

RADIO SERVICE BULLETIN

ISSUED MONTHLY BY BUREAU OF NAVIGATION, DEPARTMENT OF COMMERCE

Washington, August 1, 1916—No. 20

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WASHINGTON, *January 14, 1915.*

To collectors of customs, radio inspectors, and others concerned:

This publication is issued monthly by the Bureau of Navigation, Department of Commerce, and distributed to the United States officers engaged in or concerned with the enforcement of the radio laws for their guidance and instruction, and to those concerned with the operation of Government and commercial radio stations for their information.

The Radio Service Bulletin supersedes the quarterly supplements to the List of Radio Stations of the United States and contains information concerning Government, commercial, and special stations only. Information regarding amateur stations appears only in the annual edition of the List of Radio Stations of the United States.

The bulletin contains tables of new stations, alterations, and corrections under headings, so that the List of Radio Stations of the United States and the List of Radiotelegraph Stations, published by the international bureau at Berne, may be brought up to date. Additions, alterations, and corrections should be entered in these two publications promptly on receipt of the bulletin.

Amendments to or changes in the Radio Laws and Regulations of the United States (edition of July 27, 1914) are printed in this bulletin in such a manner that they may be clipped and pasted in their proper places in that publication.

Items of general interest concerning the enforcement of the radio laws are printed in the bulletin from time to time, as occasion warrants.

E. T. CHAMBERLAIN,
Commissioner of Navigation.

Approved:
E. F. SWEET,
Acting Secretary.

NEW STATIONS.

LAND STATIONS, ALPHABETICALLY BY NAMES OF STATIONS.

[Additions to the List of Radio Stations of the United States, edition of July 1, 1916, and to the International List of Radiotelegraph Stations published by the Berne bureau.]

Station.	Latitude and longitude (approximate).	Call signal.	Range.	System.	Wavelengths.
Beaumont, Tex. ¹	O 94 07 00 N 30 06 00	WOD	300	Kilbourne & Clark, 1,000....	300, 600
Carney's Point, N. J. ² ...	O 75 27 00 N 39 43 00	WPO	100	Composite, 800.....	300, 425, 600
Port Walter, Alaska ³	O 134 40 00 N 56 20 00	KEQ	100	Tyee, 240.....	300, 500, 525, 600
Wilmington, Del. ⁴	O 75 32 52 N 39 44 16	WPP	300	Composite, 200.....	300, 425, 600

¹ Service, PG; hours, 3 s-11 s; rates, 6 c. per word 60 c. minimum per radiogram. Radio station operated and controlled by the Magnolia Petroleum Co.

² Service, limited commercial; hours, X. Radio station operated and controlled by E. I. du Pont de Nemours & Co. Station is restricted to communicate with a station at Wilmington, Del.

³ Service, limited commercial. Radio station operated and controlled by the Alaska Herring & Sardine Co.

⁴ Service, limited commercial; hours, X. Radio station operated and controlled by E. I. du Pont de Nemours & Co. Station is restricted to communicate with a station at Carney's Point, N. J.

SHIP STATIONS, ALPHABETICALLY BY NAMES OF VESSELS.

[Additions to the List of Radio Stations of the United States, edition of July 1, 1916, and to the International List of Radiotelegraph Stations published by the Berne bureau.]

Vessel.	Call signal.	System.	Wave lengths.	Owner of vessel.
Cyrus W. Field ¹	WXS	U. S. Army, 120.....	600	Government.
Harsteete.....	KEW	Kilbourne & Clark, 120.....	300, 600	J. D. Hardin, jr.
Juneau ²	WAM	Marconi.....	300, 600	Alaska S. S. Co.
Maitland No. 1 ³	WLE	Kilbourne & Clark, 1,000....	300, 455, 525, 600.	Toronto, Hamilton & Buffalo Ry. Co.
Mariposa ⁴	WHP	Marconi, 480.....	300, 600	Alaska S. S. Co.
Seafarer.....	WPL	Kilbourne & Clark, 240.....	300, 600	Seafarer Navigation & Salvage Co.
Theodore Roosevelt ⁵	WCT			Roosevelt S. S. Co.
Valdez ⁶	WAK			Alaska S. S. Co.

¹ Range, 130; service, O. Radio station operated and controlled by the United States Signal Corps, War Department, Washington, D. C.

² Range, 100; service, PG; hours, X; rates, 4 c. per word 40 c. minimum per radiogram. Radio station operated and controlled by the owner of vessel.

³ Service, PG; rates, 2 c. per word 20 c. minimum per radiogram. Radio station operated and controlled by the Marconi Co.

⁴ Range, 200; service, PG; hours, X; rates, 4 c. per word 40 c. minimum per radiogram. Radio station operated and controlled by the owner of vessel.

⁵ Range, 100; service, PG; hours, X; rates, 2 c. per word 20 c. minimum per radiogram. Radio station operated and controlled by the Marconi Co.

⁶ Range, 100; service, PG; hours, X; rates, 4 c. per word 40 c. minimum per radiogram. Radio station operated and controlled by the owner of vessel.

LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS.

[b=ship station; c=land station.]

Call signal.	Name.	Call signal.	Name.
KEQ	Port Walter, Alaska.....	c	WLE Maitland No. 1.....
KEW	Harsteete.....	b	WOD Beaumont, Tex.....
WAK	Valdez.....	b	WPL Seafarer.....
WAM	Juneau.....	b	WPO Carneys Point, N. J.....
WCT	Theodore Roosevelt.....	b	WPP Wilmington, Del.....
WHP	Mariposa.....	b	WXS Cyrus W. Field.....

SPECIAL LAND STATIONS, ALPHABETICALLY BY NAMES OF STATIONS.

[Additions to the List of Radio Stations of the United States, edition of July 1, 1916, only.]

Station.	Call signal.	Wave length.	Service.	Hours.	Station controlled by—
Hoquiam, Wash.....	7ZA	200, 300, 425, 600.....	P	X	Donald E. McGee.
Jacksonville, Ill.....	9YH	Variable to 425.....	P	X	Illinois Woman's College.
Lamoni, Iowa.....	9YO	200, 350, 425.....	P	X	Graceland College.
Monterey, Cal. (portable)	6XE	300, 600. Variable.....	P	X	National Radio Co.
Omaha, Nebr.....	9XU	800.....	P	X	Union Pacific R. R. Co.
Pittsburgh, Pa.....	8XK	450, 2,000. Variable.....	P	X	Frank Conrad.
Pottsville, Pa.....	8ZR	200, 425.....	P	X	Cotesworth M. Jackson.
Rapid City, S. Dak.....	9ZR	200, 425.....	P	X	S. R. Halley.
Salt Lake City, Utah.....	6ZI	200, 425.....	P	X	Stephen H. Besley.
San Francisco, Cal.....	6XI	300, 600. Variable.....	P	X	Clarence W. Smith.

SPECIAL LAND STATIONS, GROUPED BY DISTRICTS.

Call signal.	District and station.	Call signal.	District and station.
6XE	Sixth district: Monterey, Cal.	8ZR	Eighth district—Continued. Pottsville, Pa.
6XI	San Francisco, Cal.		Ninth district:
6ZI	Salt Lake City, Utah.	9XU	Omaha, Nebr.
7ZA	Seventh district: Hoquiam, Wash.	9YH	Jacksonville, Ill.
8XK	Eighth district: Pittsburgh, Pa.	9YO	Lamoni, Iowa.
		9ZR	Rapid City, S. Dak.

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.

G. loc. =Geographical location: O=west longitude, N=north 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.

P=private.

O=Government business exclusively.

Hours =Hours of operation:

N=Continuous service.

X=No regular hours.

m=a. m. (12m=midday).

s =p. m. (12s=midnight).

Rates =Ship or coast charges, in cents: c=cents. (The rates in the international list are given in francs and centimes. For approximate purposes, 1 franc equals 20 cents and 5 centimes equal 1 cent.)

Notes =Refer to notes in the Berne list.

NOTICE.

It will be noted that the additions, alterations, and corrections contained in this Bulletin apply to the List of Radio Stations of the United States, edition of July 1, 1916, which is now in the hands of the printer, although it is not possible at this time to anticipate its delivery. All additions, alterations, and corrections appearing in this and later editions of the Bulletin should be saved and inserted in the new annual list as soon as it is received.

A sufficient number of blank pages will be inserted in the back of the new list in order that these particulars may be clipped and pasted therein, enabling radio operators and others concerned to keep their annual list up to date with very little trouble.

ALTERATIONS AND CORRECTIONS.

LAND STATIONS, ALPHABETICALLY BY NAMES OF STATIONS.

[Alterations and corrections to the List of Radio Stations of the United States, edition of July 1, 1916, and to the International List of Radiotelegraph Stations published by the Berne bureau.]

AKRON, OHIO.—System, Composite, 480; W. L., 300, 600, 2000; service, limited commercial.

BURWOOD, LA.—System, Wireless Specialty Apparatus Co., 1000; W. L., 300, 600, 2200.

DETROIT, MICH. (WOK).—W. L., 300, 600, 2160; service, limited commercial.

HUNTINGTON HARBOR, NORTHPORT, L. I., N. Y.—Strike out all particulars.

PORTLAND, OREG. (KDP).—W. L., 200, 300, 425, 550, 600. Note, Radio station operated and controlled by Charles L. Austin. The station is limited to communication with vessels entering and leaving the port of Portland, or bound to or from Columbia River points, and with amateurs.

PORT MOLLER, ALASKA.—Rates, 6 c. per word 60 c. minimum per radiogram.

WASHINGTON, D. C. (NZY).—Call, NZW.

SHIP STATIONS, ALPHABETICALLY BY NAMES OF VESSELS.

[Alterations and corrections to the List of Radio Stations of the United States, edition of July 1, 1916, and to the International List of Radiotelegraph Stations published by the Berne bureau.]

ACHILLES.—Range, 500; system, Telefunken, 1000; W. L., 300, 450, 600, 750, 950, 1200; service, PG; hours, N; rates, 4 c. per word 40 c. minimum per radiogram. Note, Radio station operated and controlled by the Panama Railroad Co. Maryland Steel Co., owner of vessel.

ACME.—Range, 150; system, Marconi, 1000; W. L., 300, 600; hours, X.

ADMIRAL WATSON.—W. L., 300, 450, 600.

ALABAMA (WFB).—System, Marconi, 480; hours, N.

ALASKA.—W. L., 300, 435, 510, 600; hours, N.

ALICIA.—Range, 60; system, De Forest arc; rates, 4 c. per word 40 c. minimum per radiogram.

AROLINE.—Range, 200; system, Kilbourne & Clark, 1000; W. L., 300, 440, 520, 600; rates, 4 c. per word 40 c. minimum per radiogram. Note, Radio station operated and controlled by the Pacific-Alaska Navigation Co., owner of vessel.

ATLANTIC.—System, Marconi, 480; rates, North & South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. Wilmore Steamship Co. (Inc.), owner of vessel.

AZTEC (KZC).—Range, 150; system, Marconi, 400; W. L., 300, 600; service, PG; hours, X; rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. A. C. Burrage, owner of vessel.

BAYAMON.—Name, *Vacuum*.

CITY OF LOWELL.—System, Fessenden, 260; W. L., 300, 550, 600.

- CLINCHER.**—Service, PG; rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. Clinchfield Navigation Co., owner of vessel.
- COLOMBIA.**—Service, PG; rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. Pacific Mail Steamship Co., owner of vessel.
- CONNEAUT.**—Range, 100; system, Marconi, 480; service, PG; hours, X.
- ECUADOR.**—Service, PG; rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. Pacific Mail Steamship Co., owner of vessel.
- ENTERPRISE.**—System, Marconi, 1000; W. L. 300, 450, 600.
- GEORGE E. PADDLEFORD.**—Range, 200; system, Marconi, 1000; hours, X.
- GEORGIANA.**—Name, *Norlina*. Note, Radio station operated and controlled by the Marconi Co. Garland Steamship Corporation, owner of vessel.
- GOV. FORBES.**—Name, *Governor Forbes*; range, 300. Note, Radio station operated and controlled by Ynchausti & Co., owner of vessel.
- GULFOIL.**—Rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram.
- J. M. GUFFEY.**—Rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram.
- JOHN A. HOOPER.** Note, Radio station operated and controlled by the Marconi Co. W. R. Grace & Co., owner of vessel.
- MARQUETTE and BESSEMER No. 1.**—System, Kilbourne & Clark, 240; W. L., 300, 425, 540, 600. Service, limited commercial. Note, Radio station operated and controlled by the Marquette & Bessemer Dock & Navigation Co., owner of vessel. Station is limited to communication with the *Marquette & Bessemer No. 2*, and a coast station at Conneaut Harbor, Ohio.
- ORLEANIAN.**—Service, PG.
- PERU.**—System, Marconi, 480.
- PETOSKEY.**—Range, 100; system, Marconi, 480; service, PG; hours, X.
- RICHARD.**—Strike out all particulars.
- SATELLITE (KPS).**—Strike out all particulars.
- TATOOSH.**—Rates, 4 c. per word 40 c. minimum per radiogram.
- TORMENTER.**—Range, 100; system, Marconi, 240; service, PG; hours, X.
- VENEZUELA.**—Service, PG; rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. Pacific Mail Steamship Co., owner of vessel.
- WAKIVA.**—Range, 150; hours, X; rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. H. S. Harkness, owner of vessel (yacht).
- WAPAMA.**—Note, Radio station operated and controlled by the Marconi Co. Chas. R. McCormick & Co., owner of vessel.
- WAYFARER.**—Name, *Warrior*; range, 300; system, Marconi, 480; W. L., 300, 600; service, P; hours X. Note, Alexander S. Cochran, owner of vessel (yacht).
- WESTOIL.**—Service, PG; rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. Standard Oil Co. of New Jersey, owner of vessel.
- WINIFRED.**—System, Marconi, 400; hours, X; rates, North and South American service, 4 c. per word 40 c. minimum per radiogram, transoceanic service, 8 c. per word 80 c. minimum per radiogram.
- W. S. PORTER.**—Strike out system. Note, Associated Oil Co., owner of vessel.

LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS.

KDX, read: Vacuum b; **KJE**, read: *Norlina* b; **KYW**, read: *Warrior* b; **WJA**, read: *Governor Forbes* b.

Strike out all particulars following the call signals **KPS**, **WLG**, and **WLM**.

Strike out particulars following call signal **NZY**, and insert *Washington, D. C.*, after call signal **NZW**.

MISCELLANEOUS.

ARGENTINE WIRELESS AND CABLE REGULATIONS.

On May 8 the Argentinian Government promulgated the following decree relating to the transmission of cable and wireless messages proceeding from or destined to Europe, Africa, Asia, or Oceania:

ARTICLE 1. Cable and wireless messages from, for, or in transit through the Argentine Republic, proceeding from or destined to Europe, Africa, Asia, or Oceania, will be accepted at the risk of the senders and submitted to censorship.

ART. 2. Messages the contents of which might affect Argentine neutrality shall not be received.

ART. 3. Any language or speech is permitted for the form of such messages, bearing in mind the restrictions imposed by countries of transit and destination, and, with respect to messages in secret language, those the respective codes of which may have been previously authorized by the management of posts and telegraphs.

It is understood that the provisions of the decree in nowise affect messages to or from the United States nor messages in transit from South American countries.

RADIOTELEGRAPHIC TARIFF FOR SOCIETY ISLANDS.

By a decree of the governor the radiotelegraphic tariff for the Society Islands was proclaimed on May 6, 1916.

The tariff now in effect fixes the local rate at 12 cents a word (10 cents radio charge and 2 cents telegraphic charge from Papeete to the station at Mahina). There is an additional charge of 1 shilling (24 cents) a word for relaying via the radio stations at Apia, Samoa, and Awanui, New Zealand (6 pence (12 cents) per word for each station). To these rates must be added the charges of other systems for the delivery of the message at its final destination. The cost per word from Tahiti to Washington amounts to \$1.11.

COMMUNICATING WITH VESSELS AT SEA—REGISTRATION OF CABLE ADDRESSES.

The tariff also fixes the rate between the colony and vessels at sea. The cost per word in direct communication with a vessel within call of the station at Mahina is: Local charge 12 cents, plus ship's charge of 8 cents. The cost per word in communicating with a vessel by relay through Apia, Samoa, is: Local rate 12 cents, plus 12 cents for transmission by latter station, plus 8 cents vessel's charge, or 32 cents a word. When the communication reaches a vessel through two relaying stations (Apia and Awanui) the charge is: Local rate 12 cents, plus 1 shilling (6 pence for each station), plus 4 pence ship's rate, or 44 cents a word.

The rate of exchange from French to English currency, and vice versa, is fixed by decision of the colonial governor whenever required and in conformity with the international telegraphic regulations.

Under the newly established radio service, the registration of cable addresses in the colony is not provided for. Communications must be fully or sufficiently addressed to permit of the complete identification of the addressee. During the continuance of the war the strict censorship in New Zealand, through which all messages for Tahiti must pass, will not permit the transmission of communications whose

mode of address leaves in doubt the addressee's identity, or if the language of the message is other than English or French. Communications in code (private or international) will, therefore, not be accepted at New Zealand or at Tahiti.

RADIO SERVICE STATISTICS.

Class and number of radio station licenses issued, 1915 and 1916.

Class.	1915	1916	Class.	1915	1916
Commercial ship	362	444	Technical and training school....	15	33
General public service, land.....	41	51	Special amateur.....	37	67
Limited public service, land.....	11	17	General and restricted amateur....	3,510	4,875
Limited commercial, land.....	22	57			
Experimental.....	41	57	Total.....	4,039	5,601

The total number of station licenses issued to July 1, 1916, are as follows: 1913, 1,496; 1914, 2,309; 1915, 4,039; 1916, 5,601; total, 13,445.

Grade and number of radio operators' licenses issued.

Grade.	1913	1914	1915	1916	Total.
Commercial extra first.....			18	18	36
Commercial first and second.....	1,932	339	1,635	1,260	5,166
Experiment and instruction.....	8	10	27	30	75
Cargo.....	1	26	112	173	312
Amateur first and second.....	1,841	1,172	3,067	4,199	10,279
Total.....	3,782	1,547	4,859	5,680	15,868

Clearances and inspections of ships by districts.

1916	First, Boston.	Second, New York.	Third, Baltimore.	Fourth, Savannah.	Fifth, New Orleans.	Sixth, San Francisco.	Seventh, Seattle. ¹	Eighth, Cleveland.	Ninth, Chicago.	Total.
Clearances ¹	1,238	3,196	1,203	1,275	915	1,871	879	344	100	11,111
Inspections ¹	544	2,630	550	21	523	1,206	552	53	46	6,125
Inspections ²	27	186	45		65	93	174	150	371	1,111
Total inspections, 1916 ^{1,2}	571	2,816	595	21	588	1,299	726	203	417	7,236
Total inspections, 1915 ^{1,2}	428	2,382	569	13	665	1,517	356	138	84	6,152

¹ Vessels subject to the act of June 24, 1910, amended July 23, 1912, requiring radio apparatus on certain vessels.

² Vessels subject to the act of Aug. 13, 1912, voluntarily equipped with radio apparatus.

The total number of inspections for the fiscal years 1913 to 1916, inclusive, is as follows: 1913, 3,201; 1914, 6,486; 1915, 6,152; 1916, 7,236; total, 23,075.

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