

# U. S. DEPARTMENT OF COMMERCE

## RADIO DIVISION

# RADIO SERVICE BULLETIN

ISSUED MONTHLY

Washington, June 30, 1932—No. 183

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### 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 parenthesis.
Power	= Height (meters) of antenna and intensity of current (meter-amperes) at its base (sample of manner in which published—100/100) or the normal radiated power expressed in meter-amperes (sample of manner in which published—100m amp.).
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); RF=radio-compass station, FA=aeronautical station, AB=aviation beacon, RF=circular radiobeacon, B=ship station, FC=coast station, A=aircraft, PO=police, GO=geophysical.
Hours	= Hours of operation: N=continuous service, X=no regular hour, Y=sunrise to sunset.
Accts.	= 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.	= Meter-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).

Frequencies for which ship stations are licensed to use are indicated in this publication as specified in the tables (classes L and H) hereunder.

For telegraph communication primarily with coastal telegraph stations: Class L (kilocycles-meters in parentheses, followed by symbol designating type of emission) =

143 (2,100), A-1, primarily for calling.	400 (750), A-1, A-2, working (other than Great Lakes).
152 (1,975), A-1, A-2, working (other than Great Lakes).	410 (730), A-1, A-2, B, working (other than Great Lakes).
153 (1,960), A-1, A-2, working.	410 (730), A-1, A-2, B, calling and distress (Great Lakes only).
154 (1,950), A-1, A-2, working.	425 (705), A-1, A-2, B, working.
155 (1,935), A-1, A-2, working.	454 (800), A-1, A-2, B, working (other than Great Lakes).
156 (1,925), A-1, A-2, working.	468 (840), A-1, A-2, working (other than Great Lakes).
157 (1,910), A-1, A-2, working.	500 (800), A-1, A-2, B, calling and distress (other than Great Lakes).
158 (1,900), A-1, A-2, working (other than Great Lakes).	
160 (1,875), A-1, A-2, working (other than Great Lakes).	
375 (800), A-1, A-2, B, direction finding only.	
394 (760), A-1, A-2, working (Great Lakes only).	

In addition to the frequencies designated hereinabove, this station may transmit on a frequency below 550 kc (545) used by a coastal telegraph station when directed to do so by the coastal telegraph station to which the frequency is assigned, provided that on frequencies below 150 kc (2,000) the emission shall be A-1 only.

Class H (kilocycles-meters in parentheses, on the following frequencies above 3,000 kc with A-1 or A-2 emission)=

3, 105 (96.62)	5, 530 (54.25)	8, 260 (36.32)	12, 360 (24.27)	16, 580 (18.094)
3, 115 (96.31)		*8, 280 (36.23)	12, 375 (24.24)	16, 660 (18.007)
	6, 170 (48.62)	8, 290 (36.19)	12, 390 (24.21)	16, 680 (17.986)
*4, 140 (72.46)	6, 180 (48.54)	8, 300 (36.14)	*12, 420 (24.15)	
4, 145 (72.38)	6, 190 (48.47)	8, 320 (36.06)	12, 435 (24.13)	22, 025 (13.621)
4, 150 (72.29)	6, 200 (48.39)	8, 330 (36.01)	12, 450 (24.11)	22, 050 (13.606)
4, 160 (72.12)	*6, 210 (48.31)			*22, 080 (13.587)
4, 165 (72.03)	6, 220 (48.23)	11, 025 (27.21)	16, 460 (18.226)	22, 100 (13.575)
	6, 230 (48.15)	*11, 040 (27.17)	16, 480 (18.204)	22, 125 (13.559)
5, 515 (54.40)		*11, 055 (27.135)	16, 500 (18.182)	22, 150 (13.544)
*5, 520 (54.35)	8, 240 (36.41)	11, 070 (27.10)	16, 520 (18.160)	
5, 525 (54.30)	8, 250 (36.36)	11, 085 (27.065)	*16, 560 (18.116)	

In addition to the frequencies hereinabove designated this station may transmit on a frequency above 3,000 kc (100) used by a coastal telegraph station when directed to do so by the coastal telegraph station to which the frequency is assigned.

For telephone communications primarily with coastal telephone stations, for telephone or telegraph communication with coastal harbor stations, and for telephone or telegraph communication primarily between ship-harbor station, the specific frequency or frequencies for which a station is licensed to use will be indicated.

### ADDITIONS

#### 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, 1931, and to the International List of Fixed and Land Stations, published by the Berns bureau]

Station	Class	Call signal	Frequency in kilocycles, meters in parentheses	Service	Hours	Licensee
Baton Rouge, La. <sup>1</sup> .....	FX	WPEQ	1,574 (190.6).....	P	N	Louisiana State Bureau of Identification and Investigation.
Beaumont, Calif. (near). <sup>2</sup>	FA	KGTV	3,232.5 (92.8), 3,242.5 (92.52), 3,267.5 (92.09), 3,447.5 (87.02), 3,457.5 (86.77), 3,467.5 (86.52), 3,485 (86.08), 5,602.5 (53.55), 5,612.5 (53.45), 5,632.5 (53.26).	P	X	Aeronautical Radio (Inc.).
Big Port, Walter, Alaska. <sup>3</sup>	FX	KIDY	178 (1,685), 227 (1,320), 268 (1,120), 3,190 (94).	PR	X	Port Walter Herring & Packing Co.
Do. <sup>4</sup> .....	FC	KIEA	2,512 (119.42)	P	X	Do.
Big Port Walter, Alaska radio. <sup>5</sup>	FC	KPV	425 (706), 500 (600).....	PG	X	Do.
Bristol Bay, Alaska—moored tally scow. <sup>6</sup>	FX	KIDV	3,190 (94).....	P	X	Libby, McNeill & Libby.
Burbank, Calif. (United Airport). <sup>7</sup>	FA	KGUJ	.....	P	N	Aeronautical Radio (Inc.).
Chanute, Kans. <sup>8</sup>	PO	KGZF	2,450 (122.4).....	P	N	City of Chanute Police Department.
Des Moines, Iowa. <sup>9</sup>	PO	KGZG	2,470 (121.5).....	P	N	City of Des Moines.
Hialeah, Fla. <sup>10</sup> .....	FX	WAN	4,260 (70.42).....	PR	N	T. R. T. Co.
Lake Charles, La. <sup>3</sup> .....	FA	KGTV	3,232.5 (92.8), 3,242.5 (92.52), 3,267.5 (92.09), 3,447.5 (87.02), 3,457.5 (86.77), 3,467.5 (86.52), 3,485 (86.08), 5,602.5 (53.55), 5,612.5 (53.45), 5,632.5 (53.26).	P	N	Aeronautical Radio (Inc.).
Lexington, Ky. <sup>11</sup> .....	PO	WPET	1,712 (176.23).....	P	N	City of Lexington, Police Department.
Mazama (permanently moored vessel at Herendeen Village, Alaska). <sup>12</sup>	FX	KHE	178 (1,685), 252 (1,190).....	PR	X	Everett Packing Co.
Mobile, Ala. (Bates Field). <sup>13</sup>	FA	WAEK	3,232.5 (92.8), 3,242.5 (92.52), 3,267.5 (92.09), 3,447.5 (87.02), 3,457.5 (86.77), 3,467.5 (86.52), 3,485 (86.08), 5,602.5 (53.55), 5,612.5 (53.45), 5,632.5 (53.26).	P	N	Aeronautical Radio (Inc.).
Montauk Point, N. Y., radio.	FC	WSE	392 (755), 500 (600).....			M. R. T. Co.

See footnotes at end of table.

## Commercial land stations, alphabetically, by names of stations—Continued

[Additions to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1931, 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
Port Alexander, Alaska. <sup>14</sup>	FX	KIEB	222 (1,350), 227 (1,320), 274 (1,095).	PR	X	Karl Hansen.
Do. <sup>14</sup>	FC	KIEC	2,638 (118.2)	P	X	Do.
Robertson, Mo. (Lambert-St. Louis Municipal Airport). <sup>16</sup>	FA	KGSA	278 (1,060)	P	N	City of St. Louis.
Saginaw, Mich. <sup>17</sup>	PO	WPES	2,442 (122.85)	P	N	City of Saginaw.
Portable						
(16)	FA	WAEP	3,222.5 (93.09), 3,232.5 (92.8), 3,242.5 (92.52), 3,257.5 (92.09), 3,447.5 (87.02), 3,457.5 (86.77), 3,467.5 (86.52), 3,485 (86.08), 4,917.5 (61), 5,602.5 (53.55), 5,612.5 (53.45), 5,632.5 (53.26).	P	N	Aeronautical Radio (Inc.).
No. 1 <sup>2</sup>	GO	WJEC	1,602 (187.27), 1,628 (184.28), 1,652 (181.6), 1,676 (178.99), 1,700 (176.47).	P	X	Harvard Seismograph Station.
No. 2 <sup>2</sup>	GO	WJEE	do	P	X	Do.

<sup>1</sup> Loc., 91° 11' 25" W., 30° 27' 23" N.; type, A3.<sup>2</sup> Type, A1, A2, A3.<sup>3</sup> Loc. (approximate), 134° 38' 00" W., 56° 22' 00" N.; type, A1, A2.<sup>4</sup> Loc. (approximate), 134° 38' 00" W., 56° 22' 00" N.; type, A2.<sup>5</sup> Loc. (approximate), 134° 38' 00" W., 56° 22' 00" N.; type, A1; power, 39.62, 200.<sup>6</sup> Loc. (approximate), 157° 00' 00" W., 58° 51' 00" N.; type, A1, A3.<sup>7</sup> Loc., 116° 12' 24" W., 34° 15' 56" N.<sup>8</sup> Loc. (approximate), 98° 27' 00" W., 37° 41' 00" N.; type, A3.<sup>9</sup> Loc., 93° 37' 17" W., 41° 35' 03" N.; type, A3.<sup>10</sup> Loc., 80° 16' 54" W., 26° 56' 06" N.<sup>11</sup> Loc., 84° 29' 48" W., 38° 02' 54" N.; type, A3.<sup>12</sup> Loc. (approximate), 161° 00' 00" W., 56° 00' 00" N.; type, B; power 25/8.<sup>13</sup> Loc. (approximate), 88° 04' 15" W., 30° 38' 15" N.; type, A1, A2, A3.<sup>14</sup> Loc., 134° 35' 15" W., 56° 10' 32" N.; type, A1, A2; power, 30/3.<sup>15</sup> Loc. (approximate), 134° 37' 00" W., 56° 12' 00" N.; type, A3.<sup>16</sup> Loc. (approximate), 90° 22' 00" W., 33° 45' 00" N.; type, A3.<sup>17</sup> Loc. (approximate), 83° 57' 54" W., 43° 25' 00" N.; type, A3.<sup>18</sup> Portable on Brown chain.

## 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, 1931, 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 account settled by—
Bidwell <sup>1</sup>	KESQ	8	PG	X	Sun Oil Co.	R. M. C. A.
Bear <sup>2</sup>	WHEW	8	PG	X	Commander Richard E. Byrd.	Owner.
Colombus <sup>3</sup>	WFES	8	PG	X	Kiyoo Yamashita	Do.
Deragua	KDCT	8	PG	N	United Mail S. S. Co. (Inc.).	T. R. T. Co.
Four Friends <sup>4</sup>	WIED		P	X	John Kennedy	Owner.
Gertrude Fauci <sup>5</sup>	WIEP		P	X	Charles M. Fauci	New England Telephone & Telegraph Co.
Guy Junior <sup>6</sup>	WIEV		P	X	Libby, McNeill & Libby	Owner.
Harbor Patrol No. 3	WIEN		P	X	City of Detroit (Police Department).	Do.
Mark Twain <sup>7</sup>	WIEY		P	X	Inland Waterways Corporation.	Do.
Nais	WIEM				S. M. Castle	
Ockerson	WJEF		P	X	Dravo Contracting Co.	M. R. T. Co.
Portable	WIES		P	X	Texas Co.	Owner.
Do	WIET		P	X	do	Do.
Do	WIEU		P	X	do	Do.
Do	WJEA		P	X	do	Do.
Do	WJEB		P	X	do	Do.
Potter	WIEG		P	X	Dravo Contracting Co.	Do.
Westlake <sup>8</sup>	WJDB	8	PG	X	Texas Corporation	M. R. T. Co.

<sup>1</sup> Type, A2; fy., class L; power, 16.8/15 and 2.5.

<sup>2</sup> Fy., class H an L.

<sup>3</sup> Type, A1; fy., class H; power, 14.7/1.5.

<sup>4</sup> Type, A1.

<sup>5</sup> Type, A1, A2, A3; fy., class H; power, 12.3/1.4.

<sup>6</sup> Type, A3.

<sup>7</sup> Power, 16/12.

<sup>8</sup> Type, B.

## Commercial aircraft stations, alphabetically, by names of craft

[Additions to the List of Radio Stations of the United States, edition of June 30, 1931, and to the International List of Aircraft Stations published by the Berne bureau]

Station	Call signal	Frequency, in kilocycles; meters in parentheses	Service	Hours	License
NC-8-A (Volunteer) <sup>1</sup>	KHLO	3,105 (96.62), 5,520 (54.35)	P	X	Goodyear Tire & Rubber Co. of California (Inc.).
NC-14-A (Reliance) <sup>1</sup>	KHNFU	do	P	X	Goodyear Tire & Rubber Co.
NC-10814 <sup>2</sup>	KHTQJ	3,105 (96.62), 3,222.5 (93.09), 3,232.5 (92.8), 3,242.5 (92.52), 3,257.5 (92.09), 3,447.5 (87.02), 3,457.5 (86.77), 3,467.5 (86.52), 3,485 (86.06), 4,917.5 (61), 5,602.5 (53.55), 5,612.5 (53.45), 5,632.5 (53.26).	P	X	American Airways (Inc.).
NC-10845 <sup>2</sup>	KHTRI	do	P	X	Do.
NC-10858 <sup>2</sup>	KHTSH	do	P	X	Do.
NC-10872 <sup>2</sup>	KHTTG	do	P	X	Do.
NC-10892 <sup>2</sup>	KHTUF	do	P	X	Do.
NC-12168 <sup>2</sup>	KHTVE	do	P	X	Do.

<sup>1</sup> Type, A1, A3.

<sup>2</sup> 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, 1931, 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
St. Croix, V. I. <sup>1</sup>	FX	WTDW	-----	0	X	Department of the Interior, Governor of Virgin Islands. Do.
St. Thomas, V. I. <sup>1</sup>	FX	WTDV	-----	0	X	

<sup>1</sup> Type, A3.

*Government ship stations, alphabetically, by names of stations*

[Additions to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1931, 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
Dundee	WYDV	396 (760)	0	X	U. S. Army.
Grafton	WYDW	do	0	X	Do.
St. Genevieve	WYDX	do	0	X	Do.

*Government aircraft stations, alphabetically, by names of craft*

[Additions to the List of Radio Stations of the United States, edition of June 30, 1931, and to the International List of Aircraft Stations published by the Berne bureau]

Station	Call signal	Owner
Macon, any aircraft attached to U. S. S.	NVMAX	U. S. Navy.
Macon (rigid airship)	NZRLC	Do.
Pennsylvania, any aircraft attached to U. S. S.	NVMAW	Do.

*Commercial and Government land, ship, aircraft, radiobeacon, and direction-finding stations, alphabetically by call signals*

Call signal	Name of station	Call signal	Name of station
KDCT	Deragus	WAEK	Mobile, Ala. (Bates Field)
KESQ	Bldwell	WAEP	Portable—Brown chain
KGSA	Robertson, Mo. (Lambert-St. Louis Municipal Airport)	WAN	Hialeah, Fla.
KGTV	Lake Charles, La.	WFDB	Westlake
KGTU	Beaumont, Calif. (near)	WFES	Columbus
KGUJ	Burbank, Calif. (United Airport)	WHEW	Bear
KGZF	Chanute, Kans.	WIED	Four Friends
KGZG	Des Moines, Iowa	WIEM	Nais
KHE	Mazama (permanently moored vessel at Herenden Village, Alaska)	WIEN	Harbor Patrol No. 3
KHILO	NC-8-A (Volunteer)	WIEP	Gertrude Fauci
KHNFU	NC-14-A (Reliance)	WIES	Portable on board vessel
KHTQJ	NC-10814	WIET	Do
KHTRI	NC-10845	WIEU	Do
KHTSH	NC-10858	WIEV	Guy Junior
KHTTG	NC-10872	WIEY	Mark Twain
KHTUF	NC-10892	WJEA	Portable on board vessel
KHTVE	NC-12168	WJEB	Do
KIDV	Bristol Bay, Alaska—moored tally scow	WJEC	No. 1 (portable)
KIDY	Big Port Walter, Alaska	WJEE	No. 2 (portable)
KIEA	Do	WJEF	Ockerson
KIEB	Port Alexander, Alaska	WJEG	Potter
KIEC	Do	WPEQ	Baton Rouge, La.
KPV	Big Port Walter, Alaska, radio	WPES	Saginaw, Mich.
NVMAW	Pennsylvania, any aircraft attached to U. S. S.	WPET	Lexington, Ky.
NVMAX	Macon, any aircraft attached to U. S. S.	WSE	Montauk Point, N. Y., radio
NZRLC	Macon (rigid airship)	WTDV	St. Thomas, V. I.
		WTDW	St. Croix, V. I.
		WYDV	Dundee
		WYDW	Grafton
		WYDX	St. Genevieve

RADIO SERVICE BULLETIN

Broadcasting stations, by name of State and city

[Addition to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1931]

State and city (Transmitter location; studio location in parentheses)	Call signal	Frequency, in kilocycles; meters in parentheses	Power (watts)
Indiana: Indianapolis.....	WJED	600 (500).....	1 250

<sup>1</sup> Daytime only.

Broadcasting stations, by call signals

Call signal	Location of transmitter, studio location in parentheses (mail address)	Licensee	Frequency, in kilocycles; meters in parentheses	Power (watts)
WJED	Indianapolis, Ind., Thirty-first and Annette Sts.	Thirty-first Street Baptist Church (Rev. Morris H. Coers, pastor).	600 (500).....	1 250

<sup>1</sup> Daytime only.

Broadcast pick-up stations, alphabetically, by names of stations

[Additions to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1931]

Station	Call signal	Frequency in kilo- cycles; meters in parentheses	Power (watts)	Owner
California: California.....	KIED	1,518 (197.63), 2,342 (128.1).	250	Warner Bros. Broadcasting Co.
San Diego.....	KIEO	2,342 (128.1).....	15	Airfan Radio Corporation (Ltd.), 326 Broadway, San Diego, Calif.

Broadcast pick-up stations, by call signals

Call signal	Name of station	Call signal	Name of station
KIED	California.	KIEO	San Diego, Calif.

General and special 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, 1931]

Station	Call signal	Frequency in kilocycles; meters in parentheses	Power (watts)	License and post-office address
Illinois: Tinley Park...	W9XL	7,625 (39.35), 7,640 (39.27), 9,230 (32.5), 9,390 (31.95), 10,090 (29.73).	500	American Radio News Corporation, 235 East Forty-fifth St., New York, N. Y.
Massachusetts: Boston...	W1XAH	60,000 (5)-----	50	Eugene C. Hultman, Police Commissioner of Boston.
New Jersey: Newark...	W2XC	34,600 (8.67), 41,000 (7.32), 51,400 (5.837), 80,000 (3.75) to 300,000 (1), 1,000,000 (0.0333) to 3,000,000 (0.1).	500	Federal Telegraph Co., 200 Mount Pleasant Ave.
New York: New York...	W2XAQ	51,400 (5.83), 60,000 (5)-----	50	R. C. Powell & Co. (Inc.), 157 Chambers St.
Ohio:				
Mason-----	W8XO	700 (430)-----	} 100,000 to 500,000	} Crosley Radio Corporation.
Suffield-----	W8XQ	2,398 (125.1), 3,492.5 (85.9), 4,797.5 (62.53), 6,425 (46.69), 8,655 (31.66).		
Rhode Island:				
East Providence-----	W1XE	60,000 (5) to 400,000 (0.75)-----	25	Charles N. Kraus, 92 Keene St.
East Providence (police car).	W1XF	do-----	4	Do.
<i>Portable</i>				
New Jersey:				
Gloucester City-----	W3XAE	27,100 (11.07), 34,600 (8.67), 41,000 (7.32), 51,400 (5.837), 60,000 (5) to 400,000 (0.75), 401,000 (0.74)-----	250	Carleton D. Haigs.
Do-----	W3XAF	do-----	250	Do.
New York:				
Buffalo-----	W8XD	51,400 (5.83), 60,000 (5)-----	10	Radio Station WBEN (Inc.).
Do-----	W8XH	do-----	10	Do.
United States through-out.	W10XAU	3,492.5 (85.9), 4,797.5 (62.53).	15	Robert E. Autrey, Navasota, Tex.
(1)-----	W10XA	34,600 (8.67), 41,000 (7.32), 51,400 (5.837), 60,000 (5) to 400,000 (0.75).	0.2	R. M. C. A.
(1)-----	W10XC	do-----	0.2	Do.
<i>Aircraft</i>				
NC-10164-----	W10XAE	60,000 (5), 400,000 (0.75)-----	10	Edwin C. Ewing, jr., 1057 Pratt Boulevard, Chicago, Ill.
<i>Vessel</i>				
Ann Arbor No. 5-----	W8XAA	484 (619.8)-----	1	Walter S. Franklin and Frank C. Nicodemus, jr., receivers of Ann Arbor R. R. Co., Frankfort, Mich.
Ann Arbor No. 6-----	W8XAB	do-----	1	Do.
Ann Arbor No. 7-----	W8XAC	do-----	1	Do.
City of Flint 32-----	W8XAD	do-----	1	Pere Marquette Ry. Co., Ludington, Mich.
City of Saginaw 31-----	W8XAG	do-----	1	Do.
Joseph Block-----	W8XAE	do-----	1	Inland S. S. Co. (Hutchinson & Co., managers), 1508 Rockefeller Building, Cleveland, Ohio.
Pere Marquette 21-----	W8XAF	do-----	1	Pere Marquette Ry. Co., Ludington, Mich.
Pere Marquette 22-----	W8XAH	do-----	1	Do.
Wabash-----	W8XAI	do-----	1	Walter S. Franklin and Frank C. Nicodemus, jr., receivers of Ann Arbor R. R. Co., Frankfort, Mich.

<sup>1</sup> Licensed to operate in different States.

## Visual broadcasting stations, alphabetically, by names of stations

Additions to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1931]

Station	Call signal	Frequency, in kilocycles; meters in parentheses	Power (watts)	Owner
Missouri: Kansas City....	W9XAL	1,111 (136.4) to 2,300 (130.4).	500	First National Television 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
			<i>Vessels</i>
W1XAH	First district:		
W1XE	Boston, Mass.	W8XAA	Ann Arbor No. 5.
W1XF	East Providence, R. I.	W8XAB	Ann Arbor No. 6.
	East Providence, R. I. (police car).	W8XAC	Ann Arbor No. 7.
W2XAQ	Second district:	W8XAD	City of Flint 32.
W2XC	New York, N. Y.	W8XAE	Joseph Block.
	Newark, N. J.	W8XAF	Pere Marquette 21.
W3XAE	Third district:	W8XAG	City of Saginaw 31.
W3XAF	Gloucester City, N. J. (portable).	W8XAH	Pere Marquette 22.
	Do.	W8XAI	Wabash.
W8XD	Eighth district:		<i>Aircraft and portable</i>
W8XH	Buffalo, N. Y. (portable).		
W8XO	Do.	W10XA	(1).
W8XQ	Mason Ohio.	W10XAE	NC-10164.
	Suffield, Ohio.	W10XAU	United States throughout.
W9XAL	Ninth district:	W10XC	(1).
W9XL	Kansas City, Mo.		
	Tinley Park, Ill.		

<sup>1</sup> Licensed to operate in different States.

## 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, 1931, and to the International List of Fixed and Land Stations published by the Berne bureau]

- BOLINAS, CALIF., KEB.—Fy., strike out 7,370 (40.71), add 6,890 (43.54).  
 CHICAGO, ILL. (municipal airport), WUCG.—Fy., add 3,322.5 (90.30), 5,592.5 (53.65).  
 DENVER, COLO., KGSP.—Fy., add 278 (1,080).  
 KAHUKU, HAWAII, KEQ.—Fy., strike out 6,890 (43.54), add 7,370 (40.71).  
 KAILUA, HAWAII, KQA.—Fy., strike out 6,875 (43.64), add 6,815 (44.02).  
 KAILUA, HAWAII, KQU.—Fy., strike out 19,560 (15.337), add 4,410 (68.03).  
 LAWRENCEVILLE, N. J., WNB.—Fy., strike out 6,755 (44.41).  
 LAWRENCEVILLE, N. J., WOB.—Fy., strike out 6,755 (44.41), add 5,852.5 (51.26).  
 LOS ANGELES, CALIF., KOS.—Loc., changed to Honolulu, Hawaii.  
 MINNEAPOLIS, MINN., KGPB.—Loc., 93° 15' 56" W., 44° 58' 39" N.; fy., strike out 2,416 (124.17), add 2,430 (123.5).  
 PALO ALTO, CALIF. (near), KNK.—Fy., strike out 6,815 (44.02), add 6,875 (43.64).  
 PITTSBURGH, PA., WAEC.—Fy., add 5,510 (54.45), 5,540 (54.15).  
 PORT ALEXANDER, ALASKA, radio, KPR.—Type, strike out A3; fy., strike out 2,538 (118.2), add 460 (650), 500 (600).  
 ST. PAUL, MINN.—Fy., strike out 2,416 (124.17), add 2,430 (123.5).  
 SHREVEPORT, LA., KGPY.—Read Shreveport, La. (near).  
 TULSA, OKLA. (municipal airport), KSY.—Class, strike out FX; fy., strike out 2,720 (110.29), 2,732 (109.81), 4,110 (72.99), 6,510 (46.08), 6,520 (46.01), 6,530 (45.94), 8,015 (37.43).  
 WICHITA, KANS. (municipal airport), KGTD.—Class, strike out FX; fy., strike out 2,720 (110.29), 2,732 (109.81), 4,110 (72.99), 6,510 (46.08), 6,520 (46.01), 6,530 (45.94), 8,015 (37.43).  
 Strike out all particulars of the following-named stations: California (portable): Lawrenceville, N. J., WLO; Lawrenceville, N. J., WMI; Lawrenceville, N. J., WNC; Lawrenceville, N. J., WND; Sheboygan, Wis., radio.



## 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, 1931, and to the International List of Ship Stations, published by the Berne bureau]

- A. C. BEDFORD.—Fy., class L.  
 ADMIRAL NULTON.—Fy., class L; accts., Portland California S. S. Co.  
 ADMIRAL PEOPLES, Alabama, WHDN.—Fy., class L.  
 ALADDIN.—Owner, Standard-Vacuum Transportation Co. (Inc.).  
 ALEUTIAN.—Fy., class L and H.  
 ANACORTES.—Fy., class L.  
 ARIO.—Owner, Standard-Vacuum Transportation Co. (Inc.).  
 BENJAMIN BREWSTER.—Fy., class L.  
 B. H. TAYLOR.—Type, strike out B, add A2; fy., class L.  
 BOSTON.—Hours, add X.  
 CALCITE, CARL D. BRADLEY.—Fy., class L.  
 CASEY.—Name changed to Delmundo.  
 CAYO MAMBI.—Owner, Cananova Cayo Mambi Corporation.  
 CHALLENGER.—Type, add A2; fy., class L.  
 CHICKASAW.—Name changed to Scanmail; hours, strike out X, add N.  
 CLAVARACK.—Name changed to Delvalle.  
 CITY OF PHILADELPHIA, CITY OF WEATHERFORD, CORNELIA, DANIEL KERN, DELISLE, DILLWYN.—Fy., class L.  
 DORIS HAMLIN.—Type, A1; fy., class H.  
 DOROTHY BRADFORD, DOW CHEMICAL, EDIS, EGREMONT, E. J. SADLER, ELMS-PORT, E. M. CLARK.—Fy., class L.  
 EXMINISTER.—Correct name Exminster.  
 FRANCES C. DENEHY.—Type, A3; fy., 2,322 (129.19).  
 FRANKLIN K. LANE, GENERAL MARKHAM, GENERAL M. H. SHERMAN, GEO. H. JONES, G. HARRISON SMITH, GLACIER.—Fy., class L.  
 GOLDEN DRAGON.—Hours, strike out N.  
 HANLEY.—Fy., class L.  
 HARRIET.—Accts., H. Leslie Atlas.  
 HEFFRON, HELEN, HERBERT G. WYLIE, HUGOTON, HUMACONNA.—Fy., class L.  
 IRENE L.—Fy., 1,540 (194.8), 2,566 (116.91), 2,738 (109.56).  
 JAMES MCGEE.—Fy., class L.  
 J. A. MOFFETT.—Accts., M. R. T. Co.  
 JOSEPHINE.—Name changed to Mascotte.  
 JEAN, JEANNETTE SKINNER, JOHN G. MUNSON, JOSEPH SEEP, KANAK, LA SALLE.—Fy., class L.  
 LEONINE.—Fy., add 2,566 (116.91).  
 LIO, MADISON, MALACCA, MALTRAN, M. & J. TRACY, MANINI, MARGARET LYKES, MARJORY, MATINICOCK, MAUNALEI, MAURICE TRACY.—Fy., class L.  
 MAZAMA.—Type, add A2.  
 MEANTICUT, MEXICAN, MOHEGAN, MOJAVE, MONTANAN.—Fy., class L.  
 MONTEREY.—Type A1, A2; fy., class L and H.  
 MONTEREY LIFEBOAT No. 1.—Fy., class H and L; service, P; hours, X; rates, strike out 8 cents.  
 MONTEREY LIFEBOAT No. 2.—Fy., class H and L; service, P; hours, X; rates, strike out 8 cents.  
 MOUNT HOPE, MUNDELTA, MUNDOLPHIN, MUNERIC, MUNMYSTIC, MUSKOGEE, NAKHODA.—Fy., class L.  
 NANUK.—Fy., class H; accts., R. M. C. A.  
 NEBRASKAN, NELLWOOD II, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, WECF, NOURMAHAL, OAKSPRING, OCCIDENTAL, OLEUM.—Fy., class L.  
 ONEIDA.—Type, strike out A1.  
 OSSING.—Accts., M. R. T. Co.  
 OTHO, O. T. WARING, PADNSAY, PARISMINA, PAT DOHENY, PAUL LUCKENBACH, PAUL SHOUP, PEQUONNOCK, PERE MARQUETTE 15, PERE MARQUETTE 17, PERE MARQUETTE 18, PERE MARQUETTE 19, PERE MARQUETTE 20, PERE MARQUETTE 21, PERE MARQUETTE 22, PHOENIX, PLYMOUTH WRCH, POINT CHICO.—Fy., class L.  
 POINT FERMIN.—Fy., class L; accts., M. R. T. Co.  
 POINT MONTARA, POINT SAN PABLO.—Fy., class L.  
 POINT SAN PEDRO.—Fy., class L; accts., McCormick S. S. Co.  
 POINT SUR.—Accts., M. R. T. Co.

**POLARINE, PONCE, PONTIAC, PORTMAN, PORTO RICO, PRESIDENT HARDING, PRESIDENT ROOSEVELT, PRINCETON WOCY, PRISCILLA, PROVIDENCE WRCJ.**—Fy., class L.

**QUEEN OF SCOTS.**—Type B; fy., class L; accts., Anthony J. Drexel, jr.

**QUIRIGUA.**—Type, A1, A2.

**RAJAH, REDWOOD, RELIEF, RESOLUTE.**—Fy., class L.

**RESTORER.**—Fy., class L; accts., M. R. T. Co.

**RICHMOND KDOQ, R. W. McIlvair.**—Fy., class L.

**SAC CITY.**—Name changed to Black Falcon.

**SACO.**—Name changed to Black Hawk.

**SAGUACHE.**—Name changed to Scanstates; accts., R. M. C. A.

**SAINT JOHN.**—Type A1, A2; fy., class L.

**SAMUEL MITCHELL, S. A. PERKINS, S. B. HUNT.**—Fy., class L.

**SCANPENN.**—Fy., class L and H.

**SCANYORK.**—Fy., add class H.

**SEATRAN NEW ORLEANS.**—Type, B; fy., class L; power, 26.5/4; service, PG; hours, X; rates, 8 cents per word; accts., Seatrains Lines (Inc.).

**SEATTLE SPIRIT, SEWALLS POINT, SHELDRAKE, S. M. SPALDING, STANDARD, STANLEY, S. T. CRAPO, STEEL AGE, STEEL NAVIGATOR, STEELORE, STEEL WORKER, SUMAR, SUSAN A. MORAN, SWIFTLIGHT, SWIFTSURE, TEAL, TEJON, TEXAS PLANTER, TEXAS RANGER, TEXAS SHIPPER, THOMAS H. WHEELER.**—Fy., class L.

**TOMALVA.**—Name changed to Black Eagle.

**TOPA TOPA, TRUJILLO, TULSAGAS, TUBITALA, T. W. ROBINSON, UPSHUB, UTO-<sup>WA</sup> WANA, VACUUM, VOLUSIA.**—Fy., class L.

**WANDERER.**—Fy., class L, 2,738 (109.56).

**WARRIOR WHDO, WATERTOWN, W. C. TEAGLE, WEST CAMPGAW, WEST HUMBLOW, WEST ISLETA, WEST JAFFREY, WEST KEBAR, WEST MAHWAH, WEST-MORELAND.**—Fy., class L.

**WEST NOTUS.**—Fy., add class H.

**WEST TEXAS, W. F. WHITE, W. H. LIBBY, W. J. HANNA, W. M. IRISH, WM. ROCKEFELLER.**—Fy., class L.

**W. S. FARISH.**—Fy., class L.

**W. S. MILLER.**—Power, 26/7, accts., M. R. T. Co.

**WYANDOTTE, YAPALAGA, ZAREMBO.**—Fy., class L.

Strike out all particulars of the following-named stations: Black Douglas, Captain A. F. Lucas, Charlie Watson, H. M. Storey, Humboldt, K. R. Kingsbury, Memory III, Richmond WOCF.

#### 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, 1931, and to the International List of Aircraft Stations, published by the Berne bureau]

Strike out all particulars of the following named stations: C-273, NC-539-V, NC-811-H, NC-3314, NC-9153, NC-9193, NC-9717.

#### 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, 1931, and to the International List of Fixed and Land Stations, published by the Berne bureau]

Strike out all particulars of the following named stations: Ofu, Samoa; Tau, Samoa.

#### STATIONS TRANSMITTING TIME SIGNALS

[Alterations and corrections to be made to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1931, and to the International List of Stations Performing Special Service, published by the Berne bureau]

**WASHINGTON, D. C. (Annapolis, Md.)**—Time of emission, after fy., 8,030 (37.34) strike out 2355-2400 G. C. T.

**WASHINGTON, D. C. (Arlington, Va.)**—Type, add A1; fy., add 8,030 (37.34); time of emission add 2355-2400 G. C. T.

#### STATIONS TRANSMITTING HYDROGRAPHIC REPORTS

[Alterations and corrections to be made to the List of Commercial and Government Radio Stations of the United States, edition of June 30, 1931, and to the International List of Ship Stations, published by the Berne bureau]

**HONOLULU, HAWAII.**—Call changed to NPM.

## STATIONS TRANSMITTING WEATHER REPORTS

[Alterations and corrections to be made to the List of Radio Stations of the United States, edition of June 30, 1931, and to the International List of Aircraft Stations, published by the Berne bureau]

BOSTON, MASS.—Time of emission, add 0215.

GUANTANAMO BAY, CUBA.—Time of emission, strike out 0115, add 0230.

SAN FRANCISCO, CALIF.—Fy., and time of emission, 42.8 (7,005)—0300, 1700; 66 (4,548)—0300, 1700; 108 (2,776)—0000, 0300, 0800, 1200, 1700, 2000; 12,885 (23.28)—0300, 1700.

WASHINGTON, D. C. (Annapolis, Md.).—Type, add A1, 12,225 (24.5)—1,305 (aviation).

WASHINGTON, D. C. (Arlington, Va.).—Fy., strike out 12,225 (24.5)—1305 (aviation).

## 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, 1931, and to the International List of Stations Performing Special Services, published by the Berne bureau]

CAPE COD CANAL LIGHTHOUSE, MASS.—Loc., 70° 29' 25" W., 41° 46' 48" N.  
POLLOCK RIP LIGHTHOUSE, MASS.—Fy., 284 (1,057); hours, operates third 15 minutes of every hour.

VINEYARD SOUND LIGHTSHIP, MASS.—Fy., 316 (948).

BLOCK ISLAND SOUTHEAST LIGHTHOUSE, R. I.—Fy., 316 (948).

AMBROSE CHANNEL LIGHTSHIP, N. Y.—Loc., 40° 27' 10" N.

EXECUTION ROCKS LIGHTHOUSE, N. Y.—Characteristic signal silent 60 seconds.

FIRE ISLAND LIGHTSHIP, N. Y.—Loc., 40° 28' 40" N.

LITTLE GULL ISLAND LIGHTHOUSE, N. Y.—Characteristic signal silent 60 seconds.

ROCHESTER HARBOR, N. Y.—Loc. (approximate), 77° 36' 00" W., 43° 15' 45" N.

SCOTLAND LIGHTSHIP, N. J.—Fy., 308 (974).

FIVE FATHOM BANK LIGHTSHIP, N. J.—Fy., 292 (1,028).

OVERFALLS LIGHTSHIP, DEL.—Loc., 38° 48' 57" N.; fy., 292 (1,028); hours, operates third 15 minutes of every hour.

CAPE HENRY LIGHTHOUSE, VA.—Fy., 312 (962).

WINTER QUARTER SHOALS LIGHTSHIP, VA.—Fy., 292 (1,028); hours, operates third 15 minutes of every hour.

CAPE LOOKOUT SHOALS LIGHTSHIP, N. C.—Fy., 284 (1,057).

CHARLESTON LIGHTSHIP, N. C.—Call: WRI; fy., 308 (974); remarks: Operator stands watch first 15 minutes each hour 0800 to 2115 in clear weather.

DIAMOND SHOAL LIGHTSHIP, N. C.—Fy., 284 (1,057).

FRYING PAN SHOALS LIGHTSHIP, N. C.—Loc., add (approximate); fy., 308 (974).

SAVANNAH LIGHTSHIP, GA.—Call changed to WWAN; fy., 308 (974).

CAPE CANAVERAL LIGHTHOUSE, FLA.—Fy., 292 (1,028).

DRY TORTUGAS LIGHTHOUSE, FLA.—Fy., 300 (1,000); hours, operating periods first 15 minutes of every hour.

EGMONT KEY LIGHTHOUSE, FLA.—Fy., 300 (1,000); hours, operating periods first 15 minutes of every hour.

FOWEY ROCKS LIGHTHOUSE, FLA.—Fy., 300 (1,000); hours, operating periods first 15 minutes of every hour.

JUPITER INLET LIGHTHOUSE, FLA.—Add call WWBB; fy., 292 (1,028).

ST. JOHNS RIVER LIGHTSHIP, FLA.—Fy., 292 (1,028).

SAND ISLAND LIGHTHOUSE, ALA.—Fy., 288 (1,042); hours, operating periods fourth 15 minutes of every hour.

SOUTH PASS WEST JETTY RANGE FRONT LIGHTHOUSE, LA.—Fy., 288 (1,042); hours, operating periods fourth 15 minutes of every hour.

SOUTHWEST PASS EAST JETTY LIGHTHOUSE, LA.—Fy., 288 (1,042); hours, operating periods fourth 15 minutes of every hour.

ARANSAS PASS LIGHTHOUSE, TEX.—Fy., 312 (962).

GALVESTON JETTY LIGHTHOUSE, TEX.—Fy., 312 (962).

SABINE PASS LIGHTHOUSE, TEX.—Fy., 312 (962).

GRAYS REEF LIGHTSHIP, MICH.—Loc., 85° 10' 34" W.

LANSING SHOAL LIGHTSHIP, MICH.—Loc., 85° 33' 40" W., 45° 54' 15" N.

PASSAGE ISLAND LIGHTHOUSE, MICH.—Call, strike out.

SANDUSKY HARBOR, OHIO.—Loc., 82° 41' 38" W., 41° 29' 16" N.

CAPE BLANCO LIGHTHOUSE, OREG.—Fy., 304 (987); hours, operating periods third 15 minutes of every hour.

ANACAPA ISLAND LIGHTHOUSE, CALIF.—Fy., 320 (938); hours, operating periods third 5 minutes every half hour.

POINT ARGUELLO LIGHTHOUSE, CALIF.—Loc., 34° 34' 38" N.

## ALASKA

- CAPE DECISION LIGHTHOUSE.—Call: KCAB.  
 CAPE ST. ELIAS LIGHTHOUSE.—Characteristic signal, groups of four dashes (— — — —) for 10 minutes.  
 CAPE SPENCER LIGHTHOUSE.—Characteristic signal, single dashes (— etc.) for 10 minutes.  
 FIVE FINGER LIGHTHOUSE.—Call: KCE; characteristic signal, groups of one dash and two dots (— . .) for 10 minutes.  
 MARY ISLAND LIGHTHOUSE.—Characteristic signal, groups of one dash and 1 dot (— .) for 10 minutes.  
 SCOTCH CAP LIGHTHOUSE.—Loc., 164° 44' 40" W., 54° 23' 52" N.  
 SENTINEL ISLAND LIGHTHOUSE.—Characteristic signal, groups of one dash, one dot, and one dash (— . —) for 10 minutes. Clear weather operating periods, first and fourth 10 minutes of every hour.

## HAWAII

KILAUEA POINT LIGHTHOUSE.—Operating periods, last 15 minutes of every hour.

COMMERCIAL AND GOVERNMENT LAND, SHIP, AIRCRAFT, RADIOBEACON, AND  
 RADIOCOMPASS STATIONS, ALPHABETICALLY BY CALL SIGNALS

KCAB, read Cape Decision Lighthouse, Alaska; KCE, read Five Finger Lighthouse, Alaska; KDFH, read Black Eagle; KEFB, read Black Falcon; KEKL, read Scanstates; KEPT, read Black Hawk; KFZS, read Mascotte; KGPY, read Shreveport, La. (near); KIBQ, read Exminster; KOJR, read Scanmail; KOLL, read Delvalle; KOQJ, read Delmundo; KOS, read Honolulu, Hawaii; WRI, read Charleston Lightship, N. C.; WSD, call changed to WWAN; WTDR, notice of deletion in RADIO SERVICE BULLETIN for May should be disregarded—vessel Nantucket merely classified as commercial in lieu of government; WWAN, read Savannah Lightship, Ga.; WWBB, read Jupiter Inlet Lighthouse, Fla.; strike out all particulars following the call signals KDLA, KDRE, KDVV, KGMV, KGVY, KHBWD, KHFBY, KHFFU, KHTDW, KHTEV, KHTGT, KHYPK, NCM, NGX, WBDZ, WGDN, WLO (Lawrenceville, N. J.), WMI (Lawrenceville, N. J.), WNC (Lawrenceville, N. J.), WND (Lawrenceville, N. J.), WOCB, WOCF, WSK, WWAL.

## 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, 1931, and the International List of Broadcasting Stations, published by the Berne bureau]

- KDFN (Casper, Wyo.).—Fy., 1,440 (208.3); power, 500.  
 KFJZ (Fort Worth, Tex.).—Licensee, Fort Worth Broadcasters (Inc.).  
 KFXF (Denver, Colo.).—Transmitter loc., changed to read Denver, Colo. (near), 105° 01' 43" W., 39° 42' 34" N.; studio, Denver, Colo.  
 KFXR (Oklahoma City, Okla.).—Loc., 97° 32' 48" W., 35° 27' 49" N.  
 KFYO (Abilene, Tex.).—Loc., changed to Lubbock, Tex., 101° 45' 00" W., 33° 37' 00" N.; fy., 1,310 (229.0).  
 KGCA (Decorah, Iowa).—Power, 100.  
 KPO (San Francisco, Calif.).—Licensee, National Broadcasting Co. (Inc.).  
 KSEI (Pocatello, Idaho).—Fy., 890 (337).  
 KUOA (Fayetteville, Ark.).—Licensee, Southwestern Hotel Co.  
 KVI (Des Moines, Wash.).—Fy., 570 (526); power, 500.  
 KWWG (Brownsville, Tex.).—Licensee, Frank P. Jackson.  
 KXA (Seattle, Wash.).—Fy., 760 (395); power, 250 night, 500 day.  
 WALR (Zanesville, Ohio).—Licensee, WALR Broadcasting Corporation.  
 WBHS (Huntsville, Ala.).—Loc., 84° 35' 06" W., 34° 43' 49" N.; fy., 1,200 (250); power, 100.  
 WBIG (Greenboro, N. C.).—Power, 500 night, 1,000 day.  
 WHEU (Springfield, Mass.).—Call changed to WMAS.  
 WJSV (Mount Vernon Hills, Va.).—Licensee, Old Dominion Broadcasting Co.  
 WLBG (Petersburg, Va.).—Call changed to WPHR.  
 WLBL (Stevens Point, Wis.).—Loc., changed to Ellis, Wis. (near), 89° 40' 00" W., 44° 38' 00" N.  
 WLBW (Oil City, Pa.).—Loc., changed to Erie, Pa.; licensee, Broadcasters of Pennsylvania (Inc.):

WNBX (Springfield, Vt.).—Licensee, WNBX Broadcasting Corporation.  
 WNYC (New York, N. Y.).—Fy., 570 (526).  
 WPCB (Hoboken, N. J.).—Fy., 810 (370) daytime only.  
 Strike out all particulars of the following named station: WLBX (Long Island City, N. Y.).

BROADCAST PICK-UP 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, 1931]

The call signals of the following named stations have been changed as indicated hereunder:

Station	Old call	New call	Station	Old call	New call
Florida: Miami.....	W4XA	WIEF	New York—Continued.		
Illinois: Chicago.....	W9XAB	WIEZ	New York.....	W2XDY	WIEK
New York:			Do.....	W2XDZ	WIEL
New York.....	W2XBR	WIEG	Do.....	W10XAO	WIEY
Do.....	W2XBV	WIEI	United States throughout..	W10XAC	WIER
Do.....	W2XGZ	WIEW	Do.....	W10XAL	WIEO
Do.....	W2XDA	WIEQ	Washington:		
Do.....	W2XDW	WIEJ	Seattle.....	W7XAX	KIEF
Do.....	W2XDX	WIEI	Do.....	W7XAZ	KIEG

GENERAL AND SPECIAL EXPERIMENTAL 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, 1931]

NEW JERSEY: Passaic W2XCE.—Fy., 1,550 (193.5) only.  
 NEW YORK: New York W2XL.—Change class of station to portable; fy., strike out 401,000 (0.74) to 3,000,000 (0.1), add 401,000 (0.74) and above.  
 OHIO: West Dover W8XJ.—Fy., 2,398 (125.1), 3,492.5 (85.9), 4,797.5 (62.53), 6,425 (46.69) only.  
 WEST VIRGINIA: Morgantown W8XAW.—Change class of station to portable.

RELAY BROADCASTING 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, 1931]

NEW YORK: Jamaica (near), W2XE.—Read Wayne, N. J. (near); fy., add 11,830 (25.36), 15,270 (19.65).

MISCELLANEOUS

CHANGES IN THE LIST OF VESSELS EQUIPPED WITH A RADIO COMPASS

[Additions to the lists published in Commercial and Government Radio Stations of the United States' edition June 30, 1931, and to the International List of Ships Stations published by the Berne bureau]

Name	Call signal	Owner
COMMERCIAL		
Acadia.....	WHES	Eastern S. S. Lines (Inc.).
Commercial Bostonian.....	KEPM	Mooremack Gulf Lines (Inc.).
Commercial Floridian.....	KUGN	Do.
Commercial Quaker.....	KUGM	Do.
Hilda.....	KGCK	Caddo Co. (Inc.).

## NEW INTERNATIONAL LIST OF CALL SIGNALS AVAILABLE

The International Bureau of the Telegraph Union, Radiotelegraph Service, Berne, Switzerland, now has available for distribution to the public the third edition of the Alphabetical List of Call Signals of Fixed, Land, and Mobile Radio Stations, at \$1.41 for the edition on ordinary paper, paper cover, without index (type A), and at \$1.93 for the edition on heavy paper, cardboard cover, with index. These prices include the monthly supplements up to the time the next edition is issued and postage. All remittances should be forwarded direct to the Berne bureau by international postal money order.

## CHANGE IN LAW GOVERNING ISSUANCE OF RADIO OPERATORS' LICENSES

The amendment quoted in the BULLETIN for last month was signed by the President on May 19, 1932, not April 19.

## CHANGES IN CANADIAN STATIONS TRANSMITTING WEATHER REPORTS AND OTHER SERVICES

Effective at 0000, G. M. T., Canso and St. Paul Island coastal and direction-finding stations will maintain watch for commercial traffic on 500 kc/s. (600 m). Coast station rate, 6 cents per word. Bearings will be handled as hitherto on 375 kc/s. (800 m) after contact with the station has been made on 500 kc/s. (600 m).

Cape Race (VCE) will, at routine hours, transmit weather and other reports relative to navigation on 455 kc/s. (660 m) without making a preliminary call on 500 kc/s. (600 m).

Yarmouth (VAU) will, at routine hours, transmit weather and other reports relative to navigation on 417 kc/s. (720 m) without making a preliminary call on 500 kc/s. (600 m).

All the above-cited changes are effective August 1, 1932.

## CHANGE IN BERMUDA, ST. GEORGE (VRT), STATION

*Ship-shore traffic.*—The station located in 64° 40' 07" W., 32° 22' 57" N., now handles such traffic on 143 kc/s (2,100 m), 133.3 kc/s (2,250 m), A1, and on 500 kc/s (600 m), 451 kc/s (665 m), A2, at 1030 to 0230 daily, 1330 to 0130 Sundays. Also available at any hour for use as a radiobeacon upon receipt of a previous request.

*Direction finding.*—Signals for determination of bearings must be transmitted on 375 kc/s (800 m); results will be transmitted on 500 kc/s or 451 kc/s. Error is normally within 2°. Also available for ships requiring bearings with their own direction finders. Charge, \$1.22 in each case.

*Weather reports.*—At 0100, 1300 on 451 kc/s and at 0130, 1330 on 133.3 kc/s. Observations made at Bermuda at 0000 and 1200, respectively.

## FREQUENCY MEASUREMENTS OF BROADCASTING STATIONS DURING MAY

During the month of May the Radio Division of the Department of Commerce measured the frequency of 393 broadcasting stations of this country. Of those measured, 247, or 62.8 per cent, deviated less than 50 cycles; 58, or 14.7 per cent, deviated less than 100 cycles; 48 or 12.4 per cent, went over the 100-cycle mark but stayed under 200; and the remaining 40, or 10.1 per cent, deviated 200 cycles above or below their assigned frequencies.

This month is the banner month for the class under 50 cycles, as the percentage, 62.8, is the highest of any month so far. This represents an increase of 3.2 per cent over April, the next best month which showed an increase of 6.8 per cent over March. The combined increase for April and May of 10 per cent over March shows that the broadcasters are making progress in their endeavor to comply with General Order No. 116 effective the 22d of the current month.

The following table gives the figures for the months of December, 1930, to May, 1932, inclusive:

Month	Number stations measured	Less than 50 cycles	Less than 100 cycles	Less than 200 cycles	Over 200 cycles
December 1930	339		35 (13.5%)	66 (16.5%)	238 (70%)
January 1931	363		54 (15%)	102 (27%)	207 (58%)
February	367		99 (27%)	55 (15%)	213 (58%)
March	337	65 (19.3%)	63 (18.8%)	77 (22.8%)	132 (39.1%)
April	314	72 (22.9%)	54 (17.2%)	92 (29.3%)	96 (30.6%)
May	326	78 (23.9%)	89 (27.3%)	68 (20.9%)	91 (27.9%)
June	330	97 (29.4%)	71 (21.5%)	89 (26.9%)	93 (28.2%)
July	294	94 (32%)	70 (23.8%)	60 (20.4%)	70 (23.8%)
August	304	117 (38.5%)	64 (21%)	67 (22%)	56 (18.5%)
September	328	115 (35%)	72 (22%)	68 (21%)	73 (22%)
October	381	136 (35.7%)	97 (25.4%)	72 (18.9%)	76 (20%)
November	383	153 (40%)	86 (22.5%)	76 (20%)	68 (17.5%)
December	422	190 (45%)	98 (23.2%)	64 (15.2%)	70 (16.6%)
January 1932	449	230 (51.2%)	94 (20.9%)	63 (14%)	62 (13.9%)
February	450	241 (53.5%)	76 (17%)	63 (14%)	70 (15.5%)
March	519	274 (52.8%)	80 (15.4%)	79 (15.2%)	86 (16.6%)
April	468	273 (58.6%)	77 (16.8%)	55 (12%)	53 (11.6%)
May	393	247 (62.8%)	58 (14.7%)	48 (12.4%)	40 (10.1%)

LESS THAN 50 CYCLES

Call signal	Transmitter location, studio location in parentheses	Call signal	Transmitter location, studio location in parentheses
KDB	Santa Barbara, Calif.	KMBC	Independence, Mo. (Kansas City).
KDFN	Casper, Wyo.	KMED	Medford, Oreg.
KDKA	Saxonburg, Pa. (Pittsburgh).	KMJ	Fresno, Calif.
KECA	Los Angeles, Calif.	KMMJ	Clay Center, Nebr.
KELW	Burbank, Calif.	KMO	Tacoma, Wash.
KERN	Santa Maria, Calif.	KMOX	St. Louis, Mo.
KEX	Portland, Oreg.	KMPR	Beverly Hills, Calif.
KFAB	Lincoln, Nebr.	KMTR	Los Angeles, Calif.
KFAC	Los Angeles, Calif.	KNX	Los Angeles, Calif. (Hollywood).
KFBK	Sacramento, Calif.	KOA	Denver, Colo.
KFDM	Beaumont, Tex.	KOAO	Corvallis, Oreg.
KFEQ	St. Joseph, Mo.	KOH	Reno, Nev.
KFH	Wichita, Kans.	KOIL	Council Bluffs, Iowa.
KFI	Buena Park, Calif. (near Los Angeles).	KOIN	Portland, Oreg.
KFJI	Klamath Falls, Oreg.	KOL	Seattle, Wash.
KFJR	Portland, Oreg.	KOMO	Harbor Island, Wash. (Seattle).
KFKX	Bloomington, Ill. (Chicago)	KOOS	Marshfield, Oreg.
KYW		KORE	Eugene, Oreg.
KFOR	Lincoln, Nebr.	KOY	Phoenix, Ariz.
KFOX	Long Beach, Calif.	KPJM	Prescott, Ariz.
KFPY	Spokane, Wash.	KPO	San Francisco, Calif.
KFRC	San Francisco, Calif.	KPPC	Pasadena, Calif.
KFSD	San Diego, Calif.	KPQ	Seattle, Wash.
KFSG	Los Angeles, Calif.	KQW	San Jose, Calif.
KFVD	Culver City, Calif.	KRE	Berkeley, Calif.
KFVS	Cape Girardeau, Mo.	KRKD	Los Angeles, Calif.
KFWI	San Francisco, Calif.	KRLD	Dallas, Tex.
KFXJ	Grand Junction, Colo.	KRSC	Seattle, Wash.
KGA	Spokane, Wash.	KSD	St. Louis, Mo.
KGAR	Tucson, Ariz.	KSL	Salt Lake City, Utah.
KGCA	Decorah, Iowa.	KSOO	Sioux Falls, S. Dak.
KGCC	Wolf Point, Mont.	KSTP	Radio Center, Minn. (St. Paul).
KGER	Long Beach, Calif.	KTAB	Oakland, Calif. (San Francisco).
KGEZ	Kalispell, Mont.	KTAR	Phoenix, Ariz.
KGFI	Los Angeles, Calif.	KTBR	Portland, Oreg.
KGIW	Trinidad, Colo.	KTFI	Twin Falls, Idaho.
KGO	Oakland, Calif. (San Francisco).	KTBS	Hot Springs, Ark.
KGW	Faloma, Oreg. (Portland).	KVI	Des Moines, Wash. (Tacoma)
KHQ	Spokane, Wash.	KVOO	Tulsa, Okla.
RICK	Red Oak, Iowa.	KWG	Stockton, Calif.
RIT	Yakima, Wash.	KWJ	Portland, Oreg.
KJBS	San Francisco, Calif.	KWK	Kirkwood, Mo. (St. Louis).
KJR	Seattle, Wash.	KXL	Portland, Oreg.
KLO	Ogden, Utah.	KXO	El Centro, Calif.
KLX	Oakland, Calif.	KXRO	Aberdeen, Wash.
KLZ	Denver, Colo.	KYA	San Francisco, Calif.
KMA	Shenandoah, Iowa.	WAAB	Quincy, Mass. (Boston).

## LESS THAN 50 CYCLES—Continued

Call signal	Transmitter location, studio location in parentheses	Call signal	Transmitter location, studio location in parentheses
WAAF	Chicago, Ill.	WIS	Columbia, S. C.
WAAT	Jersey City, N. J.	WJAG	Norfolk, Nebr.
WAAW	Omaha, Nebr.	WJAS	Pittsburgh, Pa.
WABC	Wayne, N. J. (New York City).	WJAY	Cleveland, Ohio.
WBOQ		WJBK	Highland Park, Mich. (Detroit).
WABZ	New Orleans, La.	WJBW	New Orleans, La.
WADC	Tallmadge, Ohio.	WJKS	Gary, Ind.
WAIU	Columbus, Ohio.	WJSV	Mount Vernon Hills, Va. (Alexandria).
WAPI	Birmingham, Ala.	WJTL	Atlanta, Ga. (Oglethorpe University).
WAWZ	Zarepath, N. J.	WJWB	Mansfield, Ohio.
WBAA	West Lafayette, Ind.	WJZZ	Bound Brook, N. J. (New York City).
WBAL	Blen Morris, Md. (Baltimore).	WKAV	Laconia, N. H.
WBBL	Richmond, Va.	WKBN	Youngstown, Ohio.
WBRR	Rossville, N. Y. (Brooklyn).	WKBW	Amherst, N. Y. (Buffalo).
WBEN	Martinsville, N. Y. (Buffalo).	WKJC	Lancaster, Pa.
WBIG	Greensboro, N. C.	WKRC	Cincinnati, Ohio.
WBMS	Hackensack, N. J.	WKY	Oklahoma City, Okla.
WBRE	Wilkes-Barre, Pa.	WKZO	Kalamazoo, Mich.
WBSS	Needham, Mass.	WLAC	Nashville, Tenn.
WBZ	Millis Township, Mass. (Boston).	WLBX	Long Island City, N. Y.
WBZA		Bangor, Me.	
WCAC	Storrs, Conn.	WLEZ	Lexington, Mass.
WCAJ	Lincoln, Nebr.	WLIT	Philadelphia, Pa.
WCAO	Baltimore, Md.	WLS	Downers Grove, Ill. (Chicago).
WCBA	Allentown, Pa.	WLVA	Lynchburg, Va.
WCBM	Baltimore, Md.	WLW	Mason, Ohio (Cincinnati).
WCCO	Anoka, Minn. (Minneapolis).	WMAJ	Washington, D. C.
WCFL	Chicago, Ill.	WMAQ	Addison, Ill. (Chicago).
WCGU	Brooklyn, N. Y.	WMBQ	Detroit, Mich.
WCKY	Crescent Springs, Ky. (Covington).	WMBQ	Brooklyn, N. Y.
WCMA	Culver, Ind.	WMC	Bartlett, Tenn. (Memphis).
WCRW	Chicago, Ill.	WMMN	Fairmont, W. Va.
WCSE	Scarboro, Me. (Portland).	WMT	Waterloo, Iowa.
WDAE	Tampa, Fla.	WNAX	Yankton, S. Dak.
WDAF	Kansas City, Mo.	WNBH	Fairhaven, Mass. (New Bedford).
WDBJ	Roanoke, Va.	WQAI	Selma, Tex. (San Antonio).
WDOD	Brainerd, Tenn. (Chattanooga).	WQAX	Trenton, N. J.
WDSV	Gretna, La. (New Orleans).	WOC	Davenport, Iowa.
WEAF	Bellmore, N. Y. (New York City).	WODA	Paterson, N. J.
WEAN	Providence, R. I.	WQI	Ames, Iowa.
WEBC	Superior, Wis.	WOKO	Albany, N. Y.
WEDC	Chicago, Ill.	WOL	Washington, D. C.
WEHC	Emory, Va.	WQQ	Kansas City, Mo.
WENR	Downers Grove, Ill. (Chicago).	WORC	Auburn, Mass. (Worcester).
WFAA	Grapevine, Tex. (Dallas).	WPEP	
WFBL	Collamer, N. Y. (Syracuse).	WQW	Omaha, Nebr.
WFBM	Indianapolis, Ind.	WPAD	Paducah, Ky.
WFBR	Baltimore, Md.	WPEN	Philadelphia, Pa.
WFEE	Merrimack, N. H. (Manchester).	WPG	Atlantic City, N. J.
WFI	Philadelphia, Pa.	WPRO	Cranston, R. I. (Providence).
WFIW	Hopkinsville, Ky.	WPAW	
WFLA	Clearwater, Fla.	WPTF	Raleigh, N. C.
WSUN	Evansville, Ind.	WRAX	Philadelphia, Pa.
WGBF	Mississippi City, Miss. (Gulfport).	WRC	Washington, D. C.
WGCM	Chicago, Ill.	WRDO	Augusta, Me.
WGES	Newport News, Va.	WREN	Lawrence, Kans.
WGH	Elgin, Ill. (Chicago).	WRHM	Fridley, Minn. (Minneapolis.)
WGN		Amherst, N. Y. (Buffalo).	WROL
WLIB	Atlanta, Ga.	WRUF	Gainesville, Fla.
WGR	Rochester, N. Y.	WRVA	Mechanicsville, Va. (Richmond).
WHAM	Louisville, Ky.	WSAZ	Huntington, W. Va.
WHAS	Philadelphia, Pa.	WSB	Atlanta, Ga.
WHAT	Troy, N. Y.	WSFA	Montgomery, Ala.
WHAZ	Kansas City, Mo.	WSIX	Springfield, Tenn.
WHB	Gloucester, Mass. (Boston).	WSJS	Winston-Salem, N. C.
WHDL	Tupper Lake, N. Y.	WSMB	New Orleans, La.
WHEC	Rochester, N. Y.	WSPD	Toledo, Ohio.
WHFO	Cicero, Ill.	WSUI	Iowa City, Iowa.
WHK	Village of Seven Hills, Ohio. (Cleveland).	WSYB	Rutland, Vt.
WEN	New York, N. Y.	WTAG	Worcester, Mass.
WHO	Des Moines, Iowa.	WTAM	Brecksville Village, Ohio (Cleveland).
WHP	Lemoyne, Pa. (Harrisburg).	WTAR	Norfolk, Va.
WIBG	Elkins Park, Pa.	WPOR	Athens, Ga.
WIBO	Desplaines, Ill. (Chicago).	WTIC	Mount Avon, Conn. (Hartford).
WIBW	Topeka, Kans.	WTOC	Savannah, Ga.
WIBX	Utica, N. Y.	WWJ	Detroit, Mich.
WINS	Astoria, N. Y. (New York City).	WWL	New Orleans, La.
WIP	Philadelphia, Pa.	WWRL	Woodside, N. Y.
WFAN		WWVA	Wheeling, W. Va.
		WXYZ	Detroit, Mich.
		KBPS	Portland, Oreg.



## LESS THAN 100 CYCLES

KDYL	Salt Lake City, Utah.	WJJD	Mooseheart, Ill.
KFBI	Milford, Kans.	WJR	Sylvan Lake Village, Mich. (Detroit).
KFIO	Spokane, Wash.	WKAR	East Lansing, Mich.
KFNF	Shenandoah, Iowa.	WKBF	Clermont, Ind. (Indianapolis).
KFWB	Hollywood, Calif.	WLBC	Muncie, Ind.
KGB	San Diego, Calif.	WLWL	Kearny, N. J. (New York City).
KGBZ	York, Nebr.	WMAZ	Macon, Ga.
KGDM	Stockton, Calif.	WMBD	Peoria Heights, Ill.
KGEW	Fort Morgan, Colo.	WMBI	Addison, Ill. (Chicago).
KGGC	San Francisco, Calif.	WMPC	Lapeer, Mich.
KGHL	Billings, Mont.	WNOX	Knoxville, Tenn.
KPCB	Seattle, Wash.	WNYC	New York, N. Y.
KROW	Richmond, Calif. (Oakland).	WODX	Springhill, Ala. (Mobile).
KSEI	Pocatello, Idaho.	WOR	Kearny, N. J. (Newark).
KTM	Santa Monica, Calif. (Los Angeles).	WORK	York, Pa.
WASH	} Grand Rapids, Mich.	WPAP	} Cliffs, N. J. (New York City).
WOOD		WQAO	
WBAP	Grapevine, Tex. (Fort Worth).	WPCH	Hoboken, N. J. (New York City).
WBBC	Brooklyn, N. Y.	WPHR	Ettrick, Va. (Petersburg).
WBNX	New York, N. Y.	WRAW	Reading, Pa.
WCAx	Burlington, Vt.	WRDW	Augusta, Ga.
WCDA	Cliffside Park, N. J. (New York City).	WKNY	Coytesville, N. J. (New York City).
WDAG	Amarillo, Tex.	WSAI	Mason, Ohio (Cincinnati).
WDRC	Bloomfield, Conn. (Hartford).	WBBC	Chicago, Ill.
WEU	Spring Township, Pa. (Reading).	WSM	Nashville, Tenn.
WEXL	Royal Oak, Mich.	WTAD	Quincy, Ill.
WFOX	Brooklyn, N. Y.	WTBO	Cumberland, Md.
WGAR	Cuyahoga Heights, Ohio (Cleveland).	WWNC	Asheville, N. C.
WOY	Schenectady, N. Y.		
WUIM	Carrcroft-Edgemoor, Del. (Wilmington).		
WJAR	Providence, R. I.		

## LESS THAN 200 CYCLES

KFBB	Great Falls, Mont.	WFDV	Rome, Ga.
KFBL	Everett, Wash.	WGAL	Lancaster, Pa.
KFUL	Galveston, Tex.	WGBB	Freeport, N. Y.
KFXM	San Francisco, Calif.	WGBI	Scranton, Pa.
KGIX	Las Vegas, Nev.	WHBF	Rock Island, Ill.
KID	Idaho Falls, Idaho.	WHBL	Sheboygan, Wis.
KIDO	Boise, Idaho.	WHBU	Anderson, Ind.
KLS	Oakland, Calif.	WHOM	Jersey City, N. J.
KREG	Santa Ana, Calif.	WICC	Easton, Conn. (Bridgeport).
KBO	Clarinda, Iowa.	WJBI	Red Bank, N. J.
KWKH	Kennonwood, La. (Shreveport).	WLBW	Oil City, Pa.
WBAK	Harrisburg, Pa.	WLTH	Brooklyn, N. Y.
WBBM	} Glenview, Ill. (Chicago).	WMBG	Richmond, Va.
WJBT		WMBH	
WBCM	Hampton Township, Mich. (Bay City).	WMCA	Joplin, Mo.
WBOW	Terre Haute, Ind.	WNAO	Hoboken, N. J. (New York City).
WBRC	Birmingham, Ala.	WBIS	Quincy, Mass. (Boston).
WBT	Charlotte, N. C.	WOWO	Fort Wayne, Ind.
WCAE	Pittsburgh, Pa.	WQDM	St. Albans, Vt.
WCAM	Camden, N. J.	WRBx	Roanoke, Va.
WCAU	Byberry, Pa. (Philadelphia).	WREC	} Whitehaven, Tenn. (Memphis)
WCLO	Janesville, Wis.	WOAN	
WDAS	Philadelphia, Pa.	WSAN	Allentown, Pa.
WDEL	Wilmington, Del.	WSAR	Fall River, Mass.
WEAO	Columbus, Ohio.	WTEL	Philadelphia, Pa.
WEVD	Brooklyn, N. Y. (New York City).		

## GRAPHICAL DETERMINATION OF POLAR PATTERNS OF DIRECTIONAL ANTENNA SYSTEMS

In a paper of the above title, by G. L. Davies and W. H. Orton, RP435, Bureau of Standards Journal of Research, May, 1932, graphical methods for the determination of polar patterns of directional antenna systems are described. These methods are less tedious and more generally applicable than computation from available mathematical equations. At any distant point the relative phases of the disturbances from the individual antennas of an array are dependent upon the difference in the paths from the antennas to the point and upon the relative phases of the antenna currents. The path differences may be readily constructed on a scale drawing of the array, and by means of a special protractor these path differences are converted to phase angles for the construction of a vector diagram representing the disturbances at the field point. The resultant of this vector diagram gives the field intensity at that point. Such diagrams for a number of points equidistant from the array give the relative field intensities in various directions and thus enable a polar pattern to be drawn. By a principle for the addition of the directive patterns of groups of antennas the work involved in determining patterns of arrays containing a large number of antennas may be greatly simplified. This method also permits ground effects to be readily included, the image current being calculated by means of equations given by Wilmotte.

Reprint copies of this paper will be available within a few weeks and may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. The price will be quoted by that office on application.

**NOTE.**—This edition is the last supplement to the annual list of Commercial and Government Radio Stations of the United States, edition June 30, 1931. The 1932 edition probably will be ready for distribution sometime during the coming fall. It is quite probable that the prices of both annual lists will be materially increased. The prices can not be determined at this time. When available, notice will be published in a future edition of this Bulletin.