

RADIO SERVICE BULLETIN

ISSUED MONTHLY

Washington, December 31, 1930—No. 165

CONTENTS

	Page		Page
New stations.....	2	Miscellaneous—Continued.	
Alterations and corrections.....	4	Corrections to the list of Mexican broadcasting stations.....	11
Miscellaneous:		General orders of the Federal Radio Commission applicable to broadcasting stations.....	11
Changes in the list of vessels equipped with a radio compass.....	10	United States Civil Service examination for radio operator.....	15
Ratification of the International Radiotelegraph Convention, Washington, 1927.....	11	Classification of radio subjects; an extension of the Dewey decimal classification.....	15
Land line rate to Cuba via Palm Beach Radio (WOE) changed.....	11	Radio transmissions of standard frequency, January to June, 1931.....	15
Alterations in radio time signals from Paris and Bordeaux changed.....	11		
Amateur radio operator's license suspended.....	11		

ABBREVIATIONS AND SYMBOLS

The necessary corrections to the List of Commercial and Government Radio Stations of the United States and to the International Lists of Radio 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. W=west longitude. N=north latitude. S=south latitude. E=east longitude.
 Call = Call signal (letters) assigned.
 Type = Type of wave classified as follows: A1=continuous wave (tube), A arc=continuous wave, A2=interrupted continuous wave, A3=phone, B=spark.
 Fy = Frequency in kilocycles; normal frequency in italics; wave length in meters in parentheses.
 Power = Height of antenna (meters) and intensity of current at its base (meters-amperes).
 Service = Nature of service maintained: PG=general public (ship to shore), PR=limited public (limited to public correspondence between fixed stations), P=private (limited commercial and special), O=Government business exclusively.
 Class = FX=fixed station (point-to-point service), RG=radio-compass station, FA=aeronautical station, AB=aviation beacon, RF=circular radiobeacon, B=ship station, FC=coast station, A=aircraft.
 Hours = Hours of operation: N=continuous service, X=no regular hour, Y=sunrise to sunset.
 Accounts = Message accounts settled by.
 M. R. T. Co. = Mackay Radio & Telegraph Co.
 R. C. A. = Radio Corporation of America.
 R. M. C. A. = Radiomarine Corporation of America.
 T. R. T. Co. = Tropical Radio Telegraph Co.
 C. w. = Continuous wave.
 I. c. w. = Interrupted continuous wave.
 A. C. = Alternating current.
 V. t. = Vacuum tube.
 M. a. = Meters-amperes.
 U. S. L. = Applies only to the List of Commercial and Government Radio Stations of the United States.
 Δ = Equipped with a radio compass (direction finder).

NEW STATIONS

Commercial land stations, alphabetically, by names of stations

[Additions to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Fixed and Land Stations, published by the Berne bureau]

Station	Class	Call signal	Frequency in kilocycles, meters in parentheses	Service	Hours	Licensee
Beaumont, Tex. ¹	FX	KGJ	1,712 (175.23)	P	N	City of Beaumont.
Omaha, Nebr. ²	FX	KGPI	2,470 (121.5)	P	N	City of Omaha.
Tacoma, Wash. (Mueller Harkins Airport) ³	FA, FX	KGVN	278 (1,080)	P	X	Washington Air College.

¹ Loc. (approximate) 94° 06' 00" W., 34° 08' 00" N.; type, A3.

² Loc. 95° 55' 33" W., 41° 15' 33" N.; type, A3.

³ Loc. (approximate) 122° 31' 03" W., 47° 03' 00" N.; type, A3.

Commercial ship stations, alphabetically, by names of vessels

[Additions to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Ship Stations, published by the Berne bureau]

Name of vessel	Call signal	Rates, all services (cents)	Service	Hours	Owner	Message accounts settled by—
Alva	WBEK		P	X	W. K. Vanderbilt	Owner.
Alva Lifeboat No. 1.	WBEJ		P	X	do.	Do.
Aras	WBED				Hugh J. Chisholm	Do.
Breezin Thru	WBEG	8	PG	X	Albert Pack	R. M. C. A.
Brookline	WBEH	8	PG	X	Trawler Brookline (Inc.)	Do.
Comet	WBEL	8	PG	X	Standard Shipping Co.	Do.
Exochorda	WBEF	8	PG	N	Export S. S. Corp.	M. R. T. Co.
Grampus	WRDZ				C. T. Ludington	
Invader	WBEM		P	X	Mathew C. Monise & Joseph C. Monise.	Owner.
Marietta B.	WBEB	8	PG	X	Trawler Marietta B.	R. M. C. A.
Seapine	WBEE		PG	X	Frank H. Goodyear	Do.
Tempress	WBEC				Dr. A. C. Strong	
Yoreda	WBEA	8	PG	X	Aaron Dery	Do.

¹ Type, A1, A2; fy., 375 (800), 400 (750), 425 (705), 468 (640), 500 (600), 5,525 (54.3), 5,555 (54), 6,590 (45.52), 8,290 (36.19), 8,450 (35.80), 11,050 (27.15), 11,110 (27), 13,210 (22.66), 16,580 (18.094), 16,660 (18.007), 22,100 (13.575), 22,220 (13.501).

Commercial aircraft stations, alphabetically, by names of craft

[Additions to the List of Radio Stations of the United States, edition of June 30, 1930, and to the International List of Aircraft Stations published by the Berne bureau]

Station	Call signal	Frequency in kilocycles, meters in parentheses	Service	Hours	Licensee
NC-231	KHBWD		P	X	Boeing Air Transport (Inc.).
NC-417Y ¹	KHNSH	3,106 (96.59)	P	X	Lynchburg Flying Service (Inc.).
NC-725W	KHBXC		P	X	Boeing Air Transport (Inc.).
NC-10225M	KHBZA		P	X	Boeing Airplane Co.

¹ Type, A3.

Government land stations, alphabetically, by names of stations

[Addition to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Fixed and Land Stations published by the Berne bureau]

Station	Class	Call signal	Frequency in kilocycles, meters in parentheses	Service	Hours	Owner
Baltimore, Md.....	FX	WWB	.....	O	X	Department of Commerce, Radio Division.
Charleston, S. C. (section base 3).	FX	NOH	.....	O	X	U. S. Coast Guard.
Radio Text Car No. 6 (portable).	FX	WWC	.....	O	X	Department of Commerce, Radio Division.

Government ship station, alphabetically, by name of station

[Addition to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Fixed and Land Stations published by the Berne bureau]

Station	Call signal	Frequency in kilocycles, meters in parentheses	Service	Hours	Owner
Gilbert.....	NEFD	428 (700), 4,135 (72.55), 8,270 (36.23).	O	X	Department of Commerce, Coast and Geodetic Survey.
Mayflower..	NABG	.....	O	X	U. S. Navy.

Airway radiobeacon stations

[Additions to the List of Radio Stations of the United States, edition of June 30, 1930, and to the International List of Aircraft Stations published by the Berne bureau]

Station and geographical location	Frequency and type for emission	Power (height of aerial and intensity of current at base)	Characteristic signal	Hours
Oakland airport, Calif. (Bay Farms Island): 122° 12' 43" W., 37° 44' 13" N.	A2-326 (920)	.....	Interlocked N (—) and A (—), letter N in north quadrant, identifying letter U (.—).	Continuous except for a few minutes each 15 minutes beginning on the hour when weather reports are transmitted.

Commercial and Government land, ship, aircraft, radiobeacon, and radiocompass stations, alphabetically by call signals

Call signal	Name of station	Call signal	Name of station
KGPI	Omaha, Nebr.....	WBED	Aras.....
KGPJ	Beaumont, Tex.....	WBEF	Seapine.....
KGVN	Tacoma, Wash.....	WBEG	Exochorda.....
KHBWD	NC-231.....	WBEH	Breezin Thru.....
KHBXC	NC-725W.....	WBEJ	Brookline.....
KHBZA	NC-10225M.....	WBEK	Alva lifeboat No. 1.....
KHNSH	NC-417Y.....	WBEL	Alva.....
NABG	Mayflower.....	WBEM	Comet.....
NEFD	Gilbert.....	WRDZ	Invader.....
NOH	Charleston, S. C. (Section Base 3).....	WWB	Grampus.....
WBEA	Yoreda.....	WWB	Baltimore, Md.....
WBEB	Marietta B.....	WWC	Radio test car No. 6 (portable).....
WBEC	Tempress.....		

Broadcasting stations, by name of State and city

[Addition to the List of Radio Stations of the United States, edition of June 30, 1930]

State and city	Call signal	Frequency in kilocycles, meters in parentheses	Power (watts)
Montana: Missoula	KGVO	1,420 (211.3)	100

Broadcasting station, by call signal

Call signal	Location of transmitter (mail address)	Licensee	Frequency in kilocycles, meters in parentheses	Power (watts)
KGVO	Missoula, Mont., 132 N. Higgins St.	Mosby's (Inc.)	1,420 (211.3)	100

* Loc. (approximate) 114° 02' 00" W., 46° 52' 00" N.

Experimental stations, alphabetically, by names of stations

[Additions to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930]

Station	Call signal	Frequency in kilocycles, meters in parentheses	Power (watts)	License
New York: Sayville <i>Portable</i>	W2XB	27,100 (11.070), 34,600 (8.67)	5,000	M. R. T. Co.
Indiana: Indianapolis	W9XB	2,440 (123)	200	De Forest Radio Co., Passaic, N. J.
Oregon: Portland (near)	W7XG	620 (485)	50	Oregonian Publishing Co., 325 Alder St.
Pennsylvania: Philadelphia	W3XAE	560 (535)	15	Lit Bros.
United States (throughout)	W10XAC	2,476 (121.16)	75	Atlantic Broadcasting Corporation.

Experimental, relay broadcasting, and visual broadcasting stations grouped by districts, alphabetically, by call signals

Call signal	District and station	Call signal	District and station
W2XB W3XAE	Second district: Sayville, N. Y. Third district: Philadelphia, Pa. (portable).	W9XB	Ninth district: Indianapolis, Ind. (portable).
W7XG	Seventh district: Portland, Oreg. (near) (portable).	W10XAC	Aircraft and portable: United States (throughout).

ALTERATIONS AND CORRECTIONS

COMMERCIAL LAND STATIONS

[Alterations and corrections to be made to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Fixed and Land Stations, published by the Berne bureau]

ALBUQUERQUE, N. MEX. (KGSD).—Fy., strike out 3,460 (86.70), 5,540 (54.15), 6,350 (47.24), 8,015 (37.43), 12,180 (24.63), add 3,076 (97.52), 5,510 (54.44); power 18/5.

AMARILLO, TEX.—Fy., strike out 3,460 (86.70), 5,540 (54.15), 6,350 (47.24), 8,015 (37.43), 12,180 (24.63), add 3,076 (97.52), 5,510 (54.44); power, 18/5.

AURORA, ILL.—Loc., 88° 20' 12" W., 41° 47' 44" N.; type, strike out A3, add A1; fy., strike out 278 (1,080), 3,172 (94.57), 5,660 (53), add 2,482 (120.87), 2,506 (119.71), 4,124 (72.745), 6,230 (48.15).

BAKERSFIELD, CALIF. (Kern County airport).—Fy., strike out 278 (1,080), add 3,160 (94.93), 3,166 (94.75), 3,178 (94.39), 5,570 (53.86); power, 15.38/3.5.

BAYTOWN, TEX., Radio.—Power, 50/2.

- BIRMINGHAM, ALA. (WSDE).—Loc., changed to Tuscaloosa, Ala., strike out 86° 50' 00'' W., 33° 32' 00'' N.
- CARLSTADT, N. J.—Type, add A2.
- CHICAGO, ILL. (WAK).—Type, add A2.
- DALLAS, TEX. (Love Field).—Type, strike out A1, A2; fy., add 278 (1,080), 3,484 (86.10), 5,600 (53.57), 5,630 (53.29).
- EL PASO, TEX. (Western Air Field-KGUA).—*Read* El Paso, Tex. (Western Air Express airport-KGUA); type, strike out A2, A3; fy., strike out 278 (1,080), 3,484 (86.1), 5,630 (53.29), add 2,326 (128.97), 2,344 (127.98), 4,140 (72.46), 6,260 (47.92), 6,275 (47.80), 12,210 (24.57); power, 18/5.
- FRIJOLE, TEX.—Class of station, add FA; type, add A2, A3; fy., add 278 (1,080), 3,484 (86.10), 5,630 (53.29).
- GUAM, GUAM, Radio.—Loc. (approximate) 144° 43' 30'' E., 13° 28' 30'' N.; power, 22/1.5.
- HOLBROOK, ARIZ.—*Read* Winslow, Ariz.; loc. (approximate) 110° 50' 00'' W., 35° 00' 00'' N.; type, strike out A2, A3; fy., strike out 278 (1,080), 3,070 (97.71), 3,460 (86.70), 5,540 (54.15), add 2,722 (110.21), 2,734 (109.72), 4,108 (73.02).
- HONOLULU, HAWAII, Radio (KYG).—*Read* Honolulu, Hawaii radio (Kaena Point); type, strike out A3.
- JACKSON, MISS.—Type, strike out A2, A3; fy., strike out 278 (1,080), 3,484 (86.10), 5,630 (53.29); power, 18/5.
- KALEPA, HAWAII (Kauai Island).—Loc. (approximate) 159° 21' 30'' W., 22° 00' 00'' N.
- KANSAS CITY, MO. (KGTG).—Fy., strike out 393 (765), 400 (750), 414 (725), 420 (715), 3,460 (86.70), 3,468 (86.5), add 2,722 (110.21), 2,734 (109.72), 3,076 (97.52), 4,108 (73.02); power, 15.38/5.
- KINGMAN, ARIZ. (KGTI).—Type, strike out A1, A2; fy., strike out 278 (1,080), 3,460 (86.70), 5,540 (54.15), 6,350 (47.24), 8,015 (37.43), 12,180 (24.63), add 3,076 (97.53), 5,510 (54.45).
- LAS VEGAS, NEV.—Fy., strike out 3,460 (86.70), 5,540 (54.15), add 2,722 (110.21), 2,734 (109.72), 3,076 (97.52), 4,108 (73.02), 5,510 (54.44); power, 18/5.
- LITTLE NECK, N. Y. (WJN).—Loc., changed to Hicksville, N. Y., 73° 34' 35'' W., 40° 45' 28'' N.
- MIAMI, FLA. (Dinner Key—WFG).—Fy., change 12,180 (24.51) to 12,180 (24.63) (U. S. L.).
- NEW BRUNSWICK, N. J.:—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WAB).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WAC).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WAD).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WAE).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WAF).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WAZ).—Fy., strike out 7,415 (40.46), 17,860 (16.797).
- (WEG).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WES).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WEV).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WIA).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WQK).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- (WNDP).—Loc. (approximate) 74° 29' 15'' W., 40° 30' 10'' N.
- PHOENIX, ARIZ.—Fy., strike out 3,088 (97.15), 3,460 (86.70), 6,350 (47.24), 8,015 (37.43), 12,180 (24.63); power, 18/5.
- PORT ARTHUR, TEX., Radio.—Power, 65/12.5.
- REDDING, CALIF. (municipal airport).—Licensee, Aeronautical Radio (Inc.).
- ROCKLAND, ME. (near).—*Read* Rockland, Me. (near) radio; class of station, add FX.
- ROCKY POINT, N. Y. (WKW).—Fy., strike out 16,030 (18.715), add 15,445 (19.423).
- SALT LAKE CITY, UTAH (KGTH).—Fy., strike out 3,460 (86.70), 5,540 (54.15), 6,350 (47.24), add 2,722 (110.21), 2,734 (109.72), 3,076 (97.52), 4,108 (73.02), 5,510 (54.44), 6,380 (47.02); power, 18/5.
- SANTA FLAVIA (moored vessel in Nushagak River, Alaska).—Fy., change 256 (117.2), 272 (110.3) to read 256 (1,170), 272 (1,105). (U. S. L.)
- SAN FRANCISCO, CALIF. (KOP).—Fy., strike out 7,340 (40.87), 15,730 (19.072).
- SAN FRANCISCO, CALIF. (KOQ).—Fy., add 7,340 (40.87).
- SAYVILLE, N. Y. Radio.—Class of station, add FX.
- WICHITA, KANS.—Fy., strike out 3,460 (86.70), 5,540 (54.15), 6,350 (47.24), 8,015 (37.43), 12,180 (24.63), add 3,076 (97.52), 5,510 (54.44); power, 18/5.

Portable

CALIFORNIA (KGQY).—Fy., change 393 (76.3), 414 (72.46), 2,344 (12.799) to read 393 (765), 414 (725), 2,344 (127.99). (U. S. L.)
 Strike out all particulars of the following-named stations: Trujillo, Tex. (near); Washington, D. C. (WJH); Washington, D. C. (WJX).

COMMERCIAL SHIP STATIONS, ALPHABETICALLY, BY NAMES OF VESSELS

[Alterations and corrections to be made to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Ship Stations, published by the Berne bureau]

ADMIRAL SCHLEY.—Fy., add 454 (660).
 ADVENTURES.—Type, A3; fy., 2,560 (117.2); power, 20/2.
 AFOUNDRIA.—Power, 23/14.
 AKUTAN.—Rates, 8 cents per word.
 ALABAMA (WPCT).—Hours, strike out N.
 ALMERIA LYKES.—Fy., add 454 (660).
 ALPHA.—Name changed to Rosinco; owner, R. H. Morse.
 AMERICAN SHIPPER.—Power, 22/11.
 AMOLCO.—Power, 20/7.
 ANTARES.—Fy., strike out 5,525 (54.3).
 ATENAS.—Fy., strike out 137 (2,190), 141 (2,128).
 AVALON.—Power, 14/4.
 BALLCAMP.—Fy., strike out 143 (2,100), 157 (1,910), 2,446 (122.65); power, 23/5.
 BARNEY, JR.—Power, 7/3.
 BARRALTON.—Fy., strike out 500 (600), 2,446 (122.65), add 143 (2,100); service strike out P.
 BAYONNE.—Accounts, R. M. C. A.
 BELLFLOWER.—Power, 33.3/12.
 BENSON FORD.—Fy., strike out 394 (760).
 BERURY.—Fy., add 159 (1,885).
 BESSEMER CITY.—Service, PG; hours, X.
 BIRD CITY.—Hours, N (first-class), X (third-class).
 BUTTERCUP.—Fy., strike out 500 (600), 2,446 (122.65); service, strike out P.
 CABRILLO.—Power, 15/4.
 CADARETTA.—Fy., add 454 (660); power, 15/8.
 CHILCOP.—Hours, N (first-class), X (third-class).
 CHRISTOPHER COLUMBUS.—Power, 16/5.
 CITIES SERVICE DENVER.—Power, 30/4.
 CITIES SERVICE PETROL.—Power, 26/5.
 CITY OF BENTON HARBOR.—Type, B.
 CITY OF FORT WORTH.—Type, B; fy., 375 (800), 425 (705), 500 (600); service, PG; hours, X; rates, 8 cents per word; accounts, Southern S. S. Co.
 CITY OF HOLLAND.—Fy., strike out 500 (600).
 CITY OF ST. JOSEPH.—Power, 16/5.
 CITY OF SAUGATUCK.—Power, 16/5.
 CITY OF VICTORIA.—Rates, 8 cents per word.
 COLOMBIA.—Fy., strike out 5,525 (54.3), 5,555 (54), add 8,330 (36.01), 11,110 (27), 16,860 (17.794).
 COMAL.—Power, 33/20.
 COMBER.—Fy., strike out 468 (500), add 468 (640), 500 (600).
 CONCORD.—Power, 10/2.5.
 CORDOVA. (WCCS).—Hours, strike out X, add N.
 CREST.—Power, 15/9.
 CULBERSON.—Fy., add 159 (1,885).
 DENALI.—Hours, N (first-class), X (third-class); accounts, Alaska S. S. Co.
 DEPERE.—Hours, N. (first-class), X (third-class).
 DERBLAY.—Hours, N (first-class), X (third-class); accounts, Alaska S. S. Co.
 DILLWYN.—Power, 30/6.
 DIXIE.—Hours, N.
 DONNA LANE.—Type, strike out A2; fy., strike out 5,525 (54.3), 8,450 (35.5); accounts, M. R. T. Co.
 DOROTHY CAHILL.—Power, 20/12.
 DOROTHY WINTERMOTE.—Fy., add 454 (660).
 EDWARD L. SHEA.—Fy., strike out 410 (730), add 151 (1,985); power, 28/9.
 E. J. SADLER.—Power, 22/10.
 EL SALVADOR.—Fy., strike out 5,525 (54.3), 5,555 (54), add 8,330 (36.01), 11,110 (27), 16,860 (17.794).

- E. R. KEMP.**—Power, 26/8.
EXCALIBUR.—Accounts, M. R. T. Co.
EXCHANGE.—Type, A2; fy., add 5,525 (54.3), 8,290 (36.19), 8,450 (35.50), 11,050 (27.15), 11,110 (27), 11,230 (26.71), 13,240 (22.66); hours, strike out N.
EXCHESTER.—Hours, strike out N, add X.
EXPRESS.—Hours, N.
EXTAVIA.—Power, 24/18.
EXTON.—Hours, add N.
FABIA.—Power, 15/7.
FAIRFAX.—Power, 33.3/9.
FAIRFIELD CITY.—Power, 24/15.
FAYETTE BROWN.—Power, 18/10.
F. J. LUCKENBACH.—Fy., add 410 (730), 454 (660).
GALE.—Power, 15/7.
GRACIE S.—Type, A3; fy., 2,560 (117.2); power, 20/2.
GUATEMALA.—Fy., strike out 5,525 (54.3), 16,660 (18.007).
GULFCOAST.—Power, 30/6.
GULFMAID.—Power, 25/6.
GULF OF MEXICO.—Fy., add 468 (640).
GULFOIL.—Power, 27/8.
GULFPENN.—Power, 28/7.
GULFSTATE.—Fy., strike out 400 (750), add 160 (1,875).
HALSEY.—Type, add A2; fy., add 468 (640).
HARRY W. CROFT.—Power, 15/10.
HASTINGS.—Power, 28/12.
HENRY D. WHITON.—Power, 21/8.5.
HENRY S. GROVE.—Power, 28/8.
HIGHO.—Power, 24/10.
HOWARD.—Power, 31/8.
HUMRICK.—Type, strike out A3; fy., strike out 2,446 (122.65).
INFANTA.—Fy., strike out 5,525 (54.3), add 375 (800), 425 (705), 468 (640), 500 (600), 8,330 (36.01), 11,110 (27), 16,660 (18.007), 16,860 (17.794).
IPSWICH.—Power, 22/14.
JEFFERSON MYERS.—Power, 26/10.
J. FLETCHER FARRELL.—Power, 19.5/10.
J. L. LUCKENBACH.—Hours, N (first-class), X (third-class).
JOHN A. DONALDSON.—Owner, Midland S. S. Co.
JUNIATA (WMCW).—Power, 25.7/7.
KENTUCKY.—Fy., add 151 (1,985).
K. I. LUCKENBACH.—Fy., add 454 (660).
LAKE GORIN.—Type, add A2; fy., add 500 (600); power, 20/10.
LAKINA.—Power, 20/6.
LORAIN.—Power, 30/12.
LOUIS M. WINSLOW.—Fy., strike out 400 (750), add 468 (640).
MALOLO.—Fy., strike out 5,525 (54.3), 5,555 (54), 16,575 (18.10), add 155 (1,935), 8,330 (36.01), 11,110 (27), 16,580 (18.094), 16,660 (18.007), 16,860 (17.794).
MARIPOSA.—Power, 13/6.
MARITANA.—Power, 13/6.
MAUNA ALA.—Fy., strike out 410 (730), 454 (660); power, 15/19.
MEMNON.—Power, 23.77/7.
MICHAEL GALLAGHER.—Owner, Midland S. S. Co.
MIKIMIKI.—Rates, 8 cents per word.
MIMI.—Fy., change 2,596 (115.96) to read 2,596 (115.56).
MIZPAH.—Fy., strike out 5,525 (54.3), 13,240 (22.66).
MOMUS.—Power, 21/13.
MONTEBELLO.—Service, strike out PR.
MUNMOTOR.—Power, 30/7.
NAUSHON.—Power, 17/5.
NORTHWESTERN (WCCW).—Power, 17/7.
ODUNA.—Fy., strike out 155 (1,935); power, 20/10.
ONEIDA.—Fy., strike out 500 (600).
PACIFIC SPRUCE.—Type, strike out A arc, B, add A1, A2; fy., add 155 (1,935), 157 (1,910), 410 (730), 454 (660).
PETER HELMS.—Accounts, Chas. R. McCormick Lumber Co.
POINT SAN PABLO.—Power, 15/16.
PONCE.—Fy., strike out 153 (1,960), 159 (1,885); hours, strike out N, add X.
PRESIDENT GARFIELD.—Fy., add 143 (2,100), 151 (1,985), 153 (1,960), 155 (1,935), 157 (1,910), 159 (1,885), 160 (1,875).

- PRESIDENT HARRISON.—Fy., add 143 (2,100), 151 (1,985), 153 (1,960), 155 (1,935), 157 (1,910), 159 (1,885), 160 (1,875).
- PRESIDENT MONROE.—Fy., add 143 (2,100), 151 (1,985), 153 (1,960), 155 (1,935), 157 (1,910), 159 (1,885), 160 (1,875).
- RAJO.—Power, 11.25/3; accounts, John Rados.
- REDONDO.—Power, 17/9.
- REPUBLIC LIFEBOAT No. 18.—Power, 4/2.
- ROBIN HOOD.—Fy., strike out 410 (730), add 425 (705), 454 (660).
- SAGAPORACK.—Hours, strike out N.
- SAMUEL MATHER.—Power, 17/10.
- SAN ANTONIO.—Type, B; fy., 375 (800), 425 (705), 500 (600); power, 27/8; service, PG; hours, X; rates, 8 cents per word; accounts, Southern S. S. Co.
- SANTOAMARO.—Power, 14/4; hours, X; accounts, Cohn-Hopkins Co.
- SANWAN.—Power, 21.5/2; service, PG; hours, X; rates, 8 cents per word; accounts, Frank G. Moran.
- STANLEY DOLLAR.—Power, 11/13.
- STEEL CHEMIST.—Owner, Isthmian S. S. Co.
- STEEL ELECTRICIAN.—Owner, Isthmian S. S. Co.
- STEELMAKER.—Fy., strike out 410 (730).
- STEEL MOTOR.—Owner, Isthmian S. S. Co.
- STEEL RANGER.—Power, 26/7.
- STEEL VENDOR.—Owner, Isthmian S. S. Co.
- STEEL VOYAGER.—Fy., strike out 410 (730), 454 (660), add 143 (2,100), 151 (1,985), 157 (1,910), 160 (1,875).
- SURF (WPBL).—Power, 15/5.
- SURINAME.—Fy., add 157 (1,910), 159 (1,885), 410 (730).
- TIMBERMAN.—Power, 20/2.5.
- VICTORIA.—Power, 20/8.
- VIRGINIA (WKCY).—Power, 25/10.
- VITTORIO EMANUEL III.—Correct orthography, Vittorio Emmanuele III. (U. S. L.).
- WALTER D. MUNSON.—Accounts, R. M. C. A.
- WEST CADDOA.—Type, strike out A1, A2; power, 20/8.
- WEST COHAS.—Fy., strike out 410 (730).
- WEST CORUM.—Power, 21.54/15.
- WEST SAGINAW.—Power, 22.5/9.
- W. G. POLLOCK.—Owner, Midland S. S. Co.
- W. H. BECKER.—Owner, Midland S. S. Co.
- WHITE CAP.—Power, 15/8.
- WILLBORO.—Power, 23/2.
- WILLIPO.—Power, 24/7.
- W. M. TUPPER.—Hours, N (first-class), X (third-class).
- W. W. BRUCE.—Power, 25.7/10.
- ZACA.—Fy., strike out 5,525 (54.3), 16,660 (18.007).
- Strike out all particulars of the following-named vessel: Petrel (KFDG).

COMMERCIAL AIRCRAFT STATIONS, ALPHABETICALLY, BY NAMES OF CRAFT

Alterations and corrections to be made to the List of Radio Stations of the United States, edition of June 30, 1930, and to the International List of Aircraft Stations, published by the Berne bureau]

- NC-228M.—Licensee, Boeing Air Transport (Inc.).
- NC-669M.—Type, A3; fy., 333 (900), 414 (725), 500 (600), 3,070 (97.71), 5,690 (52.72), 8,650 (34.68).
- NC-9166.—Type, A3; fy., 3,484 (86.10), 5,630 (53.29).
- NC-9167.—Type, A3; fy., 3,484 (86.10), 5,630 (53.29).
- NC-9169.—Type, A3; fy., 3,484 (86.10), 5,630 (53.29).
- NC-9716.—Type, A3; fy., 3,484 (86.10), 5,630 (53.29).
- NC-10343.—Type, A3; fy., 3,106 (96.59), 3,172 (94.57), 5,660 (53).
- NC-10344.—Type, A3; fy., 3,106 (96.59).
- Strike out all particulars of the following-named station: C-225M, Rio De La Plata.

GOVERNMENT LAND STATIONS, ALPHABETICALLY, BY NAMES OF STATIONS

[Alterations and corrections to be made to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Fixed and Land Stations, published by the Berne bureau]

- FORT WORDEN, WASH.—Call changed to WZAH.
- MEDFORD, OREG.—Owner, Department of Commerce, Bureau of Lighthouses. (U. S. L.)
- SAVANNAH, GA. (WWAN).—Loc. (approximate) 81° 10' 50" W., 31° 59' 59" N.

GOVERNMENT SHIP STATIONS, ALPHABETICALLY, BY NAMES OF STATIONS

[Alterations and corrections to be made to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Ship Stations, published by the Berne bureau]

Strike out all particulars of the following-named vessels: Eagle 46, El Cano, H-2, H-3, K-1, K-2, K-3, K-4, K-5, K-6, K-7, K-8, L-2, L-3, L-9, L-11, Meyer, N-1, N-2, N-3, Pampanga, S. C. 306, Villalobos.

MARINE RADIOBEACON STATIONS

[Alterations and corrections to be made to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Stations Performing Special Services, published by the Berne bureau]

SAND ISLAND STATION, ALA.—Loc., 88° 03' 02" W., 30° 11' 15" N.

RADIO-COMPASS STATIONS

[Alterations and corrections to be made to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and to the International List of Stations Performing Special Services, published by the Berne bureau]

Strike out all particulars of the following-named stations: Eagle Harbor, Mich., Whitefish Point, Mich., Cattle Point, Wash., Smith Island, Wash.

Commercial and Government land, ship, aircraft, radiobeacon and radio-compass stations, alphabetically, by call signals

KDJF, read Vittorio Emmanuele III (U. S. L.); KGTA, read Winslow, Ariz.; KGUA, read El Paso, Tex. (Western Air Express Airport); KPK—Portland, Ore.—fc—add to U. S. L.; KUDZ, read Perry L. Smithers (U. S. L.); KYG, read Honolulu, Hawaii, radio (Kaena Point); WAG, read, Rockland Me. (near) radio; WJN, read Hicksville, N. Y.; WMDP, read Rosinco; WPGW, read WPDW; WEN, read Rocky Point, N. Y. (U. S. L.); WSDE, read Tuscaloosa, Ala.; WZAE (Fort Worden, Wash.), call changed to WZAH; strike out all particulars following the call signals: KFDG, KGUM, KHJPK, KHKBY, NAJJ, NAKK, NAKS, NEDS, NEFF, NEGS, NEKK, NELD, NELF, NELM, NELP, NELQ, NELS, NELT, NELZ, NEPP, NERF, NEVF, NFN, NIBS, NIFF, NIQP, NOTR, NUG, NUJR, NZT, WJH, WJX.

BROADCASTING STATIONS, BY CALL SIGNALS

[Alterations and corrections to be made to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1930, and the International List of Broadcasting Stations, published by the Berne bureau]

KFPW (Fort Smith, Ark.).—Licensee, Southwestern Hotel Co.
 KGGF (Picher, Okla.).—Transmitter location changed to South Coffeyville, Okla.; post-office address, Eighth and Elm Streets, Coffeyville, Kans.
 KGIQ (Twin Falls, Idaho).—Call changed to KTFI.
 KYW (Bloomington, Ill.).—Post-office address, 700 Braddock Avenue, East Pittsburgh, Pa.
 WBSO (Wellesley Hills, Mass.).—Notice of change given in this publication for last month incorrectly gave call as WSBO.
 WCAE (Pittsburgh, Pa.).—Power, 1,000.
 WCOD (Harrisburg, Pa.).—Licensee, Keystone Broadcasting Corporation.
 WDX (Tupelo, Miss.).—Licensee, North Mississippi Broadcasting Corporation.
 WHP (Lemoyne, Pa.).—Licensee, WHP (Inc.).
 WIBW (Topeka, Kans.).—Power, 1,000 experimentally.
 WIS (Columbia, S. C.).—Licensee, South Carolina Broadcasting Co. (Inc.).
 WISJ (Beloit, Wis.).—Transmitter location changed to South Madison, Wis., 89° 29' 00" W., 43° 03' 00" N.; post-office address, 1 West Main Street, Madison, Wis.; fy., 780 (385); power, 250 night, 500 day.
 WKBQ (New York, N. Y.).—Call changed to WBNX.
 WNBH (New Bedford, Mass.).—Transmitter location changed to Fairhaven, Mass., 70° 54' 34" W., 41° 38' 10" N.; licensee, Atlas Tack Co.
 WRBQ (Greenville, Miss.).—Power, 100 night, 250 day.
 WSGH-WSDA (Brooklyn, N. Y.).—Call changed to WFOX.
 WTNT (Nashville, Tenn.).—Licensee, Life & Casualty Insurance Co. of Tennessee.

Strike out all particulars of the following-named station: WCSO (Springfield, Ohio).

NOTE.—The frequency 1,370 (219), given in first column top of page 189 of the June 30, 1930, edition of the List of Commercial and Government Radio Stations of the United States should be changed to 1,420 (211.3).

EXPERIMENTAL 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, 1930]

CALIFORNIA:

Beverly Hills (W6XAH).—Strike out all particulars.

San Francisco (W6XU).—Fy., strike out 16,580 (18.094), 12,490 (24.02).

CONNECTICUT: Hartford (W1XL).—Strike out all particulars.

NEW JERSEY:

Jersey City (W2XBY).—Fy., strike out 34,592 (8.67), add 34,600 (8.67).

New Brunswick (W2XAO).—Fy., strike out 9,490 (31.61), 13,480 (22.26), 13,900 (21.58), 16,030 (18.715); add 13,840 (21.68), 16,000 (18.750).

NEW YORK:

Grasmere (W2XCB).—Read New York, N. Y.; fy., add 1,604 (187.03), 2,398 (125.1), 3,256 (92.5), 8,650 (34.68), 12,850 (23.35), 17,300 (17.341).

New York (W2XN).—Strike out all particulars.

New York (W2XW).—Strike out all particulars.

Sayville (W2XCM).—Strike out all particulars.

PENNSYLVANIA: State College (W8XE).—Strike out all particulars.

Portable

NEW YORK:

New York (W2XBS).—Fy., strike out 2,000 (150).

New York (W2XCI).—Strike out all particulars.

Aircraft

No. 8419 (W8XA).—Name changed to NC-3041.

VISUAL BROADCASTING 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, 1930]

ILLINOIS:

Chicago (W9XAA).—Fy., add 2,750 (109.1) to 2,850 (105.3).

Chicago (W9XAP).—Fy., add 2,100 (142.9) to 2,200 (136.4).

INDIANA: West Lafayette (W9XG).—Fy., strike out 2,000 (150) to 2,100 (142.9), add 2,750 (109.1) to 2,850 (105.3).

MASSACHUSETTS: Boston (W1XAV).—Fy., strike out 2,100 (142.9) to 2,200 (136.4), add 2,850 (105.3) to 2,950 (101.7).

NEW JERSEY: Jersey City (W2XCR).—Fy., add 2,000 (150) to 2,100 (142.9).

NEW YORK: Long Island City (W2XBO).—Fy., strike out 2,000 (150) to 2,100 (142.9).

Portable

NEW JERSEY: Jersey City (W2XAP).—Fy., add 2,000 (150) to 2,100 (142.9).

MISCELLANEOUS

CHANGES IN THE LIST OF VESSELS EQUIPPED WITH A RADIO COMPASS

The following-named vessels are additions to the lists published in Commercial and Government Radio Stations of the United States, edition June 30, 1930, and the International List of Ships Stations published by the Berne bureau:

Name	Call signal	Owner
COMMERCIAL		
Cities Service Denver.....	KDNN	Cities Service Transportation Co.
Cities Service Empire.....	KMAU	Do.
City of Saginaw 31.....	WDCH	Pere Marquette Ry. Co.
Flomar.....	KOPL	Calmar S. S. Corporation.
H. F. De Bardeleben.....	WB DY	Bulk Transportation Corporation.
Santa Telca.....	KNEE	New Orleans & South American S. S. Co.
Shogun.....	KGWM	A. C. Murphy.
Virginia Sinclair.....	KGOJ	Sinclair Navigation Co.

The radfocompass has been removed from the Admiral Schley (WGCI).

RATIFICATION OF THE INTERNATIONAL RADIOTELEGRAPH CONVENTION, WASHINGTON, 1927

By decree, October 14, 1930, the President of Brazil approved the international Radiotelegraph Convention and the general and supplementary regulations relating thereto.

On October 27, 1930, the President of Columbia signed a law approving the convention and the regulations mentioned above.

The Cuban senate approved the convention and the regulations mentioned above on April 8, 1930, and it was ratified and proclaimed by the President of Cuba on June 30, 1930.

LAND LINE RATE TO CUBA VIA PALM BEACH RADIO (WOE) CHANGED

Effective December 15, last, the rate was reduced to 7 cents per word to Havana and the land-line rate and forwarding charges to other points in Cuba was reduced to 12 cents per word.

ALTERATIONS IN RADIO TIME SIGNALS FROM PARIS AND BORDEAUX CHANGED

Beginning January 1, 1931, both the ordinary time signals from 7h. 56m. 00s. to 8h. 00m. 00s, and from 19h. 56m. 00s. to 20h. 00m. 00s.; and the rhythmic time signals from 8h. 01m. 00s. to 8h. 06m. 00s., and from 20h. 01m. 00s. to 20h. 06m. 00s., will be transmitted simultaneously by the stations named hereunder. The first-named station has been substituted for Issy-les-Moulineaux.

Station	Call	Location (approximately)	Frequency (kilocycles-meters in parentheses)
Paris-Pontoise.....	FYB	49° 04' N., 2° 07' E.....	10,581 (28.35).
Bordeaux-Croix-d'Hins.....	FYL	44° 42' N., 0° 48' W.....	15.87 (18,300).

AMATEUR RADIO OPERATOR'S LICENSE SUSPENDED

The department recently suspended for a period of one year the license of such an operator for obtaining the license fraudulently.

CORRECTIONS TO THE LIST OF MEXICAN BROADCASTING STATIONS

The following frequency corrections should be made in the list published in the BULLETIN for last month: Mexico City—XEG—291 (1,030), XEN—425 (705), XEO—445 (675), XER—445 (675), XEX—231 (1,300), XFI—367 (817); Monterrey—XEH—265 (1,132); Villahermosa—XFE—373 (804). The frequency of Nogales—XETA is 1,100 kilocycles (273 meters); power, 1,000 watts.

GENERAL ORDERS OF THE FEDERAL RADIO COMMISSION APPLICABLE TO BROADCASTING STATIONS

All radio operators, and applicants for the broadcast operators examination are advised to familiarize themselves with the following regulations:

Maintenance of frequency prescribed for broadcasting stations—General Order No. 7, April 28, 1927.—The Federal Radio Commission hereby fixes a maximum of one-half kilocycle as the extreme deviation from authorized frequency which will be permitted to any broadcasting station operating under permit or license issued under the terms of the radio act of 1927. The Department of Commerce is hereby requested to notify its proper agents immediately of this order and to direct them to report promptly any apparent violations thereof. Maintenance of the assigned frequency, within the limits herein prescribed, is the duty of each radio broadcasting station, and violation of this order will be deemed by the Federal Radio Commission cause for the revocation of license under section 14 of the radio act of 1927.

To facilitate the execution of this order, each radio broadcasting station is hereby directed, effective 12.01 a. m., local time, Monday, May 9, to announce twice each day, at the beginning and end of its program, that it is broadcasting on a frequency of _____ kilocycles by authority of the Federal Radio Commission.

Announcing call letters frequently—General Order No. 8, May 5, 1927.—For the purpose of facilitating a more accurate check on station frequencies both by the Federal radio supervisors of the Department of Commerce and by the public, each radio broadcasting station licensed under the radio act of 1927 is hereby directed to announce its call letters and location as frequently as may be practicable while it is broadcasting, and in any event not less than once during each 15 minutes of transmission.

It is understood, however, that this requirement is waived when such announcement would interrupt a single consecutive speech or musical number, and in such cases the announcement of the call letters and location shall be made at the beginning and end of such number. This order becomes effective at 12.01 a. m., Wednesday, May 11, 1927, and will remain in force until further notice.

Permission to move broadcasting station studios required—(General Order No. 28, April 20, 1928).—Under the radio laws of 1928, approved by the President March 28, 1928, it is specified that "Allocations shall be charged to the State, district, Territory, or possession wherein the studio of the station is located and not where the transmitter is located."

In this particular it is hereby ordered that no broadcasting station shall move its studio outside of the borders of the State, district, Territory, or possession in which it is located without first making written application to the commission for authority to so move its studio, and securing written permission from the commission for such removal. This order does not apply to transfers or removals of studios within the borders of the State, district, territory, or possession.

Use of broadcasting stations by candidates for public office—(General Order No. 31, May 11, 1928).—The Federal Radio Commission calls to the attention of all broadcasting stations section 18 of the radio act of 1927, which reads as follows: "If any licensee shall permit any person who is a legally qualified candidate for any public office to use a broadcasting station, he shall afford equal opportunities to all other such candidates for that office in the use of such broadcasting station, and the licensing authority shall make rules and regulations to carry this provision into effect: *Provided*, That such licensee shall have no power of censorship over the material broadcast under the provisions of this paragraph. No obligation is hereby imposed upon any licensee to allow the use of its station by any such candidate." Any violation of this section of the act will be considered as sufficient ground for the revocation or denial of a radiobroadcasting license.

Definition of a daytime broadcasting station—(General Order No. 41, September 4, 1928).—It is ordered that a daytime broadcasting station is hereby defined as a station which under its license from this commission is permitted to operate only during certain designated hours during the daytime and is not permitted to operate at any time when its operation will cause heterodyne interference with other broadcasting stations assigned to the same frequency.

No daytime station will be permitted to operate after the average time for sunset during any particular month, to be determined from time to time by the chief engineer of the commission. The time of such sunset shall be taken with reference to the location of the transmitter of the daytime broadcasting station unless it is the farthest east of the stations assigned to the same frequency; in this event the time shall be taken with reference to the location of the transmitter of the nearest broadcasting station on the same frequency located to the west of such daytime broadcasting station.

Chain programs allowed for only one hour unless stations are 300 miles apart or operate on same frequency (General Order No. 43, September 8, 1928).—It is ordered that until further order of the Commission no two or more of the broadcasting stations assigned to the frequencies allocated under subparagraph A of paragraph 4 of General Order No. 40 shall, during the period beginning with November 11, 1928, broadcast simultaneously the same identical program for more than one hour daily during the hours between 7 o'clock p. m. and 12 o'clock midnight, local standard time at the location of the station farthest east, unless (a) the transmitters of such stations are separated by a distance in excess of three hundred (300) miles, or (b) such stations are operating on the same frequency, or (c) such stations receive special permission from the commission. This permission will be granted only in the case of programs of extraordinary national interest or of a nature such that public interest, convenience, or necessity would clearly be served by their duplication to a greater extent than is permitted by the foregoing provisions of this order.

Broadcasting stations restricted as to power used after sunset—Operation during daytime not to cause greater heterodyning than exists during evening—(General Order No. 53, November 26, 1928).—Whenever a broadcasting station which,

under its license from the commission, is permitted to operate both during daytime hours and during evening hours, is, under said license or any modification thereof, permitted to use a greater amount of power during the daytime hours than during the evening hours, the station will not be permitted to use its daytime power after the average time for sunset at the station during any particular month. In no event will such a broadcasting station be permitted to use its authorized daytime power at any time or in such manner as to cause greater heterodyne interference during the daytime than exists during evening operation from the use of the amount of power permitted for such evening operation.

This order supersedes General Order No. 10, which is hereby repealed.

Regulations governing the hours of operation of broadcasting stations affected by daylight-saving time (General Order No. 61, March 23, 1929).—It is ordered that the following regulations will govern the hours of operation of all broadcasting stations where such time of operation may be affected by daylight-saving time:

1. Where the local time is changed from standard time to daylight-saving time at the location of all the stations sharing time on the same frequency, the hours of operation of all said stations on said frequency shall be understood to have reference to daylight-saving time and not standard time, so long as daylight-saving time is so observed. This provision shall govern whether the time is changed by provision of law or by the general observance of daylight-saving time by the local business community, and whether the time of operation of said stations is specified in the licenses or is mutually agreed upon between the licensees.

2. Where the local time is not changed from standard time to daylight-saving time at the location of all the stations sharing time on the same frequency, the hours of operation of all said stations on said frequency shall be understood to have reference to standard time and not daylight-saving time, unless said licensees mutually agree upon a new schedule which shall be effective only while daylight-saving time is observed at the location of some of said stations. This provision shall be effective whether the time of operation of said stations is specified in the licenses or is mutually agreed upon between the licensees.

3. The time of operation of all broadcasting stations which do not share time with other stations on the same frequency shall be understood to have reference to standard time whether the local time is changed as referred to herein or not, unless and until modification of such licenses with reference to hours of operation is made by the commission. This provision shall be effective where the time of operation of said stations is specifically stated in the licenses.

Rules and regulations requiring broadcasting stations to give absolute priority to distress communication or signals (General Order No. 66, June 10, 1929).

It is ordered, for the purpose of carrying out the provisions of section 22 of the radio act of 1927, that the following rules and regulations be and the same are hereby adopted and promulgated by the Federal Radio Commission:

1. Each broadcasting station shall give absolute priority to radio communications or signals relating to ships or aircraft in distress and shall cease broadcasting upon such frequencies, and at such times, when such broadcasting may, in any way, interfere with the reception of radio distress signals or traffic relating thereto.

2. Each broadcasting station, operating on any frequency in any location shall cease transmitting immediately upon notification by any Government or commercial marine station, for the purpose of clearing the air of interference for distress signals or distress traffic.

3. Stations operating on 550 to 1,000 kilocycles, inclusive, and of the following powers and within the following distances from the seacoast, Great Lakes or from any commercial or Government radio receiving station engaged in marine communication, shall keep and maintain an effective continuous watch by a licensed operator, on the frequencies used for distress calls, during the entire period the transmitter of said station is in operation:

Transmitter powers	Transmitter distances
	<i>Miles</i>
To and including 5 kw	30
From 5 kw. to and including 10 kw	45
From 10 kw. to and including 25 kw	70
From 25 kw. to and including 50 kw	100

4. Each station covered by the above ruling shall cease transmitting immediately upon intercepting distress signals or distress traffic and shall remain silent until the distress traffic has been completed, or it is determined that the operation of the station will not interfere with the distress traffic.

5. No station shall resume operation until the need for distress traffic no longer exists, or it is determined that said station will not interfere with distress traffic as it is then being routed and said station shall again discontinue if the routing of distress traffic is so changed that said station will interfere. The status of distress traffic may be ascertained from time to time by oral or wire line communication with Government and commercial stations.

6. No two or more broadcasting stations shall maintain a joint or common watch upon frequencies used for distress calls, without first having submitted their plans to and having obtained the express authorization of the commission so to do.

7. No broadcasting station shall utilize the watch maintained upon the frequencies used for distress calls by a commercial marine station, without first having obtained the express authorization of the commission so to do.

8. The commission may hereafter require stations not included herein to keep an effective continuous watch.

9. The commission may hereafter designate stations included herein to be excluded from these regulations.

Procedure to be followed in reply to notifications of violations of radio laws, regulations, and orders (General Order No. 75, October 30, 1929).—Every licensee operating a radio station under a license from the Federal Radio Commission who receives a notification from a Department of Commerce supervisor or inspector regarding any violation of the Federal laws in force, or any violation of the orders or regulations of the Federal Radio Commission or any violation of the terms and conditions of the station license, shall within three days of receipt of such notice send a written reply in triplicate to the supervisor or inspector from whom the notification was received.

The answer to each notice shall be complete in itself and shall not be abbreviated in the least by reference to any other communications or answers to previous notifications that the licensee may have received and answered.

If the notification relates to some violation that may be due to the physical or electrical characteristics of the transmitting apparatus the answer to the inspector shall state fully what steps if any are being taken to prevent future violations and if any new apparatus is to be installed the date such apparatus was ordered shall be given, the name of manufacturer, and promised date of delivery.

If the notification of violation relates to some violation caused by lack of attention or improper operation of transmitter, the name and license number of operator in charge shall be given.

Character of all mechanical reproductions must be announced (General Order No. 78, December 5, 1929).—I. *Ordinary phonograph records, mechanical piano players, etc.*—All broadcasting stations shall announce clearly and distinctly the character of all mechanical reproductions broadcast by them, the announcement to immediately precede the broadcasting of each record. In such announcements each talking machine, phonograph or graphophone record used, whatever its character, shall be described by the use of the exact words: "This is a talking machine record," or "This is a phonograph record," or "This is a graphophone record"; each player piano selection used shall be described as played by "mechanical piano player"; every other mechanical reproduction shall be similarly described by the term generally understood and used by the public and meaning such mechanical reproduction.

II. *Exclusive transcriptions for broadcast purposes.*—Where a recording or transcript is made exclusively for broadcasting purposes and is neither offered nor intended to be offered for sale to the public, each such recording shall be immediately preceded and followed by the following statement: "This program is an electrical transcription made exclusively for broadcast purposes."

Broadcasting stations shall not use such records, transcriptions or piano player rolls when the length of the rendition thereof exceeds 15 minutes unless provision is made for the announcement of the station call letters which must be given together with the statement above set forth at least once every 15 minutes.

Station and operators' licenses required to be posted (General Order No. 90, May 19, 1930).

It is ordered: That every station license shall be posted by the licensee in a conspicuous place in the room in which the transmitter is located, and the license of every station operator shall be posted in a conspicuous place in the room occupied by said station operator while on duty.

UNITED STATES CIVIL SERVICE EXAMINATIONS FOR RADIO OPERATOR

The United States Civil Service Commission announces the following-named open competitive examinations:

Assistant radio operator (airways).

Junior radio operator (airways).

Applications for the above-named positions must be on file with the United States Civil Service Commission at Washington, D. C., not later than January 14, 1931.

The entrance salaries for assistant radio operator (airways) range from \$1,800 to \$2,500 a year; for junior radio operator (airways) they range from \$1,620 to \$1,920 a year.

These examinations are to fill vacancies in the Bureau of Lighthouses, Department of Commerce.

Applicants for assistant radio operator (airways) must show that they have had at least four years' experience as commercial radio operator on board ship or at a wireless station, or as radio operator on board a ship of the United States Navy, Coast Guard, or other Government vessel, or at a Government wireless station.

Applicants for junior radio operator (airways) must possess a commercial first-class operator's license and must have had at least one year's experience as radio operator on ship or at a shore station; or must possess a commercial second-class operator's license and must have had at least two years' experience on ship or at a shore station; or must have had at least one year's experience as radio operator on a ship or shore station maintained by the United States Government.

Full information may be obtained from the United States Civil Service Commission, Washington, D. C., or from the secretary of the United States Civil Service Board of Examiners at the post office or customhouse in any city.

CLASSIFICATION OF RADIO SUBJECTS; AN EXTENSION OF THE DEWEY DECIMAL CLASSIFICATION

Bureau of Standards Circular No. 385 of the above title has been issued and copies are available. It is a revision of Bureau of Standards Circular 138 published in 1923. This issue merely brings the classification up to date; it includes a few changes which use has found necessary. This classification is used in classifying the monthly lists of references to radio literature prepared by the Bureau of Standards and published in the Proceedings of the Institute of Radio Engineers. The new classification was published in the August issue of that periodical and announced in the August 30 issue of this Bulletin.

Copies of this circular are now obtainable at 10 cents a copy from the Superintendent of Documents, Government Printing office, Washington, D. C.

RADIO TRANSMISSIONS OF STANDARD FREQUENCY, JANUARY TO JUNE, 1931

The Bureau of Standards announces a new and improved service of radio standard frequency transmissions. This service may be used by broadcasting and other stations in adjusting their transmitters to exact frequency, and by the public in calibrating frequency standards and transmitting and receiving apparatus. The signals are transmitted from the bureau's station, WWV Washington, D. C. They can be heard and utilized by stations equipped for continuous wave reception at distances up to about 1,000 miles from Washington, and some of them at all points in the United States. This improved service is a step in the bureau's program to provide eventually standard frequencies available at all times and at every place in the country.

Besides the usual monthly transmissions of specific frequencies, the bureau will add another type of transmission which will be much more accurate than any previous transmissions by the bureau. This transmission will be by continuous-wave radio telegraphy on a frequency of 5,000 kc, and will consist primarily of a series of very long dashes. The first five minutes of this transmission will consist of the general call (CQ de WWV) and announcement of the frequency. The frequency and the call letters of the station (WWV) will be given every 10 minutes thereafter.

Besides this service, the bureau will also continue the transmissions once a month on scheduled specific frequencies. These are also by continuous-wave radio telegraphy. A complete frequency transmission includes a "general call," "standard frequency signal," and "announcements." The general call is given at the beginning of each 12-minute period and continues for about two minutes.

This includes a statement of the frequency. The standard frequency signal is a series of very long dashes with the call letters (WWV) intervening; this signal continues for about four minutes. The announcements follow, and contain a statement of the frequency being transmitted and of the next frequency to be transmitted. There is then a 4-minute interval while the transmitting set is adjusted for the next frequency.

Information on how to receive and utilize the signals is given in Bureau of Standards Letter Circular No. 280, which may be obtained by applying to the Bureau of Standards, Washington, D. C. Even though only a few frequencies are received (or even only a single one), persons can obtain as complete a frequency meter calibration as desired by the method of generator harmonics.

The 5,000-kilocycle transmissions are from a transmitter of 150 watts power, which may be increased to 1 kilowatt early in the year; they occur every Tuesday except in those weeks in which the monthly transmissions are given. The monthly transmissions are from a transmitter of one-half to 1 kilowatt power; they are given on the 20th of every month (with one exception).

5,000-kilocycle transmissions, 1.30 to 3.30 and 8 to 10 p. m., eastern standard time

January	February	March	April	May	June
6	3	3	7	5	2
13	10	10	14	12	9
27	24	24	28	26	16
		31			30

Monthly transmissions, eastern standard time

Time (p. m.)	Jan. 20	Feb. 20	Mar. 20	Apr. 20	May 20	June 22
10.....	1,600	4,000	550	1,600	4,000	550
10.12.....	1,800	4,400	600	1,800	4,400	600
10.24.....	2,000	4,800	700	2,000	4,800	700
10.36.....	2,400	5,200	800	2,400	5,200	800
10.48.....	2,800	5,800	1,000	2,800	5,800	1,000
11.....	3,200	6,400	1,200	3,200	6,400	1,200
11.12.....	3,600	7,000	1,400	3,600	7,000	1,400
11.24.....	4,000	7,600	1,500	4,000	7,600	1,500

The frequencies in the 5,000-kilocycle transmission are piezo controlled, and are accurate to a few parts in a million. The frequencies in the monthly transmissions are manually controlled, and are accurate to a few parts in a hundred thousand.

In November, 1930, field intensity measurements were made of the 5,000-kilocycle transmissions from WWV on 150 watts between Washington and Chicago. The daytime field intensity up to a distance of about 400 miles from Washington was about 100 microvolts per meter, with fading in the ratio 3 to 1. From this distance to Chicago the field intensity gradually decreased to about 10 microvolts per meter peak values, with fading the same as above. The evening transmissions had a field intensity of about 200 microvolts per meter, with fading similar to that in the daytime. Around 8 p. m. the received intensity was sometimes too low to measure. This happened at distances of from 75 to 150 miles from Washington.

The Bureau of Standards would like to have detailed information on the reception of the 5,000-kilocycle transmissions, and will appreciate receiving reports from any observers on their reception of these transmissions. Phenomena of particular interest are approximate field intensity and fading (whether slow or rapid, and approximate time between peaks of signal intensity). The bureau would also like to receive comments on whether or not the transmissions are satisfactory for purposes of frequency measurement or control. Reports on the reception of the transmissions should be addressed to Bureau of Standards, Washington, D. C.