Kansas City, Mo.).—W. l., 365.6; frequency, kc. 820.
- WDAR (Philadelphia, Pa.).—Call signal changed to WLIT; w. l., 394.5; frequency, kc. 760.
- WDBB (Taunton, Mass.).—Call signal changed to WAIT.
- WDBD (Martinsburg, W. Va.).—W. l., 254; frequency, kc. 1180.
- WDBF (Youngstown, Ohio).—W. l., 222; frequency, kc. 1350.
- WDBH (Worcester, Mass.).—Call signal changed to WCTS.
- WEAF (New York, N. Y.).—W. l., 491.5; frequency, kc. 610.
- WEAN (Providence, R. I.).—W. l., 270; frequency, kc. 1110.
- WEAO (Columbus, Ohio).—W. l., 293.9; frequency, kc. 1020.
- WEB (St. Louis, Mo.).—Call signal changed to WIL.
- WEBE (Cambridge, Ohio).—W. l., 234; frequency, kc. 1280.
- WEBH (Chicago, Ill.).—W. l., 370.2; frequency, kc. 810.
- WEBO (Hamilton, Ohio).—Call signal changed to WSRO; station operated and controlled by Radio Co. (Harry W. Fahlander).
- WEBR (Buffalo, N. Y.).—Power, 50; w. l., 244; frequency, kc. 1230.
- WEI (Boston, Mass.).—W. l., 476; frequency, kc. 630.
- WEMC (Berrien Springs, Mich.).—W. l., 285.5; frequency, kc. 1050.
- WEW (St. Louis, Mo.).—W. l., 248; frequency, kc. 1210.
- WFAA (Dallas, Tex.).—W. l., 475.9; frequency, kc. 630.
- WFI (Philadelphia, Pa.).—W. l., 394.5; frequency, kc. 760.
- WGBS (New York, N. Y.).—W. l., 315.6; frequency, kc. 950.
- WGI (Medford Hills, Mass.).—W. l., 261; frequency, kc. 1150.
- WGN (Chicago, Ill.).—W. l., 370.2; frequency, kc. 810.
- WGR (Buffalo, N. Y.).—Station operated and controlled by Federal Telephone Mfg. Corp.
- WGY (Schenectady, N. Y.).—W. l., 379.5; frequency, kc. 760.
- WHA (Madison, Wis.).—W. l., 535.4; frequency, kc. 560.
- WHAA (Iowa City, Iowa).—Call signal changed to WSUI.
- WHAS (Louisville, Ky.).—W. l., 399.8; frequency, kc. 750.
- WHAZ (Troy, N. Y.).—W. l., 379.5; frequency, kc. 790.
- WHB (Kansas City, Mo.).—W. l., 365.6; frequency, kc. 820.
- WHK (Cleveland, Ohio).—W. l., 273; frequency, kc. 1100.
- WHN (New York, N. Y.).—W. l., 361.2; frequency, kc. 830.
- WIAD (Philadelphia, Pa.).—W. l., 250; frequency, kc. 1200.
- WIAS (Burlington, Iowa).—W. l., 254; frequency, kc. 1180.
- WIP (Philadelphia, Pa.).—W. l., 508.2; frequency, kc. 590.
- WJAD (Waco, Tex.).—W. l., 352.7; frequency, kc. 850.
- WJAR (Providence, R. I.).—W. l., 305.9; frequency, kc. 980.
- WJJD (Mooseheart, Ill.).—W. l., 302.8; frequency, kc. 990.
- WJY (New York, N. Y.).—Power, 1000; w. l., 405.2; frequency, kc. 740.
- WJZ (New York, N. Y.).—Power, 1000; w. l., 454.3; frequency, kc. 660.
- WKAP (Cranston, R. I.).—W. l., 234; frequency, kc. 1280.
- WKAQ (San Juan, P. R.).—W. l., 340.7; frequency, kc. 880.
- WKAR (East Lansing, Mich.).—W. l., 285.5; frequency, kc. 1050.
- WKBF (Cranston, R. I.).—Call signal changed to WDWF; w. l., 440.9; frequency, kc. 680.
- WKY (Oklahoma, Okla.).—W. l., 275; frequency, kc. 1090.
- WLAP (Louisville, Ky.).—W. l., 275; frequency, kc. 1090.
- WLS (Chicago, Ill.).—W. l., 344.6; frequency, kc. 870.
- WLW (Cincinnati, Ohio).—Power, 1500; w. l., 422.3; frequency, kc. 710.
- WMAQ (Chicago, Ill.).—W. l., 447.5; frequency, kc. 670.
- WMAY (St. Louis, Mo.).—W. l., 248; frequency, kc. 1210.
- WMC (Memphis, Tenn.).—W. l., 499.7; frequency, kc. 600.
- WMH (Cincinnati, Ohio).—W. l., 422.3; frequency, kc. 710 and w. l., 325.9; frequency, kc. 920.

WNAC (Boston, Mass.).—Power, 500; w. l., 280.2; frequency, kc. 1070.
WNAD (Norman, Okla.).—Power, 250.
WNAL (Omaha, Nebr.).—Power, 50.
WNJ (Newark, N. J.).—Power, 150.
WOAI (San Antonio, Tex.).—W. l., 394.5; frequency, kc. 760.
WOAN (Lawrenceburg, Tenn.).—Power, 500; w. l., 282.8; frequency, kc. 1060.
WOAW (Omaha, Nebr.).—Power, 1000.
WOC (Davenport, Iowa).—Power, 1500; w. l., 483.6; frequency, kc. 620.
WOI (Ames, Iowa).—W. l., 270; frequency, kc. 1110.
WOO (Philadelphia, Pa.).—W. l., 508.2; frequency, kc. 590.
WOR (Newark, N. J.).—W. l., 405.2; frequency, kc. 740.
WOS (Jefferson City, Mo.).—W. l., 440.9; frequency, kc. 680.
WPAU (Moorehead, Minn.).—W. l., 258; frequency, kc. 1160.
WPG (Atlantic City, N. J.).—W. l., 299.8; frequency, kc. 1000.
WQAE (Springfield, Vt.).—W. l., 246; frequency kc. 1220.
WQJ (Chicago, Ill.).—W. l., 447.5; frequency, kc. 670.
WRC (Washington, D. C.).—W. l., 468.5; frequency, kc. 640.
WREO (Lansing, Mich.).—W. l., 285.5; frequency, kc. 1050.
WSAC (Clemson College, S. C.).—Power, 750; w. l., 336.9; frequency, kc. 800.
WSAD (Providence, R. I.).—W. l., 256; frequency, kc. 1170.
WSAI (Cincinnati, Ohio).—W. l., 325.9; frequency, kc. 920.
WSAJ (Grove City, Pa.).—W. l., 229; frequency, kc. 1310.
WSB (Atlanta, Ga.).—Power, 750; w. l., 428.3; frequency, kc. 700.
WSUI (Iowa City, Iowa).—W. l., 483.6; frequency, kc. 620.
WTAM (Cleveland, Ohio).—W. l., 389.4; frequency, kc. 770.
WTAS (Elgin, Ill.—near).—Call signal changed to WCRE; w. l., 275; frequency, kc. 1090.
WTIC (Hartford, Conn.).—W. l., 348.6; frequency, kc. 860.
WWJ (Detroit, Mich.).—W. l., 352.7; frequency, kc. 850.
WWL (New Orleans, La.).—W. l., 275; frequency, kc. 1090.
 Strike out all particulars of the following-named stations: **KDYQ** (Portland, Oreg.); **KFAR** (Hollywood, Calif.); **KFCV** (Houston, Tex.); **KFJK** (Bristow, Okla.); **KFLQ** (Little Rock, Ark.); **KFOZ** (Fort Smith, Ark.); **KPPP** (Olympia, Wash.); **KFQL** (Muskogee, Okla.); **KFQV** (Omaha, Nebr.); **KZUY** (Manila, P. I.); **WABD** (Dayton, Ohio); **WCAK** (Houston, Tex.); **WCBK** (St. Petersburg, Fla.); **WDAS** (Worcester, Mass.); **WDBN** (Bangor, Me.); **WEBI** (Salisbury, Md.); **WEV** (Houston, Tex.); **WFAN** (Hutchinson, Minn.); **WGL** (Philadelphia, Pa.); **WIAC** (Galveston, Tex.); **WJAX** (Cleveland, Ohio); **WKAF** (Wichita Falls, Tex.); **WLAL** (Tulsa, Okla.); **WOAE** (Fremont, Nebr.); **WOAR** (Kenosha, Wis.); **WQAQ** (Abilene, Tex.); **WPAC** (Okmulgee, Okla.).

COMMERCIAL AIRSHIP 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, 1924, and to the International List of Radiotelegraph Stations, published by the Berne bureau]

BALBOA (KFBA).—Strike out all particulars.

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, 1924, and to the International List of Radiotelegraph Stations, published by the Berne bureau]

BAR HARBOR, ME. (R. C.).—Loc. O 68° 11' 40"; N 44° 18' 48".
CAPE HATTERAS, N. C. (regular station).—W. l., strike out 1817, add 2254.
CAPE HATTERAS, N. C. (R. C.).—Loc. O 75° 31' 38"; N 35° 14' 22".
CAPE LOOKOUT, N. C.—Call signal changed to NDW; Loc. O 76° 32' 15"; N 34° 36' 13".
EAGLE HARBOR, MICH.—Loc. O 88° 08' 43"; N 47° 27' 53".
EUREKA, CALIF.—Loc. O 124° 16' 33"; N 40° 41' 49".
FOLLY ISLAND, S. C.—Loc. O 79° 53' 14"; N 32° 41' 00".
FORT MOULTRIE, S. C.—Call signal changed to WCAB.
POINT FERMIN, CALIF.—Loc. O 118° 17' 37"; N 33° 42' 19".
 Strike out all particulars of the following-named stations: Fort Barrancas, Fla.;

RADIO SERVICE BULLETIN

11

GOVERNMENT LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS

NAN (Cape Lookout, N. C.), call signal changed to NDW; WZF, call signal changed to WUAB; strike out all particulars following the call signals, NKB, WZA, WZD. Correction of January, 1925 (No. 93) Bulletin: NBD (Bar Harbor, Me.-R. C.) changed to NQC.

GOVERNMENT AIRSHIP 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, 1924, and to the International List of Radiotelegraph Stations, published by the Bureau]

ZR-3 (NERM).—Name changed to Los Angeles (insert on page 89, U. S. L.).
SHEKANDOAH (NERK).—Insert on page 90 (U. S. L.).

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, 1924]

CHICAGO, ILL. (9XO).—Station operated and controlled by Morkrum-Kleinschmidt Corp.
CLIFFWOOD, N. J. (2XF).—Station operated and controlled by Bell Telephone Laboratories.
DEAL BEACH, N. J. (2XJ).—Station operated and controlled by Bell Telephone Laboratories.
EATONTOWN, N. J. (2XAU).—Station operated and controlled by Bell Telephone Laboratories.
GREEN HARBOR, MASS.—near (1XD).—Station operated and controlled by Bell Telephone Laboratories.
NEW YORK, N. Y.—portable (2XAV).—Station operated and controlled by Bell Telephone Laboratories.
NEW YORK, N. Y. (2XB).—Station operated and controlled by Bell Telephone Laboratories.
OCEAN BEACH, N. J. (2XG).—Station operated and controlled by Bell Telephone Laboratories.
STOCKBRIDGE, MASS. (1XU).—Changed to Pittsfield, Mass., 112 High Street.
SCHENECTADY, N. Y. (2XQ).—Station operated and controlled by Union College Radio Club.
Strike out all particulars of the following-named stations: Detroit, Mich. (8XBT); Hanover, N. H. (1YB); Houston, Tex. (5XAN); Lamon, Iowa (9YO); New York, N. Y. (2XO); Portland, Oreg. (7YG); Seattle, Wash. (7XAA).

MISCELLANEOUS

Stations broadcasting market or weather reports, music, concerts, lectures, etc., alphabetically by call signals

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
KDKA	East Pittsburgh, Pa.	Westinghouse Electric & Manufacturing Co.	1,000	309.1	870
KDLR	Devils Lake, N. Dak.	Radio Electric Co.	5	231	1,300
KDFM	Cleveland, Ohio.	Westinghouse Electric & Manufacturing Co.	500	250	1,200
KDPT	San Diego, Calif.	Southern Electrical Co.	50	244	1,230
KDYL	Salt Lake City, Utah.	Newhouse Hotel	50	305.0	990
KDYM	San Diego, Calif.	Savoy Theater	100	280	1,070
KDZB	Bakersfield, Calif., 1402 Twentieth Street.	Frank E. Siefert	100	240	1,250
KDZE	Seattle, Wash.	Rhodes Department Store	100	270	1,110
KFAB	Lincoln, Nebr.	Nebraska Buick Auto Co.	200	240	1,250
KFAD	Phoenix, Ariz.	McArthur Brothers Mercantile Co.	100	360	833
KFAE	Pullman, Wash.	State College of Washington	500	333.1	900

*Stations broadcasting market or weather reports, music, concerts, lectures, etc.,
alphabetically by call signals—Continued*

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
KFAN	Moscow, Idaho	University of Idaho	50	230	1,300
KFAU	Boise, Idaho	Boise High School	500	275	1,060
KFAW	Santa Ana, Calif.	The Radio Den	10	280	1,070
KFBB	Havre, Mont.	F. A. Buttrey & Co.	50	275	1,090
KFBC	San Diego, Calif., 5038 Cliff Place	W. K. Arvill	5	278	1,080
KFBG	Tacoma, Wash.	First Presbyterian Church	50	250	1,200
KFBK	Sacramento, Calif., 607 K Street	Kimball-Upton Co.	100	283	1,050
KFBL	Everett, Wash., 2814 Rucker Avenue	Leese Brothers	15	224	1,340
KYBU	Laramie, Wyo., 301 Thornburg Street	Bishop N. S. Thomas	50	270	1,110
KFCB	Phoenix, Ariz.	Nielsen Radio Supply Co.	10	238	1,260
KFCF	Holena, Mont.	First Congregational Church	10	248	1,210
KFCG	Walla Walla, Wash., 707 Baker Building	Frank A. Moore	100	235	1,170
KFCL	Los Angeles, Calif.	Leslie E. Rice (Los Angeles Union Stock Yards)	500	236	1,270
KFCP	Ogden, Utah, 2421 Jefferson Avenue	Ralph W. Flygare	10	360	833
KFCY	Le Mars, Iowa	Western Union College	50	252	1,190
KFCZ	Omaha, Nebr.	Omaha Central High School	50	238	1,150
KFDD	Boise, Idaho	St. Michael's Cathedral	10	275	1,080
KFDH	Tucson, Ariz.	University of Arizona	50	258	1,100
KFDJ	Corvallis, Oreg.	Oregon Agricultural College	50	254	1,180
KFDL	Denver, Colo., 1629 California Street	Knight-Campbell Music Co.	5	226	1,330
KFDM	Beaumont, Tex.	Magnolia Petroleum Co.	800	315.6	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	275	1,100
KFDZ	Minneapolis, Minn.	Harry O. Iverson, 2510 Thomas Avenue South	5	231	1,300
KFEC	Portland, Oreg.	Meyer & Frank Co.	50	248	1,210
KFEL	Denver, Colo., 1435 Welton Street	Winner Radio Corporation	50	254	1,180
KFEQ	Oak, Nebr.	Serogin & Co. Bank	100	268	1,130
KFER	Fort Dodge, Iowa	Auto Electric Service Co.	10	231	1,300
KFEX	Minneapolis, Minn.	Augsburg Seminary	100	281	1,150
KFEY	Kellogg, Idaho	Bunker Hill & Sullivan Mining & Concentrating Co.	10	233	1,290
KFFP	Moberly, Mo.	First Baptist Church	50	266	1,130
KFFR	Sparks, Nev.	Nevada State Journal	10	250	1,200
KFFV	Lamoni, Iowa	Graceland College	100	250	1,200
KFFY	Alexandria, La.	Louisiana College	50	275	1,090
KFGC	Baton Rouge, La.	Louisiana State University	100	268	1,130
KFGD	Chickasha, Okla.	Oklahoma College for Women	100	282	1,190
KFGH	Stanford University, Calif.	Leland Stanford Junior University	500	273	1,100
KFGQ	Boone, Iowa	Crary Hardware Co.	10	226	1,330
KFGX	Orange, Tex.	First Presbyterian Church	600	250	1,200
KFHA	Gunnison, Colo.	Western State College of Colorado	50	252	1,180
KFHJ	Santa Barbara, Calif.	Fallon & Co.	100	360	833
KFHL	Oskaloosa, Iowa	Penn College	10	240	1,250
KFHR	Seattle, Wash.	Star Electric & Radio Co.	250	263	1,140
KFI	Los Angeles, Calif.	Earl C. Anthony (Inc.)	1,500	467	642
KFIF	Portland, Oreg.	Benson Polytechnic Institute	100	248	1,210
KFIO	Spokane, Wash.	North Central High School	50	265	1,130
KFIQ	Yakima, Wash.	First Methodist Church	50	256	1,170
KFIU	Juneau, Alaska	Alaska Electric Light & Power Co.	10	220	1,350
KFIZ	Fondulac, Wis.	Daily Commonwealth & Siefert Radio Corporation	100	273	1,100
KFJB	Marshalltown, Iowa	Marshall Electric Co.	10	348	1,210
KFJP	Oklahoma, Okla.	National Radio Manufacturing Co.	225	261	1,160
KFJJ	Astoria, Oreg.	Liberty Theater	10	252	1,190
KFJM	Grand Forks, N. Dak.	University of North Dakota	100	278	1,080
KFJR	Portland, Oreg.	Ashley C. Dixon & Son	5	263	1,140
KFJX	Cedar Falls, Iowa	Iowa State Teachers College	50	258	1,160
KFJY	Fort Dodge, Iowa	Tunwall Radio Co.	50	246	1,220
KFJZ	Fort Worth, Tex.	Texas National Guard, One hundred and twelfth Cavalry	20	254	1,180
KFKA	Greeley, Colo.	Colorado State Teachers College	50	273	1,100

RADIO SERVICE BULLETIN

13

*Stations broadcasting market or weather reports, music, concerts, lectures, etc.,
alphabetically by call signals—Continued*

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
KFKQ	Conway, Ark.	Conway Radio Laboratories.	100	250	1,200
KFKU	Lawrence, Kans.	University of Kansas.	500	275	1,090
KFKV	Butte, Mont., 3230 Richardson Street.	Frank F. Gray.	50	283	1,060
KFKX	Hastings, Nebr.	Westinghouse Electric & Manufacturing Co.	1,000	288.3	1,040
KFLA	Butte, Mont., 1321 West Platinum Street.	Abner R. Wilson.	5	258	1,160
KFLB	Menominee, Mich.	Signal Electric Manufacturing Co.	50	248	1,210
KFLE	Denver, Colo.	National Educational Service.	25	268	1,130
KFLP	Cedar Rapids, Iowa, 1942 South Sixth Street.	Everette M. Foster.	20	265	1,170
KFLR	Albuquerque, N. Mex.	University of New Mexico.	100	254	1,180
KFLC	San Benito, Tex.	San Benito Radio Club.	15	235	1,270
KFLV	Rockford, Ill.	Swedish Evangelical Mission Church.	100	229	1,310
KFLX	Galveston, Tex., 1214 Fortieth Street.	George R. Clough.	10	240	1,250
KFLZ	Atlantic, Iowa.	Atlantic Automobile Co.	100	273	1,100
KFMB	Little Rock, Ark.	Christian Churches of Little Rock.		254	1,190
KFMQ	Fayetteville, Ark.	University of Arkansas.	500	275	1,090
KFMR	Siqua City, Iowa.	Morningside College.	10	261	1,170
KFMT	Minneapolis, Minn., 2219 North Bryant Avenue.	George W. Young.	100	263	1,140
KFMW	Houghton, Mich., 127 Blanche Street.	M. G. Sateren.	50	266	1,130
KFMX	Northfield, Minn.	Carleton College.	750	336.9	890
KFNF	Shenandoah, Iowa.	Henry Field Seed Co.	500	266	1,130
KFNG	Coldwater, Miss.	Wooten's Radio Shop.	10	254	1,180
KFNJ	Warrensburg, Mo.	Central Missouri State Teachers College.	50	234	1,290
KFNL	Paso Robles, Calif.	Radio Broadcast Association (Union High School).	10	240	1,250
KFNV	Santa Rosa, Calif.	L. A. Drake Battery & Radio Supply Shop.	5	227	1,320
KFNY	Helena, Mont., 40 Olive Street.	V. Kemp Roberts.	50	248	1,210
KFNZ	Burlingame, Calif.	Royal Radio Co.	10	231	1,300
KFOA	Seattle, Wash.	Rhodes Department Store.	800	450.2	666
KFOC	Whittier, Calif.	First Christian Church.	100	236	1,270
KFOD	Wallace, Idaho.	The Radio Shop.	10	224	1,340
KFOJ	Moberly, Mo.	Moberly High School.	5	246	1,220
KFOI	Marengo, Iowa.	Leslie M. Schaffbuch.	10	234	1,280
KFON	Long Beach, Calif.	Echophone Radio Shop.	100	234	1,280
KFOO	Salt Lake City, Utah.	Latter Day Saints University.	5	261	1,150
KFOP	David City, Nebr.	David City Tire & Electric Co.	20	226	1,330
KFOT	Wichita, Kans.	College Hill Radio Club (College Hill Methodist Church).	50	231	1,300
KFOU	Richmond, Calif.	Hommel Manufacturing Co.	100	254	1,190
KFOX	Omaha, Nebr.	Technical High School.	100	248	1,210
KFOY	St. Paul, Minn., 375 Robert Street.	Beacon Radio Service.	50	252	1,190
KFPG	Los Angeles, Calif., 5118 Maywood Avenue.	Oliver S. Garretson.	10	238	1,260
KFPH	Salt Lake City, Utah, 992 Lake Street.	Harold C. Mailander.	50	242	1,240
KFPL	Dublin, Tex.	C. C. Baxter.	15	252	1,190
KFPM	Greenville, Tex.	New Furniture Co.	10	242	1,210
KFPR	Los Angeles, Calif.	Los Angeles County Forestry Department.	500	231	1,300
KFPT	Salt Lake City, Utah, 505 Templeton Building.	Radio Service Corporation of Utah.	500	251	1,150
KFPV	San Francisco, Calif., 219 Natoma Street.	Heintz & Kahlmoos.	50	236	1,270
KFPW	Carterville, Mo.	St. Johns Church.	20	268	1,120
KFPX	Pine Bluff, Ark.	First Presbyterian Church.	100	242	1,240
KFPY	Spokane, Wash.	Synnos Investment Co.	100	266	1,130
KFQA	St. Louis, Mo., 5539 Page Avenue.	The Principia.	50	261	1,150
KFQB	Fort Worth, Tex.	Searchlight Publishing Co.	100	254	1,180
KFQC	Taft, Calif.	Kidd Brothers Radio Shop.	100	231	1,300
KFQD	Anchorage, Alaska.	Chevin Supply Co.	100	260	1,070
KFQE	Colorado Springs, Colo.	Dickenson-Henry Radio Laboratories.	10	224	1,340
KFQG	Los Angeles, Calif., Armory, Ex-	Southern California Radio	50	229	1,310

Stations broadcasting market or weather reports, music, concerts, lectures, etc., alphabetically by call signals—Continued

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
KFQM	Austin, Tex.	Texas Highway Bulletin	100	268	1,120
KFGN	Portland, Oreg.	Third Baptist Church	5	283	1,060
KFQI	Iowa City, Iowa, 908 East College Street.	George S. Carson, Jr.	10	225	1,340
KFQR	Oklahoma, Okla., 625 East Sixth Street.	Walter L. Ellis	50	201.7	1,430
KFQT	Denison, Tex.	Texas National Guard, Thirty-sixth Signal Company.	10	252	1,190
KFQU	Holy City, Calif.	W. R. Riker	100	234	1,280
KFQW	North Bend, Wash.	C. F. Katerin Photo Radio & Electric Shop.	50	215.7	1,390
KFQX	Seattle, Wash., 310 Green Building.	Alfred H. Hubbard	500	233	1,290
KFQY	Belden, Nebr.	Farmers State Bank	10	273	1,100
KFQZ	Hollywood, Calif.	Tuft Radio Co.	250	240	1,250
KFRB	Beaville, Tex.	Hell Bros.	250	243	1,210
KFRD	San Francisco, Calif.	Radioart Studio, Whitecomb Hotel.	50	278	1,080
KFRF	Alexandria, La., 222 Florence Avenue.	W. R. Brown	10	242	1,240
KFRH	Grafton, N. Dak.	The Radio Shop	10	288	1,120
KFRJ	Conway, Ark.	Guy Simmons, Jr.	10	250	1,200
KFRK	Grand Forks, N. Dak.	Men's Club of the First Presbyterian Church.	10	240	1,260
KFRM	Fort Sill, Okla.	Lieut. James P. Beland	50	263	1,140
KFRN	Hanford, Calif.	M. Lawrence Short	5	234	1,340
KFRP	Fort Worth, Tex., 1000 Eighth Avenue.	Curtis Printing Co.	50	246	1,220
KFRQ	Redlands, Calif.	Trinity Episcopal Church	10	211	1,420
KFRR	Portland, Oreg.	Radio Market Service Co.	5	213	1,410
KFRS	Bristow, Okla.	Ethical Studios	500	295.9	1,010
KFRW	Olympia, Wash.	United Churches of Olympia	100	220	1,350
KFRX	Pullman, Wash., Route 2.	J. Gordon Klemzard	10	217	1,380
KFRY	State College, N. Mex.	New Mexico College of Agriculture & Mechanic Arts.	50	265	1,130
KFRZ	Hartington, Nebr.	Electric Shop	15	222	1,320
KFSG	Los Angeles, Calif., 1100 Glendale Boulevard.	Echo Park Evangelistic Association.	500	278	1,080
KFSY	Helena, Mont., 413½ North Beale Street.	Van Blaricom Co.	10	248	1,210
KFUJ	Breckenridge, Minn.	Hopper Plumbing & Heating Co.	50	242	1,240
KFUL	Galveston, Tex.	Thomas Goggan & Bros. Music Co.	10	258	1,160
KFUM	Colorado Springs, Colo., Kiowa and Cascade Streets.	W. D. Corley	100	242	1,240
KFUO	St. Louis, Mo.	Concordia College	600	545.1	550
KFUP	Denver, Colo.	Fitzsimons General Hospital	50	234	1,280
KFUQ	San Francisco, Calif., 1380 Bush Street.	Julius Brunton & Sons Co.	5	234	1,280
KFUR	Garden, Utah, 420 Twenty-fifth Street.	H. W. Peery and C. Redfield	50	224	1,340
KFUS	Oakland, Calif., 529 Twenty-eighth Street.	Louis L. Sherman	50	223	1,290
KFUT	Salt Lake City, Utah	University of Utah	100	261	1,150
KFUV	San Leandro, Calif.	Colburn Radio Laboratories	100	224	1,340
KFVW	Springfield, Mo., 236 West State Street.	G. Pearson Ward	10	232	1,190
KFWX	Moberly, Mo., 417 East Carpenter Street.	Karl W. Lewis	10	235	1,250
KFCY	Butte, Mont., 5 South Excelsior Avenue.	Irvine H. Bouchard	5	254	1,180
KGB	Tacoma, Wash.	Tacoma Daily Ledger	50	210	1,200
KGO	Oakland, Calif.	General Electric Co.	2,000	256.8	1,000
KGU	Honolulu, Hawaii, 236 South King Street.	Marion A. Mulrooney	500	360	833
KGW	Portland, Oreg.	Portland Morning Oregonian	500	485.1	610
KGY	Lucy, Wash.	St. Martins College	5	295	1,250
KHJ	Los Angeles, Calif.	Times-Mirror Co.	500	404.1	742
KHQ	Seattle, Wash.	Louis Wassner (Excelsior Motorcycle & Bicycle Co.)	100	273	1,100
KJQ	Stockton, Calif.	C. O. Gould	5	273	1,100
KJR	Seattle, Wash., 1328 Sixth Avenue.	Northwest Radio Service Co.	50	324.4	780
KJS	Los Angeles, Calif., 536 South Main Street.	Bible Institute of Los Angeles	500	293.9	1,020

RADIO SERVICE BULLETIN

15

*Stations broadcasting market or weather reports, music, concerts, lectures, etc.,
alphabetically by call signals—Continued*

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
KLS	Oakland, Calif., 2301 Telegraph Avenue.	Warner Bros. Radio Supplies Co.	250	860	832
KLX	Oakland, Calif.	Tribune Publishing Co. (Oakland Tribune).	500	509.9	588
KLZ	Denver, Colo., 1534 Glenham Place.	Reynolds Radio Co.	250	283	1,090
KMJ	Fresno, Calif.	San Joaquin Light & Power Corporation.	50	248	1,210
KMO	Tacoma, Wash.	Love Electric Co.	10	250	1,200
KNT	Kukak Bay, Alaska, P. O. Box 51, Aberdeen, Wash.	Walter Hemrich	100	263	1,140
KNX	Los Angeles, Calif.	Los Angeles Express	500	335.9	890
KOA	Denver, Colo., 1370 Krameria Street.	General Electric Co.	1,000	322.4	950
KOB	State College, N. Mex.	New Mexico College of Agriculture & Mechanic Arts.	500	348.6	860
KOP	Detroit, Mich.	Detroit police department.	500	278	1,090
KPO	San Francisco, Calif.	Hale Bros.	500	429.5	698
KPPC	Pasadena, Calif.	Pasadena Presbyterian Church	50	229	1,310
KQV	Pittsburgh, Pa.	Douglas-Hill Electric Co.	500	275	1,090
KQW	San Jose, Calif.	Charles D. Herrold	50	240	1,250
KRE	Berkeley, Calif.	Berkeley Daily Gazette	50	275	1,090
KSAC	Manhattan, Kans.	Kansas State Agricultural College.	500	340.7	880
KSD	St. Louis, Mo.	Post-Dispatch	500	545.1	550
KTHS	Hot Springs, Ark.	New Arlington Hotel Co.	800	374.8	800
KTW	Seattle, Wash.	First Presbyterian Church	750	350	833
KUO	San Francisco, Calif.	Examiner Printing Co.	150	246	1,220
KWG	Stockton, Calif.	Portable Wireless Telephone Co.	50	360	833
KWH	Los Angeles, Calif.	Los Angeles Examiner	250	360	833
KYQ	Honolulu, Hawaii, Fort and Beretania Streets.	The Electric Shop	100	270	1,110
KYW	Chicago, Ill., 72 West Adams Street.	Westinghouse Electric & Manufacturing Co.	1,500	535.4	560
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	360	833
KZRQ	Manila, P. I., Manila Hotel	Far Eastern Radio (Inc.)	500	222	1,350
WAAB	New Orleans, La., 137 South Patrick Street.	Valdemar Jensen	100	268	1,120
WAAC	New Orleans, La.	Tulane University	100	275	1,090
WAAD	Cincinnati, Ohio.	Ohio Mechanics Institute	25	258	1,180
WAAF	Chicago, Ill.	Chicago Daily Drivers Journal	200	278	1,080
WAAM	Newark, N. J., 1 Bond Street	I. R. Nelson Co.	250	263	1,140
WAAN	Columbia, Mo.	University of Missouri	50	254	1,180
WAAW	Omaha, Nebr.	Omaha Ordin Exchange	500	278	1,080
WABA	Lake Forest, Ill.	Lake Forest University	100	227	1,320
WABB	Harrisburg, Pa.	Harrisburg Sporting Goods Co.	10	266	1,180
WABH	Sandusky, Ohio.	Lake Shore Tire Co.	10	240	1,250
WABI	Bangor, Me.	Bangor Railway & Electric Co.	100	240	1,250
WABL	Storrs, Conn.	Connecticut Agricultural College	100	275	1,090
WABN	Essex, Mich.	F. E. Doherty Automotive & Radio Equipment Co.	20	261	1,150
WABN	La Crosse, Wis.	Ott Radio (Inc.)	500	244	1,220
WABO	Rochester, N. Y.	Lake Avenue Baptist Church	100	278	1,080
WABQ	Haverford, Pa.	Haverford College Radio Club	50	261	1,150
WABR	Tellico, Ohio.	Scott High School	50	263	1,140
WABU	Camden, N. J.	Victor Talking Machine Co.	50	226	1,330
WABW	Wooster, Ohio.	College of Wooster	20	206.8	1,450
WABX	Mount Clemens, Mich. (near) 1830 Ponohscot Building, Detroit, Mich.	Henry B. Joy	250	254	1,180
WABY	Philadelphia, Pa., 815 Kimball Street.	John Magaldi, jr.	50	242	1,240
WABZ	New Orleans, La.	Coliseum Place Baptist Church	50	293	1,140
WAHQ	Richmond Hill, N. Y.	A. H. Grebe & Co.	500	315.6	950
WAIT	Tannston, Mass.	A. H. White & Co.	10	229	1,310
WBAA	West Lafayette, Ind.	Purdue University	250	273	1,100
WBAN	Peterson, N. J., 193 Ellison Street.	Wireless Phone Corporation	100	264	1,230
WBAO	Decatur, Ill.	James Millikin University	100	275	1,090
WBAP	Fort Worth, Tex.	Wortham-Carter Publishing Co. (Star Telegram).	1,000	475.9	630
WBAV	Columbus, Ohio, 146 North Third Street.	Erner & Hopkins Co.	500	228.9	1,020
WBAX	Wilkes-Barre, Pa., 65 Guildersleeve	John H. Stenger, jr.	20	256	1,170

Stations broadcasting market or weather reports, music, concerts, lectures, etc., alphabetically by call signals—Continued

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
WBBA	Newark, Ohio.....	Plymouth Congregational Church.....	20	226	1,330
WBBD	Reading, Pa., Fourth and Walnut Streets.....	Barbey Battery Service.....	50	234	1,280
WBBG	Mattapoisett, Mass.....	Irving Vermilya.....	500	248	1,210
WBBH	Port Huron, Mich.....	J. Irving Bell.....	50	255.4	1,460
WBBL	Richmond, Va.....	Grace Covenant Church.....	100	220	1,310
WBBM	Chicago, Ill., 7421 Sheridan Road.....	H. Leslie Atlas.....	200	228	1,330
WBBP	Petoskey, Mich.....	Petoskey High School.....	5-100	214.2	1,400
WBBR	Rossville, N. Y., 124 Columbia Heights, Brooklyn, N. Y.....	Peoples Pulpit Association.....	500	273	1,100
WBBS	New Orleans, La.....	First Baptist Church.....	50	252	1,190
WBBU	Monmouth, Ill.....	Jenks Motor Sales Co.....	10	224	1,340
WBBV	Johnstown, Pa.....	Johnstown Radio Co.....	5	248	1,210
WBBW	Norfolk, Va.....	Ruffner Junior High School.....	50	222	1,350
WBBY	Charleston, S. C.....	Washington Light Infantry.....	10	268	1,120
WBBZ	Indianapolis, Ind., 233 Iowa Street.....	Noble B. Watson.....	50	238	1,260
WBCN	Chicago, Ill., 728 West Sixty-fifth Street.....	Foster & McDonnell.....	500	266	1,130
WBDC	Grand Rapids, Mich.....	Baxter Laundry Co.....	50	256	1,170
WBES	Takoma Park, Md.....	Bliss Electrical School.....	100	222	1,350
WBRE	Wilkes-Barre, Pa., 17 West Northampton Street.....	Baltimore Radio Exchange.....	10	231	1,300
WBS	Newark, N. J., 325 Central Avenue.....	D. W. May.....	50	360	833
WBT	Charlotte, N. C., 1116 Realty Building.....	Southern Radio Corporation.....	250	275	1,090
WBZ	Springfield, Mass.....	Westinghouse Electric & Manufacturing Co.....	1,500	331.1	900
WCAD	Canton, N. Y.....	St. Lawrence University.....	250	263	1,140
WCAE	Pittsburgh, Pa.....	Kaufmann & Beer Co.....	500	461.3	650
WCAG	New Orleans, La., 2813 Calhoun Street.....	Clyde R. Randall.....	50	268	1,120
WCAH	Columbus, Ohio, 321 West Tenth Avenue.....	Entrekin Electric Co.....	200	296	1,130
WCAJ	University Place, Nebr.....	Nebraska Wesleyan University.....	500	275	1,090
WCAK	Northfield, Minn.....	St. Olaf College.....	500	336.9	890
WCAO	Baltimore, Md., 319 North Charles Street.....	Sanders & Stayman Co.....	50	275	1,090
WCAP	Washington, D. C.....	Chesapeake & Potomac Telephone Co.....	500	468.5	640
WCAR	San Antonio, Tex., 324 North Navarro Street.....	Southern Radio Corporation of Texas.....	100	263	1,140
WCAT	Rapid City, S. Dak.....	South Dakota State School of Mines.....	50	240	1,250
WCAU	Philadelphia, Pa., 1938 Market Street.....	Durham & Co.....	500	278	1,080
WCAV	Little Rock, Ark.....	J. C. Dice Electric Co.....	10	263	1,140
WCAX	Burlington, Vt.....	University of Vermont.....	100	250	1,200
WCAY	Milwaukee, Wis.....	Milwaukee Civic Broadcasting Association, Hotel Antlers.....	250	296	1,130
WCAZ	Carthage, Ill.....	Carthage College.....	50	248	1,220
WCBA	Allentown, Pa.....	Charles W. Helmbach Camera-graph Repair Shop.....	10	254	1,180
WCBC	Ann Arbor, Mich.....	University of Michigan.....	200	229	1,310
WCBD	Zion, Ill.....	Wilbur G. Voliva.....	500	344.6	870
WCBE	New Orleans, La., 202 Baronne Street.....	Uhalt Bros. Radio Co.....	5	263	1,140
WCBG	Pascagoula, Miss. (portable).....	Howard S. Williams.....	10	268	1,120
WCBH	Oxford, Miss. (near).....	University of Mississippi.....	10	242	1,240
WCBJ	Bemis, Tenn.....	Nicoll, Duncan & Rush.....	150	240	1,250
WCBK	Jennings, La.....	J. C. Muns.....	10	244	1,230
WCBL	Houlton, Me.....	Northern Radio Manufacturing Co.....	50	266	1,130
WCBM	Baltimore, Md.....	Hotel Chateau.....	50	229	1,310
WCBO	Memphis, Tenn., 189 Union Avenue.....	Radio Shop (Inc.).....	20	250	1,200
WCBQ	Nashville, Tenn.....	First Baptist Church.....	100	236	1,270
WCBR	Providence, R. I. (portable), 42 Doyle Avenue.....	Charles H. Messter.....	30	205.4	1,460
WCBT	Worcester, Mass.....	Clark University.....	250	238	1,260
WCBU	Arnold, Pa.....	Arnold Wireless Supply Co.....	50	220	1,340
WCBV	Tullahoma, Tenn.....	Tullahoma Radio Club.....	10	252	1,190
WCBW	Mass. Co.....	George D. Rankin.....	10	252	1,190

RADIO SERVICE BULLETIN

17

Stations broadcasting market or weather reports, music, concerts, lectures, etc.,
alphabetically by call signals—Continued

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
WCBY	Buck Hill Falls, Pa.	Forks Electrical Shop	10	268	1,120
WCBZ	Chicago Heights, Ill.	Coppotelli Bros. Music House	50	248	1,210
WCCO	Minneapolis, Minn.	Washburn-Crosby Co.	500	416.4	725
WCEE	Elgin, Ill. (near), R. F. D. 6, Box 75	Charles E. Erbstein	500	375.1	1,090
WCK	St. Louis, Mo.	Stix, Baer & Fuller Dry Goods Co.	100	273	1,100
WCM	Austin, Tex.	Texas Markets & Warehouse Department.	250	268	1,120
WCTS	Worcester, Mass.	C. T. Sherer Co.	100	268	1,120
WCX	Detroit, Mich.	Detroit Free Press	500	516.9	580
WDAE	Tampa, Fla.	Tampa Daily News	250	373	1,140
WDAF	Kansas City, Mo.	Kansas City Star	500	305.6	820
WDAQ	Amurillo, Tex.	J. Laurance Martin	100	263	1,140
WDAH	El Paso, Tex.	Trinity Methodist Church (South).	50	268	1,120
WDAY	Fargo, N. Dak., 119 Broadway	Radio Equipment Corporation	50	244	1,230
WDBC	Lancaster, Pa.	Kirk, Johnson & Co.	50	258	1,180
WDD	Martinsburg, W. Va.	Heaman E. Burns	5	254	1,180
WDBE	Atlanta, Ga., 22 Luckie Street	Gilham-Schoen Electric Co.	100	278	1,080
WDBF	Youngstown, Ohio, 202 West Federal Street	Robert G. Phillips	50	222	1,350
WDBI	St. Petersburg, Fla.	Radio Specialty Co.	20	226	1,330
WDBJ	Roanoke, Va.	Richardson-Wayland Electrical Corporation.	50	226	1,310
WDBO	Winter Park, Fla.	Rollins College	50	240	1,250
WDHP	Superior, Wis.	Superior State Normal School	50	251	1,150
WDBQ	Salem, N. J.	Morton Radio Supply Co.	50	334	1,280
WDBR	Boston, Mass.	Tremont Temple Baptist Church	100	256	1,170
WDBS	Dayton, Ohio, 39 East Third Street	S. M. K. Radio Corporation	5	278	1,090
WDBT	Hattiesburg, Miss.	Taylor's Book Store	10	250	1,270
WDBW	Columbia, Tenn.	The Radio Den	20	268	1,120
WDRX	New York, N. Y., 138 Dyckman Street	Otto Baur	5	233	1,290
WDBY	Chicago, Ill.	North Shore Congregational Church	500	258	1,160
WDBZ	Kingston, N. Y.	Boy Scouts of America	5	233	1,290
WDM	Washington, D. C.	Church of the Covenant	50	234	1,280
WDWF	Cranston, R. I.	Dutree W. Flint	500	440.9	680
WDZ	Tuscola, Ill.	James L. Bush	10-100	278	1,080
WEAA	Flint, Mich.	Frank D. Fallain	50	234	1,280
WEAF	New York, N. Y.	American Telephone & Telegraph Co.	2,000	491.5	610
WEAH	Wichita, Kans.	Wichita Board of Trade	50	268	1,120
WEAI	Ithaca, N. Y.	Cornell University	500	254	1,180
WEAJ	Vermilion, S. Dak.	University of South Dakota	100	278	1,080
WEAM	North Plainfield, N. J.	Borough of North Plainfield	250	261	1,130
WEAN	Providence, R. I.	Shepard Co.	100	270	1,110
WEAO	Columbus, Ohio	Ohio State University	500	293.9	1,020
WEAP	Mobile, Ala.	Mobile Radio Co.	100	263	1,140
WEAR	Cleveland, Ohio	Goodyear Tire & Rubber Co.	1,000	352.4	770
WEAU	Sioux City, Iowa	Davidson Bros. Co.	100	275	1,090
WEAY	Houston, Tex.	Iris Theater	500	360	833
WEBA	Highland Park, N. J.	The Electric Shop	15	233	1,290
WEBC	Superior, Wis., 1225 Tower Street	Walter C. Bridges	10	242	1,240
WEBT	Anderson, Ind.	Electrical Equipment & Service Co.	10	246	1,220
WEBE	Cambridge, Ohio, 319 Wall Avenue	Roy W. Waller	10	234	1,280
WEBH	Chicago, Ill.	Edgewater Beach Hotel Co.	1,000	370.2	810
WEBJ	New York, N. Y.	Third Avenue Railway Co.	500	273	1,100
WEBK	Grand Rapids, Mich., 211 Diamond Avenue, SE.	Grand Rapids Radio Co.	20	242	1,240
WEBL	United States (portable), Woolworth Building.	R. C. A.	100	226	1,330
WEBM	do	do	100	226	1,330
WEBP	New Orleans, La., Spanish Fort Amusement Park	E. Budd Peddicord	50	280	1,070
WEBQ	Harrisburg, Ill., 70 West Robinson Street	Tate Radio Co.	10	226	1,330
WEBR	Buffalo, N. Y., 54 Niagara Street	H. H. Howe ¹	50	244	1,230
WEBS	Dayton, Ohio	Dayton Co., wative Industrial High School	5	256	1,170
WERW	Beloit, Wis.	Beloit College	500	268	1,120

Stations broadcasting market or weather reports, music, concerts, lectures, etc.,
alphabetically by call signals—Continued

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
WEZY	Rosindale, Mass.	Hobart Radio Co.	10	226	1,330
WEBZ	Savannah, Ga., 11 East York Street.	Savannah Radio Corporation.	5	294	1,280
WEEI	Boston, Mass.	Edison Electric Illuminating Co. of Boston.	500	475.9	630
WEMO	Berrien Springs, Mich.	Emmanuel Missionary College.	500	285.5	1,060
WEW	St. Louis, Mo.	St. Louis University.	100	248	1,210
WFAA	Dallas, Tex.	Dallas News and Dallas Journal.	500	475.9	630
WFAM	St. Cloud, Minn.	Times Publishing Co.	10	273	1,100
WFAV	Lincoln, Nebr.	University of Nebraska.	250	275	1,090
WFBV	Eureka, Ill.	Eureka College.	100	240	1,250
WFBB	Knoxville, Tenn.	First Baptist Church.	50	250	1,200
WFBC	Philadelphia, Pa.	Gettysburg Baptist Church.	5	234	1,280
WFBD	Seymour, Ind.	John Van de Walle.	20	226	1,330
WFBE	Altoona, Pa.	William F. Gable Co.	100	278	1,080
WFBG	New York, N. Y., Hotel Majestic.	Concourse Radio Corporation.	500	275	1,100
WFBH	Camden, N. J., 521 Market Street.	Galvin Radio Supply Co.	100	238	1,270
WFBJ	Collegeville, Minn.	St. John's University.	50	236	1,270
WFBK	Hanover, N. H.	Dartmouth College.	100	256	1,170
WFBL	Syracuse, N. Y.	Onondaga Hotel.	100	232	1,190
WFBM	Indianapolis, Ind., 2 West Washington Street.	Merchant Heat & Light Co.	250	258	1,120
WFBN	Bridgewater, Mass.	Radio Sales & Service Co.	200	226	1,330
WFBQ	Raleigh, N. C.	Wynne Radio Co.	50	252	1,100
WFBR	Baltimore, Md., Fifth Regiment Armory.	Fifth Infantry Maryland National Guard.	100	254	1,180
WFRT	Pitman, N. J.	Gloucester County Civic League.	50	231	1,300
WFBY	Fort Benjamin Harrison, Ind.	U. S. Army Fifth Corps Area.	100	258	1,160
WFBZ	Galesburg, Ill.	Knox College.	10	254	1,190
WFI	Philadelphia, Pa.	Strawbridge & Clothier.	500	394.5	780
WGAL	Lancaster, Pa.	Lancaster Electric Supply & Construction Co.	10	248	1,210
WGAQ	Shreveport, La.	W. G. Patterson.	150	263	1,140
WGAZ	South Bend, Ind.	South Bend Tribune.	250	275	1,090
WGBA	Baltimore, Md.	Jones Electric & Radio Manufacturing Co.	50	254	1,180
WGBB	Freeport, N. Y.	Harry H. Carman.	100	244	1,240
WQBC	Memphis, Tenn.	First Baptist Church.	10	266	1,130
WQBF	Evansville, Ind., 307 South Seventh Street.	Finke Furniture Co.	50	217.3	1,380
WQBG	Thrifton, Va.	Breitenbach's Radio Shop.	100	226	1,330
WQBH	Fall River, Mass. (portable).	Fall River Herald Publishing Co.	10	202.7	1,430
WQBI	Seranton, Pa., 606 Linden Street.	Frank S. Megargee.	10	240	1,250
WQBK	Johnstown, Pa.	Lawrence W. Campbell (Fontaine Chateau).	5	248	1,210
WQBM	Providence, R. I., 92 Dover Street.	Theodore N. Suaty.	5	234	1,280
WQBN	La Salle, Ill., 728 First Street.	Hub Radio Shop.	10	256	1,170
WQBO	San Juan, P. R., 167 Ponce Leon Avenue.	Dr. Roses Artan.	10	275	1,090
WQBQ	Menomonic, Wis.	Stout Institute.	20	234	1,280
WQBS	New York, N. Y., Thirty-third Street and Sixth Avenue.	Gimbal Bros.	1,000	315.0	950
WGBT	Greenville, S. C.	Furman University.	15	336	1,270
WGI	Medford Hillside, Mass.	American Radio & Research Corporation.	100	261	1,150
WGN	Chicago, Ill.	The Tribune (Drake Hotel).	1,000	370.2	810
WGR	Buffalo, N. Y., 1738 Elmwood Avenue.	Federal Telephone Manufacturing Corporation.	750	319	940
WGST	Athens, Ga.	Georgia School of Technology.	500	270	1,110
WGY	Schenectady, N. Y.	General Electric Co.	1,800	379.5	760
WHIA	Madison, Wis.	University of Wisconsin.	500	535.4	560
WHAD	Milwaukee, Wis.	Marquette University.	500	275	1,090
WHAG	Cincinnati, Ohio.	University of Cincinnati.	100	253	1,200
WHAM	Rochester, N. Y.	University of Rochester.	100	278	1,080
WHAR	Atlantic City, N. J.	Seaside Hotel.	100	275	1,090
WHAS	Louisville, Ky.	Courier-Journal & Louisville Times.	500	391.8	750
WHAU	Wilmington, Del.	Wilmington Electrical Specialty Co.	100	260	1,130
WHAZ	Troy, N. Y.	Rensselaer Polytechnic Institute.	500	379.5	790
WHB	Kansas City, Mo.	Sweeney School Co.	500	365.6	820
WHBA	Oil City, Pa.	Shaffer Music House.	20	250	1,200
WHBR	Stoupeau Point, Wis.	Behal's Store.	50	240	1,250

RADIO SERVICE BULLETIN

19

Stations broadcasting market or weather reports, music, concerts, lectures, etc.,
alphabetically by call signals—Continued

[Complete to Jan. 31, 1926]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
WHDI	Minneapolis, Minn.	William Hood Dunwoody Industrial Institute.	100	278	1,080
WHK	Cleveland, Ohio.	Radiovox Co.	100	273	1,100
WITN	New York, N. Y., 1540 Broadway.	George Schubel	500	361.2	830
WIO	Des Moines, Iowa.	Bankers Life Co.	500	326	870
WTAD	Philadelphia, Pa., 6318 North Park Avenue.	Howard R. Miller	100	250	1,200
WLAK	Omaha, Nebr.	Journal-Stockman Co.	250	278	1,080
WLAS	Burlington, Iowa.	Horns Electric Co.	100	254	1,180
WIK	McKeesport, Pa.	K. & L. Electric Co.	100	234	1,280
WIL	St. Louis, Mo.	Henson Radio Co.	100	273	1,100
WIP	Philadelphia, Pa.	Gimbel Bros.	500	508.3	590
WJAB	Lincoln, Nebr.	American Electric Co.	100	229	1,310
WJAD	Waco, Tex.	Jackson's Radio Engineering Laboratories.	500	332.7	850
WJAG	Norfolk, Nebr.	Norfolk Daily News.	250	270	1,110
WJAK	Greentown, Ind.	Clifford L. White.	50	234	1,180
WJAM	Cedar Rapids, Iowa, 222 Third Avenue West.	D. M. Perham.	20	268	1,120
WJAN	Peoria, Ill.	Peoria Star.	100	273	1,100
WJAR	Providence, R. I.	The Outlet Co.	500	305.9	980
WJAS	Pittsburgh, Pa., 963 Liberty Avenue.	Pittsburgh Radio Supply House.	500	273	1,090
WJAZ	Chicago, Ill. (portable), 332 South Michigan Avenue.	Zenith Radio Corporation.	100	268	1,120
WJD	Granville, Ohio.	Denison University.	10	217.3	1,380
WJDD	Moochshart, Ill.	Supreme Lodge, Loyal Order of Moose.	500	292.8	990
WJY	New York, N. Y.	R. C. A.	1,000	465.2	740
WJZ	Do	do	1,000	454.3	690
WKAA	Cedar Rapids, Iowa.	H. F. Paar	50	278	1,080
WKAD	East Providence, R. I.	Charles Looff (Crescent Park)	30	240	1,250
WKAN	Montgomery, Ala., 509 Bibb Street	United Battery Service Co.	15	226	1,330
WKAP	Cranston, R. I.	Dutree W. Flint.	50	234	1,280
WKAQ	San Juan, P. R.	Radio Corporation of Porto Rico.	500	340.7	880
WEAR	East Lansing, Mich.	Michigan Agriculture College.	500	335.5	1,050
WKAU	Laconia, N. H.	Laconia Radio Club.	50	254	1,180
WKY	Oklahoma, Okla., Sixth and Robinson Streets.	WKY Radio Shop.	100	275	1,090
WLAP	Louisville, Ky., 306 West Breckenridge Street.	W. V. Jordan	30	275	1,090
WLAX	Greencastle, Ind.	Greencastle Community Broadcasting Station	10	231	1,300
WLB	Minneapolis, Minn.	University of Minnesota.	5	278	1,080
WLBL	Stevens Point, Wis.	Wisconsin Department of Markets.	500	278	1,080
WLIT	Philadelphia, Pa.	Lit Brothers.	500	394.5	780
WLS	Chicago, Ill.	Sears, Roebuck & Co.	500	344.6	870
WLW	Cincinnati, Ohio.	Crosley Radio Corporation.	1,500	422.3	710
WMAC	Cazenovia, N. Y.	Clive B. Meredith	100	275	1,090
WMAF	Dartmouth, Mass.	Round Hills Radio Corporation	100-500	360	832
WMAH	Lincoln, Nebr.	General Supply Co.	100	254	1,180
WMAK	Lockport, N. Y.	Norton Laboratories.	500	465	1,130
WMAN	Columbus, Ohio.	First Baptist Church.	50	278	1,080
WMAQ	Chicago, Ill.	Chicago Daily News.	500	647.5	670
WMAV	St. Louis, Mo.	Kingshighway Presbyterian Church.	100	248	1,210
WMAZ	Macon, Ga.	Mercer University.	100	261	1,150
WMBF	Miami Beach, Fla.	Fleetwood Hotel.	500	384.7	780
WMC	Memphis, Tenn.	Commercial Appeal.	500	499.7	600
MH	Cincinnati, Ohio.	Ainsworth-Gates Radio Co.	750	422.3 325.9	710 920
WMU	Washington, D. C.	Doubleday-Hull Electric Co.	100	261	1,150
WNAC	Boston, Mass.	Shepard Stores.	500	280.2	1,070
WNAD	Norman, Okla.	University of Oklahoma.	250	254	1,180
WNAL	Omaha, Nebr.	Omaha Central High School.	50	258	1,160
WNAP	Springfield, Ohio.	Wittenberg College.	100	248	1,210
WNAR	Burler, Mo.	First Christian Church.	20	231	1,300
WNAT	Philadelphia, Pa.	Lennig Brothers Co.	100	250	1,200
WNAX	Yankton, S. Dak.	Dakota Radio Apparatus Co.	100	244	1,230
WNJ	Newark, N. J., 80 Lehigh Avenue.	Radio Shop of Newark.	150	233	1,290
WNYC	New York, N. Y.	City of New York.	1,000	526	570
WOAC	Lima, Ohio.	Page Organ Co.	50	266	1,130
WOAF	Tyler, Tex.	Tyler Commercial College.	10	300	833
WOAI	Sun Antonio, Tex., 324 North Na-	Southern Equipment Co.	500	394.5	760

Stations broadcasting market or weather reports, music, concerts, lectures, etc., alphabetically by call signals—Continued

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
WOAN	Lawrenceburg, Tenn.	James D. Vaughn	500	282.8	1,060
WOAV	Eric, Pa.	Pennsylvania National Guard, Second Battalion, One hundred and twelfth Infantry.	50	342	1,240
WOAW	Omaha, Nebr.	Woodmen of the World	1,000	326	570
WOAX	Trenton, N. J.	Fresklyn J. Wolf	50	340	1,250
WOC	Davenport, Iowa	Palmer School of Chiropractic	1,500	483.6	620
WOCL	Jamestown, N. Y.	Hotel Jamestown	15	275	1,090
WOI	Ames, Iowa	Iowa State College	500	270	1,110
WOO	Philadelphia, Pa.	John Wansmaker	500	508.2	590
WOQ	Kansas City, Mo.	Unity School of Christianity	500	278	1,080
WOH	Newark, N. J., Market and Halsey Streets.	L. Bamberger & Co.	500	405.2	740
WORD	Batavia, Ill.	Peoples Pulpit Association	500	278	1,080
WOS	Jefferson City, Mo.	Missouri State Marketing Bureau.	500	440.9	680
WPAJ	New Haven, Conn., 115 Crown Street.	Doolittle Radio Corporation	100	268	1,120
WPAK	Agricultural College, N. Dak.	North Dakota Agricultural College.	60	275	1,090
WPAU	Moorhead, Minn.	Concordia College	10	258	1,160
WPAZ	Charlestown, W. Va.	Dr. John R. Koch	10	268	1,120
WPG	Atlantic City, N. J.	Municipality of Atlantic City	500	299.8	1,000
WPSC	State College, Pa.	Pennsylvania State College	500	261	1,150
WQAA	Parkesburg, Pa.	Horace A. Besle, jr.	500	220	1,360
WQAC	Amarillo, Tex.	Gish Radio Service, 108 East Eighth Street.	100	234	1,280
WQAR	Springfield, Vt.	Moore Radio News Station	50	246	1,220
WQAM	Miami, Fla., 42 Northwest Fourth Street.	Electrical Equipment Co.	100	268	1,120
WQAN	Seranton, Pa.	Seranton Times	100	250	1,200
WQAO	New York, N. Y.	Calvary Baptist Church	100	360	833
WQAS	Lowell, Mass.	Prince-Walter Co.	100	252	1,190
WQJ	Chicago, Ill., Rainbow Gardens	Cabnet Rainbow Broadcasting Co.	500	447.5	670
WRAA	Houston, Tex.	Rice Institute	100	256	1,170
WRAF	Laport, Ind., 719 Michigan Avenue.	The Radio Club	15	224	1,340
WRAL	St. Croix Falls, Wis.	Northern States Power Co.	100	248	1,210
WRAM	Galesburg, Ill.	Lombard College	100	244	1,230
WRAN	Waterloo, Iowa	Black Hawk Electrical Co.	10	236	1,270
WRAO	St. Louis, Mo., 1211 Hodgson Avenue.	St. Louis Radio Service Co.	10	227	1,320
WRAV	Yellow Springs, Ohio	Antinch College	100	263	1,140
WRAW	Reading, Pa., 489 Schuylkill Avenue.	Avenue Radio & Electric Shop	10	238	1,260
WRAX	Gloucester City, N. J.	Flexon's Garage	100	308	1,120
WRBC	Vincennes, Ind.	Immanuel Lutheran Church	500	278	1,080
WRC	Washington, D. C.	R. C. A.	500	468.5	640
WRFO	Lansing, Mich.	Reo Motor Car Co.	500	285.5	1,050
WRHF	Washington, D. C., 525 Eleventh Street NW.	Washington Radio Hospital Fund.	50	256	1,170
WRK	Hamilton, Ohio	Doron Bros. Electrical Co.	200	270	1,110
WRL	Schenectady, N. Y.	Union College	500	360	833
WRM	Urbana, Ill.	University of Illinois	500	273	1,100
WRR	Dallas, Tex.	City of Dallas, Police and Fire Signal Department.	200	261	1,160
WRW	Tarrytown, N. Y.	Tarrytown Radio Research Laboratory.	500	273	1,100
WSAB	Cape Girardeau, Mo.	Southeast Missouri State Teachers' College.	100	275	1,080
WSAC	Clemson College, S. C.	Clemson Agricultural College	500	335.9	890
WSAD	Providence, R. I., 60 Durrance Street.	J. A. Foster Co.	100	266	1,170
WSAG	St. Petersburg, Fla.	Gospel Tabernacle	500	266	1,130
WSAI	Cincinnati, Ohio	United States Playing Card Co.	500	325.9	920
WSAJ	Grove City, Pa.	Grove City College	250	220	1,310
WSAN	Allentown, Pa.	Allentown Call Publishing Co.	10	229	1,310
WSAP	New York, N. Y.	The City Temple	250	263	1,140
WEAR	Fall River, Mass.	Daugherty & Welch Electrical Co.	100	254	1,180
WSAU	Chesham, N. H.	Camp Marienfeld	10	229	1,310
WSAV	Houston, Tex.	Clifford W. Viek Radio Construction Co.	100	360	833
WSAX	Chicago, Ill.	Chicago Radio Laboratory	20	268	1,120

RADIO SERVICE BULLETIN

21

*Stations broadcasting market or weather reports, music, concerts, lectures, etc.,
alphabetically by call signals—Continued*

[Complete to Jan. 31, 1925]

Call signal	Location of station	Station operated and controlled by—	Power (watts)	Wave length	Frequency (kilo-cycles)
WBL	Utica, N. Y.	J. & M. Electric Co.	100	273	1,100
WBOE	Milwaukee, Wis.	School of Engineering of Milwaukee.	100	240	1,220
WBRF	Broadlands, Ill.	Harden Sales & Service.	10	233	1,290
WBRD	Hamilton, Ohio, 240 North Front Street.	Radio Co. (Harry W. Fablander).	5	232	1,190
WBU	Iowa City, Iowa.	State University of Iowa.	500	183.6	620
WBY	Anburn, Ala.	Alabama Polytechnic Institute.	500	250	1,200
WTAB	Fall River, Mass.	Fall River Daily Herald Publishing Co.	100	296	1,130
WTAC	Johnstown, Pa., Washington Street.	Penn Traffic Co.	100	309.7	1,430
WTAF	New Orleans, La., 2222 Lapeyrouse Street.	Louis J. Gallo.	10	268	1,120
WTAL	Toledo, Ohio.	Toledo Radio & Electric Co.	10	252	1,190
WTAM	Cleveland, Ohio.	Willard Storage Battery Co.	1,500	386.4	770
WTAP	Cambridge, Ill.	Cambridge Radio & Electric Co.	50	242	1,240
WTAG	Osgo, Wis.	S. H. Van Gorden & Son.	100	234	1,180
WTAR	Norfolk, Va.	Reliance Electric Co.	100	261	1,150
WTAS	Elgin, Ill. (near), R. F. D. 6, Box 73, Villa Road.	Charles E. Erbstein.	1,000	302.8	990
WTAT	Roston, Mass. (portable).	Edison Electric Illuminating Co.	100	244	1,230
WTAU	Tennesch, Nebr.	Ruegg Battery & Electric Co.	10	242	1,240
WTAW	College Station, Tex.	Agricultural & Mechanical College of Texas.	250	270	1,110
WTAX	Streator, Ill.	Williams Hardware Co.	50	231	1,300
WTAY	Oak Park, Ill.	Oak Leaves Broadcasting Station.	500	250	1,200
WTAZ	Lambertville, N. J.	Thomas J. McGuire.	15	261	1,150
WTB	Manhattan, Kans.	Kansas State Agricultural College.	50	273	1,100
WTIC	Hartford, Conn.	Travelers Insurance Co.	500	348.6	860
WWAD	Philadelphia, Pa.	Wright & Wright.	100	250	1,200
WWAE	Joliet, Ill.	Lawrence J. Crowley (Alamo Ball Room).	500	242	1,240
WWAO	Houghton, Mich.	Michigan College of Mines.	250	244	1,230
WWI	Dearborn, Mich.	Ford Motor Co.	250	266	1,130
WWJ	Detroit, Mich.	Detroit News.	500	352.7	850
WWL	New Orleans, La.	Loyola University.	5	275	1,090

NOTE.—Some of the wave lengths assigned to Pacific coast stations may be further adjusted.

NAME OF CITY SHOULD BE GIVEN WHEN ANNOUNCING CALL LETTERS OF BROADCASTING STATIONS

According to reports received by the bureau the announcers of some of the broadcasting stations continue programs for long periods without announcing the call letters of the station and as some of the call letters are not readily understood, suggestion has been made that some other method be adopted which will make identification more positive.

It will probably be helpful if when making an announcement the call letters of a station are followed by the name of the city in which the broadcasting station is situated and it would no doubt be appreciated by the audience if the announcers would announce distinctly the call letters and name of the city at somewhat regular intervals.

INCREASE IN RATES FOR COAST STATIONS

Effective March 1, 1925, the rates for the stations named hereunder, which are operated by the Independent Wireless Telegraph Co., will be 52 centimes (gold) per word for ship-to-shore traffic. East Hampton, N. Y.; East Moriches, N. Y.; New London, Conn. (WST); New York, N. Y. (WCG); New York, N. Y. (WSE).

NEW STATION OPENED AT TAMATAVE, MADAGASCAR

A new coastal general public service station has opened at Tamatave, Madagascar, located in 49° 25' 51" E., 18° 08' 17" S.; call letters, HYL; range, day 200, night 600; wave length, 600, 1,200; hours 7-11, 11:30-17; 19-21, G. M. T.; rates, 50 centimes per word.

INTERNATIONAL ICE PATROL SERVICE

The Coast Guard cutters *Tampa* and *Modoc* have been detailed for the season of 1925 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, N. S. 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 patrol vessel will send daily radio broadcasts, preceding each broadcast by the general call to all ships, "QST" on 600 meters wave length and then shifting to the designated wave length. All time in radio-grams will be in Greenwich civil time.

The broadcasts will be as follows:

(a) At 1100 and 2300 (G. C. T.) ice information will be sent broadcast by radio on 706 meters. These broadcasts will be sent three times, with an interval of two minutes between each.

(b) At 1200 and 0000 (G. C. T.) ice information will be sent broadcast by radio on 1,621 meters continuous wave. These broadcasts will be sent three times, with an interval of two minutes between each.

(c) At 0100 (G. C. T.) a radiogram will be sent to the Hydrographic Office, Washington, D. C., through land radio stations, defining the ice danger zone, its southern limits, or other definite ice news, while other messages will be sent during the night if any later information is obtained by the patrol ship. The telegraphic address of the Hydrographic Office is Hydrographic, Washington, D. C.

(d) 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 traffic (without charge) on commercial traffic wave lengths.

Ice information broadcasts will be given in as plain, concise English as practicable and will state (in the following order): (a) Position of patrol vessel, (b)

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 with the regular radio call letters assigned to the individual vessels.

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 39° 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.

REVISED LIST OF MARINE HOSPITALS DESIGNATED TO FURNISH FREE MEDICAL ADVICE BY RADIO TO SHIPS AT SEA

New York, N. Y.: United States Marine Hospital No. 70, 67 Hudson Street. Alternate: United States Marine Hospital No. 21, Bay Street, Stapleton, N. Y.	San Francisco, Calif.: United States Marine Hospital No. 19, Fourteenth Avenue and Lake Street.
Key West, Fla.: United States Marine Hospital No. 10, Front and Emma Streets.	Cleveland, Ohio: United States Marine Hospital No. 6.
New Orleans, La.: United States Marine Hospital No. 14, Tchoupitoulas and Henry Clay Streets.	Chicago, Ill.: United States Marine Hospital No. 5, 4141 Clarendon Avenue.
	Sault Ste. Marie, Mich.: Relief Station No. 70.
	Manila, P. I.: Relief Station No. 270.

In order to avoid confusion and to make the practice uniform all messages for transmission by radio will be signed "Marine Hospital No. —," or "Public Health Service Relief Station No. —."

CULLERCOATS, ENGLAND COMPASS STATION ESTABLISHED

On January 1, this year, the Cullercoats, England station, opened for direction-finding service. The call letters are GCC, wave length 600 meters, approximate location latitude $55^{\circ} 02'$ N., longitude $1^{\circ} 26'$ W., charge for each bearing, 5 shillings. The reliable range of the station for direction-finding purposes is 100 miles; up to this range and within the sector 350° – 125° and accuracy within 2° may be expected.

The British administration advises that all necessary precautions are taken in order that the bearings may be determined as accurately as possible; however, it can not accept any responsibility for the consequences of a bearing being inaccurate.

CORRECT LOCATION OF GULF OF ADEN COMPASS STATION

Recent astronomical determinations have shown that Francesco Crispi (Cape Guardafui) Light is located in $11^{\circ} 50' 14''$ N., $51^{\circ} 16' 58''$ E. The approximate position of the radio-compass station at Cape Guardafui is $11^{\circ} 44' 24''$ N., $51^{\circ} 15' 30''$ E. These determinations establish the fact that the coast between Cape Guardafui and Ras Hafun is located 2.5 miles farther eastward than charted. (*Avvisi ai Naviganti* 263 (578), Genova, Nov. 24, 1924.)

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 which reached the degree of constancy shown among the stations upon whose frequencies measurements were made in the bureau's laboratory. There is, of course, no guaranty that the stations named below will maintain the constancy shown. The transmitted frequencies

from these stations can be utilized for standardizing wave meters and other apparatus by the procedure given in Bureau of Standards Letter Circular No. 92, Radio Signals of Standard Frequencies and Their Utilization. A copy of that letter circular can be obtained by a person having actual use for it upon application to the Bureau of Standards, 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. 31, 1924
WQL	Radio Corporation of America	Coram Hill, Long Island, N. Y.	17.13	1	11	Per cent 0.1	Per cent 0.2
NBS	United States Navy	Annapolis, Md.	17.50	17	127	.2	1.2
WGD	Radio Corporation of America	Tuckerton, No. 1, N. J.	18.89	17	133	.2	.2
WII	do	New Brunswick, N. J.	22.04	16	116	.3	.3
WBO	do	Marton, Mass.	23.80	17	104	.3	.6
WWJ	Detroit News	Detroit, Mich.	581	17	51	.2	.1
WRAP	American Telegraph & Telephone Co.	New York, N. Y.	610	1	18	.0	.0
WCAP	Chesapeake & Potomac Telephone Co.	Washington, D. C.	640	16	77	.1	.0
WRC	Radio Corporation of America	do	640	13	49	.1	.0
WER	Atlanta Journal	Atlanta, Ga.	700	16	64	.2	.1
WGY	General Electric Co.	Schenectady, N. Y.	790	19	106	.1	.1
WBZ	Westinghouse Electric & Manufacturing Co.	Springfield, Mass.	960	9	24	.0	.1
KDKA	do	East Pittsburgh, Pa.	970	16	135	.1	.2

¹ New frequency of 581 kilocycles was assigned to WWJ on Dec. 31, 1924; former frequency was 580 kilocycles.

² New frequency assigned Jan. 15 (formerly 890 kilocycles).

³ New frequency assigned Dec. 31, 1924 (formerly 920 kilocycles).

STANDARD RADIO FREQUENCY TRANSMISSIONS, FEBRUARY, MARCH, APRIL

The Bureau of Standards transmits, twice a month, radio signals of definitely announced frequencies, for use by the public in standardizing wave meters and transmitting and receiving apparatus. The signals are transmitted from the bureau's station, WWV, at Washington, D. C., and from station 6XBM, Stanford University, Calif.

The transmissions are by unmodulated continuous-wave telegraphy. A complete frequency transmission includes a "general call," a "standard frequency signal," and "announcements." The "general call" is given at the beginning of the eight-minute period and continues for about two minutes. This includes a statement of the frequency. The "standard frequency signal" is a series of very long dashes with the call letters (WWV or 6XBM) intervening. This signal continues for about four minutes. The "announcements" are on the same frequency as the "standards frequency signal" just transmitted and contain a statement of the measured frequency. An announcement of the next frequency to be transmitted is then given. There is then a four-minute interval while the transmitting set is adjusted for the next frequency.

The signals can be heard and utilized by stations equipped for continuous-wave reception at distances within about 500 to 1,000 miles from the transmitting stations. Information on how to receive and utilize the signals is given in Bureau of Standards Letter Circular No. 92, which may be obtained on application from the Bureau of Standards, Washington, D. C.

The schedule of standard frequency signals from both the Bureau of Standards

RADIO SERVICE BULLETIN

25

Schedule of Frequencies in Kilocycles

[Approximate wave lengths in meters in parenthesis]

Time ¹	Feb. 5 ²	Feb. 20	Mar. 5	Mar. 20	Apr. 6	Apr. 20 ¹
10 to 10.08 p. m.	3,000 (100)	125 (2,400)	300 (1,000)	550 (545)	1,500 (200)	3,000 (100)
10.12 to 10.20 p. m.	3,300 (91)	133 (2,254)	315 (952)	630 (476)	1,650 (182)	3,300 (91)
10.24 to 10.32 p. m.	3,600 (83)	143 (2,097)	345 (869)	730 (411)	1,800 (167)	3,600 (83)
10.36 to 10.44 p. m.	4,000 (75)	156 (1,934)	375 (800)	850 (353)	2,000 (150)	4,000 (75)
10.48 to 10.55 p. m.	4,400 (68)	166.5 (1,800)	425 (705)	980 (306)	2,300 (136)	4,400 (68)
11 to 11.08 p. m.	4,900 (61)	205 (1,463)	500 (600)	1,180 (265)	² 2,450 (122)	4,900 (61)
11.12 to 11.20 p. m.	5,400 (55)	250 (1,153)	600 (600)	1,300 (231)	² 2,700 (111)	5,400 (55)
11.24 to 11.32 p. m.	6,000 (50)	315 (962)	666 (450)	1,500 (200)	² 3,000 (100)	6,000 (50)

¹ Eastern standard time for WWV, Washington, D. C. Pacific standard time for 6XBM, Stanford University, Calif.

² The schedules marked with this sign are tentative for station 6XBM, Stanford University; later announcement will be made if there is any change.

REFERENCES TO CURRENT RADIO PERIODICAL 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 the professional radio engineer which have recently appeared in technical periodicals. The number at the left of each reference classifies the reference by subject, in accordance with the scheme presented in A Decimal Classification of Radio Subjects—An Extension of the Dewey System, Circular No. 138, a copy of which may be obtained for 10 cents from the Superintendent of Documents, Government Printing Office, Washington, D. C. Further information about these lists, availabilities of previous lists and of the several periodicals is contained in the extended statement preceding the early lists as published in the Radio Service Bulletin prior to April, 1923, and also in May and September, 1923.

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RADIO SERVICE BULLETIN

27

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