

## RADIO SERVICE BULLETIN

ISSUED MONTHLY BY RADIO DIVISION

Washington, June 30, 1927—No. 123

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## ABBREVIATIONS

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

- Name = Name of station.
- Loc. = Geographical location. O = west longitude. N = north latitude. S = south latitude.
- Call = Call letters assigned.
- System = Radio system used and sparks per second.
- Range = Normal range in nautical miles.
- W. l. = Wave lengths assigned: Normal wave lengths in italics.
- Service = Nature of service maintained:  
 FX = Point-to-point (fixed service);  
 PG = General public.  
 PR = Limited public.  
 RC = Radiocompass.  
 AB = Aviation beacon.  
 B = Beacon.  
 P = Private.  
 O = Government business exclusively.
- Hours = Hours of operation:  
 N = Continuous service.  
 X = No regular hours.
- F. T. Co. = Federal Telegraph Co.  
 I. R. T. Co. = Intercity Radio Telegraph Co.  
 I. W. T. Co. = Independent Wireless Telegraph Co.  
 K. & C. = Kilbourne & Clark Manufacturing Co.  
 R. C. A. = Radio Corporation of America.  
 T. R. T. Co. = Tropical Radio Telegraph Co.  
 U. R. Corp. = Universal Radio Corp.  
 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. = Applies only to the list of Commercial and Government Radio Stations of the United States.

## 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, 1926, and to the International List of Radiotelegraph Stations published by the Berne bureau]

Station	Call signal	Wave lengths	Service	Hours	Station controlled by—
Anniston (permanently moored vessel near Mobile, Ala.) <sup>1</sup>	KIDM	600, 700.....	FX	X	United States Shipping Board.
Darlington, Md. (near) <sup>2</sup>	WBY	101.3.....	FX	X	Baltimore Power Co.
Duluth, Minn. <sup>3</sup>	WRI	715, 875, 890, 1575, 1674, 1800, 2100, 2400.	PG	N	R. C. A.
Elgin, Ill. <sup>4</sup>	WNBT	53.5.....			Elgin National Watch Co.
L. McN. & L. VI No. 1 (permanently moored vessel in Kvichak River, Alaska). <sup>5</sup>	KTQ	600, 700.....	P	X	Lobby, McNeill & Lfby.
Philadelphia, Pa. <sup>6</sup>	WJV	60.41.....	FX	X	Philadelphia Electric Co.
Rocky Point, N. Y. <sup>7</sup>	WBU	14.00.....	FX	N	R. C. A.
Do. <sup>8</sup>	WQQ	14.8.....	FX	N	Do.
Do. <sup>9</sup>	WTT	16.02.....	FX	N	Do.

<sup>1</sup> Range, 300; system, Navy-Lowenstein, 1,000.

<sup>2</sup> Range, 200; system, composite v. t. telegraph and telephone.

<sup>3</sup> Range, 300; system, R. C. A. v. t. telegraph; rates, ship service 70c (58 centimes) per word.

<sup>4</sup> Range, 200; system, composite v. t. telegraph; this station transmits special time signals, no regular hours of operation at present time.

<sup>5</sup> System, composite, 1,000.

<sup>6</sup> Range, 200; system, composite v. t. telegraph and telephone.

<sup>7</sup> Loc. 72° 56' 30" W., 40° 55' 45" N.; range, 4,000; system, R. C. A. v. t. telegraph.

<sup>8</sup> Loc. 72° 56' 15" W., 40° 55' 20" N.; range, 4,000; system, R. C. A. 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, 1926, and to the International List of Radiotelegraph Stations published by the Berne bureau]

Name of vessel	Call signal	Range	Service	Hours	Owner of vessel	Station controlled by—
Caracas <sup>1</sup>	KDB	8	PG	X	Atlantic & Caribbean Steam Navigation Co.	
Carl D. Bradley <sup>2</sup>	WOBK		PG	X		
C. O. Webber <sup>3</sup>	WOBM		P	X	Inland Waterways Corporation.	
Cluky <sup>4</sup>	WOBF	8	PG	X	Chile S. S. Co.	
Commodore	WOBJ				Lewis & Cook	
Euskoff <sup>5</sup>	KZAZ	8	PG	X	Matrigal & Co.	
General Ashburn <sup>6</sup>	WOBL		P	X	Inland Waterways Corporation.	
Haihong <sup>7</sup>	KZBS	8	PG	X	Juan Sandoval Go Juanco	Owner of vessel.
Josefin <sup>8</sup>	KZBC	8	PG	X	Matrigal & Co.	Do.
Nor'easter	WOBK				E. M. Chance	
Radio <sup>9</sup>	WOBP		P	X	Boston Maritime Co.	Donald B. MacMillan.
Rosario	WOBH				Louis Bradbury	R. C. A.
Shawnee <sup>1</sup>	WOBG	8	PG	X	New York & Miami S. S. Co.	
Tillamook <sup>2</sup>	WIFP	8	PG	X	Bwynne & Hoyt	F. T. Co.
Zapala	WOBG				Howard E. Coffin	

<sup>1</sup> W. l., 600, 700.

<sup>2</sup> W. l., 715, 875, rates, Great Lakes service, 4¢ per word.

<sup>3</sup> W. l., 600, 1,100.

<sup>4</sup> Range, 200; system, Mareconi, 1,000; w. l., 300, 600, 650.

<sup>5</sup> Range, 100; system, composite, 1,000; w. l., 300, 600.

<sup>6</sup> System, Mareconi, 1,000; w. l., 300, 600, 700.

<sup>7</sup> Range, 100; system, composite v. t. telegraph and telephone; w. l., 27.43, 74.77, 115.3, 600.

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
KDB	Caracas.....b	WOB	Radio.....b
KIDM	Anniston (permanently moored vessel near Mobile, Ala.).....c	WOB	Chuky.....b
KTQ	L. McN. & L. VI No. 1 (permanently moored vessel in Kvichak River, Alaska).....c	WOB	Shawnee.....b
KZAZ	Euskadi.....b	WOB	Rosario.....b
KZBO	Josafina.....b	WOB	Nor'castles.....b
KZBS	Halborg.....f	WOB	Commodore.....b
WBV	Rocky Point, N. Y.....c	WOB	Carl D. Bradley.....b
WHP	Tillamook.....b	WOB	General Ashburn.....b
WJV	Philadelphia, Pa.....c	WOB	O. C. Webber.....b
WNBT	Elgin, Ill.....c	WQ	Rocky Point, N. Y.....c
WOB	Zapala.....b	WRL	Duluth, Minn.....c
		WBY	Darlington, Md. (near).....c
		WTT	Rocky Point, N. Y.....c

Broadcasting stations, alphabetically, by call signals

Call signal	Location of station (address)	Owner of station	Power (watts)	Wave length	Frequency (kilocycles)
KPVN	Fairmont, Minn.....	Carl E. Bagley.....	100	228.9	1,310
KFXD	Jerome, Utah.....	Service Radio Co.....	15	204	1,470
KQFW	Ravenna, Neb., 318 Grand Ave.....	Otto E. Sothman.....	10	297.8	1,000
WHPP	New York, N. Y., 653 Southern Boulevard.....	Bronx Broadcasting Co.....	10	200.5	1,450
WMES	Boston, Mass., Barristers Hall.....	Massachusetts Educational Society.....	100	211.1	1,424
WNBW	Carbondale, Pa., 21 Salem Ave.....	Home Cut Glass & China Co.....	5	258.5	1,100
WNBX	Springfield, Vt.....	First Congregational Church.....	10	241.8	1,240
WRK	Hamilton, Ohio, 3 Railroad St.....	S. W. Darrow & John C. Elade.....	100	205.4	1,400
WBBF	St. Louis, Mo., Sixth and Washington Sts.....	Mississippi Valley Broadcasting Co.....	250	442.9	680

Broadcasting stations, alphabetically, by names of States and cities

[Additions to the List of Radio Stations of the United States, edition of June 30, 1926]

State and city	Call signal	State and city	Call signal
Massachusetts: Boston.....	WMES	Ohio: Hamilton.....	WRK
Minnesota: Fairmont.....	KPVN	Pennsylvania: Carbondale.....	WNBW
Missouri: St. Louis.....	WBBF	Utah: Jerome.....	KFXD
Nebraska: Ravenna.....	KQFW	Vermont: Springfield.....	WNBX
New York: New York.....	WHPP		

Government land stations, alphabetically, by names of stations

[Additions to the List of Radio Stations of the United States, edition of June 30, 1926, and to the International List of Radiotelegraph Stations published by the Berna bureau]

Station	Call signal	Wave length	Service	Hours	Station controlled by—
New York, N. Y. (New York Bay RC Group).	NYJ	500	RO	N	U. S. Navy.

*Special land stations, alphabetically, by names of stations*

[Additions to the List of Radio Stations of the United States, edition of June 30, 1926]

Station	Call signal	Station controlled by—
Everett, Wash. ....	7XS	American Tug Boat Co.
Houlton, Me. ....	1XA	American Telephone & Telegraph Co.
Houlton, Me. (portable).....	1XR	Do.

*Special land stations, grouped by districts*

Call signal	District and station	Call signal	District and station
1XA 1XR	First district: Houlton, Me. Houlton, Me. (portable).	7XS	Seventh district: Everett, Wash.

**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, 1926, and to the International List of Radiotelegraph Stations, published by the Berns Bureau]

- A. AND P. NAKEEN NO. 7.**—Change to ship station; range, 25; system, composite v. t. telegraph; w. l., 600, 700; service, P; hours, X.
- BOCA DE QUADRA, ALASKA;** range, 100; system, composite v. t. telegraph; w. l., 1,704.
- BOLINAS, CALIF. (KPH).**—Range, strike out 300; system, strike out R. C. A. (spark); w. l., 600, 675, 2,200, 2,375.
- BOSTON, MASS. (WBF).**—W. l., add 1,700.
- BUFFALO, N. Y. (WBL).**—W. l., add 1,800.
- CHATHAM, MASS. (WIM).**—W. l., 600, 743, 2,200.
- DALLAS, TEX. (KVP).**—Service, FX.
- DULUTH, MINN. (WME).**—W. l., add 875.
- ENSENADA, P. R.**—W. l., add 725, 830.
- FALSE PASS, ALASKA.**—W. l., strike out 525.
- FORT MORGAN, ALA.**—Range, 150; system, composite, 1,000; w. l., 600, 680, 1,713.
- GALVESTON, TEX.**—W. l., 600, 830, 2,150, 2,200.
- HILLSBORO, OREG. (KGH-Portland).**—W. l., 4,207, 6,316, 8,696.
- LUDINGTON, MICH.**—System, R. C. A. v. t. telegraph.
- MARSHFIELD, OREG.**—W. l., 600, 675, 706, 2,400.
- MOBILE, ALA. (WNN).**—W. l., 600, 680, 1,713, 2,100.
- NEW ORLEANS, LA.**—W. l., add 2,125.
- NYAC, ALASKA.**—Read Bear Creek, Alaska.
- PALM BEACH, FLA.**—System, I. W. T. Co. arc and Marconi, 1,000 (spark); w. l., 600, 650, 1,625, 1,850, 2,100, 2,275.
- PALO ALTO, CALIF. (KFS).**—System, F. T. Co. arc and F. T. Co. v. t. telegraph.
- RED BLUFF BAY, ALASKA.**—Owner of station, Baranof Packing Co.
- SNUG HARBOR, ALASKA.**—Range, 150; system, Cutting & Washington, 1,000; w. l., 600, 1,650.
- TAKU HARBOR, ALASKA.**—Range, 150; system, composite, 1,000; w. l., 600, 706, 900.
- TAMPA, FLA.**—W. l., 600, 700.
- TUCKERTON, N. J. (WSC).**—W. l., 600, 650, 2,175, 2,425.
- TYEE, ALASKA.**—Range, 150; system, composite, 1,000; w. l., 600, 706.
- Strike out all particulars of the following-named stations: Fairbanks, Alaska; Point Barrow, Alaska.

## 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, 1928, and to the International List of Radiotelegraph Stations, published by the Berns bureau)

- ABANGAREZ.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.
- ABBABOKA.—W. l., 600, 706.
- ALADDIN.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.
- ALBERT E. WATTS.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.
- ALDEN A. MILLS.—Range, 100; system, R. C. A. v. t. telegraph; w. l., 600, 706, 800.
- ALEDO.—W. l., 600, 706.
- ALMERIA LYKES.—W. l., 600, 706, 800.
- AMASA STONE.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 715, 800, 875, 1,800, 1,900, 2,000, 2,100, 2,400.
- ANN ARBOR No. 8.—W. l., 715, 875; service, PG; hours, X; rates, 8¢ per word.
- ANNISTON CITY.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.
- AQUARIUS.—W. l., strike out 450.
- ARCADIA.—Owner of vessel, Galen L. Stone, estate.
- ASTORIA.—Name changed to Moody; owner of vessel, Astoria Co.
- ASTORIA (KGEF).—Range, 200; system, F. T. Co., 1,000; w. l., 600, 706, 800.
- AMOLCO.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.
- ASTRAL (KIQ).—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.
- ATENAS.—W. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.
- ATLANTA CITY.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.
- BALLENAB.—Owner of vessel, W. E. Hedger Co.
- BARRENFORK.—W. l., 600, 706.
- BARRYTON.—W. l., 450, 600, 706.
- BELVIDERE.—W. l., 450, 600, 706.
- BERING.—W. l., 600, 706.
- BERESHIRE (KUVG).—Range, 200; system, Navy, 1,000; w. l., 600, 706, 800; station controlled by R. C. A.
- BESSEMER.—W. l., 600, 706.
- BULKO.—Owner of vessel, C. B. Watson.
- BROOKINGS.—Owner of vessel, Andrew F. Mahony Co.
- CABEGON.—W. l., 600, 706.
- C. A. CANFIELD.—W. l., add 750.
- CALAMARES.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.
- CALIFORNIAN.—W. l., 600, 706, 800.
- CANSUMSET.—W. l., 600, 706.
- CAPE ROMAIN.—W. l., 600, 706.
- CARABOBO.—W. l., 600, 706, 750, 800, 900.
- CARILLO.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.
- CASCADE.—W. l., 600, 706.
- CENTURION.—W. l., 600, 706.
- CHAPPAQUA.—W. l., 450, 600, 706.
- CHARLES E. HARWOOD.—W. l., 600, 706, 750, 800.
- CHARLES G. BLACK.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 1,800, 1,900, 2,000, 2,100, 2,400.
- CHARLES L. O'CONNOR.—W. l., 600, 706.
- CHARLES M. SCHWAB.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 715, 800, 875, 1,800, 1,900, 2,000, 2,100, 2,400.
- CHESTER KIWANIS.—W. l., 450, 600, 706.
- CHETOPA.—W. l., 450, 600, 706.
- CHILBAR.—W. l., 450, 600, 706.
- CHILOIL.—W. l., 450, 600, 706.
- CHILSCO.—W. l., 450, 600, 706.
- CHIPPEWA.—W. l., 715, 875.
- CITY OF JOLIET.—W. l., 600, 706.
- CITY OF NOME.—W. l., 600, 706.
- CITY OF SPOKANE.—W. l., 600, 706, 800.

- CITY OF WEATHERFORD.—W. I., 600, 706, 800.  
 CLARE.—System, R. C. A. v. t. telegraph; w. l., add 750.  
 CLARENCE A. BLACK.—W. I., 715, 875; service, PG; hours, X; rates, Great Lakes service, 4¢ per word.  
 CLAUDE.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 CLEARWATER.—W. I., 600, 706, 800.  
 CLETUS SCHNEIDER.—W. I., strike out 600.  
 COL. JAMES M. SCHOONMAKER.—W. I., 715, 875; service, PG; hours, X; rates, Great Lakes service, 4¢ per word.  
 COLONEL JAMES PICKANDS.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 715, 800, 875, 1,800, 1,900, 2,000, 2,100, 2,400.  
 COMMERCIAL GUIDE.—System, R. C. A. v. t. telegraph; w. l., 606, 706, 750, 800.  
 COMET.—Station controlled by R. C. A.  
 COPPENAME.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 900, 1,800, 1,900, 2,000.  
 CRAMPTON ANDERSON.—W. I., add 750.  
 CUBA (KDRT).—W. I., add 750.  
 DARTFORD.—W. I., 600, 706; owner of vessel, Gladstone Transp. Co.  
 DEAN EMERY.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 DELECTO.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 DELPHINE.—Owner of vessel, Anna Dodge Dillman; station controlled by R. C. A.  
 DISTRICT OF COLUMBIA.—Station controlled by F. T. Co.  
 D. M. BENTON.—W. I., 600, 706; service, PG; hours, X; rates, 8¢ per word.  
 DIXIANO.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 DILCINO.—Range, 200; system, R. C. A. v. t. telegraph; w. l., 600, 706, 800.  
 EAGLE (KIB).—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 EDGEMOOR.—W. I., 600, 706.  
 EDWARD L. SHEA.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.  
 E. R. KEMP.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 ESPARTA.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.  
 ESTHER WREMS.—Name changed to Admiral Benson; owner of vessel, Portland-California S. S. Co.  
 ESTRADA PALMA.—W. I., add 750.  
 ETHEL M. STEKLING.—W. I., 600, 706; service, PG; hours, X; rates, 8¢ per word.  
 EVANGELINE.—W. I., 600, 706.  
 FAITH.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 FELTORE.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 FIRE BOAT NO. 31.—W. I., add 600.  
 FIRE BOAT NO. 44.—W. I., add 600.  
 FOAM (KFUE).—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 FORT ARMSTRONG.—W. I., 600, 706.  
 FOUR WINDS.—W. I., 35.03, 120, 600; service, P.  
 FRANK D. STOUT.—W. I., 600, 706; service, PG; hours, X; rates, 8¢ per word; owner of vessel, Andrew F. Mahony.  
 FRANKLIN K. LANE.—W. I., add 750.  
 GENEVEVE LYKES.—W. I., strike out 875.  
 GLENDARUEL.—Name changed to Willa Crosby.  
 GOLD SHELL.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 GOVERNOR COBB.—W. I., add 750.  
 GULF PRIDE.—W. I., 600, 706.  
 HALIGONIAN.—W. I., add 600.  
 HAPPY DAYS.—Service, PG; hours, X; rates, 8¢ per word; station controlled by R. C. A.  
 HAROLD WALKER.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 HARRY COULBY.—W. I., 715, 875.  
 HENRY M. FLAGLER.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 HENRY W. BREYER.—W. I., 600, 706.  
 H. J. LAWRENCE.—W. I., 600, 706, 800.  
 I. C. WHITE.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 ILLINOIS (WCZ).—W. I., 715.  
 IRIS.—Station controlled by F. T. Co.  
 IROQUOIS.—W. I., 600, 706.  
 ISONZO.—W. I., 600, 706.

- JAMES McNAUGHTON.—W. l., 715, 800, 875.  
 J. C. DONNELL.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 J. FLETCHER FARRELL.—W. l., add 750, 900.  
 JOHN A. TOPPING.—W. l., 715, 875; rates, Great Lakes service, 4¢ per word.  
 JOSEPHINE.—W. l., 600, 706.  
 JOSEPH M. CUDAHY.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 JOSEPH R. PARROTT.—W. l., add 750.  
 KAMESIT.—W. l., 450, 600, 706.  
 KEKOSKEE.—W. l., 450, 600, 706.  
 KISUACOQUILLAS.—W. l., 600, 706, 800.  
 LAKE ELLITHORPE.—W. l., 600, 706.  
 LAKE FITHIAN.—W. l., 600, 706.  
 LAKE GALEWOOD.—W. l., 600, 706.  
 LAKE GILTEDGE.—Station controlled by owner of vessel.  
 LAKE INGLENOCK.—W. l., 600, 706.  
 L. E. BLOCK.—W. l., 715, 875.  
 LENA LUCKENBACH.—W. l., 600, 706, 800.  
 LEVISA.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 LIMON.—W. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.  
 LOUIS M. WINSLOW.—Range, 100; system, R. C. A. v. t. telegraph; w. l., 600, 706, 800.  
 MALA.—W. l., 450, 600, 706.  
 MALOLO.—W. l., 600, 706.  
 MARY WEBBS.—Name changed to Admiral Peoples.  
 MAURICE TRACT.—W. l., 600, 706.  
 MAZATLAN.—Station controlled by F. T. Co.  
 METAPAN.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.  
 MIAMI (KOZ).—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800.  
 MICHAEL TRACY.—W. l., 600, 706.  
 MILTON S. PATRICK.—W. l., 600, 706.  
 MILWAUKEE BRIDGE.—Name changed to Malama; w. l., 600, 706; station controlled by F. T. Co.  
 MISSOURI.—W. l., 600, 1,100.  
 MOUNT EVANS.—System, Navy-K. & C., 1,000; w. l., 600, 706, 800.  
 MYSTIC.—Owner of vessel, Beaverson Corporation.  
 NEBRASKAN (WMV).—Owner of vessel, American-Hawaiian S. S. Co.  
 NEVADIAN.—Owner of vessel, American-Hawaiian S. S. Co.  
 NORMAN BRIDGE.—W. l., add 750.  
 NORTHERN LIGHT.—W. l., 600, 706; service, PG; hours, X; rates, 8¢ per word.  
 OAKLEY L. ALEXANDER.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.  
 OLEAN.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 PANAMA.—Name changed to Aleutian.  
 PAPOOSE.—W. l., 600, 706.  
 PASTORES.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.  
 PENNSYLVANIAN.—W. l., strike out 450.  
 POINT FERMIN.—W. l., add 706; station controlled by F. T. Co.  
 POINT LOBOS.—Station controlled by F. T. Co.  
 POINT MONTARA.—Range, 300; system, Navy, 1,000; w. l., 600, 706, 800.  
 PRESIDENT ARTHUR.—Name changed to City of Honolulu.  
 RADNOR.—Range, 200; system, Navy, 1,000; w. l., 600, 706, 800.  
 RIPOSO.—W. l., 600, 706.  
 ROBERT HOBSON.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 715, 800, 875, 1,800, 1,900, 2,000, 2,100, 2,400.  
 SACCARAPPA.—Range, 300; system, Navy-W. S. A. Co., 1,000; w. l., 600, 706, 800.  
 SACHEM.—Name changed to Ungava.  
 SAGAMI.—W. l., 600, 706; hours, X.  
 SAMUEL L. FULLER.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800.  
 SAMUEL MATHER.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 715, 800, 875, 1,800, 1,900, 2,000, 2,100, 2,400.  
 SAN JOSE.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.  
 SAN MATEO.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.

- SARACACCA.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.
- ST. HELIERS.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800.
- SEMINOLE (KUGP).—W. l., 600, 706.
- SEWALLS POINT.—W. l., 450, 600, 706.
- SHARON.—W. l., 600, 706.
- SHOOTERS ISLAND.—W. l., 450, 600, 706.
- SINAI.—W. l., 600, 706, 800.
- SIXAOALA.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.
- SOUTHLANDS.—Owner of vessel, Lykes Brothers S. S. Co.
- STANLEY.—W. l., 600, 706, 800.
- STEEL VOYAGER.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.
- SULANIERCO.—System, Navy-W. S. A. Co., 1,000; w. l., 600, 706, 800.
- SUMAR (KGAQ).—Name changed to Ouananiche; owner of vessel, P. K. Hudson.
- SUMAR (KGCF).—Owner of vessel, David C. Whitney.
- SUNOCO.—W. l., 600, 706.
- SUNINAMB.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.
- TAMPA (KVK).—W. l., strike out 875.
- TASHMOO.—W. l., 600, 706.
- THEODORE ROOSEVELT.—Range, 200; system, R. C. A. v. t. telegraph; w. l., 715, 800; station controlled by R. C. A.
- TRIVIVES.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100, 2,400.
- TRIPP.—W. l., 600, 706, 800.
- TURRIALBA.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900, 1,800, 1,900, 2,000, 2,100.
- UNICOI.—W. l., 600, 706.
- UTOWANA.—W. l., 600, 706, 750, 800, 900.
- VACOIL.—System, R. C. A. v. t. telegraph (only); w. l., 600, 706, 750, 800.
- VENUS (WPBI).—Range, 300; system, R. C. A. v. t. telegraph; w. l., 715, 800, 875, 1,800, 1,900, 2,000, 2,100, 2,400.
- VIDOR.—W. l., 600, 706; service, PG; hours, X.
- WABAN.—W. l., 450, 600, 706, 800.
- WABARI.—Range, 200; system, R. C. A. v. t. telegraph; w. l., 715, 800; station controlled by owner of vessel.
- WESTCHESTER.—W. l., 600, 706.
- WEST CHESWALD.—W. l., 600, 706, 800.
- WEST CRESSY.—W. l., 600, 706.
- WEST CUBBETA.—W. l., 600, 706.
- WEST ELCASCO.—W. l., 600, 706.
- WESTERN QUEEN.—W. l., 600, 706.
- WEST GRAMA.—W. l., 600, 706.
- WEST HARTLAND.—W. l., 600, 706.
- WEST HART.—W. l., 600, 706.
- WEST LOGUASSUCK.—W. l., 600, 706.
- WESTMEAD.—W. l., 600, 706.
- WEST MINGO.—W. l., add 706; station controlled by F. T. Co.
- WEST TOTANT.—W. l., strike out 450; station controlled by R. C. A.
- WM. BOYCE THOMPSON.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.
- WESTWARD HO.—W. l., 600, 706.
- WILLIAM C. ATWATER.—W. l., 715, 800, 875.
- WILLIAM H. DOHENY.—W. l., add 900.
- WILLIAM McLAUCHLAN.—Range, 300; system, R. C. A. v. t. telegraph; w. l., 715, 800, 875, 1,800, 1,900, 2,000, 2,100, 2,400.
- WILKENO.—W. l., 600, 706.
- WILPEN.—Name changed to David C. Thompson.
- WILCOX.—W. l., 600, 706.
- W. M. BURTON.—System, R. C. A. v. t. telegraph; w. l., 600, 706, 750, 800, 900.
- YARMOUTH.—W. l., 600, 706; service, PG; hours, X.
- YOMACHICHI.—W. l., 600, 706.
- YOUNGSTOWN (WPBH).—Range, 300; system, R. C. A. v. t. telegraph; w. l., 715, 800, 875, 1,800, 1,900, 2,000, 2,100, 2,400.

ZACAPA.—System, R. G. A. v. t. telegraph; w. l., 600, 708, 750, 800, 900, 1,000, 1,500, 2,000, 2,100, 2,400.

The following named vessels have 706 meters in addition to the wave lengths published heretofore: A. D. MacBeth, Aleyone, Annette Rolph, Artemis, Asher J. Hudson, City of Berkeley, City of Dalhart, City of Omaha, City of Rayville, City of Sydney, Cohasset, Cokato, Colorado, Conotton, Contocook, Coquina, Coronado, Coulee, Covena, Craigmere, Crown City, Eastern Shore, Eastport, Edgar F. Coney, Edgfield, Englewood, Favorite, Georgina Rolph, Glen White, Hampton Roads (KOJT), Higho, Homer, John M. Connelly, John W. Wells, Lake Elmdale, Lake Fabius, Lake Farber, Lake Farrar, Makawell, M. & J. Tracy, Naiwa, Nashaba, Nemaha, Neponset, Norfolk, Ormidale, Pachet, Romulus, Saco, Santa Ana (WAL), Sawokla, Wawalona, West Cape, West Imboden, West Niger, West Togue, Willzipo.

Strike out all particulars of the following named vessels: Anniston, E. G. Crosby, Indiana Harbor, Michabo, Seneca, W. B. Keene.

#### COMMERCIAL LAND AND SHIP STATIONS, ALPHABETICALLY, BY CALL SIGNALS

KDYT, read Moody; KGAQ, read Ouananiche; KGBB, read Ungava; KGBP, read David C. Thompson; KGFQ, read ship station; KIBF, read Malama; KMH, read Aleutian; KUY, read Bear Creek, Alaska; WDF, read Willa Crosby; WES, read City of Honolulu; WJEI, read Admiral Peoples; WQOA, read Admiral Benson; strike out all particulars of the following the call signals, KDLK, KFYG, KCFZG, KFZH, KIDM, KUBS, KWK, WJP.

#### COMMERCIAL AIRPLANE 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, 1926, and to the International List of Radiotelegraph Stations, published by the Berno bureau]

ALASKAN.—Strike out all particulars.

#### COMMERCIAL AIRPLANE STATIONS, ALPHABETICALLY, BY CALL SIGNALS

KDA, strike out all particulars.

#### 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, 1926]

KFJF (Oklahoma, Okla.).—Power, 750 night, 1,000 day.  
 KFKB (Milford, Kans.).—Power, 1,500 night, 2,500 day.  
 KFRC (San Francisco, Calif.).—Power, 500 night, 1,000 day.  
 KFVE (St. Louis, Mo.).—Power, 1,000 night, 2,000 day.  
 KFVR (Denver, Colo., near).—Call signal changed to KOW.  
 KFWV (Portland, Oreg.).—Call signal changed to KWJJ; owner of station, Wilbur Jarman.  
 KFXR (Oklahoma, Okla.).—Power, 50; w. l., 223.7, fy. kc., 1,340.  
 KFYR (Bismarek, N. Dak.).—Power, 250 night, 500 day.  
 KGCA (Decorah, Iowa).—W. l., 247.8, fy. kc., 1,210.  
 KGCI (San Antonio, Tex.).—W. l., 220.4, fy. kc., 1,360.  
 KGFH (La Crescenta, Calif.).—Power, 250.  
 KOIL (Council Bluffs, Iowa).—Power, 2,000 night, 4,000 day.  
 KTOP (San Antonio, Tex.).—Power, 20.  
 KTHS (Hot Springs, Ark.).—Power, 1,000; w. l., 384.4, fy. kc., 780.  
 KTNT (Muscatine, Iowa).—Power, 3,500 night, 5,000 day.  
 WABQ (Philadelphia, Pa.).—W. l., 260.7, fy. kc., 1,150.  
 WADC (Akron, Ohio).—Power, 500; w. l., 296.9, fy. kc., 1,010.  
 WALK (Bethayres, Pa.).—No longer portable.  
 WAPI (Auburn, Ala.).—W. l., 325.9, fy. kc., 920.  
 WASN (Boston, Mass.).—Call signal changed to WBIS.  
 WBCN (Chicago, Ill.).—Owner of station, Great Lakes Broadcasting Co.  
 WBET (Boston, Mass.).—W. l., 265.3, fy. kc., 1,130.  
 WBNY (New York, N. Y.).—Power, 250; w. l., 236.1, fy. kc., 1,270.  
 WBT (Charlotte, N. C.).—Power, 500 night, 1,000 day.  
 WCAD (Canton, N. Y.).—Power, 500 night, 1,000 day.  
 WCCO (St. Paul-Minneapolis, Minn.).—Power, 5,000 night, 7,500 day.  
 WCWS (Danbury, Conn.).—W. l., 214.2, fy. kc., 1,400.

- WDAD (Nashville, Tenn.).—Power, 500 night, 1,000 day.  
 WDHO (Winter Park, Fla.).—Changed to Orlando, Fla.; power, 500 night, 1,000 day; w. l., 238.3, fy. kc., 1,040.  
 WDOD (Chattanooga, Tenn.).—W. l., 245.8, fy. kc., 1,220.  
 WDWI (Cranston, R. I.).—W. l., 374.8, fy. kc., 800.  
 WDWV (Newark, N. J.).—Changed to Asbury Park, N. J.; w. l., 361.2, fy. kc., 820.  
 WEEJ (New York, N. Y.).—W. l., 256.3, fy. kc., 1,170.  
 WFIW (Hopkinsville, Ky.).—Power, 500 night, 1,000 day; w. l., 280.2, fy. kc., 1,070.  
 WGBI (Scranton, Pa.).—Power, 250.  
 WGHP (Mt. Clemens, Mich.).—Power, 750; w. l., 319, fy. kc., 940.  
 WGI (Secaucus, N. J.).—W. l., 203.6, fy. kc., 1,020.  
 WHK (Cleveland, Ohio).—Power, 500 night, 1,000 day.  
 WIBB (Elizabeth, N. J.).—No longer portable.  
 WJAY (Cleveland, Ohio).—W. l., 227.3, fy. kc., 1,320.  
 WJBI (Red Bank, N. J.).—W. l., 250.8, fy. kc., 1,170.  
 WJBT (Chicago, Ill.).—Power, 500.  
 WKAR (East Lansing, Mich.).—Power, 500 night, 1,000 day; w. l., 235.5, fy. kc., 1,350.  
 WLAC (Nashville, Tenn.).—Power, 500 night, 1,000 day.  
 WLBB (Farmingdale, N. Y.).—W. l., 232.4, fy. kc., 1,290.  
 WLBM (Boston, Mass.).—W. l., 230.6, fy. kc., 1,300.  
 WLWL (New York, N. Y.).—W. l., 370.2, fy. kc., 810.  
 WMAL (Washington, D. C.).—W. l., 302.3, fy. kc., 900.  
 WMBC (Detroit, Mich.).—W. l., 241.8, fy. kc., 1,230.  
 WOAI (San Antonio, Tex.).—Power, 5,000.  
 WOQ (Kansas City, Mo.).—Power, 250 night, 500 day.  
 WOR (Newark, N. J.).—Changed to Kearney, N. J.; power, 5,000.  
 WOS (Jefferson City, Mo.).—W. l., 468.5, fy. kc., 640.  
 WPCO (Chicago, Ill.).—W. l., 223.7, fy. kc., 1,240.  
 WPDQ (Buffalo, N. Y.—*Kenwood*).—Call signal changed to WKFN; power, 250; w. l., 204, fy. kc., 1,470.  
 WPG (Atlantic City, N. J.).—Power, 5,000.  
 WQAN (Scranton, Pa.).—Power, 250.  
 WRAW (Reading, Pa.).—Power, 100.  
 WSAE (Fall River, Mass.).—Changed to Portsmouth, R. I.  
 WSBT (South Bend, Ind.).—Power, 500; w. l., 222.1, fy. kc., 1,260.  
 WSM (Nashville, Tenn.).—Power, 5,000; w. l., 340.7, fy. kc., 880.  
 WSSH (Boston, Mass.).—W. l., 249.9, fy. kc., 1,200.  
 WSUI (Iowa City, Iowa).—W. l., 222.3, fy. kc., 710.  
 WTAC (Worcester, Mass.).—W. l., 510.9, fy. kc., 380.  
 WTIC (Hartford, Conn.).—W. l., 475.2, fy. kc., 630.

## GOVERNMENT LAND STATIONS, ALPHABETICALLY, BY NAME OF STATION

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

- ANACORTES, WASH.—W. l., strike out; hours, strike out.  
 ANNAPOLIS, MD. (N70).—Service, O.  
 ATLANTIC CITY, N. J.—W. l., strike out; hours, strike out.  
 BALBOA, C. Z.—W. l., 699, 2,709, 2,541, 6,518.  
 BARATARIA, LA. (Grande Isle).—W. l., strike out; hours, strike out.  
 BILOXI, MISS.—W. l., strike out; hours, strike out.  
 BOSTON, MASS. (NAD).—W. l., strike out; hours, strike out.  
 BOSTON, MASS. (NWM).—Head, Boston, Mass. (Boston Bay RC group); in service column change footnote "RC" to "RCB."  
 CAPE HATTERAS, N. C. (RC station).—Head, Cape Hatteras, N. C. (Cape Hatteras RC group).  
 CAPE HENLOPEN, DEL.—Head, Cape Henlopen, Del. (Delaware Bay RC group).  
 CAPE HENRY, VA. (Section Base 8).—W. l., strike out; hours, strike out.  
 CAPE MALA, C. Z. (Traffic station).—W. l., 699, 2,677.  
 CAPE MAY, N. J.—W. l., strike out; hours, strike out.  
 CAVITE, P. I.—W. l., strike out; hours, strike out.  
 CHARLESTON, S. C.—W. l., strike out 2,100.  
 COLON, PANAMA.—W. l., 600, 2,271.  
 CORDOVA, ALASKA.—W. l., 699, 2,828, 6,240.  
 DEER ISLAND, MASS.—In service column add footnote "I."

- DUTCH HARBOR, ALASKA.—W. 1., 600, 2,271.  
 CURTIS BAY, MD.—Hours, strike out.  
 EUREKA, CALIF. (traffic station).—W. 1., 600, 2,883.  
 FORT LAUDERDALE, FLA. (Section Base 6).—W. 1., strike out; hours, strike out.  
 FOURTH CLIFF, MASS.—In service column add footnote "1."  
 GLOUCESTER, MASS.—W. 1., strike out; hours, strike out.  
 GREAT LAKES, ILL.—W. 1., strike out.  
 GUAM, MARIANA ISLAND.—W. 1., 600, 2,271, 5,940.  
 GUANTANAMO BAY, CUBA.—W. 1., 600, 2,541, 4,543.  
 KEY WEST, FLA. (NAR).—W. 1., 600, 2,100, 2,939, 5,766.  
 KEY WEST, FLA. (NGK).—W. 1., strike out; hours, strike out.  
 KODIAK, ALASKA.—W. 1., 600, 2,677.  
 LA PALMA, PANAMA.—W. 1., 600, 2,342.  
 NANTUCKET, MASS. (Section Base 3).—W. 1., strike out; hours, strike out.  
 NEW DUNGENESS, WASH.—Read, New Dungeness, Wash. (Juan de Fuca Strait RC group).  
 NEW LONDON, CONN. (NLO).—W. 1., strike out; hours, strike out.  
 NEW SHOREHAM STATION, BLOCK ISLAND, R. I.—W. 1., strike out; hours, strike out.  
 NORFOLK, VA. (traffic station).—W. 1., 600, 2,100, 2,271.  
 OAKLAND, CALIF. (Government Island).—W. 1., strike out; hours, strike out.  
 PENSACOLA, FLA. (traffic station).—W. 1., 600, 2,677.  
 PHILADELPHIA, PA.—W. 1., strike out.  
 PORT ANGELES, WASH. (Section Base 13).—W. 1., strike out; hours, strike out.  
 PORT AU PRINCE, HAITI.—W. 1., 600, 2,100, 2,271, 5,169.  
 PORT TOWNSEND, WASH.—W. 1., strike out; hours, strike out.  
 POYNERS HILL, N. C.—In service column add footnote "1."  
 PUERTO OBALDIA, PANAMA.—W. 1., 600, 2,342.  
 ROCKAWAY BEACH, N. Y.—W. 1., strike out; hours, strike out.  
 ST. THOMAS, V. I.—W. 1., 600, 2,271.  
 SAN PEDRO, CALIF.—W. 1., strike out; hours, strike out.  
 SAVANNAH, GA.—W. 1., 600, 2,271; hours, N.  
 SEATTLE, WASH.—W. 1., strike out; hours, strike out.  
 SITKA, ALASKA.—W. 1., 600, 2,883.  
 STATEN ISLAND, N. Y. (Section Base 2).—W. 1., strike out; hours, strike out.  
 THATCHER ISLAND, MASS.—In service column add footnote "1."  
 TUTUILA, SAMOA.—W. 1., 600, 2,100, 2,271, 4,543.  
 UNALASKA, ALASKA.—W. 1., strike out; hours, strike out.  
 VIRGINIA BEACH, VA.—Read, Virginia Beach (Chesapeake Bay RC group).  
 WOODS HOLE, MASS. (Section Base 18).—W. 1., strike out; hours, strike out.  
 Strike out all particulars of the following-named stations: Point Loma, Calif., Tybee Island, Ga., Norfolk (Virginia Beach, Va., NAM), Washington, D. C. (Sayville, N. Y., NDD).  
 On page 79, list of "Commercial and Government Radio Stations of the United States," note "1" strike out "see p. 115." Also strike out note "5" entirely.

#### GOVERNMENT SHIP STATIONS, ALPHABETICALLY BY NAMES OF STATIONS

[Alterations and corrections to be made to the List of Radio Stations of the United States, edition of June 30, 1926, and to the International List of Radiotelegraph Stations, published by the Bureau]

- BUFFALO.—Strike out all particulars.  
 DESPATCH.—Strike out all particulars.

#### GOVERNMENT LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS

- NCZ, read Chesapeake Bay RC group, master station, Virginia Beach, Va.;  
 NDW, read Cape Hatteras RC group, master station, Cape Hatteras, N. C.;  
 NIXN, read Kimball (notice in Bulletin No. 122, May 31, 1927, incorrectly cited NIXM); NJY, read New York Bay RC group, master station, Fire Island, N. Y.; NPL, strike out Point Loma, Calif.; NSD, read Delaware Bay RC group, master station, Cape Henlopen, Del.; NWM, read Boston Bay RC group, master station, Deer Island, Mass.; strike out all particulars following the call signals, NAM (Virginia Beach, Va.), NCU, NDD, NEV (Tybee Island, Ga.), NIDE, NPL (Point Loma, Calif.)

## 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, 1926]

HOLLIS, N. Y. (2XV).—Change to Long Island City, N. Y.  
Strike out all particulars of the following-named stations: Rocky Point, N. Y. (2XT); Rocky Point, N. Y. (2XBC); Rocky Point, N. Y. (2XS).

## MISCELLANEOUS

## VESSELS EQUIPPED WITH A RADIOCOMPASS

The following-named commercial vessels which are equipped with transmitters for communication, have also been equipped with a radiocompass (direction finder): *Admiral Dewey, Alameda, Alaska, Algonquin, Aleutian, Berkshire (KUVG), Coos Bay, Delphine, District of Columbia, Dixie Arrows, Eastern Crown, F. A. Warner, Fred G. Hartwell, Huron (WCH), Illinois (KDSZ), Isaac T. Mann, Japan Arrow, Northwestern, Oakley L. Alexander, Papoose, Pere Marquette 15, Pere Marquette 17, Pere Marquette 19, Pere Marquette 20, Pere Marquette 31, Pere Marquette 32, Plymouth (KND), Relief, R. W. Stewart, Saucon, Socony, Sylvan Arrow, Tiger, Vidor*; the following-named which are not equipped for communication purposes are now equipped with a radiocompass: *Grand Rapids* owned by the Grand Trunk & Milwaukee Car Ferry Co., *Herman Winter* owned by the Eastern S. S. Lines, *J. P. Morgan, jr.* owned by the Pittsburgh S. S. Co., *Madison* owned by the Grand Trunk & Milwaukee Car Ferry Co.; the following-named Government vessels which are equipped for communication purposes have also been equipped with a radiocompass: *Bear, Davis, Lydonia, Meigs, Northland, Pioneer, Shaw, Speedwell, Spruce, Sumac, Tucker, Wainwright, Wilkes.*

## CHANGES IN RADIOBEACON STATIONS

*Passage Island Light Station, Michigan.*—A beacon has been established at this light station. Characteristic: Sounds every 180 seconds, groups of 1 dash and 1 dot for 60 seconds, silent 120 seconds, thus:

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

Operates continuously during thick or foggy weather on a wave length of 1,000 meters (300 k. c.), and each day during clear weather from 2 to 2.30 and 8 to 8.30 a. m., 90th meridian time.

Location 88° 21' 55" W., 48° 13' 28" N.

*Cape Blanco Light Station, Oregon.*—Operating period changed to sound every 180 seconds, 60 seconds on, silent 120 seconds.

## REGULATIONS GOVERNING THE OPERATION OF BROADCASTING STATIONS PROMULGATED BY THE FEDERAL RADIO COMMISSION

*Testimony—General Order No. 14, June 3, 1927.*—Testimony introduced at any hearing relative to any particular station or any particular frequency will, when relevant, be considered as testimony by the commission at any of its subsequent hearings.

Applicants may examine these records.

*Broadcasting stations may file affidavits certifying that interference is being caused to its signals—General Order No. 15, June 7, 1927.*—For the purposes of providing an orderly method for the reduction and eventual elimination of interference between radio broadcasting stations operating on the same or on closely adjacent frequencies, the Federal Radio Commission announces the following procedure: At any time after July 15, 1927, any radio broadcasting station operating under license from the Federal Radio Commission may file with the commission an affidavit certifying that unreasonable and injurious interference with its signals is being caused by the simultaneous operation of another radio broadcasting station, the name or call letters of which must be specified in the affidavit. The affidavit must likewise specify not less than two occasions on which such interference was observed, with the name and address of the person making each of such observations, the type of receiving set used, and the date and hour thereof.

On receipt of such affidavit, and if in the judgment of the Federal Radio Commission the interference complained of is actually unreasonable and injurious to the affiant, the commission will appoint a date for a hearing, at its convenience, will notify thereof the parties interested, and on the basis of the testimony presented at such hearing will order such changes of frequency, power, or hours of operation as may appear best to serve public interest, convenience, or necessity.

#### ESTABLISHMENT OF FORWARDING BUREAUS FOR RADIOTELEGRAMS

The Radio Corporation of America has established forwarding bureaus at New York and San Francisco for radiotelegrams intended for transmission to ships by the intermediary of its coast stations.

The radiotelegrams for transmission to ships in the Northern Atlantic can be directed "New York RCA," and those to be transmitted to ships in the Pacific can be directed "San Francisco RCA."

When radiotelegrams reach the forwarding bureaus they are transmitted to the coast station which has established communication with the vessel of destination, or which will probably first establish communication with this vessel.

The total tax includes the telegraph tax to New York or San Francisco, the coast tax of 10 cents (52 centimes), and the ship tax.

#### NEW INTERNATIONAL LIST OF RADIOTELEGRAPH STATIONS BY CALL SIGNALS NOW AVAILABLE

The new tenth edition of the "International List of Radiotelegraph Stations By Call Signals" (April, 1927) is now ready for distribution by the International Bureau of the Telegraph Stations, Radiotelegraph Service, Berne, Switzerland.

In addition to the ordinary edition (type A) there has been published for the use of stations having heavy traffic an edition on heavy paper, cardboard cover, with two corners covered with cloth and alphabetical index (type B) as well as an edition on heavy paper with cardboard cover, recovered with cloth, two corners of metal and index (type C). The letters of the alphabetical index are covered with cloth to protect them.

The price of these documents are, per copy, 1 franc for type A; 2 francs 80 centimes for type B; and 4 francs 50 centimes for type C (Swiss-gold).

This publication does not contain the call signals of broadcasting stations.

#### 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 standards.

As shown by the list of "Constant frequency stations," there may be many other stations not measured in the bureau's laboratory which maintain their frequencies just as constant as the stations listed below. There is, of course, no actual guaranty that these stations will maintain the constancy shown, but the data indicate the high degree of confidence that can be placed in them. The transmitted frequencies from the standard frequency stations can be utilized for calibrating 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	Period covered by measurements	Number of times measured	Deviations from assigned frequencies noted in measurements	
						Average	Greatest since May 25, 1927
			Kilocycles	Months		Per cent	Per cent
NBS	United States Navy	Annapolis, Md.	17.60	13	65	0.2	0.2
WCI	Radio Corporation of America	Tuckerton, N. J.	17.95	27	118	.1	.2
WSS	do.	Rocky Point, N. Y.	18.60	9	37	.1	.1
WII	do.	New Brunswick, N. J.	21.80	26	145	.1	.4
WVA	United States Army	Annapolis, Md.	100	27	203	.2	.3
NAA	United States Navy	Arlington, Va.	112	20	105	.2	.1
WEAF	National Broadcasting Co.	New York, N. Y.	610	30	159	0	0
WRC	Radio Corporation of America	Washington, D. C.	640	42	212	.1	0
WJZ	do.	Bound Brook, N. J.	660	13	53	.2	.3
NAA	United States Navy	Washington, D. C.	760	4	17	.1	0
WGY <sup>1</sup>	General Electric Co.	Schenectady, N. Y.	790	48	214	.1	0
WBZ	Westinghouse Electric & Manufacturing Co.	Springfield, Mass.	900	26	97	.1	.1
KDKA	do.	East Pittsburgh, Pa.	970	13	50	.1	.1

<sup>1</sup> In the list of standard frequency station measurements reported in the May 31, 1927, issue of the Radio Service Bulletin, station WGY was reported to have deviated from its assigned frequency since Apr. 25, 1927, as much as 0.3 per cent. This was an error and should have been reported as zero per cent deviation.

#### CONSTANT FREQUENCY STATIONS

The list of constant frequency stations given below supplements the list of standard frequency stations. The transmitted waves from the stations in either list should be of value to the public as frequency standards because of their constancy and close adherence to the licensed values. The Bureau of Standards makes regular measurements of the transmitted frequencies of the standard frequency stations but not of the constant frequency stations. Each station included in the following list employs a special device for controlling or checking the frequency, the calibration of the device being in agreement with the bureau's frequency standards. The special device may be automatic piezo control, a piezo oscillator, piezo resonator, or frequency indicator. Stations not included in this list nor in the list of standard frequency stations, which use one of the special devices for frequency regulation, are invited to communicate with the Bureau of Standards requesting a copy of Letter Circular 214, Requirements of Constant Frequency Stations.

This list is much shorter than usual this month because of the many changes in assigned frequencies. The stations listed are the only ones which have given the Bureau of Standards the necessary information on the means now employed to hold the newly assigned frequency in agreement with the bureau's frequency standards. More stations will be added to this list as soon as the Bureau of Standards has been satisfied that the various controlling and checking devices used have been properly readjusted.

Station	Owner	Location	Fre-	Wave	Apparatus for frequency regulation
			quency	length	
			Kilo-	Meters	
			cycles		
WMAQ	Chicago Daily News	Chicago, Ill.	670	447.5	Frequency indicator, type B, and piezo oscillator.
WJAD	Frank P. Jackson	Waco, Tex.	675	447.5	Frequency indicator, type B.
WCCO	Washburn-Crosby Co.	St. Paul-Minneapolis, Minn.	740	405.2	Piezo oscillator.
WCAD	St. Lawrence University	Canton, N. Y.	830	355.6	Frequency indicator, type B.
WLS	Sears, Roebuck & Co.	Croft, Ill.	870	344.6	Piezo oscillator.
WKAQ	Radio Corporation of Puerto Rico	San Juan, P. R.	880	340.7	Frequency indicator, type B.
WBAA	Purdue University	West Lafayette, Ind.	1,100	272.6	Piezo oscillator.
KFVS	Hirsch Battery & Radio Co.	Cape Girardeau, Mo.	1,340	223.7	Frequency indicator, type B.

REFERENCES TO CURRENT RADIO LITERATURE

This is a monthly list of references prepared by the Radio Laboratory of the Bureau of Standards and is intended to cover the more important papers of interest to professional radio engineers which have recently appeared in periodicals, books, etc. The number at the left of each reference classifies the reference by subject, in accordance with the scheme presented in "A Decimal Classification of Radio Subjects—An Extension of the Dewey System," Bureau of Standards Circular No. 138, a copy of which may be obtained for 10 cents from the Superintendent of Documents, Government Printing Office, Washington, D. C. The various articles listed below are not obtainable from the Bureau of Standards. The various periodicals can be consulted at large public libraries.

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