RADIO SERVICE BULLETIN

ISSUED MONTHLY BY BUREAU OF NAVIGATION, DEPARTMENT OF COMMERCE

Washington, May, 1915-No. 5.

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DEPARTMENT OF COMMERCE,
BUREAU OF NAVIGATI

BUREAU OF NAVIGATION, 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 instructions, 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.

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RADIO SERVICE BULLETIN.

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ABBREVIATIONS.

INTERNATIONAL ABBREVIATIONS USED IN THIS LIST.

Nature of service:

PG=General public.

PR=Limited public or limited commercial.

P=Private.

O=Government business exclusively.

Hours of operation: N=Continuous service.

X=No regular hours.

m = a. m.

s=p. m.12 m=Midday.

12 s=Midnight. c.=Cents.

OTHER ABBREVIATIONS.

Name = Name of station.

G. loc. =Geographical location (O=west longitude, N=north latitude).

Call =Radio call letters.

System=Radio system used and sparks per second.

Range = Normal range in nautical miles.

W. L. =Wave lengths.

Service-Nature of service.

Hours = Hours of operation.

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

Notes = Refers to notes in the Berne list.

Co. =Company.

NEW STATIONS.

LAND STATIONS, ALPHABETICALLY BY NAMES OF STATIONS.

{Additions to the list of Radio Stations of the United States, edition of July 1, 1914, and to the International List of Radiotelegraph Stations published by the Berne bureau.]

Station.	Longitude and latitude (approximate).	Call signal.	Range.	System.	Wave lengths.
Canton, Ohio * 1	O 81 22 00 N 40 48 00	WQP	100		500
Denver, Colo.* 2		KIX	100		600
Kvichak River, Alaska * 3	O 156 37 50	KML	20-30	Composite, 1000	300, 500, <i>600</i>
Lents, Oreg.4	N 59 05 45 O 122 35 00	KFU	 	Poulsen arc	• • • • • • • • • • • • • • • • • • •
Mount Vernon, Ohio *5		wqv	80-90		500
Maknek, Alaska (KMK) * 5	N 40 24 00 O 156 25 00	KMK	300	Composite	300, 500, 600
Ugashik, Alaska * ⁷	N 58 43 20 O 157 35 00 N 57 34 28	KMU	50-70	Composite, 400	300, 500, <i>600</i>

*The station has private service, with no regular hours.

Radio station operated and controlled by Henry L. Ley. The station is limited to correspondence with a station at Mount Vernon, Ohio.

Radio station operated and controlled by William H. Smith. The station is limited to correspondence with a station of the Ajax Gold Mining Co., Victor, Colo.

Radio station operated and controlled by the North Alaska Salmon Co. The station is limited to correspondence with ship and shore stations of the North Alaska Salmon Co.

Radio station operated and controlled by the Federal Telegraph Co.

Radio station operated and controlled by Bunyan J. Hyatt. The station is limited to correspondence with a station at Canton, Chio.

Radio station operated and controlled by the Naknek Packing Co.

Radio station operated and controlled by the Red Salmon Canning Co. The station is limited to correspondence with stations of the Naknek Packing Co.

SHIP STATIONS, ALPHABETICALLY BY NAMES OF VESSELS.

[Additions to the list of Radio Stations of the United States, edition of July 1, 1914, and to the International List of Radiotelegraph Stations published by the Berne bureau.]

Name.	Call signal.	System.	Wave lengths.	Service.	Hours.
Columbine 1	NLL	U. S. Bureau of Stand- ards, 1000.	600, 750, 1000	О	х
Cypress 1	NLM	do	600, 750, 1000	0	х
Dolphin (WAU) 2, 2	WAU				1
Expansion 4	wон	Composite, 100	300, 500, <i>600</i>	P	l x
Gulfcoast 5, 6	KUE	Marconi	300,600		
Jim Butler 7	WIL	do			!
Nokomis 8	WCW	1			
Northwestern (WAN) 2, 2	WAN	Kilbourne & Clark	300,600		
Portland 6, 9	WNV	Kilbourne & Clark, 120.	300,600	PG	2
Ramos 10	KER	Fessenden	300,600		1
Seantor Bailey 8, 11	KGS	Composite, 350	300,600	PG	1
Southerner 6, 12	KJF	Marconi	300,600	PG	1
Sultana 18		do			i
Wapama 14	WMG	do			

Radio station operated and controlled by the United States Department of Commerce, Bureau of Lighthouses.

- 2 Alaska Steamship Co., owner of vessel.
 3 Rates, 4 c. per word, 40 c. minimum per radiogram.
 4 Radio station operated and controlled by the North Alaska Salmon Co., owner of vessel.
- Radio station operated and controlled by the North Alaska Salmon Co., owner of vessel.
 Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Gulf Refining Co., owner of vessel.
 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.
 Olson & Mahony, owner of vessel.
 Horace E. Dodge, owner of vessel.

The station has a range of 300 miles. Radio station operated and controlled by the Nyno Line (Inc.). owner of vessel.

 Sloan, Dannenhower Co., owner of vessel.
 The station has a range of 200 miles. Radio station operated and controlled by the Steele Towing & Wrecking Co., owner of vessel.

Walker, Armstrong & Co., owner of vessel.

Mrs. Mary W. Harriman, owner of vessel (yacht).

Charles R. McCormick & Co., owner of vessel.

LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS.

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

Call signal.	Station.	Call signal,	Station.
KER KFU KGS KIX KJF KMK KML KMU KUE KZH	Ramos	WAN WAU WCW WIL WMG WNV	Cypress b Northwestern b Dolphin b Nokomis b Jim Butler b Wapama b Portland b Expansion b Canton, Ohio c Mount Vernon, Ohio c

SPECIAL LAND STATIONS, ALPHABETICALLY BY NAMES OF STATIONS.

[Additions to the list of radio stations of the United States, edition of July 1, 1914, only.]

Station.	Call signal.	Wave lengths.	Serv- ice.	Hours.	Station controlled by-
Fargo, N. Dak	1ZT 2XE 8ZN 2XR 1XK 9XR	300, 600. 200, 425. 300, 600, variable 200, 426. Variable 280, 590, 800. 500.	P P P P	X 7s-11s X X X X X X	Theo. L. Wanner. Clarence D. Tuska. Western Electric Co. R. L. Patch. Marconi Co. University of Maine. Robert K. Karlowa and Ray E. Hall (Tri-City Rudio Laboratory). General Electric Co.
Schenectady, N. Y. (2X1) Warren, Ohio	8XW	1800	P	X	Goodyear Tire & Rubber
Wichita, Kans	Į	1700	P	х	Co. Walter S. Ezell.

SPECIAL LAND STATIONS, GROUPED BY DISTRICTS.

Call signal.	District and station.	Call signal.	District and station.
1XK 1ZT 2XE 2XI 2XR	First district: Orono, Me Hartford, Conn. Second district: Montauk, Long Island, N. Y. Schenectady, N. Y. New York, N. Y.	8XW 8ZN 9XR 9YE 9YF	Eighth district: Warren, Ohio. New Castle, Pa. Ninth district: Rock Island, Ill. Wichita, Kans. Fargo, N. Dak.

ALTERATIONS AND CORRECTIONS.

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 July 1]. 1914, and to the International List of Radiotelegraph Stations published by the Berne bureau.]

AKRON, OHIO.—G. loc. (approximate) O 81° 40′ 00″, N. 41° 10′ 00″; range, 350; system, Composite, 300-960; W. L., 300, 600, 2070; hours, 8m-4.30s; rate, 2½ c. per word, 25 c. minimum per radiogram. Notes, Radio station operated and controlled by the Goodyear Tire & Rubber Co. The station is limited to correspondence with the station of the Goodyear Tire & Rubber Co. at Detroit, Mich.

Boston (NAD), Mass.—Strike out note regarding time signals.

CHARLESTON, S. C.—Strike out note regarding time signals.

DETROIT (WOK), MICH.—G. loc. (approximate) O 83° 10′ 00″, N. 42° 20′ 00″; range, 300; system, Composite, 300 and 600; W. L., 300, 600, 2070; hours, 8.30m—4.30s; rate, 2½ c. per word, 25 c. minimum per radiogram. Notes, Radio station operated and controlled by the Goodyear Tire & Rubber Co. The station is limited to correspondence with the station of the Goodyear Tire & Rubber Co. at Akron, Ohio.

EURBKA (NPW), CAL.—Notes, Radio station operated and controlled by the United States Naval Radio Service, Radio, Va. The station sends time signals daily at noon (time of the meridian 120° west of Greenwich), Sundays and holidays excluded, on the wave length of 1600 meters. Signals same as for Arlington, Radio,

Va. Time furnished by Observatory at Navy Yard, Mare Island, Cal.

KAHUKU, HAWAII.—Name, Wahiawa; strike out G. loc. range, 300; system, MarconiMassie, 600; W. L., 300, 600.

KEY WEST, FLA.—Notes, Radio station operated and controlled by the United States Naval Radio Service, Radio, Va. The station sends time signals daily at noon (time of the meridian 75° west of Greenwich), Sundays and holidays included, on the wave length of 1500 meters. Signals same as for Arlington, Radio, Va. Time furnished by Naval Observatory at Washington, D. C.

MARE ISLAND, CAL.—Notes, Radio station operated and controlled by the United States Naval Radio Service, Radio, Va. The station sends time signals twice daily for five minutes on a wave length of 1600 meters, commencing at 11.55m and 9.55s, Sundays and holidays included. Final signals at 12m and 10s (time of the meridian 120° west of Greenwich). Signals same as for Arlington, Radio, Time furnished by Observatory at Navy Yard, Mare Island, Cal.

NEWPORT (NAF), R. I.—Strike out note regarding time signals. NORFOLK, VA.—Strike out note regarding time signals. PORT ROYAL, S. C.—G. loc., O 80° 41′ 00″, N. 32° 22′ 00″. SEA GATE, N. Y.—System, Marconi, 120 and 420.

TATOOSH, WASH.—Strike out note regarding time signals.

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 July 1, 1914, and to the International List of Radiotelegraph Stations, published by the Berne bureau.]

ADMIRAL DEWEY.—Strike out range; system, Kilbourne & Clark. Note, Radio station operated and controlled by the Pacific-Alaska Navigation Co., owner of vessel.

Admiral Farragut.—Strike out range; system, Kilbourne & Clark; W. L., 300, 600. Note, Radio station operated and controlled by the Pacific-Alaska Navigation Co.,

owner of vessel. ADMIRAL SCHLEY.—Strike out range; system, Kilbourne & Clark. Note, Radio station operated and controlled by the Pacific-Alaska Navigation Co., owner of vessel.

ADVENTURESS.—Strike out all particulars.

Beluga.—Strike out all particulars.

Bertha. -Strike out all particulars. Brilliant (KTI).—System, Marconi, 1000.

BUENAVENTURA.—Range, 200; system, Marconi, 480; 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.

CALIFORNIAN (WKC).—Range, 200; hours, 9m-12m, 2s-5s, 8s-10.30s; 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. Notes, Radio station operated and controlled by the American-Hawaiian Steamship Co., owner of vessel.

CAMAGUEY.—Range, 200; system, Marconi, 400; service, PG; hours, N; rate, 4 c. per word, 40 c. minimum per radiogram. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. New York and

Cuba Mail Steamship Co. (Ward Line), owner of vessel.

CHARLES E. HARWOOD.—Range, 200; system, Marconi, 300; service, PG; hours, X.

Colorado (KEA).—System, Marconi, 400.

Colorado (KEA).—System, Marconi, 120; W. L., 300, 600; service, PG.

Colorado (KEA).—Range, 200; system, Marconi, 120; W. L., 300, 600; service, PG; hours, N; 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. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Mallory Steamship Co., owner of vessel.

C. W. Morse.—Range, 150; system, Marconi, 400; rate, 4 c. per word, 40 c. minimum

per radiogram.

DENVER (KED).—Strike out all particulars.

EDWARD L. DOHENY.—Range, 150; system, Marconi, 300; service, PG; hours, X. GEO. W. ELDER.—Range, 200; system, Marconi, 120; W. L., 300, 600; service, PG; hours, N; 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. GRACE DOLLAR.—Strike out range; strike out system. Note, Grace Dollar Steam-

ship Co., owner of vessel.

Honolulan.—System, Marconi, 480.

ILLINOIS (KTH).—Range, 200; system, Marconi, 240; 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. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Texas Steamship Co., owner of vessel.

INDEPENDENT.—Strike out system; strike out rates. Note, National Independent

Fisheries Co., owner of vessel.

J. A. Chanslor.—Range, 200; system, Marconi, 120; 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. J. A. Moffett.—Range, 150; system, Marconi, 1000; 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.

J. M. Guffey.—System, Marconi, 240; hours, X.

John D. Archbold.—Range, 200; system, Marconi, 240; 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.

Notes Radio station operated and controlled by the Marconi Wireless Talegraph Notes, Radio station operated and controlled by the Marconi Wireless Telegraph

Co. of America. Standard Oil Co. of New Jersey, owner of vessel.

LARIMER.—System, Marconi, 240; hours, X.

LYDONIA.—Range, 150; system, Marconi, 500; W. L., 300, 600; service, PG; hours, X; rate, 2 c. per word, 20 c. minimum per radiogram. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. W. A. Lydon, owner of vessel (yacht).

MATSONIA.—System, Marconi, 480.

MEXICANO.—Range, 200; system, Marconi, 240; W. L., 300, 600; service, PG; hours X; rate, 4 c per word, 40 c. minimum per radiogram. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Pierce Oil Corporation, owner of vessel.

Монамк (KXE).—System, Fessenden, 260; W. L., 300, 550, 600. Монедам.—System, Fessenden, 260; W. L., 300, 550, 600.

NECHES—Range, 200; system, Marconi, 240; service, PG; hours, X; rates, 4 c. per word, 40 c. minimum per radiogram. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Mallory Steamship Co., owner of vessel.

NORMAN BRIDGE.—Range, 200; system, Marconi, 300; service, PG; hours, X.
NORTH LAND (KJD).—System, Marconi, 400.
NUSHAGAK.—Strike out system. Note, Alaska Packer's Association, owner of vessel.
PARAISO.—Range, 150; system, Marconi, 240; hours, N; 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. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Craig Shipbuilding Co., owner of vessel.

PEQUONNOCK.—System, Fessenden, 260; W. L., 300, 550, 600.

Perfection.—Range, 200; system, Marconi, 1000; service, PG; hours, X. Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Standard Oil Co. of New York, owner of vessel.

Phor Boy.—Range, 100; system, Marconi, 400; service, PG; hours, 8m-11m, 2s-5s,

78-8s; rates, 4c. per word, 40 c. minimum per radicgram.

PLATURIA.—Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Standard Oil Co. of New Jersey, owner of vessel. Рьумонтн.—W. L., 300, 550, 600.

Princeton (KST).—Note, Standard Oil Co. of New Jersey, owner, of vessel.

Providence.—W. L., 300, 550, 600.

RADIANT.—Range, 200; system, Marconi, 1000; service, PG; hours, X.

REDONDO.—Strike out range; strike out system; strike out hours. Note, Alaska Steamship Co., owner of vessel.

ROBERT DOLLAR.—Strike out all particulars.

SANTA CRUZ (WBD).—Range, 200; system, Marconi, 240; 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. Santa Maria (WTF).—Strike out range; system, Poulsen arc; strike out rates,

Note, United Steamship Co. (Union Oil Co.), owner of vessel.

Santa Rosalia.—Range, 200; system, Marconi, 480; 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.

Santiago.—Range, 200; system, Marconi, 400; 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. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. New York & Cuba Mail Steamship Co. (Ward Line), owner of vessel.

SATILLA.—Range, 200; system, Marconi, 120; W. L., 300, 600; service, PG; hours, X; rates, 4 c. per word, 40 c. minimum per radiogram. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Atlantic, Gulf, and West Indies Steamship Lines, owner of vessel.

Sheboygan.—Strike out all particulars.

SOMERSET (KSU).—Note, Standard Oil Co. of New Jersey, owner of vessel.

STANLEY DOLLAR.—Strike out system. Note, Dollar Steamship Line, owner of vessel.

STARR.—System, Kilbourne & Clark. Note, Radio station operated and controlled by the San Juan Fishing and Packing Co., owner of vessel.

St. Francis.—Strike out system; strike out rates. Note, Libby, McNeill & Libby,

owner of vessel.

St. Helens.—System, Marconi, 120; W. L., 300, 600; service, PG. St. Louis (KSL).—Range, 200; system, Marconi, 240; W. L., 300, 600; service, PG; hours, N; rates, 8 c. per word, 80 c. minimum per radiogram. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. International Mercantile Marine Co. (American Line), owner of vessel. TARRAGON.—Strike out all particulars.

United States.—Strike out all particulars.

VENETIA.—System, Marconi. Note, Radio station operated and controlled by J. D. Spreckels, owner of vessel (yacht).

W. B. FLINT.—Strike out system; strike out rates. Note, Libby, McNeill & Libby,

owner of vessel. WILD DUCK.—Range, 150; system, Marconi, 400; W. L., 300, 600; service, PG; hours, X; rate, 4 c. per word, 40 c. minimum per radiogram. Notes, Radio station operated and controlled by the Marconi Wireless Telegraph Co. of America. Gulf Refining Co., owner of vessel (yacht).

WILLAMETTE -Range, 150; system, Marconi, 120; W. L., 300, 600; service, PG; hours, N; 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.—Range, 150; system, Marconi, 120; W. L., 300, 600; service, PG.

LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS.

KHK, read: Wahiawa, Hawaii (c). Strike out particulars following the call signals KED, KYV, NZZ, WBR, WFL, WIT, WLB, and WSM.

SPECIAL 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 July 1,1914, only.]

MEMPHIS, TENN. (5XC).—W. L., 425 variable to 600. PITTSFIELD, MASS.—W. L., 600, 1600 variable to 6000. TAKOMA PARK, MD.--W. L., 500, 2000.

MISCELLANEOUS.

TRANSMISSION OF WEATHER REPORTS BY NAVAL RADIO STATIONS.

Through cooperation with local offices of the United States Weather Bureau, weather forecasts are sent broadcast to sea through naval coast radio stations at certain times, varying with the locality. Coast stations are generally prepared to give local forecasts to passing vessels without charge, on request. Storm warnings are sent whenever received and the daily weather bulletins are distributed by the naval radio stations at Arlington, Va., and Key West, Fla., a few minutes after the 10 p. m. time signal. These bulletins consist of two parts.

The first part contains code letters and figures which express the actual weather conditions at 8 p. m., seventy-fifth meridian time, on the day of distribution, at certain points along the eastern coast of North America, one point along the Gulf of Mexico, and one at

Bermuda.

The second part of the bulletin contains a special forecast of the probable winds to be experienced a hundred miles or so off shore, made by the United States Weather Bureau, for distribution to shipmasters. The second part of the bulletin also contains warnings of severe storms along the coasts, as occasions for such warnings may arise.

Immediately following this bulletin, a weather bulletin for certain points along the Great Lakes is sent broadcast by the naval radio station at Arlington, Va., consisting of two parts. The first part contains code letters and figures which express the actual weather conditions at 8 p. m., seventy-fifth meridian time, on the day of distribution, at certain points along the Lakes. The second part of the bulletin contains a special forecast of the probable winds to be experienced on the Lakes, during the season of navigation—about April 15 to December 10.

The points for which weather reports are furnished are designated as follows: For Atlantic coast and Gulf points, S = Sydney, T = Nantucket, DB = Delaware Breakwater, H = Hatteras, C = Charleston, K = Key West, P = Pensacola, and B = Bermuda; for points on the Great Lakes, Du = Duluth, M = Marquette, U = Sault Ste. Marie, G = Green Bay, Ch = Chicago, L = Alpena, D = Detroit, V = Cleveland

and F = Buffalo.

All bulletins begin with the letters U. S. W. B. (United States Weather Bureau) and the weather conditions follow. The first three figures of a report represent the barometric pressure in inches (002 = 30.02); the next figure, the fourth in sequence, represents the direction of the wind to the eight points of the compass: 1 = north, 2 = northeast, 3 = east, 4 = southeast, 5 = south, 6 = southwest, 7 = west, 8 = northwest and 0 = calm. The fifth figure represents the force of the wind on the Beaufort Scale, given below.

BEAUFORT SCALE OF WIND FORCE.

Number and designation.	Statute miles per hour.	Nautical miles per hour.
O Calm I Light air. 2 Light breeze. 3 Gentle breeze. 4 Moderate breeze. 5 Fresh breeze. 6 Strong breeze. 7 Moderate gale. 8 Fresh gale. 9 Strong gale. 10 Whole gale. 11 Storm. 21 Hurricane.	8 13 18 23 28 34 40 48 56	0 to 2.6 6.9 11.3 15.6 20.0 24.3 29.5 34.7 41.6 48.6 65.1 78.1 and over.

In order to simplify the code, no provision has been made for wind force greater than 9, strong gale, on the Beaufort Scale. Whenever winds of force greater than 9 occur, the number representing them is given in words instead of figures, thus: Ten, eleven, etc.

EXAMPLES OF CODE.

USWB S 96465 T 91674 DB 94686 H 99886 C 01214 K 02622 P 03613 B 00065

Translation.

United States Weather Bureau.

Station.	77	Wii	ıđ.	
Station,	Pressure.	Direction.	Force.	
Sydney. Nantucket	29.64 29.16	8W W		
Delaware Breakwater Herieras Charleston	29.46	NW NW N		
Key West Pensacola, Bermuda	30. 26	NE N SW		

¹ See Beaufort Scale.

USWB Du 95826 M 97635 U 00443 G 96046 Ch 95667 L 00644 D 00842 V 01054 F 01656

Translation.

United States Weather Bureau.

Station.		Wind.	
		Direction.	Force.t
Duluth Marquette Sault Ste. Marie Green Bay Chicago Alpena Detroit Cleveland Buffalo	29. 58 29. 76 30. 04 29. 60 29. 56 30. 06 30. 08 30. 10 30. 16	ne ne see see see see s	653667422466

See Beaufort scale.

NOTICE RELATIVE TO HANDLING OF OFFICIAL RADIOGRAMS BY NAVAL RADIO SERVICE.

When radiograms from ships other than naval vessels relating to official business of the United States (those having the word "Govt." preceding the address) are forwarded through naval radio shore stations, they will be transferred to forwarding lines without any further attempt to relay. These "Govt." messages include those addressed to the Weather Bureau or Observer.

In the case of all "Govt." messages originating on ships, Government or otherwise, in Alaskan waters, forwarded through naval radio shore stations, destined to points in the United States, they will be relayed by naval radio to North Head if for points outside of California, or to Eureka if for points in California, and there transferred to forwarding lines. The preceding applies where no routing instructions are given, but messages will be routed otherwise if so directed by the station of origin.

No charges will be made by the Naval Radio Service for the transmission of these "Govt." messages, but it will in all cases look to the station of origin for all forward ng charges at Government rates.

RADIO-SERVICE PERSONNEL.

V. Ford Greaves, radio engineer of the Bureau, is making a tour of

inspection of the Pacific-coast districts.

Harry Sadenwater, of New York City, has been appointed as an assistant radio inspector in the office of the chief radio inspector at that port.

George B. MacMahon, clerk in the New York office, has been granted six months' leave without pay, on account of ill health, and

is now on the Pacific coast.

CHANGE IN ARMY RATES.

The following changes in the ship and coast radio charges of the United States Army Radio Service, approved by the Secretary of War, will become effective on July 1, 1915:

The radio rate for stations of the United States Army Radio Service is six cents per word for shore stations and four cents per word for ship stations, ten-word minimum. The charge, where the radio service is performed wholly between Army ship and shore stations, is, therefore, ten cents per word, and between two Army ship stations, eight cents per word.

COMMERCIAL EXTRA FIRST-GRADE OPERATORS.

The names of the following operators have been added to the list of those to whom commercial extra first-grade licenses have been issued by the Secretary of Commerce, as a reward for long and efficient service: Leo. F. Whitehead, Boston, Mass., and Walter John Lynch, New York, N. Y.

AMENDMENTS.

[To be cut out and pasted in your copy.]

The Radio Communication Laws of the United States, edition of July 27, 1914, are hereby amended as follows:

Paragraph 153, page 66, should read:

a. Renewal licenses may be issued to commercial grade operators without examination, provided the service records on the backs of licenses properly certify to three months' satisfactory commercial service during the last six months of the license term. If expired licenses have been lost or destroyed, an affidavit must be submitted attesting the facts regarding the manner in which the license was lost. In such cases, evidence of the required satisfactory commercial service may be submitted in the form of letters, signed by masters and employers.

b. Operators holding licenses of grades other than commercial, who submit satisfactory evidence to the examining officer, showing actual operation of radio apparatus for three months during the last six months of the license term, may be issued new licenses without examination. Otherwise, applicants for renewals will be examined in

the usual manner.

c. Renewals or new licenses may be issued a reasonable length of time previous to the expiration of existing licenses, but must bear

the exact date of issue, which must correspond with the date on the back of Form 756 forwarded to the Commissioner of Navigation.

d. Operators who fail to apply for renewal of their licenses on or prior to the date of expiration must be reexamined. If, because of circumstances over which the applicant has no control, an operator is unable to apply for renewal of license on or prior to the date of expiration, an affidavit may be submitted to the Commissioner of Navigation through the radio inspector or examining officer, attesting to the facts, which will be considered by the Commissioner of Navigation, who will advise the radio inspector or examining officer in regard to the issue of a renewal of the license without reexamination.

e. Service records must be completed and signed only by masters,

employers, or the duly authorized agents of either.

f. Any improper alteration of the service record, or the forgery of masters' or employers' signatures, constitute a violation of the regulations, and the operator may suffer suspension of license for a period not exceeding one year, at the discretion of the Secretary of Commerce.

ADDITIONAL COPIES

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