DEPARTMENT OF COMMERCE

RADIO SERVICE BULLETIN

ISSUED MONTHLY BY BUREAU OF NAVIGATION

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CONTENTS

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. C. = 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.

72586°—25†

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 Berne bureau]

Station	Call signal	Wave lengths	Service	Hours	Station controlled by—
Fairport, Va.[1]	WOZ	*600*, 706	P	X	Edwards-Slaughter Co.
Kusilof, Alaska [2]	KZY	*600*, 900	FX	X	F. W. Williamson.
Reedville, Va.[3]	WRX	*600*, 700	P	X	Marine Products (Inc.).

[1] Range, 150; system, Cutting & Washington, 1000.
[2] Loc. (approximately) O 151° 18′ 00″, N 60° 24′ 00″; range, 200; system, Kilbourne & Clark, 1000.
[3] Range, 150; system, composite, 1000.

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 Berne bureau]

Name of vessel	Call signal	Rates	Service	Hours	Owner of vessel	Station controlled by—
Bennington [1]	KFYK	.....	PG	X	Rutland-Lake Michigan Transit Co.	R. C. A.
Burlington [2]	KFYN	.....	PG	X	do	Do.
Fordonian	KFYW	8	PG	X	American-Mediterranean Steamship Co.	Do.
Gloucester [1]	KFYQ	.....	P	X	Marine Products (Inc.)	Owner of vessel.
Goliah	KFDI	8	PG	X	Wood Towing Corporation	R. C. A.
Lake Ellsbury	KOFP	8	PG	X	U. S. Shipping Board	Do.
Lake Fabyan	KINJ	8	PG	X	do	Do.
Lake Fairport	KOGR	8	PG	X	John R. Waterman	
La Perla	KFYS	8	PG	X	United Fruit Steamship Corporation.	
Louise [3]	KFYP	.....	P	X	Marine Products (Inc.)	Owner of vessel.

[1] Range, 150; system, R. C. A. v. t. telegraph; w. l., 600, 706, 715, 800, 875; rates, Great Lakes service, 4 cents per word.
[2] Rates, Great Lakes service, 4 cents per word.
[3] Range, 150; system, Simon, 1000; w. l., 600, 706, 800.

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	
KFDI	Goliah	b	KINJ	Lake Fabyan	b
KFYK	Bennington	b	KOFP	Lake Ellsbury	b
KFYN	Burlington	b	KOGR	Lake Fairport	b
KFYP	Louise	b	KZY	Kusilof, Alaska	c
KFYQ	Gloucester	b	WOZ	Fairport, Va.	c
KFYS	La Perla	b	WRX	Reedville, Va.	c
KFYW	Fordonian	b			

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
Florida: Jacksonville	WJAX	North Dakota: Bismarck	KFYR
Maryland: Baltimore	WBAL	Pennsylvania: Lewisburg	WKBG

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

Call signal	Location of station (address)	Owner of station	Power (watts)	Wave length	Frequency (kilocycles)
KFYR	Bismarck, N. Dak., 200 Fourth Street.	Hoskins-Meyer (Inc.)	10	248	1,210
WBAL	Baltimore, Md.	Consolidated Gas, Electric Light & Power Co.	1,000	374.8	[1] 900
WJAX	Jacksonville, Fla.	City of Jacksonville	1,000	336.9	890
WJBP	Buffalo, N. Y.	Seneca Vocational School	50	218.8	1,370
WJBQ	Lewisburg, Pa.	Bucknell University	100	211.1	1,420

[1] Wave length temporarily assigned.

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 Berne bureau]

Station	Call signal	Wave length	Service	Hours	Station controlled by—
Washington, D. C.	NGA	.....	O	X	U. S. Coast Guard.

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
NGA	Washington, D. C.		

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—
Minneapolis, Minn.	9XI	University of Minnesota.
Newark, N. J. (airplane)	2XAB	L. Bamberger & Co.
Schenectady, N. Y. (portable).	2XAK	General Electric Co.
Seattle, Wash.	7XF	Simpson Radio Corporation, 730 Dexter Horton Building.
South Schenectady, N. Y.	2XH	General Electric Co.
Do.	2XO	Do.
Washington, D. C.	3XAV	Potomac Electric Power Co.

Special land stations grouped by districts

Call signal	District and station	Call signal	District and station
	Second district:	3XAV	Third district: Washington, D. C.
2XAB	Newark, N. J. (airplane).	7XF	Seventh district: Seattle, Wash.
2XAK	Schenectady, N. Y. (portable).	9XI	Ninth district: Minneapolis, Minn.
2XH	South Schenectady, N. Y.		

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 Berne bureau]

BOSTON, MASS. (WEY).—W. l., 119, *600*.
BUFFALO, N. Y.—W. l., *715*, 875, 1,764; hours, 8 a. m. to midnight.
CLEARWATER, CALIF. (KOK).—Insert Los Angeles, Calif. (see Clearwater, Calif.).
CLEVELAND, OHIO (KDPM).—W. l., *715*, 1,817.
CLEVELAND, OHIO (WTK).—W. l., *715*, 1,764, 1,800.
EAST MOBICHES, N. Y.—Range, 1,800; system, I. W. T. Co. arc; w. l., strike out 1,800.
EAST PITTSBURGH, PA.—System, Westinghouse v. t. telegraph.
FRANKFORT, MICH.—W. l., *715*, 875, 1,666.
GALVESTON, TEX.—Hours, 6 a. m. to 12 midnight.
HILLSBORO, OREG. (KEK).—Insert Portland, Oreg. (see Hillsboro, Oreg.).
MANISTIQUE, MICH.—W. l., *715*, 875, 1,666.
SEATTLE, WASH. (KVW).—System, composite v. t. telephone and telegraph.
TULSA, OKLA.—W. l., 1,599 only.

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 Berne bureau]

ADMIRAL DEWEY.—System, F. T. Co. arc and F. T. Co. spark, 1,000; w. l., *600*, 706, 800, 1,800, 2,100, 2,400.
ADMIRAL FARRAGUT.—System, F. T. Co. arc and F. T. Co. spark, 1,000; w. l., *600*, 706, 800, 1,800, 2,100, 2,400.
ADMIRAL FISKE.—System, F. T. Co. arc and F. T. Co. spark, 1,000; w. l., *600*, 706, 800, 1,800, 2,100, 2,400.
ADMIRAL PEARY.—Range, 300; system, F. T. Co. arc and F. T. Co. spark, 1,000; w. l., *600*, 706, 800, 1,800, 2,100, 2,400.
ADMIRAL WATSON.—System, F. T. Co. arc and F. T. Co. spark, 1,000; w. l., *600*, 706, 800, 1,800, 2,100, 2,400.
AGWIHAVRE.—W. l., *600*, 706, 800.
ALABAMA (WRAE).—W. l., *600*, 706, 800.
ALBERT HILL.—W. l., *600*, 706, 800.
ALGIC.—System, Navy-Marconi, 1,000; w. l., 450, *600*, 706, 800.
AMERICAN PRESS.—W. l., add 800.
ATLANTIC.—W. l., *600*, 706, 800.
ATLANTIC SUN.—W. l., *600*, 706, 800.
BALLCAMP.—System, Navy, 1,000; w. l., *600*, 706, 800; rates, Great Lakes service 4 cents per word, transoceanic service 8 cents per word; Ford Motor Co., owner of vessel.
BARLOW.—Range, 150; system, R. C. A. v. t. telegraph; w. l., *600*, 706, 750, 800, 900; rates, Great Lakes service 4 cents per word; transoceanic service 8 cents per word; Ford Motor Co., owner of vessel.
BARRALLTON.—Ford Motor Co. owner of vessel.
BAYMEAD.—Ford Motor Co. owner of vessel.
BILLOW.—Range, 150; system, R. C. A. v. t. telegraph; w. l., *600*, 706, 750, 800, 900.
BLOSSOM.—W. l., add 800.
BREAKER.—Range, 150; system, R. C. A. v. t. telegraph; w. l., *600*, 706, 750, 800, 900.
BYLAYL.—System, R. C. A. v. t. telegraph; w. l., *600*, 706, 750, 800, 900.
BYRON D. BENSON.—W. l., *600*, 706, 800.
CALAMARES.—System, R. C. A. v. t. telephone and telegraph; w. l., *600*, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.
CHARLES E. HARWOOD.—W. l., *600*, 706, 800.
CITY OF EUREKA.—W. l., 450, *600*, 706, 800; Export S. S. Corporation owner of vessel; station operated and controlled by I. W. T. Co.
CITY OF ST. JOSEPH (KOSM).—System, I. W. T. Co., 1,000.

COLUMBIAN.—Station operated and controlled by owner of vessel.
CONCORD.—W. l., add 800.
CONNESS PEAK.—W. l., 450, *600*, 706, 800.
CORSON.—W. l., *600*, 706, 800.
CRANFORD.—Station operated and controlled by I. W. T. Co.
DILWORTH.—Station operated and controlled by I. W. T. Co.
EDMORE.—W. l., *600*, 706, 800.
EFFNA.—Station operated and controlled by I. W. T. Co.
EL CAPITAN (KKH).—System, Marconi, 1,000; w. l., *600*, 706, 800.
EMPIRE.—W. l., add 800.
F. H. WICKETT.—W. l., *600*, 706, 800.
FISHER.—System, R. C. A. v. t. telegraph.
F. Q. BARSTOW.—Range, 300; system, R. C. A. v. t. telegraph; w. l., *600*, 706, 800.
FREEPORT SULPHUR No. 5.—System, R. C. A. v. t. telegraph; w. l., *600*, 706, 750, 800, 900.
FRONTENAC.—System, Navy-Marconi, 1,000; w. l., *715*, 800, 875; rates, Great Lakes service 4 cents per word.
GALENA.—W. l., *600*, 706, 800.
GENE CRAWLEY.—W. l., *600*, 706, 800.
G. S. ALLYN.—Wicomico Fisheries (Inc.) owner of vessel.
HAMILTON.—W. l., add 1,900, 2,000.
HORACE LUCKENBACH.—W. l., *600*, 706, 800.
H. M. STOREY.—System, R. C. A. v. t. telegraph; w. l., 450, *600*, 706, 800.
HUMACONNA.—W. l., *600*, 706; station operated and controlled by owner of vessel.
HUMRICK.—Station operated and controlled by R. C. A. (U. S. L.).
ILLINOIS (KDSZ).—W. l., *600*, 706, 800, 1,800, 2,100, 2,400.
IPSWICH.—System, Navy-Marconi, 1,000; w. l., add 800.
ISHPEMING.—System, Navy-Marconi, 1,000; w. l., *715*, 800, 875; rates, Great Lakes service 4 cents per word.
J. A. CAMPBELL.—Strike out call signal, service, and hours; equipped only with radio compass.
JEFFERSON (KOD).—W. l., *600*, 706, 800, 1,800, 1,900, 2,000, 2,100, 2,400.
JOSEPH SEEP.—W. l., *600*, 706, 800.
JUSTIN.—Range, 200; system, R. C. A. v. t. telegraph; w. l., *600*, 750, 800, 900.
JUVIGNY.—System, Navy-Marconi, 1,000.
KAMESIT.—Station operated and controlled by I. W. T. Co.
KANSAN.—W. l., strike out 875; station operated and controlled by owner of vessel.
KATHERINE R.—Leon Wilson owner of vessel.
LAKE FARRAR.—Robert Dollar Co. owner of vessel; station operated and controlled by owner of vessel.
LEBEC.—W. l., *600*, 706, 800, 1,800, 2,100, 2,400.
LIBERTY LAND.—System, Navy, 1,000; w. l., 450, *600*, 706, 800.
LUXPALILE.—Export S. S. Corporation owner of vessel.
MANATAWNY.—Steamer Hadnot Corporation owner of vessel.
MAZATLAN.—W. l., *600*, 706, 800; station operated and controlled by I. W. T. Co.
MERICOS H. WHITTIER.—Station operated and controlled by owner of vessel.
MICHIGAN.—System, Navy-Marconi, 1,000; w. l., *715*, 800, 875; rates, Great Lakes service, 4 cents per word.
MINNEKAHDA.—W. l., *600*, 706, 800, 1,800, 1,900, 2,000, 2,100, 2,400.
MINNEQUA.—W. l., *600*, 706, 800.
M. M. DAVIS.—Wicomico Fisheries (Inc.) owner of vessel.
MOHEGAN.—System, Navy-Lowenstein, 1,000; w. l., strike out 450.
MOSELLA.—Station operated and controlled by I. W. T. Co.
MUNARGO.—System, Marconi, 1,000 and I. W. T. Co. arc; w. l., *600*, 706, 800, 1,800, 1,900, 2,000, 2,100, 2,400.
MUNMOTOR—W. l., *600* 706, 800.
NILE.—System, Navy-Marconi, 1,000; w. l., 450, *600*, 706, 800.
NORCO.—Range, 150; system, Navy-Lowenstein, 1,000; w. l., *600*, 706, 800.
OHIO.—System, R. C. A. v. t. telegraph; w. l., *600*, 706, 750, 800, 1,800, 2,100, 2,400.
PARIA.—W. l., add 800.
PETER WHITE.—System, Navy-Marconi, 1,000; w. l., *715*, 800, 875; Presque Isle Transportation Co. owner of vessel; rates, Great Lakes service 4 cents per

PETREL.—System, R. C. A. v. t. telegraph; w. l., *600*, 706, 800.
PHILIP PUBLICKER.—W. l., *600*, 706, 800.
PHOENIX.—Range, 300; system, Navy-Lowenstein, 1,000; w. l., *600*, 706, 800.
PIONEER (KFMK).—System, Navy-Marconi, 1,000; w. l., *715*, 800, 875; rates, Great Lakes service 4 cents per word.
POLARINE.—System, R. C. A. v. t. telegraph; w. l., *600*, 706, 750, 800, 900.
PONTIAC.—System, Navy-Marconi, 1,000; w. l., *715*, 800, 875; rates, Great Lakes service 4 cents per word.
PRESIDENT VAN BUREN.—W. l., 450, *600*, 706, 800.
REPUBLIC.—W. l., *600*, 706, 800.
RIFFLE (KFKN).—W. l., *600*, 706, 800.
RUTH.—W. l., *600*, 706, 800.
R. W. STEWART.—W. l., *600*, 706, 800.
SACANDAGA.—System, NAVY-W. S. A. Co., 1,000; w. l., *600*, 706, 800.
SAMUEL L. FULLER.—W. l., *600*, 706, 800.
SAN FRANCISCO.—W. l., *600*, 706, 800.
SANTA INEZ.—W. l., add 800.
SANTORE.—W. l., *600*, 706, 800.
SANTURCE.—Range, 150; system, R. C. A. v. t. telegraph; w. l., *600*, 706, 800; station operated and controlled by R. C. A.
SAUCON (WBK).—Export S. S. Corporation owner of vessel; station operated and controlled by I. W. T. Co.
S. B. HUNT.—System, R. C. A. v. t. telegraph; w. l., *600*, 706, 750, 800, 900.
SINSINAWA.—W. l., 450, *600*, 706, 800.
STARR.—W. l., *600*, 706, 800.
STEEL TRADER.—System, R. C. A., 1,000; w. l., *600*, 706, 800.
SUDAWSONCO.—W. l., *600*, 706, 800.
SUEDCO.—W. l., *600*, 706, 800.
SUJERSEYCO.—W. l., *600*, 706, 800.
SULTANA.—Range, 150; system, R. C. A., 1,000; w. l., *600*, 706, 800; service, PG; hours, X; rates, 8 cents per word.
SUNBEAM.—W. l., *600*, 706, 800.
SURAILCO.—W. l., *600*, 706, 800.
SUSPEARCO.—W. l., *450*, 600, 706.
SUTRANSCO.—W. l., *600*, 706, 800.
SUWARINCO.—W. l., *600*, 706, 800.
T. J. WILLIAMS.—W. l., *600*, 706, 800.
VESTA.—W. l., *600*, 706, 800.
VIRGINIAN.—Station operated and controlled by owner of vessel.
WAVE.—Range, 150; system, R. C. A. v. t. telegraph; w. l., *600*, 706, 750, 800, 900.
WEST CAMAK.—Station operated and controlled by I. W. T. Co.
WEST CANON.—Station operated and controlled by I. W. T. Co.
WEST CELINA.—Station operated and controlled by R. C. A. (U. S. L.).
WEST DURFEE.—W. l., 450, *600*, 706, 800.
WESTERN STATES.—Hours, X.
WEST HOLBROOK.—Station operated and controlled by I. W. T. Co.
WEST ISLIP.—W. l., add 800.
WEST KEENE.—W. l., *600*, 706, 800.
WHEATLAND MONTANA.—W. l., 450, *600*, 706, 800.
WINONA.—W. l., 450, *600*, 706, 800.
WYTHEVILLE.—W. l., strike out 450.
YANKEE ARROW.—W. l., *600*, 706, 800.
Strike out all particulars of the following-named vessels: Abner Coburn, Ace, Alscotia, Anvil, A. W. Colton, Bristol, Colombia (KFYH), Hampden, Joseph H. Frantz, Lake Gunni, Middlesex, Norfolk, Poinsettia, Queen (KESK), Robert Lewers, Redman Swift, Suffolk, Susquehanna (WEM).

COMMERCIAL LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS

Strike out all particulars following the call signals KDKQ, KDYP, KEGC, KEGR, KESK, KFDQ, KFHW, KFVQ, KFXS, KFYH, KUNC, WBL,

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]

KFAU (Boise, Idaho).—Power, 750; w. l., 282.8, fy. kc., 1,060.
KFDJ (Corvallis, Oreg.).—W. l., 282.8, fy. kc., 1,060.
KFJF (Oklahoma, Okla.).—Power, 500.
KFKX (Hastings, Nebr.).—Power, 5,000.
KFKZ (Kirksville, Mo.).—Power, 10.
KFNF (Shenandoah, Iowa).—W. l., 263, fy. kc. 1,140.
KFON (Long Beach, Calif.).—Power, 500.
KFPG (Los Angeles, Calif.).—Call signal changed to KMTR.
KFQA (St. Louis, Mo.).—Power, 100.
KFQU (Holy City, Calif.).—Change to Alma (Holy City), Calif.
KFUU (San Leandro, Calif.).—Change to Oakland, Calif., 3020 Broadway; w. l., 220; fy. kc., 1,360.
KFVN (Welcome, Minn.).—Power, 50.
KFWA (Ogden, Utah).—Power, 500.
KGY (Lacey, Wash.).—Power, 50.
KSD (St. Louis, Mo.).—Power, 500.
WBBL (Richmond, Va.).—Power, 100.
WDBO (Winter Park, Fla.).—Power, 500.
WDOD (Chattanooga, Tenn.).—Power, 500.
WEBH (Chicago, Ill.).—Power, 1,500.
WEHS (Evanston, Ill.).—Owner of station, Robert E. Hughes; power, 10.
WFBJ (Collegeville, Minn.).—Power, 100.
WHAP (Brooklyn, N. Y.).—Change to New York, N. Y., 426 West Thirty-first Street; power, 500.
WHT (Deerfield, Ill.).—Power, 2,500.
WIBS (Elizabeth, N. J.—portable).—Power, 10.
WIBX (Utica, N. Y.).—Power, 150.
WJAK (Greentown, Ind.).—Power, 50.
WKAA (Cedar Rapids, Iowa).—Call signal changed to KWCR.
WKAF (Milwaukee, Wis.).—Power, 500.
WLAL (Tulsa, Okla.).—Power, 100.
WLWL (New York, N. Y.).—Power, 1,500.
WNJ (Newark, N. J.).—Power, 150.
WRAV (Richmond, Va.).—Correct call signal, WRVA.
WRR (Dallas, Tex.).—Power, 500; w. l., 246, fy. kc. 1,220.
Strike out all particulars following the call signals, KFAW (Santa Ana, Calif.); KFDH (Tucson, Ariz.); KFFV (Lamoni, Iowa); KFGX (Orange, Tex.); KFIO (Spokane, Wash.); KFKQ (Conway, Ark.); KFQC (Taft, Calif.); KFQT (Denison, Tex.); KFRX (Pullman, Wash.); KFRZ (Hartington, Nebr.); KFVX (Bentonville, Ark.); KOP (Detroit, Mich.); WAAC (New Orleans, La.); WBAV (Columbus, Ohio); WBBA (Newark, Ohio); WBBU (Monmouth, Ill.); WCAZ (Carthage, Ill.); WDBQ (Salem, N. J.); WEBA (Highland Park, N. J.); WGBW (Spring Valley, Ill.); WIBQ (Farina, Ill.); WKAP (Cranston, R. I.); WNAR (Butler, Mo.); WQAC (Amarillo, Tex.); WRHF (Washington, D. C.).

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 Berne bureau]

COLON, C. Z.—*Read* Colon, Panama.
WASHINGTON, D. C. (Sayville, N. Y.).—Temporarily out of commission (add footnote 13 list of Commercial and Government Radio Stations of the United States).

GOVERNMENT LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS

NAP, *read* St. Augustine, Fla.—*c* (U. S. L.); NAX, *read* Colon, Panama; NDD, temporarily out of commission; NISP, *read* Detroit—b (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, 1925]

CAMP ALFRED VAIL, N. J. (2XBB).—Change to Fort Monmouth, N. J.

BROADCASTING STATIONS EQUIPPED SO AS TO SUPPRESS HARMONICS

Hereunder is given a list of broadcasting stations reported by supervisors of radio of this office as being equipped so as to suppress harmonics.

Call signal	Location	Owner
KDKA	East Pittsburgh, Pa.	Westinghouse Electric & Manufacturing Co.
KFDM	Beaumont, Tex.	Magnolia Petroleum Co.
KFJF	Oklahoma, Okla.	National Radio Manufacturing Co.
KOB	State College, N. Mex.	New Mexico College of Agriculture and Mechanic Arts.
KPRC	Houston, Tex.	Post Dispatch.
KTHS	Hot Springs, Ark.	New Arlington Hotel.
KWWG	Brownsville, Tex.	City of Brownsville, Board of City Development.
WABX	Mount Clemens, Mich. (near)	Henry B. Joy.
WAHG	Richmond Hill, N. Y.	A. H. Grebe & Co.
WAPI	Auburn, Ala.	Alabama Polytechnic Institute.
WBAL	Baltimore, Md.	Consolidated Gas, Electrical Light & Power Co.
WBAP	Fort Worth, Tex.	Fort Worth Star-Telegram.
WBAX	Wilkes-Barre, Pa.	John H. Stenger, jr.
WBBR	Rossville, N. Y.	Peoples Pulpit Association.
WBDC	Grand Rapids, Mich.	Baxter Laundry Co.
WCAE	Pittsburgh, Pa.	Kaufmann & Baer Co.
WCAP	Washington, D. C.	Chesapeake & Potomac Telephone Co.
WCAR	San Antonio, Tex.	Southern Radio Corporation of Texas.
WCAU	Philadelphia, Pa.	Universal Broadcasting Co. (Durham & Co.).
WCX	Pontiac, Mich.	Detroit Free Press.
WEAF	New York, N. Y.	American Telephone & Telegraph Co.
WEBK	Grand Rapids, Mich.	Grand Rapids Radio Co.
WFAA	Dallas, Tex.	Dallas News and Dallas Journal.
WFDF	Flint, Mich.	Frank D. Fallain.
WFI	Philadelphia, Pa.	Strawbridge & Clothier.
WGBS	New York, N. Y.	Gimbel Bros.
WGBU	Fulford-by-the-Sea, Fla.	Florida Cities Finance Co.
WHAP	New York, N. Y.	William H. Taylor Finance Corporation.
WHAR	Atlantic City, N. J.	Seaside Hotel.
WJAD	Waco, Tex.	Frank P. Jackson.
WJR	Pontiac, Mich.	Jewett Radio & Phonograph Co.
WKAR	East Lansing, Mich.	Michigan State College.
WLW	Harrison, Ohio.	Crosley Radio Corporation.
WLWL	New York, N. Y.	Missionary Society of St. Paul the Apostle.
WOAI	San Antonio, Tex.	Southern Equipment Co.
WOR	Newark, N. J.	L. Bamberger & Co.
WPG	Atlantic City, N. J.	Municipality of Atlantic City.
WRC	Washington, D. C.	Radio Corporation of America.
WRNY	New York, N. Y.	Experimenter Publishing Co.
WRR	Dallas, Tex.	City of Dallas.
WRVA	Richmond, Va.	Larus & Bro. Co.
WSAI	Mason, Ohio.	United States Playing Card Co.
WSB	Atlanta, Ga.	Atlanta Journal.
WSM	Nashville, Tenn.	National Life & Accident Insurance Co.
WSMB	New Orleans, La.	Saenger Amusement Co. & Maison Blanche Co.
WTAM	Cleveland, Ohio.	Willard Storage Battery Co.
WWJ	Detroit, Mich.	Detroit News.

ST. MARYS OF THE SEA (FRANCE) COAST STATION REOPENED

This station (S. Maries de la Mer) is now open to general public service under the following conditions:

This station communicates exclusively with ships provided with a continuous-wave installation; rate, 40 centimes per word. It listens in constantly on 2,100 meters, except from the fifteenth to the twenty-fifth minute and from the thirty-fifth to the forty-fifth minute of each even hour. It calls ships on 2,400 meters.

To listen in for the station or reply to its calls, ships use the wave length of 2,100 meters; they transmit radiograms on 2,100 meters if the station does not indicate in its response to a call that it desires to receive traffic on another wave length.

The station answers calls and transmits radiograms on the normal wave length of 2,400 meters. If the ship corresponding desires to receive radiograms on another wave length, it transmits, following its response to the call, the signal QSY (1,800, 2,100, or 2,200) — · — ·.

At the beginning of each even hour the station emits for one minute, on 2,100

2,200 . — . . . , followed by a series of the same duration on 2,200, then on 2,400 meters. It then calls successively on 2,400 meters the ships for which it has radiograms to transmit. The traffic is handled in the order of transmission indicated at the time of the call.

For the exchange of traffic with ships which operate only on 2,400 meters the station emits on 2,400 meters, at the beginning of the fifteenth minute of each even hour (except at 0015), the signal CQ DE FFS QTC? QSY 2,400 — . — and rests to listen in on 2,400 meters until the twenty-fifth minute.

For the exchange of traffic with ships which operate only on the wave length of 1,800 meters the station emits, on 2,400 meters, at the beginning of the thirty-fifth minute of each even hour (except at 2,035) the signal CQ DE FFS QTC? 1,800 — . . — and rests to listen in on 1,800 meters until the forty-fifth minute.

The hours mentioned above refer to Greenwich meridian time (G. M. T.).

RADIOCOMPASS INSTALLATION

The yacht *Stalia* (WFY) is now equipped with a radiocompass.

NEW RADIO FOG SIGNALS ESTABLISHED BY LIGHTHOUSE SERVICE, DEPARTMENT OF COMMERCE

Buffalo Light Station, N. Y.—Location, latitude 42° 52′ 40″ N., longitude 78° 53′ 56″ W. Characteristic: Sounds every 120 seconds; single dashes for 60 seconds, silent 60 seconds, thus:

— — — — — — — — — — etc. (60 seconds) Silent (60 seconds)

Detroit River Light Station, Mich.—Location, latitude 42° 00′ 03″ N., longitude 83° 08′ 28″ W. Characteristic: Sounds every 120 seconds; groups of 2 dashes for 50 seconds, silent 70 seconds, thus:

— — — — — — — — etc. (50 seconds) Silent (70 seconds)

The signals of the two stations mentioned above will also be sounded daily in clear weather from 9 to 9.30 a. m. and from 3 to 3.30 p. m. (ninetieth meridian time). These stations do not maintain radio communication service.

Los Angeles Harbor Light Station, Calif.—Location, latitude 33° 42′ 31″ N., longitude 118° 15′ 03″ W. Characteristic: Sounds every 120 seconds; single dashes for 60 seconds, silent 60 seconds, thus:

— — — — — — — — — — etc. (60 seconds) Silent (60 seconds)

Point Arguello Light Station, Calif.—Location, latitude 34° 34′ 38″ N., longitude 120° 38′ 59″ W. Characteristic: Sounds every 105 seconds; groups of 3 dashes for 60 seconds, silent 45 seconds, thus:

— — — — — — — — — etc. (60 seconds) Silent (45 seconds)

Point Sur Light Station, Calif.—Location, latitude 36° 18′ 24″ N., longitude 121° 54′ 03″ W. Characteristic: Sounds every 150 seconds; groups of 1 dot, 2 dashes, 1 dot, for 60 seconds, silent 90 seconds, thus:

. — — . . — — . . — — . etc. (60 seconds) Silent (90 seconds)

Cape Blanco Light Station, Oreg.—Location, latitude 42° 50′ 15″ N., longitude 124° 33′ 36″ W. Characteristic: Sounds every 90 seconds; groups of 1 dash and 1 dot for 60 seconds, silent 30 seconds, thus:

— . — . — . — . — . — . etc. (60 seconds) Silent (30 seconds)

The signals of the four above-mentioned stations will also be sounded daily in clear weather from 9 to 9.30 a. m. and from 3 to 3.30 p. m. (one hundred and twentieth meridian time). These stations do not maintain radio communi-

CHANGE IN CHARACTERISTIC OF RADIO FOG SIGNALS

Detour Light Station, Mich.—Characteristic sounds every 180 seconds; groups of 4 dashes for 90 seconds, silent 90 seconds, thus:

— — — — — — — — etc. / 90 seconds Silent / 90 seconds

Whitefish Point Light Station, Mich.—Characteristic sounds every 180 seconds; single dashes for 60 seconds, silent 120 seconds, thus:

— — — — — — — — etc. / 60 seconds Silent / 120 seconds

RADIO FOG SIGNALS ESTABLISHED IN SPAIN

Punta Besugueiros Light Station, Salvora Island, Arosa Bay.—Location (approximately), latitude 42° 27′ 51″ N., longitude 9° 00′ 49″ W. The signal consists of the letters SOO (. . . — — — . — — —), repeated during 30 seconds, after which there is a silent interval of 4.5 minutes, period 5 minutes. The silent interval between the letters is ½ second. The range of the signal is 30 miles, and it is made on 1,000 meters.—*Avisos a los Navegantes 40 (1193), Madrid, October 3, 1925.*

Cape Silleiro Light Station, Vigo Bay Entrance.—Location (approximately), latitude 42° 06′ 18″ N., longitude 8° 53′ 42″ W. The signal consists of the letters RO (.—. — — —), repeated for 30 seconds, after which there is a silent interval of 4.5 minutes, period 5 minutes. The silent interval between the letters is ½ second. The range of the signal is 30 miles, and it is made on 1,000 meters.—*Avisos a los Navegantes 40 (1192), Madrid, October 3, 1925.*

CHANGE IN WAVE LENGTH FOR TRANSMISSION OF WEATHER REPORTS BY BUFFALO (N. Y.) STATION WAM

This station now transmits weather reports and hydrographic information on 715 meters, c. w. and i. c. w.

NAVIGATIONAL WARNINGS TRANSMITTED BY SPANISH STATIONS

The radio station of Ferrol, call signal EBW, range 440 miles, location, 43° 28′ 52″ N., 8° 14′ 05″ W., the station of San Fernando (Cadiz), call signal CLZ, range 60 miles, location 36° 29′ 30″ N., 6° 10′ 50″ W., and the station of Cartagena, call signal EBX, range 210 miles, location 37° 35′ 56″ N., 0° 59′ 18″ W., send out in Spanish on 600 meters urgent notices to mariners covering derelicts, floating mines, buoys out of position or missing, firing practice, etc., in the following manner:

The warning is preceded by the signal — — — (TTT), repeated 5 times during 1 minute, followed 1 minute later by the text, which is preceded by the word "avurnave," a contraction of "Aviso urgente a lost navegantes" (urgent notice to mariners), and the name of the radio station transmitting. The warning is repeated 3 times in 10 minutes and is usually transmitted 3 days in succession, unless otherwise ordered by the Spanish Hydrographic Office. The following is an example of the warning emanating from the station of Ferrol:

TTT Avurnave Ferrol Peligro flotante 4425 0712 NW., which, translated into English and paraphrased, reads as follows: "Floating obstruction in 44° 25′ N., 7° 12′ W.

The warning concerning firing practice is transmitted one hour before the practice starts.—*Avisos a los Navegantes 39 (1150), Madrid, September 26, 1925.*

COMPASS STATION ESTABLISHED AT BELLE ISLE, NEWFOUNDLAND

This station, located in latitude 51° 52′ 52″ N., longitude 55° 21′ 44″ (Strait of Belle Isle Entrance, 336 feet 315° 23′ from the lighthouse on the southern end of Belle Isle), will furnish bearings on 800 meters after communication has first been established on 600 meters, the wave length on which the station maintains constant watch.—*Notice to Mariners, 72 (190), Ottawa, 1925.*

KILOCYCLE-METER CONVERSION TABLE

There is increasing tendency in radio practice to use radio-frequencies in kilocycles rather than wave lengths in meters. "Kilo" means a thousand, and

kc.) indicates the number of thousands of times that the rapidly alternating current in the antenna, transmitting set, or receiving set repeats its flow in either direction in one second.

The Bureau of Standards has just issued in chart form a Kilocycle-Meter Conversion Table. It is Miscellaneous Publication No. 67 and replaces Letter Circular No. 123 of January 27, 1925. The table is printed on a single sheet of cardboard and can be posted in a convenient place for ready reference.

The table gives accurate values of kilocycles corresponding to any number of meters, and vice versa. The table gives values for every 10 kilocycles or meters and is entirely reversible; that is, for example, 50 kilocycles is 5,996 meters and also 50 meters is 5,996 kilocycles. The range of the table is from 10 to 10,000 kilocycles (10,000 to 10 meters), and this can be extended in either direction by changing the decimal point.

Copies may be obtained for 5 cents each from the Superintendent of Documents, Government Printing Office, Washington, D. C.

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 Oct. 20, 1925
						Per cent	*Per cent*
WQL	Radio Corporation of America.	Ocean Hill, L. I., N. Y.	17.13	11	75	6.2	9.1
NSS	United States Navy	Annapolis, Md.	17.50	27	202	.2	.1
WCI	Radio Corporation of America.	Barnegat, N. J.	17.45	9	50	.2	.3
WGG	Do.	Tuckerton, No. 1, N. J.	18.80	27	212	.2	.3
WII	Do.	New Brunswick, N. J.	21.80	7	60	.1	.4
WRT	Do.	do.	22.60	6	20	.2	(1)
WVA	United States Army	Annapolis, Md.	100	8	94	.2	.4
NAA	United States Navy	Arlington, Va.	[2]113	1	10	.0	.2
WJR	Jewett Radio & Phonograph Co.	Pontiac, Mich.	[2]580	2	11	.0	.0
WCX	Detroit Free Press	Detroit, Mich.	610	11	82	.0	.6
WEAF	American Telephone & Telegraph Co.	New York, N. Y.	640	26	115	.1	.3
WRC	Radio Corporation of America.	do.	840	23	104	.1	.2
WSB	Atlanta Journal	Atlanta, Ga.	700	26	124	.2	.3
WGY	General Electric Co.	Schenectady, N. Y.	790	29	149	.1	.0
WBZ	Westinghouse Electric & Manufacturing Co.	Springfield, Mass.	900	19	63	.1	.2
KDKA	Do.	East Pittsburgh, Pa.	970	26	188	.1	.3

[1] Not measured since Oct. 20.
[2] Time signal frequency.

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 engineers 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 and published in the Radio Service Bulletin prior to April, 1923, and also in May and September, 1923.

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