

RADIO SERVICE BULLETIN

ISSUED MONTHLY BY BUREAU OF NAVIGATION, DEPARTMENT OF COMMERCE

Washington, March 1, 1917—No. 27.

CONTENTS.

New stations:	Page.	Miscellaneous:	Page
Land stations, by names.....	2	Commercial radio operators licensed during month of January, 1917.....	6
Ship stations, by vessels.....	2	Notice to radio operators.....	8
Land and ship stations, by call signals.....	3	Radio apparatus for Dutch steamship companies.....	9
Special land stations, by names.....	3	Classification of special stations.....	9
Special land stations, by districts.....	3		
Abbreviations.....	4		
Alterations and corrections:			
Land stations, by names.....	4		
Ship stations, by vessels.....	5		
Special land stations, by names.....	6		

DEPARTMENT OF COMMERCE,
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 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.

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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.	Longitude and latitude (approximate).	Call signal.	System.	Wave lengths.	Service.	Hours.
Great Falls, Mont. ¹	O 111 10 00 N 47 35 00	KLQ.....	Composite, 200.....	1700	(*)	X
Isabela de Basilan, P. I. ²		KHI.....				8m-5.30s
Kvichak, Alaska ³	O 156 48 00 N 59 03 00	KHB.....	Kilbourne & Clark.	300, 400, 500, 600	(*)	X
Philadelphia, Pa. ⁴	O 75 09 44 N 39 57 06	WHE.....	Marconi, 240.....	1650	(*)	9m-5s

* Limited commercial.

¹ Station operated and controlled by the Great Falls Power Co., Butte, Mont. The station is limited to communication with Butte, Thompson Falls, and Lewistown, Mont.² Station operated and controlled by Philippine insular government, Washington, D. C.³ Range, 125. Station operated and controlled by Alaska Packers' Association. The station is limited to communication with the stations of the Alaska Packers' Association at Naknek, Sang Point, and Clarks Point, Alaska, and vessels of the association. The station is in operation from April to October of each year.⁴ Range, 400. Station operated and controlled by John Wanamaker. The station is operated in conjunction with Marconi's Philadelphia station, but is limited to communication with a station at New York, N. Y. (WHI).

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.	Service.	Hours.
Admiral Wainwright ¹	WSF		300, 600		
Astoria ²	WRL	Kilbourne & Clark, 1,000.	300, 450, 525, 600.	PG	N
Astri ³	WRN	do.	300, 450, 525, 600.	PG	N
Charles O. Jenkins ⁴	WFT	Marconi.....	300, 600.....	PG	
Druid ⁵	KYK	do.	300, 600.....	PG	
F. B. Squire ⁶	WPU	do.	300, 600.....	PG	
Holden Evans ⁶	KMY	Marconi, 1,000.....	300, 450, 600.....	PG	X
Ituna ⁷	WPA	Halcun			
John Scully ⁸	KVT	Marconi.....	300, 600.....	PG	
Margaret ⁹	WRQ	Kilbourne & Clark, 1,000.	300, 450, 525, 600.	PG	N
Mary ⁹	WRM	do.	300, 450, 525, 600.	PG	N
May ⁹	WRR	do.	300, 450, 525, 600.	PG	N
Orleans ¹⁰	KRZ				
Sagua ¹⁰	KVO	Marconi.....	300, 600.....	PG	
Santa Maria ¹¹	KWU	do.	300, 600.....	PG	
Sherman ¹²	KMQ	Marconi, 1,000.....	300, 450, 600.....	PG	X
Sir Thomas Shaughnessy ⁴	WPU	Marconi.....	300, 600.....	PG	
Southern ¹³	KJH	do.	300, 600.....	PG	
United States ¹⁴	KZU	do.			

¹ Pacific Steamship Co., owner of vessel.² Range, 100; rates, 4c. per word 40c. minimum per radiogram. Radio station operated and controlled by the McEachern Ship Co., owner of vessel.³ Range, 100; rates, 4c. per word 40c. minimum per radiogram. Radio station operated and controlled by A. O. Andersen & Co., owner of vessel.⁴ Rates, 2c. per word 20c. minimum per radiogram. Radio station operated and controlled by the Marconi Co. Jenkins Steamship Co., owner of vessel.⁵ Rates, 4c. per word 40c. minimum per radiogram. Radio station operated and controlled by the Marconi Co. Rodman Wanamaker, owner of vessel, yacht.⁶ Range, 150; rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. per radiogram. Radio station operated and controlled by the Marconi Co. Bulk Oil Transports (Inc.), owner of vessel.⁷ Mexican Navigation & Commercial Co., owner of vessel.⁸ Rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram. Radio station operated and controlled by the Marconi Co. Scully Line, Inc., owner of vessel.⁹ Oriental Navigation Corp., owner of vessel.¹⁰ Radio station operated and controlled by the Marconi Co. Sibiria Steamship Co., owner of vessel.¹¹ Rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram. Radio station operated and controlled by the Marconi Co. Sun Co., owner of vessel.¹² Range, 250; rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram. Radio station operated and controlled by the Marconi Co. Chile Exploration Co., owner of vessel.¹³ Rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram. Radio station operated and controlled by the Marconi Co. Southland Steamship Co., owner of vessel.¹⁴ Rates, 4c. per word 40c. minimum per radiogram. Radio station operated and controlled by E. H. R. Green, owner of vessel, yacht.

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LAND AND SHIP STATIONS, ALPHABETICALLY BY CALL SIGNALS.

[b—ship station; c—land station.]

Call signal.	Name.	Call signal.	Name.
KHB	Kvichak, Alaska.....c	WFT	Charles O. Jenkins.....b
KHI	Isabela de Basilan, P. I.....c	WFO	F. B. Squire.....b
KJH	Southerner.....b	WFO	Sir Thomas Shaughnessy.....b
KLQ	Great Falls, Mont.....c	WHE	Philadelphia, Pa.....c
KMQ	Sherman.....b	WPA	Ituna.....b
KMY	Holden Evans.....b	WRL	Astoria.....b
KRZ	Orleans.....b	WRM	Mary.....b
KVO	Sagua.....b	WRN	Astri.....b
KVT	John Scully.....b	WRQ	Margaret.....b
KWU	Santa Maria.....b	WRR	May.....b
KYK	Druid.....b	WSF	Admiral Wainwright.....b
KZU	United States.....b		

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 lengths.	Service.	Hours.	Station controlled by—
Big Creek, Cal.....	6XV	200, 425.....	P	X	Walter Burnett and Oscar Kipf.
Chicago, Ill.....	9XG	300, 600, variable..	P	X	Austin A. Howard.
Culver, Ind.....	9YN	Variable.....	P	X	Culver Military Academy.
Decatur, Ill.....	9YJ	200, 425.....	P	X	James Millikin University.
Enterprise, Oreg.....	7ZH	200, 425.....	P	X	Orland M. Heacock.
Eureka, Ill.....	9YQ	420.....	P	X	Eureka College.
Greeley, Colo.....	9YZ	200, 500.....	P	X	State Teachers' College.
Grove City, Pa.....	8YV	200, 425, 1000.....	P	X	Grove City College.
Kansas City, Mo.....	9ZK	200, 425.....	P	X	Albert I. Graham.
Phoenix, Ariz.....	6ZP	200, 425.....	P	X	Harry K. Behn, jr.
Red Bluff, Cal.....	6ZS	200, 425.....	P	X	Herbert G. Strain.
Springfield, Mass.....	1ZK	200, 425.....	P	X	Glenn C. Sabin.
Springfield, Ohio.....	8ZQ	200, 425.....	P	X	Charles K. Brain.

SPECIAL LAND STATIONS, GROUPED BY DISTRICTS.

Call signal.	District and station.	Call signal.	District and station.
1ZK	First district: Springfield, Mass.	9XG	Ninth district: Chicago, Ill.
6XV	Sixth district: Big Creek, Cal.	9YJ	Decatur, Ill.
6ZP	Phoenix, Ariz.	9YN	Culver, Ind.
6ZS	Red Bluff, Cal.	9YQ	Eureka, Ill.
7ZH	Seventh district: Enterprise, Oreg.	9YZ	Greeley, Colo.
8YV	Eighth district: Grove City, Pa.	9ZK	Kansas City, Mo.
8ZQ	Springfield, Ohio.		

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, S = south latitude.

Call = Call letters assigned.

System = Radio system used and sparks per second.

Range = Normal range in nautical miles.

W. L. = Wave lengths assigned: Normal wave lengths in italics.

Service = Nature of service maintained:

PG = General public.

PR = Limited public.

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.

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, 1916, and to the International List of Radiotelegraph Stations published by the Berne bureau.]

ENSENADA, P. R.—Service, PG; hours, week days 8m–12m, 2s–5s, Sundays 9m–12m, 7s–8s. Note, Radio station operated and controlled by the Guanica Centrale. The station also communicates with stations at Santo Domingo City and La Romana (Dominican Republic), rate, 12c. per word no minimum.

GREAT LAKES, ILL.—W. L., 300, 600, 1000; service, PG; rates, 6c. per word 60c. minimum per radiogram.

KING COVE, ALASKA.—G. loc. (approximate), O 162° 20' 00'', N 55° 05' 00''; range, 200; system, Kilbourn & Clark, 1,000; W. L., 300, 600, 1610, 2000; service, PG and limited commercial; hours, 8.30m–12m, 1s–5s, and at other hours when business warrants; rates, 6c. per word 60c. minimum per radiogram. Note, Radio station operated and controlled by the Pacific-American Fisheries Co. The station also communicates with stations at Akutan, Clarks Point, Hales Creek, Larsen Bay, Port Moller, Snag Point, Alockanock River, Latouche, Chignik, Nushagak, Naknek, Cordova, Ugashik, Kvichak, and Egegak, Alaska, rate 6c. per word 60c. minimum per radiogram, domestic count; night messages 75 per cent of day rate; night letters 60c. per 50 words 12c. for each additional 10 words or fraction thereof, domestic count.

KOGGIUNG, ALASKA.—Strike out all particulars.

MIAMI, FLA.—W. L., 300, 450, 600. Note, Radio station operated and controlled by the Marconi Co.

PASSAGRILLE, FLA.—Strike out all particulars.

PHILADELPHIA, PA. (WHE).—W. L., 300, 600; service, PG; hours, 9m–5s. Note, Radio station operated and controlled by the Marconi Co.

ST. PETERSBURG, FLA.—Strike out all particulars.

TUTUILA, SAMOA.—G. loc. (approximate) O 171° 00' 00'', S 14° 00' 00''; system, U. S. Navy; W. L., 600, 750; service, PG; hours, N; rate, 6c. per word, 60c. minimum per radiogram. Note, Radio station operated and controlled by the United States Naval Communication Service, Radio, Va. The station communicates with stations at Apia (Samoa), Suva (Fiji Islands), Tahiti Island, and Wahiawa (Hawaii), rate 6c. per word no minimum.

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, 1918, and to the International List of Radiotelegraph Stations published by the Berne bureau.]

- ALLIANCE.**—Note, Radio station operated and controlled by the Marconi Co. Fair & Moran, owner of vessel.
- BEAVER (WWB).**—System, Marconi, 400.
- CAPTO.**—Strike out all particulars.
- CARLOS.**—Strike out all particulars.
- CASIANA.**—Range, 150; system, Marconi, 1,000; W. L., 300, 600; service, PG; hours, X, rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. Edward L. Doheny, owner of vessel, yacht.
- DORCHESTER.**—System, Marconi, 1,000; W. L., 300, 450, 600; rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram.
- FREPORT SULPHUR No. 2.**—Service, PG; rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. Freeport Sulphur Transportation Co., owner of vessel.
- GRACE DOLLAR.**—Strike out all particulars.
- HARRY LUCKENBACH.**—Note, Radio station operated and controlled by the Marconi Co. Luckenbach Co. (Inc.), owner of vessel.
- H. C. FOLGER.**—Range, 250; system, Marconi, 1,000; W. L., 300, 450, 600.
- JULIA LUCKENBACH.**—Range, 250; system, Kilbourne & Clark, 1,000; W. L., 300, 450, 525, 600; service, PG, hours, X; rates, 8c. per word 80c. minimum per radiogram. Note, Radio station operated and controlled by the Luckenbach Steamship Co. (Inc.), owner of vessel.
- KLAMATH.**—System, Marconi, 240; rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram.
- LUCKENBACH No. 3.**—Range, 150; system, Kilbourne & Clark, 1,000; W. L., 300, 450, 600; service, PG, hours, X; rates, 4c. per word 40c. minimum per radiogram. Note, Radio station operated and controlled by Edgar F. Luckenbach, owner of vessel, tug.
- LUCKENBACH No. 5.**—Range, 150; system, Kilbourne & Clark, 1,000; W. L., 300, 450, 600; service, PG; hours, X; rates, 4c. per word 40c. minimum per radiogram. Note, Radio station operated and controlled by the Luckenbach Steamship Co. (Inc.), owner of vessel.
- NEWPORT (WWH).**—Rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram.
- NIRVANA.**—Strike out all particulars.
- NOKOMIS (WHD).**—W. L., 300, 600; service, PG; rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. per radiogram. Note, Radio station operated and controlled by the Marconi Co. Horace E. Dodge, owner of vessel, yacht.
- PANUO (KWM).**—Range, 250; system, Marconi, 1,000; W. L., 300, 450, 600; service, PG; hours, X.
- POWHATAN (KQY).**—Strike out all particulars.
- PRESIDENT.**—Range, 150; system, Marconi, 400. Note, Radio station operated and controlled by the Marconi Co. Pacific Steamship Co., owner of vessel.
- PROVIDENCIA.**—System, Halcun, 700; rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram. Note, Radio station operated and controlled by the Providencia Steamer Co., owner of vessel.
- ROCHESTER.**—Note, Radio station operated and controlled by the Marconi Co. Rochester Navigation Corp., owner of vessel.
- SANTA ANA.**—Hours, X.
- SANTA MARIA (WTF).**—Strike out all particulars.
- SANTA ROSA.**—Service, PG; rates, North and South American service, 4c. per word 40c. minimum per radiogram, transoceanic service 8c. per word 80c. minimum per radiogram. Note, Radio station operated and controlled by the Marconi Co. W. R. Grace & Co., owner of vessel.
- SPEEDWELL.**—Strike out all particulars.
- WILLAMETTE.**—Range, 100; system, Marconi, 240.

- WM. G. WARDEN.—Range, 250; system, Marconi, 1,000; W. L., 300, 450, 600; hours, X.
 YOSEMITE.—Hours, X. Note, Radio station operated and controlled by the Marconi Co. Puget Sound Commercial Co. (Inc.), owner of vessel.
 YUCATAN.—Strike out all particulars.

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, 1916, only.]

- LA GRANDE, OREG.—Strike out all particulars.
 MINNEAPOLIS, MINN. (9ZE).—Call, 9XF; W. L., variable.
 NORTHAMPTON, MASS.—Strike out all particulars.
 PHILADELPHIA, PA. (3ZO).—Strike out all particulars.
 ST. LOUIS, MO. (9XC).—Strike out all particulars.
 SPRINGFIELD, ILL.—W. L., 1750.

MISCELLANEOUS.

COMMERCIAL RADIO OPERATORS LICENSED DURING MONTH OF JANUARY, 1917.

Extra first grade.

Date.	Licensee.	Address.	Serial No.	Where issued. 1
18	*Lovejoy, Edwin Wm.....	1818 Magnolia Ave., Los Angeles, Cal.	61	Washington.

First grade.

2	*Allen, George H.....	16 Bacon St., Waltham, Mass.....	15012	New York.
10	Allen, Herbert R.....	S. S. Durham, Brooklyn, N. Y.....	15269	Brooklyn. ²
22	*Armstrong, Roy E.....	130 Lakeshore Drive, Port Arthur, Tex.	14196	New Orleans.
2	*Arnold, Eric W.....	Hewitt, N. J.....	15014	New York.
12	Ashmore, J. Wilmer.....	3408 Hamilton St., Philadelphia, Pa.	12919	Philadelphia. ²
6	Azoy, Geoffrey V.....	28 S. Maple Ave., East Orange, N. J.	15267	Brooklyn. ²
12	Barker, Julian D.....	19 Channing St., Newport, R. I.....	14300	Boston.
5	*Bassett, Joseph M.....	423 W. 22d St., New York, N. Y.....	15019	New York.
15	Batchelder, Hugh McL.....	92 Lake Ave., Melrose, Mass.....	14304	Boston.
3	*Bernstwiller, Arthur C.....	Univ. of Penna., Philadelphia, Pa.....	15015	New York.
22	*Biesemeyer, Walter H.....	6th and Washington Sts., Manitowoc, Wis.	13751	Chicago.
11	*Bigrover, William E.....	25 Elm St., New York, N. Y.....	15022	New York.
11	*Blangenburg, Adolph.....	294 Manahan St., Brooklyn, N. Y.....	15024	Do.
23	Blumberg, Ernest R. ³	Clifton, Tex.....	14913	Brooklyn. ²
2	*Bonduaux, Lucien E.....	924 E. 169th St., New York, N. Y.....	15261	Do. ²
7	*Bromley, Arthur C.....	Latouche, Alaska.....	14789	Seattle.
4	*Buchanan, J. A.....	2108 L. C. Smith Bldg., Seattle, Wash	14763	Do.
23	Burke, Alan W.....	40 Pollock Ave., Pittsfield, Mass.....	14308	Boston.
26	*Callahan, Francis J.....	Care Federal Telegraph Co., San Francisco, Cal.	13888	San Francisco.
19	*Cassells, Paul E.....	S. S. Jos. R. Parrott, Key West, Fla.	13256	Key West. ²
5	Cerio, Thomas.....	25 W. 125th St., New York, N. Y.....	15266	Brooklyn. ²
4	*Cissenfeld, Samuel.....	611 S. Charles St., Baltimore, Md.....	12214	Baltimore.
15	*Colby, Edward B.....	132 Dodge St., Beverly, Mass.....	14303	Boston.
12	*Cowden, John.....	Siasconset, Mass.....	14298	Do.
5	*Cowden, Renel E.....	Juneau, Alaska.....	13873	San Francisco.
30	Cox, James H.....	631 Capitol St., Vallejo, Cal.....	13104	Mare Island. ²
12	*Darlington, Edgar T.....	325 Budd St., Philadelphia, Pa.....	15025	New York.
30	Dean, Samuel W.....	4 Eliot Rd., Lexington, Mass.....	14314	Boston.
11	*du Treil, L. J. N.....	Galveston, Tex.....	14195	New Orleans.
17	Farrington, Bruce B.....	1117 Morton St., Alameda, Cal.....	13883	San Francisco.
17	*Ferson, Oliver S.....	Box 55, Miami, Fla.....	13255	Key West. ²
4	*Froberger, Laurence G.....	310 W. 26th St., New York, N. Y.....	15017	New York.
18	Gardell, Emil C.....	Oakhurst, N. J.....	15273	Brooklyn. ²
17	*Gardner, Arthur R.....	Pocasset, Mass.....	14306	Boston.

* License issued as renewal of expiring license without examination. Otherwise license issued on written examination.

¹ All licenses issued by radio inspectors of the Department of Commerce unless otherwise indicated.

² License issued by radio examining officer, Navy Department.

³ License issued in December; particulars received at Bureau too late for publication in December list.

First grade—Continued.

Date.	Licensee.	Address.	Serial No.	Where issued.
31	*Gaugh, Harry E.	U. S. Coast Guard Cutter Manning, San Francisco, Cal.	13889	San Francisco.
3	*Gittings, Donald S.	1852 W. 49th St., Los Angeles, Cal.	13872	Do.
16	Goldsmith, Philip H.	12 W. 77th St., New York, N. Y.	15272	Brooklyn. ¹
12	Gouliarte, Manuel L.	Fairhaven, Mass.	14297	Boston.
3	*Graf, Herman, jr.	Averles, Md.	12213	Baltimore.
23	*Grantlin, William P.	U. S. S. Cyclops, New York, N. Y.	12216	Do.
10	*Gussman, Allan P.	1024 Franklin St., San Francisco, Cal.	15021	New York.
23	*Hamilton, Geo. P.	105 Pine St., Millville, N. J.	15029	Do.
22	*Hewlett, Palmer B.	Hollister, Cal.	13884	San Francisco.
12	*Holden, Harry H.	Siasconset, Mass.	14299	Boston.
2	*Hopper, Horace G.	1719 W. Lexington St., Baltimore, Md.	12212	Baltimore.
12	*Jackson, Arthur E.	8609 Kenmore Ave., Cleveland, Ohio	13741	Chicago.
15	Jenkins, Lester I.	74 Smith St., New Bedford, Mass.	14302	Boston.
30	Jennings, John W.	Lake Mahopac, N. Y.	15278	Brooklyn. ¹
25	Johnson, Thurston A.	123 Winthrop St., Winthrop, Mass.	14309	Boston.
9	*Johnstone, Richard	821 Shrader St., San Francisco, Cal.	13877	San Francisco.
20	*Keever, Joseph W.	1620 48th Ave., San Francisco, Cal.	13885	Do.
29	*Kelland, Wesley F.	1716 N. Calvert St., Baltimore, Md.	12218	Baltimore.
29	Kleinberger, Richard C.	100 Vanderbilt Ave., Stapleton, N. Y.	15276	Brooklyn. ¹
3	*Krielenen, Joseph	Atco, N. J.	12918	Philadelphia. ¹
25	Kraft, Edwin A.	5241 11th Ave., N. E., Seattle, Wash.	14777	Seattle.
25	Krog, Albert.	649 Poplar St., Poplar Bluff, Mo.	13752	Chicago.
19	Lamb, Edwin S.	Ketchikan, Alaska.	14774	Seattle.
30	*Leonard, S. Edwin	10708 Hull Ave., Cleveland, Ohio.	13755	Chicago.
3	*Lopez, Anthony	54 E. 105th St., New York, N. Y.	15016	New York.
30	Lyon, William H.	Maple St., Lexington, Mass.	14313	Boston.
8	*Lytle, John R.	525 Bush St., San Francisco, Cal.	13875	San Francisco.
24	MacDuff, Sydney G.	7 Kelvingrove Ter., Glasgow, Scotland.	15275	Brooklyn. ¹
30	*MacPherson, William D.	549 A St., Lorain, Ohio.	13754	Chicago.
19	Malloy, Bernard J.	167 Sands St., Brooklyn, N. Y.	15274	Brooklyn. ¹
15	*Martin, Patrick	2707 Briggs Ave., New York, N. Y.	15027	New York.
11	Martinez y Gomez, Porfirio.	207 Street No. 3, Habana, Cuba	13406	San Juan, P. R. ¹
6	McGrath, Joseph L.	206 Fayette St., Wollaston, Mass.	14294	Boston.
4	McHugh, John A.	23 Woodland Pl., White Plains, N. Y.	15263	Brooklyn. ¹
18	McKinnon, Daniel T.	Spiketon, Wash.	14773	Seattle.
23	*Meldrum, Herbert J.	115 Winthrop St., Boston, Mass.	14307	Boston.
5	*Michael, Louis J.	82 Vanderveer St., Brooklyn, N. Y.	15265	Brooklyn. ¹
3	Miller, Frank L.	4625 N. Hermitage Ave., Chicago, Ill.	13748	Chicago.
4	Miller, Julius L.	179 Marcy Ave., Brooklyn, N. Y.	15262	Brooklyn. ¹
25	*Mowat, Alexander.	2105 Bienville St., New Orleans, La.	14912	New Orleans.
14	*Norman, Stacy W.	4511 8th Ave., N. E., Seattle, Wash.	14765	Seattle.
9	*Oliver, Charles L.	Hobart Bldg., San Francisco, Cal.	13876	San Francisco.
29	*Onens, John F.	Mantua, N. J.	12217	Baltimore.
27	*O'Sullivan, James A.	Sayville, N. Y.	15031	New York.
3	Parker, Perry.	Port Angeles, Wash.	14796	Seattle.
24	Peregrine, Clarence A.	866 32d St., Oakland, Cal.	13887	San Francisco.
18	*Perry, Edgar D.	Underwood, Wash.	14767	Seattle.
5	*Phair, Richard J.	2265 Mission St., San Francisco, Cal.	13874	San Francisco.
12	*Phillips, Everett E.	Box 593, S. San Francisco, Cal.	13879	Do.
10	*Pohl, Julius A.	303 Hennen Annex, New Orleans, La.	14194	New Orleans.
15	Preiss, Charles E.	473 Central Ave., Brooklyn, N. Y.	15271	Brooklyn. ¹
23	Prine, Forest.	1318 7th Ave., Seattle, Wash.	14775	Seattle.
5	*Redfern, Otto R.	209 Garside St., Newark, N. J.	15018	New York.
5	*Rennard, Edgar B.	Radio Station, Tela, Honduras.	14192	New Orleans.
30	*Reynolds, Harry M.	Care Alaska Steamship Co., Seattle, Wash.	14788	Seattle.
27	*Ritschle, Hans Carl J.	153 1st St., Hoboken, N. J.	15030	New York.
12	*Rodman, Harold L.	409 W. Queen St., Inglewood, Cal.	13880	San Francisco.
5	Rosenthal, Charles B.	909 Jefferson Ave., Brooklyn, N. Y.	15264	Brooklyn. ¹
12	Russell, Adam.	1 Byron St., Worcester, Mass.	14301	Boston.
25	Russell, Conrad A.	Valparaiso, Ind.	13753	Chicago.
29	Schaefer, Charles M.	Box 256, Sayville, N. Y.	15277	Brooklyn. ¹
11	Semons, Roger W.	2 Waverly Ave., Cliftondale, Mass.	14296	Boston.
12	Shannon, Frank.	5308 Haverford Ave., Philadelphia, Pa.	12921	Philadelphia. ¹
11	*Snow, Herbert E.	Stapleton, N. Y.	15023	New York.
31	Stagg, Uberto K.	Noroton Heights, Conn.	14310	Boston.
5	*Stewart, John A.	La Ceiba, Spanish Honduras	14193	New Orleans.
23	Sturdevant, Leland W.	Care Alaska Packers Assn., San Francisco, Cal.	13886	San Francisco.
5	Sullivan, John F.	485 E. 6th St. Boston, Mass.	14293	Boston.
11	*Sunderland, Wayland D.	303 Hollow Ave., Seattle, Wash.	14760	Seattle.
24	Swenson, Joseph.	8040 Meridian Ave., Seattle, Wash.	14776	Do.
16	*Swett, Walter J.	83 Chelsea St., Charlestown, Mass.	14305	Boston.

* License issued as renewal of expiring license without examination. Otherwise license issued on written examination.

¹ License issued by radio examining officer, Navy Department.

First grade—Continued.

Date.	Licensee.	Address.	Serial No.	Where issued.
16	* Talbot, Norman D.....	25 Elm St., New York, N. Y.....	12215	Baltimore.
10	* Temple, Otto C.....	82 Elmrod St., Brooklyn, N. Y.....	15270	Brooklyn. ¹
11	Theofan, Costas S.....	200 Columbus Ave., Boston, Mass...	14296	Boston.
2	* Thompson, Maurice.....	Madison Apts., 11th St., San Pedro, Cal.	13871	San Francisco.
31	* Thompson, Thomas B.....	Care Alaska Steamship Co., Seattle, Wash.	14779	Seattle.
16	* Ticknor, Reginald.....	San Francisco, Cal.....	13882	San Francisco.
12	Todd, Stedman F.....	415 Hillside Court, Piedmont, Cal....	13881	Do.
12	Walton, Kenneth B.....	101 Dudley Ave., Narberth, Pa.....	12920	Philadelphia. ¹
26	* Ward, Frank A.....	321 St. Charles St., New Orleans, La.	14198	New Orleans.
12	* Warnock, Archie D.....	118 W. Myrtle St., Hanford, Cal.....	15026	New York.
2	* West, Howard B.....	479 Church St., Long Branch, N. J....	15013	Do.
28	* Wheeler, R. L. ¹	Little Falls, N. Y.....	15153	Norfolk.
22	* Wilkinson, Frank O.....	309 19th St., Milwaukee, Wis.....	13750	Chicago.
6	Williams, Harold A.....	Belmont Ave., Floral Park, N. Y.....	15268	Brooklyn. ¹
13	* Williamson, Grover.....	Marshfield, Oreg.....	14770	Seattle.
11	* Wolfe, Albert E.....	East San Pedro, Cal.....	13878	San Francisco.

Second grade.

10	Bechloff, Claude B.....	106 Walnut St., Ridgewood, N. J.....	13845	Brooklyn. ¹
18	Benson, Lester A.....	4156 Shaw Ave., St. Louis, Mo.....	12397	St. Louis.
18	Blatterman, Headlee.....	6172 Westminster Pl., St. Louis, Mo....	12398	Do.
5	Bylander, Sven A.....	1414 Abratroz Ave., Berkeley, Cal....	13226	San Francisco.
24	Carruthers, David.....	135 Waverly Pl., New York, N. Y.....	13352	Brooklyn. ¹
22	Chocener, Theodore R.....	615 Hancock St., Brooklyn, N. Y.....	13549	Do. ¹
12	Dahl, Chester W.....	160 Grenville St., New Bedford, Mass.	12074	Boston.
30	Driscoll, Patrick J.....	19 Liberty Ave., Dongan Hills, N. Y....	13354	Brooklyn. ¹
9	Elwell, Todd.....	401 E. 36th St., Paterson, N. J.....	13844	Do. ¹
22	Falco, Charles C.....	140 Sands St., Brooklyn, N. Y.....	13848	Do. ¹
19	Finehout, Fred.....	1310 E. New York St., Indianapolis, Ind.	12399	Indianapolis.
4	Grummet, Melvin L.....	9525 Fourth Ave., Brooklyn, N. Y.....	13889	Brooklyn. ¹
16	Henkin, Ascher.....	355 Stockton St., Brooklyn, N. Y.....	13847	Do. ¹
22	Hoff, Russell.....	298 Western Ave., Albany, N. Y.....	13850	Do. ¹
18	Johnson, Geo. F.....	625 Black Ave., Springfield, Ill.....	12396	St. Louis.
9	Knights, Alexander H.....	862 Hewitt Pl., New York, N. Y.....	13842	Brooklyn. ¹
16	Lambert, Kenneth B.....	11 Glenview Ave., Iowa City, Iowa....	12394	Davenport, Iowa.
26	MaDan, Edwin.....	7402 17th Ave., Brooklyn, N. Y.....	13353	Brooklyn. ¹
29	McIlvaine, Victor C.....	208 Verne St., Tampa, Fla.....	12154	Baltimore.
5	Moy, Donald W.....	174 Second St., Milwaukee, Wis.....	13749	Chicago.
16	O'Brien, Lester E.....	Wilkinson, Wash.....	12277	Seattle.
5	O'Herin, John M.....	25 W. 125th St., New York, N. Y.....	13841	Brooklyn. ¹
21	Ostrewich, Thaddeus J.....	116 Waverly Pl., New York, N. Y.....	13351	Do. ¹
5	Powell, Edwin L.....	216 Spruce Ave., Takoma Park, Md....	12007	Washington.
4	Salm, Salm.....	53 E. 117th St., New York, N. Y.....	13340	Brooklyn. ¹
10	Shipley, Reid S.....	153 E. 86th St., New York, N. Y.....	13847	Do. ¹
9	Skeete, Benjamin B.....	39 Lexington Ave., Brooklyn, N. Y....	13843	Do. ¹
19	Sommer, James McC.....	2538 N. Talbott Ave., Indianapolis, Ind.	12400	Indianapolis.
30	Toft, Frank.....	Mountain View, Cal.....	13227	San Francisco.
4	Valentine, Milton L.....	Bayside, N. Y.....	13333	Brooklyn. ¹
16	Wittkie, Eugene C.....	104 6th Ave., Moline, Ill.....	12395	Davenport, Iowa.

* License issued as renewal of expiring license without examination. Otherwise license issued on written examination.

¹ License issued by radio examining officer, Navy Department.

* License issued in December; particulars received at Bureau too late for publication in December list.

NOTICE TO RADIO OPERATORS.

Until further notice, the examining of radio operators for all grades of licenses at the Boston, Brooklyn, Philadelphia, Charleston, New Orleans, Mare Island, and Bremerton Navy Yards, the Key West naval radio station, and Fort Wood, N. Y., will be discontinued.

Examinations formerly given by the radio examining officers at these points will be conducted by the radio inspectors of the Department of Commerce, exclusively. All applicants for radio operator licenses should apply to the nearest radio inspector, whose addresses are given below:

Boston, Mass.....	Seventh floor, United States Customhouse.
New York, N. Y.....	Room 603, United States Customhouse.
Baltimore, Md.....	Room 15, United States Customhouse.
Washington, D. C.....	Room 1010, Department of Commerce.
Norfolk, Va.....	Room 222, Citizens' Bank Building.
New Orleans, La.....	Room 235, United States Customhouse.
San Francisco, Cal.....	Room 526, United States Customhouse.
Seattle, Wash.....	Room 204, Federal Building.
Chicago, Ill.....	Room 629, Federal Building.

RADIO APPARATUS FOR DUTCH STEAMSHIP COMPANIES.

Holland's larger steamship companies have recently established a corporation called the Netherlands Telegraphic Co., "Radio-Holland," for the purpose of undertaking the manufacture of radio apparatus for use on Dutch vessels. It is hoped thus to free Dutch shipping from the dependence on foreign companies.

The new "Radio-Holland" is capitalized at \$400,000. The directors comprise representatives of the Holland-America Line, Holland Lloyd, Royal Packet, West Indian Mail, Royal Holland Steamboat, and Java-China-Japan Line.

CLASSIFICATION OF SPECIAL STATIONS.

There seems to be some misunderstanding concerning the classification of special stations, as provided in the Laws and Regulations, edition of July 27, 1914, pages 55 and 56.

Experiment stations.—In the case of experiment stations, such licenses are issued for the purpose of conducting experiments for the development of the science of radio communication, or the apparatus pertaining thereto, to carry on special tests, using any amount of power or any wave lengths, at such hours and under such conditions as will insure the least interference, and where the owners of such stations desire to conduct the usual amateur communications, or engage in the amateur relay league work, this work should be performed on certain authorized wave lengths covered by a license issued for the purpose. It has been found that practically all experiments for the development of radio apparatus can be conducted on an artificial antenna. It may be necessary on special occasions to make tests with some other station for the purpose of determining some special characteristic of the station, this, of course, being permitted.

Technical and training school stations.—In the case of technical and training school stations, these licenses are issued principally for the purpose of training radio operators, and it is believed that most of this work can be conducted without exceptional power and on wave lengths not exceeding 200 meters. Some of the schools turning out the largest number of operators have not found it necessary to do outside transmitting. This part of the training is conducted on buzzers arranged on an interior circuit. Should such stations desire to take part in the amateur relay league work, they should apply for special amateur licenses. Relay work should be conducted on a special wave length designated by the bureau, and ordinary outside communications should be conducted on a wave length not exceeding 200 meters.

Special amateur stations.—In the case of special amateur stations, a wave length in excess of 200 meters is permitted for the special amateur relay work, or emergency work such as that performed in the flood districts, and ordinary communications between special amateur and general amateur stations should not in any case be conducted on wave lengths in excess of 200 meters.

It should be borne in mind by applicants for experiment, technical, and training school, and special amateur station licenses, that the special wave lengths in excess of 200 meters, or power in excess of one-half kilowatt or one kilowatt, depending upon the location of the station, can not be granted for ordinary amateur work, and where stations given special licenses make use of this special power and these special wave lengths for ordinary amateur communication, and such stations are reported to the Bureau for causing interference, their station licenses may be suspended or revoked.

It should also be understood by the holders of special station licenses along the coast that the wave lengths of 300 meters and 600 meters authorized for these stations are solely for the purpose of "listening in" as required by the regulations, and are to be used for transmitting only in the event of an emergency such as is contemplated in the regulations.

Where it is desired and appears necessary that two classes of license be issued to a station, two applications should be sent in, one to cover each class of service, as, for example, experiment and special amateur, or experiment and general amateur.

Recently, there have been several applications received at the Bureau for experiment licenses where it appeared that the stations were to be used for limited commercial service.

All applicants for special licenses should furnish the Bureau, through the radio inspector, a statement covering completely the service which is to be conducted by the stations, and indicating the necessity for special power and wave lengths.

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