

# RADIO SERVICE BULLETIN

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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 Type** = Call signal (letters) assigned.  
 = 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 Service** = Height of antenna (meters) and intensity of current at its base (meters-amperes).  
 = 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 Accts.** = Hours of operation: N=continuous service, X=no regular hour, Y=sunrise to sunset.  
 = 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, 1939, 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
Atlanta, Ga. <sup>1</sup>	FX	WRDD	4,945 (60.66)	P	X	Press Wireless (Inc.).
Botocan, P. I. (Laguna) <sup>1</sup>	FX	KZFX	2,965 (75.7)	P	X	Manila Electric Co.
Cagayan, P. I. (Misamis) <sup>3</sup>	FX	KUX	5,165 (58.09)	PR		Philippine Insular Government.
Cebu, P. I. (Cebu) <sup>4</sup>	FX	KZFR	4,885 (61.42)	P	X	Macleod & Co.
Cebu, P. I. (Cebu) radiotelephone. <sup>5</sup>		KZGG	2,830 (106), 5,825 (51.5), 8,940 (33.6)		N	Philippine Long Distance Telephone Co.
Cebu, P. I. (Cebu) <sup>1</sup>	FX	KZGK	5,990 (50), 8,930 (33.53)	PR	N	Radio Corporation of the Philippines.
Chicago, Ill. <sup>1</sup>	FX	WRDC	4,735 (63.35), 4,925 (60.91), 4,965 (60.42), 4,995 (60.06), 5,305 (56.55)	P	X	Press Wireless (Inc.).
Cleveland, Ohio <sup>1</sup>	FX	WRDE	4,995 (60.06)	P	X	Do.
Crane, Tex. <sup>1</sup>	FX	KGNA	5,075 (59.11), 5,085 (58.99), 5,780 (51.90), 5,795 (51.76), 5,810 (51.63)	PR	X	Western Radio Telegraph Co.
Dallas, Tex. <sup>1</sup>	FX	KGWB	4,745 (63.22)	P	X	Press Wireless (Inc.).
Davao, P. I. (Davao) <sup>8</sup>	FX	KZFS	4,885 (61.42)	P	X	Macleod & Co.
Davao, P. I. (Davao) <sup>1</sup>	FX	KZGN	5,305 (56.5), 9,470 (31.7)	PR	N	Radio Corporation of the Philippines.
Denver, Colo. <sup>1</sup>	FX	KGWD	4,725 (63.49)	P	X	Press Wireless (Inc.).
Detroit, Mich. <sup>1</sup>	FX	WRDG	4,715 (63.63)	P	X	Do.
Fabrica, P. I. (Occidental Negros) <sup>7</sup>	FX	KZFG	4,705 (63.76)	P	X	Insular Lumber Co.
Hook Bay, P. I. (Tayabas) <sup>3</sup>	FX	KZGB	4,665 (64.31)	P	X	Pacific Lumber & Development Co.
Iloilo, P. I. (Iloilo) <sup>9</sup>	FX	KZFH	4,855 (61.80)	P	X	Visayan Stevedore Transportation Co.
Iloilo, P. I. (Iloilo) radiotelephone. <sup>10</sup>	FX	KZGH	2,760 (108.7), 5,795 (51.8), 9,490 (31.6)		N	Philippine Long Distance Telephone Co.
Iloilo, P. I. (Iloilo) <sup>10</sup>	FX	KZGL	7,415 (40.5)	PR	N	Radio Corporation of the Philippines.
Jal, N. Mex. <sup>10</sup>	FX	KGNC	5,075 (59.11), 5,085 (58.99), 5,780 (51.9), 5,795 (51.76), 5,810 (51.63)	PR	X	Western Radio Telegraph Co.
Kabasalan, P. I. (Zamboanga) <sup>11</sup>	FX	KZFB	4,735 (63.35)	P	X	Goodyear Rubber & Tire Co.
Kansas City, Mo. <sup>1</sup>	FX	KGWC	4,975 (60.30)	P	X	Press Wireless (Inc.).
Lamit, P. I. (Camarines Sur) <sup>12</sup>	FX	KZFX	4,825 (62.18)	P	X	Cadwallader-Gibson Lumber Co.
Laog, P. I. (Ilocos Norte) <sup>13</sup>	FX	KTE	4,765 (62.96)	PR		Philippine Insular Government.
Lawrenceville, N. J. (radiotelephone) <sup>14</sup>	FX	WNB	6,755 (44.41), 10,550 (28.44)	PR	N	American Telephone & Telegraph Co.
Little Neck, N. Y. <sup>1</sup>	FX	WRDK	4,725 (63.49), 4,935 (60.79), 4,985 (60.18), 5,335 (56.23)	P	X	Press Wireless (Inc.).
Los Angeles, Calif. <sup>15</sup>	FX	KGPL	1,712 (175.23)	P	N	City of Los Angeles, police department.
Do. <sup>1</sup>	FX	KGWE	4,945 (60.66), 5,325 (56.33)	P	X	Press Wireless (Inc.).
Manila, P. I. <sup>16</sup>	FX	KAQ	5,930 (50.59)	P	X	Manila R. R. Co.
Do. <sup>17</sup>	FX	KZFF	4,705 (63.76)	P	X	Insular Lumber Co.
Do. <sup>18</sup>	FX	KZFG	4,885 (61.42)	P	X	Macleod & Co.
Do. <sup>19</sup>	FX	KZFY	3,985 (75.3)	P	X	Manila Electric Co.
Manila, P. I. (radiotelephone) <sup>1</sup>		KZGF	2,730 (109.8), 5,765 (52), 9,170 (32.7)		N	Philippine Long Distance Telephone Co.
Manila, P. I. <sup>1</sup>	FX	KZGJ	5,435 (55.2), 5,445 (55), 7,980 (37.59), 9,450 (31.72)	PR	N	Radio Corporation of the Philippines.
Memphis, Tenn. <sup>1</sup>	FX	WRDF	4,955 (60.54)	P	X	Press Wireless (Inc.).
Miami, Fla. <sup>1</sup>	FX	WRDH	4,975 (60.30)	P	X	Do.
Minneapolis, Minn. <sup>1</sup>	FX	KGWF	4,935 (60.79)	P	X	Do.
Naga, P. I. (Camarines Sur) <sup>20</sup>	FX	KZFT	4,735 (63.36)	P	X	Manila R. R. Co.
New Orleans, La. <sup>1</sup>	FX	WRDL	5,295 (56.65)	P	X	Press Wireless (Inc.).
New York, N. Y. (radio telephone) <sup>21</sup>	FC	WOX	1,672 (179.43)	PG	X	New York Telephone Co.
Philadelphia, Pa. <sup>1</sup>	FX	WRDI	4,725 (63.22)	P	X	Press Wireless (Inc.).
Pittsburgh, Pa. <sup>22</sup>	FX	WPDU	1,712 (175.23)	P	N	City of Pittsburgh.
Port Lamon, P. I. (Surigao) <sup>23</sup>	FX	KZFC	4,775 (62.825)	P	X	Port Lamon Lumber 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, 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
Salt Lake City, Utah <sup>1</sup>	FX	KGWH	4,925 (60.91)	P	X	Press Wireless (Inc.).
San Francisco, Calif. <sup>1</sup>	FX	KGWA	4,715 (3.3), 5,315 (56.44)	P	X	Do.
Seattle, Wash. <sup>1</sup>	FX	KGWG	4,735 (3.15)	P	X	Do.
Sioux City, Iowa <sup>24</sup>	FX	KGPK	2,470 (121.5)	P	N	City of Sioux City.
Stelton, N. J. <sup>25</sup>	FA	WEEN	3,070 (97.71), 3,076 (97.52), 5,690 (52.72).	P	X	Aeronautical Radio (Inc.).
Tacloban, P. I. (Leyte) <sup>26</sup>	FX	KTC	5,165 (58.09)	PR		Philippine Insular Government.
Tambang, P. I. (Camarines Sur) <sup>27</sup>	FX	KZFW	4,825 (62.18)	P	X	Cadwallader-Gibson Lumber Co.
Upper Newton Falls, Mass. <sup>1</sup>	FX	WRDJ	4,715 (63.63), 5,345 (56.12)	P	X	Press Wireless (Inc.).
Washington, D. C. <sup>1</sup>	FX	WRDB	4,745 (63.22), 4,955 (60.54), 5,285 (56.76), 5,355 (56.02).	P	X	Do.
Wink, Tex. <sup>1</sup>	FX	KGNB	5,075 (59.11), 5,085 (58.99), 5,780 (51.9), 5,795 (51.76), 5,810 (51.63).	PR	X	Western Radio Telegraph Co.
Zamboanga, P. I. (Zamboanga) <sup>1</sup>	FX	KZGM	5,225 (57.4), 8,950 (31.84)	PR	N	Radio Corporation of the Philippines.

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

<sup>2</sup> Loc. 121° 29' 30" E., 14° 09' 25" N.; type, A2.

<sup>3</sup> Loc. 124° 38' 11" E., 08° 27' 44" N.; hours, 7 a. m. to 10 p. m.

<sup>4</sup> Loc. 123° 55' 24" E., 10° 19' 23" N.; type, A2.

<sup>5</sup> Type, A3.

<sup>6</sup> Loc. (approximate) 125° 37' 30" E., 07° 06' 00" N.; type A2.

<sup>7</sup> Loc. (approximate) 123° 21' 30" E., 10° 54' 00" N.; type, A2.

<sup>8</sup> Loc. 121° 50' 10" E., 14° 56' 30" N.; type, A2.

<sup>9</sup> Loc. (approximate) 120° 35' 00" E., 10° 42' 00" N.; type, A2.; power, 18/6.

<sup>10</sup> Type, A2.

<sup>11</sup> Loc. (approximate) 122° 48' 00" E., 07° 47' 00" N.; type, A2.

<sup>12</sup> Loc. (approximate) 123° 29' 30" E., 13° 55' 00" N.; type, A2.

<sup>13</sup> Type, A2; hours, 7 a. m. to 10 p. m.

<sup>14</sup> Loc. 74° 44' 37" W., 40° 19' 10" N.; type, A1, A2, A3.

<sup>15</sup> Loc. 118° 13' 57" W., 34° 04' 17" N.; type, A3.

<sup>16</sup> Loc. 120° 59' 51" E., 14° 34' 56" N.; type, A2.

<sup>17</sup> Loc. (approximate) 120° 58' 00" E., 14° 36' 00" N.; type, A2.

<sup>18</sup> Loc. (approximate) 120° 58' 20" E., 14° 36' 00" N.; type, A2.

<sup>19</sup> Loc. 120° 54' 08" E., 14° 35' 31" N.; type, A2.

<sup>20</sup> Loc. 122° 55' 30" E., 07° 30' 54" N.; type A2.

<sup>21</sup> Type, A2, A3.

<sup>22</sup> Loc. 80° 00' 29" W., 40° 25' 47" N.; type, A3.

<sup>23</sup> Loc. 126° 21' 50" E., 08° 29' 10" N.; type, A2.

<sup>24</sup> Loc. (approximate) 96° 24' 00" W., 42° 29' 00" N.; type, A3.

<sup>25</sup> Loc. 74° 26' 36" W., 40° 32' 42" N.; type, A3.

<sup>26</sup> Loc. (approximate) 125° 00' 00" E., 11° 14' 00" N.; type, A2; power, 12/1.5; hours, 7 a. m. to 10 p. m. daily; Sundays, and holidays 7 a. m. to 7 p. m.

<sup>27</sup> Loc. (approximate) 125° 25' 00" E., 13° 54' 00" N.; type, A2.

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—
Carrie-Finn	WBEX		P	X	Zane Grey	Owner.
Eunice	WBEX		P	X	do.	Do.
Fisherman II.	WBEU				do.	Do.
Ingomar <sup>1</sup>	WCEB		P	X	Albert L. Hoffman	Do.
Liberty	WBEZ		P	X	Boston Pilots Relief Society	Do.
Northern Sun.	WBEW	8	PG	X	Motor Tankship Corporation	
Pilot	WCEA		P	X	Boston Pilots Relief Society	Do.
Tatoosh	WCEC		P	X	Booth Fisheries Co. of Delaware	Northwestern Fisheries Co.

<sup>1</sup> Type, A1, A2; fy., 500 (600), 5,525 (54.3), 5,555 (54), 5,615 (53.43).

## 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	License
No. 1426 (No. 10845).....	KHLKP	-----	P	X	Pacific Air Transport (Inc.).
No. 1427 (No. 10846) <sup>1</sup> .....	KHLLO	3,160 (94.9), 3,166 (94.75), 3,172 (94.57), 3,178 (94.39), 5,570 (53.86), 5,660 (53).	P	X	Do.
No. 1428 (No. 10847) <sup>1</sup> .....	KHLMN		P	X	Do.

<sup>1</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, 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 parenthesis	Service	Hours	Owner
Albuquerque, N. Mex.	FA, FX	KCAF	204 (1,470), 296 (1,015).....	O	N	Department of Commerce, Bureau of Lighthouses.
Butte, Mont.....	FA, FX	KCAC	240 (1,250), 284 (1,055), 3,370 (89), 3,380 (88.8), 5,930 (50.59), 5,940 (50.51).	O	N	Do.
Clovis, N. Mex.....	FA, FX	KCAG	204 (1,470), 248 (1,210).....	O	N	Do.
Idaho Falls, Idaho.....	FA, FX	KCAD	240 (1,250), 338 (890), 3,370 (89), 3,405 (88.11), 5,940 (50.51), 5,955 (50.36).	O	N	Do.
Kingman, Ariz.....	FA, FX	KCAH	228 (1,315), 302 (993).....	O	N	Do.
Memphis, Tenn.....	FA, FX	WWAU	240 (1,250), 326 (920), 3,350 (89.6), 3,370 (89), 5,940 (50.51), 5,960 (50.34).	O	N	Do.
Nashville, Tenn.....	FA, FX	WWAC	235 (1,275), 338 (890), 3,370 (89), 3,400 (88.2), 5,920 (50.68), 5,940 (50.51).	O	N	Do.
Pittsburgh, Pa.....	FA, FX	WWAP	214 (1,400), 254 (1,180).....	O	N	Do.
Santurce, P. R. (San Juan District, U. S. N. R.).	FX	NEC	-----	O	X	U. S. Navy.
Washington, D. C. (Washington district U. S. N. R.).	FX	NED	-----	O	-----	Do.
Waynoka, Okla.....	FA, FX	KCAI	204 (1,470), 266 (1,130).....	O	N	Department of Commerce, Bureau of Lighthouses.
Winslow, Ariz.....	FA, FX	KCAE	228 (1,315), 350 (855).....	O	N	Do.
Portable						
Puerto Rico <sup>1</sup> .....	FX	WWAX	375 (800), 410 (730), 500 (600).	O	X	Do.

<sup>1</sup> Type, A2.

## Government ship station, alphabetically, by name 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	Call signal	Frequency in kilocycles, meters in parenthesis	Service	Hours	Owner
Westdahl <sup>1</sup> .....	NIQP	500 (600).....	O	X	Department of Commerce, Coast and Geodetic Survey.

<sup>1</sup> Type, A2.

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

Call signal	Name of station	Call signal	Name of station
KQAQ	Manila, P. I. .... fx	KZFF	Botocan, P. I. (Laguna) .... fx
KCAC	Butte, Mont. .... fa, fx	KZGB	Hook Bay, P. I. (Tayabas) .... fx
KCAD	Idaho Falls, Idaho .... fa, fx	KZGF	Manila, P. I. (radiotelephone) ....
KCAE	Winslow, Ariz. .... fa, fx	KZGG	Cebu, P. I. (Cebu) (radiotelephone) ....
KCAF	Albuquerque, N. Mex. .... fa, fx	KZGH	Iloilo, P. I. (Iloilo) .... fx
KCAG	Clovis, N. Mex. .... fa, fx	KZGI	Manila, P. I. .... fx
KCAH	Kingman, Ariz. .... fa, fx	KZGK	Cebu, P. I. (Cebu) .... fx
KCAI	Waynoka, Okla. .... fa, fx	KZGL	Iloilo, P. I. (Iloilo) .... fx
KGNA	Crane, Tex. .... fx	KZGM	Zamboanga, P. I. (Zamboanga) .... fx
KGNB	Wink, Tex. .... fx	KZGN	Davao, P. I. (Davao) .... fx
KGNC	Jal. N. Mex. .... fx	NEC	Santurce, P. R. (San Juan district U. S. N. R.) .... fx
KGPK	Sioux City, Iowa .... fx	NED	Washington, D. C. (Washington district U. S. N. R.) .... fx
KGPL	Los Angeles, Calif. .... fx	NIQP	Westdahl .... b
KGWA	San Francisco, Calif. .... fx	WBEB	Fisherman II. .... b
KGWB	Dallas, Tex. .... fx	WBEW	Northern Sun .... b
KGWC	Kansas City, Mo. .... fx	WBEX	Eunice .... b
KGWD	Denver, Colo. .... fx	WBEB	Carrie-Finn .... b
KGWE	Los Angeles, Calif. .... fx	WBEZ	Liberty .... b
KGWF	Minneapolis, Minn. .... fx	WCEA	Pilot .... b
KGWG	Seattle, Wash. .... fx	WCEB	Ingomar .... b
KGWH	Salt Lake City, Utah .... fx	WCEC	Tatoosh .... b
KHLEK	No. 1426 (NC-10345) .... a	WEEN	Stelton, N. J. .... fa
KHLLM	No. 1427 (NC-10346) .... a	WNB	Lawrenceville, N. J. (radiotelephone) .... fx
KHLMN	No. 1428 (NC-10347) .... a	WOX	New York, N. Y. (radiotelephone) .... fc
KTC	Tacloban, P. I. (Leyte) .... fx	WPDU	Pittsburgh, Pa. .... fx
KTE	Laog, P. I. (Hocos Norte) .... fx	WRDB	Washington, D. C. .... fx
KUX	Cagayan, P. I. (Misamis) .... fx	WRDC	Chicago, Ill. .... fx
KZFB	Kabasalan, P. I. (Zamboanga) .... fx	WRDD	Atlanta, Ga. .... fx
KZFC	Port Lamon, P. I. (Surigao) .... fx	WRDE	Cleveland, Ohio .... fx
KZFD	Manila, P. I. .... fx	WRDF	Memphis, Tenn. .... fx
KZFE	Fabrica, P. I. (Occidental Negros) .... fx	WRDG	Detroit, Mich. .... fx
KZFF	Iloilo, P. I. (Iloilo) .... fx	WRDH	Miami, Fla. .... fx
KZFG	Manila, P. I. .... fx	WRDI	Philadelphia, Pa. .... fx
KZFH	Cebu, P. I. (Cebu) .... fx	WRDJ	Upper Newton Falls, Mass. .... fx
KZFI	Davao, P. I. (Davao) .... fx	WRDK	Little Neck, N. Y. .... fx
KZFK	Naga, P. I. (Camarines Sur) .... fx	WRDL	New Orleans, La. .... fx
KZFL	Tambang, P. I. (Camarines Sur) .... fx	WWAC	Nashville, Tenn. .... fa, fx
KZFM	Manila, P. I. .... fx	WWAP	Pittsburgh, Pa. .... fa, fx
KZFN	Lamit, P. I. (Camarines Sur) .... fx	WWAU	Memphis, Tenn. .... fa, fx
KZFO		WWAX	Porto Rico (portable) .... fx

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
Albany, N. Y.; 73° 47' 51" W., 42° 44' 10" N.	A2-320 (940) ....		Interlocked N (—) and A (—), identifying letter I (—).	N.
Atlanta, Ga. (Hapeville); 84° 25' 41" W., 33° 38' 57" N.	A2-266 (1,130) ....		Interlocked N (—) and A (—), identifying letter H (—).	N.
Auburn, Calif.; 121° 06' 15" W., 38° 58' 06" N.	A2-272 (1,100) ....		Interlocked N (—) and A (—), identifying letter I (—).	N.
Bellefonte, Pa.; 77° 42' 27" W., 40° 53' 22" N.	A2-302 (995) ....		Interlocked N (—) and A (—), identifying letter R (—).	N.
Bellefonte, Pa. (visual radiobeacon); 77° 42' 27" W., 40° 53' 22" N.	A2-314 (955) ....		86.66 cycles in northwest and southeast quadrants, 65 cycles in northeast and southwest quadrants.	Operates upon request.

## Airway radiobeacon stations—Continued

[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
Boise, Idaho; 116°-11' 03'' W., 43° 37' 18'' N.	A2-308 (975)-----		Interlocked N (—) and A (—), identifying letter D (—).	N.
Boston, Mass. (East Boston); 71° 02' 06'' W., 42° 22' 03'' N.	A2-266 (1,130)-----		do.	N.
Buffalo, N. Y. (Williams-ville); 78° 43' 00'' W., 42° 56' 41'' N.	A2-350 (855)-----		do.	N.
Chattanooga, Tenn.; 85° 11' 42'' W., 35° 02' 11'' N.	A2-314 (955)-----		Interlocked N (—) and A (—), identifying letter Y (—).	N.
Cheyenne, Wyo.; 104° 50' 31'' W., 41° 09' 16'' N.	A2-326 (920)-----		do.	N.
Chicago, Ill. (Cicero); 87° 46' 30'' W., 41° 48' 00'' N.	A2-350 (855)-----		Interlocked N (—) and A (—), identifying letter F (—).	N.
Cincinnati, Ohio (California); 84° 25' 00'' W., 39° 05' 00'' N. (approximate).	A2-272 (1,100)-----		Interlocked N (—) and A (—), identifying letter S (—).	N.
Cleveland, Ohio; 81° 04' 00'' W., 41° 25' 00'' N.	A2-344 (870)-----		Interlocked N (—) and A (—), identifying letter I (—).	N.
Columbia, Mo.; 92° 10' 19'' W., 38° 59' 00'' N.	A2-266 (1,130)-----		Interlocked N (—) and A (—), identifying letter U (—).	N.
Columbus, Ohio (Port Columbus); 82° 52' 48'' W., 39° 59' 42'' N.	do-----		do.	Operates on alternate minutes in synchronization with Indianapolis, Ind., radio range.
Des Moines, Iowa; 93° 32' 07'' W., 41° 39' 54'' N.	A2-308 (975)-----		Interlocked N (—) and A (—), identifying letter D (—).	N.
Detroit, Mich. (visual radio beacon); 83° 21' 00'' W., 42° 13' 53'' N.	A2-272 (1,100)-----		86.66 cycles in north and south quadrants, 65 cycles in east and west quadrants.	Operates upon request.
Elko, Nev.; 115° 46' 30'' W., 40° 48' 46'' N.	A2-314 (955)-----		Interlocked N (—) and A (—), identifying letter R (—).	N.
Erie, Pa. (Port Erie Airport).	A2-266 (1,130)-----		Interlocked N (—) and A (—), identifying letter H (—).	N.
Evansville, Ind.; 87° 32' 00'' W., 38° 02' 00'' N. (approximate).	A2-302 (995)-----		do.	N.
Fernley, Nev.; 119° 13' 00'' W., 39° 37' 00'' N. (approximate).	A2-296 (1,015)-----		Interlocked N (—) and A (—), identifying letter D (—).	N.
Fort Madison, Iowa; 91° 22' 38'' W., 40° 37' 38'' N.	A2-338 (890)-----		Interlocked N (—) and A (—), identifying letter H (—).	N.
Fort Worth, Tex.; 97° 20' 24'' W., 32° 48' 57'' N.	A2-350 (855)-----		Interlocked N (—) and A (—), identifying letter S (—).	N.
Fresno, Calif.; 119° 48' 55'' W., 36° 43' 00'' N.	A2-344 (870)-----		do.	N.
Goshen, Ind.; 85° 50' 00'' W., 41° 37' 00'' N. (approximate).	A2-332 (905)-----		Interlocked N (—) and A (—), identifying letter D (—).	N.
Greensboro, N. C. (Guilford); 79° 55' 52'' W., 36° 05' 39'' N.	A2-320 (940)-----		do.	N.
Indianapolis, Ind.; 86° 18' 21'' W., 39° 43' 21'' N.	A2-266 (1,130)-----		Interlocked N (—) and A (—), identifying letter I (—).	Operates on alternate minutes in synchronization with Columbus, Ohio, radio range.

Airway radiobeacon stations—Continued

[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
Kansas City, Mo. (Parkville); 94° 38' 24" W., 39° 09' 12" N.	A2-344 (870)-----	-----	Interlocked N (—) and A (—), identifying letter I (..).	N.
Key West, Fla.; 81° 47' 44" W., 24° 32' 50" N.	A2-338 (890)-----	-----	do.	Operates upon request.
Knight, Wyo.; 110° 48' 44" W., 41° 08' 41" N.	A2-260 (1,155)-----	-----	Interlocked N (—) and A (—), identifying letter H (....).	N.
Medicine Bow, Wyo.; 106° 11' 05" W., 41° 53' 07" N.	A2-296 (1,015)-----	-----	Interlocked N (—) and A (—), identifying letter U (—).	N.
Moran, Kans.; 95° 14' 06" W., 37° 55' 24" N.	A2-320 (940)-----	-----	Interlocked N (—) and A (—), identifying letter H (....).	N.
Nashville, Tenn.; 86° 37' 00" W., 36° 09' 00" N. (approximate).	A2-338 (890)-----	-----	Interlocked N (—) and A (—), identifying letter U (—).	N.
New York, N. Y. (Hadley Field, New Brunswick, N. J.); 74° 26' 05" W., 40° 33' 16" N.	do.	-----	Interlocked N (—) and A (—), identifying letter H (....).	N.
North Platte, Nebr.; 100° 41' 41" W., 41° 07' 55" N.	A2-284 (1,055)-----	-----	do.	N.
Omaha, Nebr. (Bellevue); 95° 55' 26" W., 41° 07' 28" N.	A2-314 (955)-----	-----	Interlocked N (—) and A (—), identifying letter R (—).	N.
Pasco, Wash.; 119° 06' 38" W., 46° 14' 24" N.	A2-320 (940)-----	-----	Interlocked N (—) and A (—), identifying letter U (—).	N.
Richmond, Va. (Sandston); 77° 20' 20" W., 37° 30' 00" N. (approximate).	A2-260 (1,155)-----	-----	Interlocked N (—) and A (—), identifying letter R (—).	N.
Rock Springs, Wyo.; 109° 14' 00" W., 41° 37' 30" N. (approximate).	A2-350 (855)-----	-----	do.	N.
St. Louis, Mo. (Robertson); 90° 22' 02" W., 38° 44' 12" N.	A2-290 (1,035)-----	-----	Interlocked N (—) and A (—), identifying letter D (—).	N.
Salt Lake City, Utah; 111° 56' 21" W., 40° 46' 24" N.	do.	-----	Interlocked N (—) and A (—), identifying letter S (....).	N.
Saugus, Calif.; 118° 32' 30" W., 34° 23' 31" N.	A2-266 (1,130)-----	-----	Interlocked N (—) and A (—), identifying letter D (—).	N.
Sidney, Nebr.; 102° 57' 42" W., 41° 07' 54" N.	A2-308 (975)-----	-----	Interlocked N (—) and A (—), identifying letter S (....).	N.
Spartanburg, S. C.; 81° 56' 35" W., 34° 57' 32" N.	A2-248 (1,210)-----	-----	do.	N.
Sterling, Ill.; 89° 41' 36" W., 41° 48' 57" N.	A2-272 (1,100)-----	-----	do.	N.
Summit, Calif.; 120° 19' 41" W., 39° 19' 07" N.	A2-338 (890)-----	-----	Interlocked N (—) and A (—), identifying letter H (....).	N.
Syracuse, N. Y. (Camillus); 76° 16' 00" W., 43° 04' 15" N.	A2-260 (1,155)-----	-----	Interlocked N (—) and A (—), identifying letter S (....).	N.
Terre Haute, Ind.; 87° 24' 54" W., 39° 28' 33" N.	A2-248 (1,210)-----	-----	Interlocked N (—) and A (—), identifying letter R (—).	N.
Tulsa, Okla. (Dawson); 95° 53' 12" W., 36° 11' 48" N.	A2-296 (1,015)-----	-----	Interlocked N (—) and A (—), identifying letter U (—).	N.
Washington, D. C. (Hunters Point, Va.); 77° 02' 20" W., 38° 50' 55" N.	A2-272 (1,100)-----	-----	Interlocked N (—) and A (—), identifying letter S (....).	N.
Wichita, Kans.; 97° 16' 38" W., 37° 39' 10" N.	A2-332 (905)-----	-----	Interlocked N (—) and A (—), identifying letter D (—).	N.
York, Nebr.; 97° 36' 12" W., 40° 53' 54" N.	A2-260 (1,155)-----	-----	Interlocked N (—) and A (—), identifying letter U (—).	N.

NOTE.—All of the above-named beacons are owned and operated by the Department of Commerce, Bureau of Lighthouses, Airways Division.

## 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)
Pennsylvania: Pittsburgh.....	WWSW	1,500 (200).....	100

## Broadcasting station, by call signal

Call signal	Location of transmitter (mail address)	Licensee	Frequency in kilocycles, meters in parentheses	Power (watts)
WWSW	Pittsburgh, Pa.....	William S. Walker.....	1,500 (200).....	100

## 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 and post-office address
<i>Portable</i>				
( <sup>1</sup> ).....	W2XDK	4,795 (62.56).....	15	Polin (Inc.), 2 East Fifty-fourth Street, New York, N. Y.
Massachusetts.....	W1XAB	1,662 (180.51).....	500	De Forest Radio Co., Passaic, N. J.
<i>Aircraft</i>				
No. 1928 (NC-5211)....	W10XAQ	2,398 (125.10), 3,256 (92.50), 6,425 (46.70), 12,850 (23.35).	50	Westinghouse Electric & Manufacturing Co.

<sup>1</sup> Portable transmitter to be used as a part of a telemetric radio indicating device cooperating with a receiving device in a plane.

## 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>Aircraft and portable</i>
W1XAB W2XDK	First district: Massachusetts. <sup>1</sup> Second district.	W10XAQ	No. 1928 (NC-5211). <sup>2</sup>

<sup>1</sup> Portable.<sup>2</sup> Aircraft.

## 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]

ABULUG, P. I., radio (Cagayan).—Class, add FX; fy., add 500 (600); power, 12/6; service, add PR; 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.

ALABAT, P. I., radio (Tayabas).—Power, 15/7; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.

- ALBUQUERQUE, N. MEX.—Loc., 106° 33' 42'' W., 35° 03' 40'' N.; fy., add 2,722 (110.21), 6,350 (47.24), 12,180 (24.63).
- ANGOLA, IND.—Power, 18/5.
- APARRI, P. I., radio (Cagayan).—Type, add A2; fy., add 500 (600), 4,765 (62.95), 5,275 (56.88), 6,905 (43.45); power, 12/7; hours, 7 a. m. to 10 p. m. daily, 7 a. m. to 7 p. m. Sundays and holidays.
- ATLANTA, GA. (Candler Field).—Fy., strike out 278 (1080), add 2,326 (128.97), 2,344 (127.98), 4,140 (72.46), 6,260 (47.92), 6,275 (47.8), 12,210 (24.57).
- AURORA, ILL.—Fy., add 3,160 (94.9), 3,166 (94.75), 3,172 (94.57), 3,178 (94.39), 5,770 (53.86), 5,660 (53).
- BACUIT, P. I., radio.—Loc., changed to read Bacuit, P. I., radio (Palawan); class, add FX; type, strike out A2, add A1; power, 24/2.5; service, add PR; hours, 8 to 12 a. m., 2 to 5 p. m., daily, 9 to 11 a. m. Sundays and holidays.
- BAKERSFIELD, CALIF. (Kern County Airport).—Licensee, Aeronautical Radio (Inc.).
- BALABAC, P. I., radio (Palawan).—Power, 55/8; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.
- BALANGIGA, P. I., radio (Samar).—Power, 20/2; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.
- BALER, P. I., radio (Tayabas).—Class, add FX; type, strike out A2; power, 21.2/2.25; service, add PR; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.
- BARTLESVILLE, OKLA.—Fy., strike out 169 (1,775), add 182 (1,650), 186 (1,615), 188 (1,595), 193 (1,555); licensee, Western Radio Telegraph Co.
- BASCO, P. I., radio (Batanes).—Power, 60/12; hours, 8 to 12 a. m., 2 to 5 p. m., daily, 9 to 11 a. m. Sundays and holidays, ship schedule last 10 minutes of each hour and continuous watch from 10 p. m. to 7 a. m. daily, 7 p. m. to 7 a. m. Sundays and holidays.
- BATANGAS, P. I., radio (Batangas).—Fy., 300 (1,000), 463 (650), 500 (600); power, 40/9; hours, 7 a. m. to 10 p. m. daily, 7 a. m. to 7 p. m. Sundays and holidays, ship schedule add continuous watch from 10 p. m. to 7 a. m. daily, 7 p. m. to 7 a. m. Sundays and holidays.
- BELLE ISLE, MICH.—Loc., change to read Detroit (Belle Isle), Mich., (approximate) 82° 59' 00'' W., 42° 20' 00'' N.
- BONGAO, P. I., radio (Sulu).—Fy., add 316 (950); power, 50/6; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.
- BORGER, TEX. (near).—Fy., strike out 169 (1,775), add 182 (1,650), 186 (1,615), 188 (1,595), 193 (1,555); licensee, Western Radio Telegraph Co.
- BORONGAN, P. I., radio (Samar).—Power 20/2; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.
- BOSTON, MASS. (municipal airport).—Class, strike out FX.
- BRECKENRIDGE, TEX.—Fy., strike out 169 (1,775), add 186 (1,615), 188 (1,595), 193 (1,555); licensee, Western Radio Telegraph Co.
- BURBANK, CALIF. (Los Angeles) KGUR.—Class, add FA; fy., add 3,452 (86.9), 3,460 (86.7), 3,468 (86.5), 3,484 (86.1), 5,600 (53.57), 5,630 (53.28); power, 18/2.5.
- BUTUAN, P. I.—Loc., change to read Butuan, P. I., radio (Agusan); class, FC, FX; type, strike out A1, add A2; fy., strike out 6,993 (42.9), add 4,775 (62.83); power 21/1; service, PG, PR; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays; rates, 8 cents per word.
- CAGAYAN DE SULU, P. I., radio (Sulu).—Loc., change to read Cagayan, P. I. radio (Sulu); power, 55/6; hours, 8 to 12 a. m., 2 to 5 p. m. daily; 9 to 11 a. m. Sundays and holidays; rates, 8 cents per word.
- CALAPAN, P. I., radio (Mindoro).—Fy., add 333.3 (900); power, 10/3; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.
- CAMDEN, N. J.—Class, add FX; fy., strike out 278 (1,080), 393 (765), 400 (750), 414 (725), 420 (715), 3,484 (86.5), add 2,722 (110.21), 2,734 (109.73), 3,088 (97.15), 4,108 (73.03).
- CAMIGUIN ISLAND, P. I.—Loc., change to read Camiguin, P. I. (Cagayan); type, strike out A1, add A2; fy., 8,610 (34.82).
- CARAMOAN, P. I., radio (Camarines Sur).—Power, 24/8; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.
- CATANAUAN, P. I., radio (Tayabas).—Fy., add 500 (600); power, 24/9; hours, 8 to 12 a. m., 2 to 5 p. m. daily, 9 to 11 a. m. Sundays and holidays.
- CATBALOGAN, P. I., radio (Samar).—Power, 20/1.5; hours, 8 to 12 a. m., 2 to 5 p. m. daily; 9 to 11 a. m. Sundays and holidays.

