

SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
155	<i>Toro Creek Bell Buoy 10A</i> -----	In 55 feet, in Estero Bay-----			
		35 24.4	120 53.0		
156	ESTERO WHARF----- F. R. U.	35 24.7	120 52.7	30	
156.5	<i>Estero Submarine Terminal Gong Buoy.</i>	35 24.3	120 53.3		
157	<i>Mouse Rock Bell Buoy 3 MR.</i>	In 40 feet. Marks rock at entrance to Cayucos Land- ing.			
		35 26.3	120 54.7		
158	<i>Von Helm Rock Lighted Whistle Buoy 12VH.</i> Fl. W., 10 sec.	In 120 feet, seaward of rock--		16	9
		35 32.2	121 07.0		
159	<i>San Simeon Bell Buoy 1</i> -----	In 42 feet, southeast of San Simeon Point.			
		35 37.7	121 11.3		
160	SAN SIMEON AVIATION----- Fl. W., 10 sec. U.	35 39.1	121 11.0	50	15
161	PIEDRAS BLANCAS----- Gp. Fl. W., 15 sec. 2 flashes.	On point-----		158	19
		35 39.9	121 17.1		
162	CAPE SAN MARTIN----- Fl. W., 30 sec. U.	Near end of point of cape----		200	11
		35 53.3	121 27.8		
163	POINT SUR----- Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.	Near west end of Moro Rock--		270	23
		36 18.4	121 54.0		
164	<i>Point Cypress Lighted Gong Buoy 14C PT.</i> Fl. W., 10 sec.	In 108 feet-----		12	8
		36 35.0	121 59.0		
165	POINT PINOS----- Occ. W., 30 sec.	On point, south side of en- trance to Monterey Bay.		89	15
		36 38.0	121 56.0		
166	<i>Point Pinos Lighted Whistle Buoy 2 Pl. P.</i> Fl. R., 10 sec.	In 135 feet, off point south side of Monterey Bay.		16	9
		36 38.7	121 56.4		

CALIFORNIA

SAN FRANCISCO DIST.

No.	Candlepower Apparatus Illuminant	Light characteristic Fog signal	Structure, vessel or buoy	
			Top of lantern above ground	Established Rebuilt
155		BELL, on buoy. Maintained by Standard Oil Co. of Cali- fornia.	<i>Feet</i> White.	<i>Year</i>
156	540 e	Maintained by the Standard Oil Co. of California.		1935
156.5		GONG, on buoy. Maintained by Standard Oil Co. of Cali- fornia.	White.	
157		BELL, on buoy-----	Black.	
158	390 375 mm a	Flash 1 sec----- WHISTLE, on buoy.	Red.	
159		BELL, on buoy-----	Black.	
160	2,000,000 Rf e	Flash 0.3 sec. Maintained by W. R. Hearst.		1934
161	250,000 1 e	Flash 0.8 sec., eclipse 3 sec., flash 0.8 sec., eclipse 10.4 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. DIAPHONE, air; blast 3 sec., silent 27 sec. Siren if dia- phone is disabled.	White conical tower. 100	1875
162	480 375 mm a	Flash 2 sec-----	White structure.	1934
163	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec. DIAPHONE, air; group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sun- rise. RADIOBEACON: Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — •). Antenna lead-in at light- house.	Gray square stone tower on fog signal building. 50	1889
			DISTANCE-FINDING STA- TION. For method of oper- ation, see p. 7.	
164	130 200 mm a	Flash 2 sec----- GONG, on buoy.	Red.	
165	29,000 3 e	Light 20 sec., eclipse 10 sec.-- HORN, diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec.	White tower on dwelling. 43	1855 1907
166	140 375 mm a	Flash 1 sec----- WHISTLE, on buoy.	Red.	

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for the Atlantic coast, Pacific coast, and the Great Lakes, are convenient for quick reference.

Distance-finding stations.—At the stations listed on page 8, the radiobeacon and sound signals are synchronized for distance finding. Whenever the sound signal is operating a group of two radio dashes, a short 1-second and a long 5-second dash respectively, is transmitted every 3 minutes at the end of the radiobeacon minute of operation. A group of two sound signal blasts of corresponding length is sounded at the same time. When within audible range of the sound signal, navigators on vessels with radio receivers capable of receiving the radiobeacon signals may readily determine their distance from the station by observing the time in seconds which elapses between hearing any part of the distinctive group of radio dashes, say the end of the long dash, and the corresponding part of the group of sound blasts, say the end of the long blast, and dividing the result by 5 (or more exactly 5.5) for nautical miles. The error of such observations should not exceed 10 percent.

Where the submarine oscillator is synchronized with the radiobeacon, the method is the same excepting that the interval in seconds is divided by 1.25 to obtain the distance off in nautical miles.

The 1-second dash preceding the long dash is a stand-by or warning signal as is also the 1-second blast. The latter serves as an identification signal to assure the observer that he is taking time on the correct sound signal blast.

For observations on aerial sound signals a watch with second hand is all that is needed, although a stop watch is more convenient. When observing submarine signals a stop watch or other refined method of time measurement must be used because of the more rapid travel of sound in water.

Observations for distance off at these stations are not restricted to vessels with direction finders, but may be made by any vessel having a radio receiver capable of receiving in the band 285 to 315 kilocycles within which radiobeacons are operated. A loud speaker is desirable although not necessary.

The time relation of these signals at stations where synchronization is now effective is shown diagrammatically in the table which follows. An example of the use of these synchronized signals follows: In the case of Los Angeles Light Station if the interval between hearing the end of the long radio dash marking the end of the radiobeacon minute and the end of the long (5-second) blast of the diaphone is 33 seconds, the observer is $33 \div 5.5 = 6$ miles from the light station.

Caution must be used in approaching radiobeacons on radio bearings, and care must be taken to set courses to pass safely clear. The risk of collision will be avoided by insuring that the radio bearing does not remain constant. This caution is applicable to those lightships and stations on submarine sites which are passed close to.

Dial settings of radio direction finders.—To avoid interference, it is important to determine and record correct dial settings for each station and to adhere to them.

Accuracy and use of bearings.—Long experience with properly installed and correctly calibrated direction finders maintained in good condition indicates an average accuracy of 1° to 2°. Departures from this accuracy will sometimes be experienced when taking bearings from a position close to the shore line and over land. Night effect which is sometimes encountered, particularly near sunrise and sunset, and which is usually manifested in very wide or changing minimum, tends to limit the distance at which reliable bearings can be obtained. In observing marine radiobeacons, night effect is not usually encountered at distances less than 30 to 50 miles. The existence of night effect can almost invariably be confirmed by rapidly taking repeated bearings and when shown to be present bearings should be used with extreme caution. Serious errors may result in bearings taken if other shipboard antennas are erected close to the direction finder after calibration or if the direction finder, ship's rigging, or other equipment affecting direction finder performance is not maintained in the condition existing at the time of last calibration. Regular and frequent use of the direction finder under all conditions is one of the best means of insuring ability to obtain accurate bearings and that the direction finder is at all times in proper condition. Clear weather operating periods provide ample opportunity for such use.

Full use should be taken of the opportunity for fixing position by cross bearings on two or more radiobeacons which is provided through the convenient arrangement of stations as to frequency and sequence of operation and in most cases their favorable geographic location.

Warning of fog.—Hearing the groups of short (1-sec.) and long (5-sec.) dashes of the radiobeacon, at stations where the radiobeacon and sound signals are synchronized for distance finding, is an indication that there is fog in the vicinity of the station and that the sound signal is operating.

SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
163	POINT SUR ----- Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.	Near west end of Moro Rock 36 18.4	121 54.0	Feet 270	23
164	<i>Point Cypress Lighted Gong Buoy 14C PT.</i> Fl. W., 10 sec.	In 108 feet 36 35.0	121 59.0	12	8
165	POINT PINOS ----- Occ. W., 30 sec.	On point, south side of en- trance to Monterey Bay. 36 38.0	121 56.0	89	15
166	<i>Point Pinos Lighted Whistle Buoy 2 Pt. P.</i> Fl. R., 10 sec.	In 135 feet, off point south side of Monterey Bay. 36 38.7	121 56.4	16	9
167	<i>Monterey Lighted Bell Buoy 4.</i> Fl. W., 10 sec.	In 120 feet, off Point Cab- rillo.		12	9
168	MONTEREY BAY BREAK- WATER. U. Fl. R., 6 sec.	At outer end of breakwater 36 36.5	121 53.2	20	
168.5	MONTEREY FOG SIGNAL -----	On northerly end of Mon- terey Municipal Wharf.			
169	Santa Cruz ----- Gp. Fl. W., 15 sec., U. 3 flashes.	On point, west side of en- trance to Santa Cruz Har- bor. 36 57.1	122 01.6	55	13
170	<i>Santa Cruz Whistle Buoy SC</i> -----	In 60 feet, off Santa Cruz Harbor. 36 56.3	122 05.0		
171	DAVENPORT WHARF ----- F. R. U.	On outer end of wharf 37 00.5	122 12.0	30	11
172	Año Nuevo Island ----- Gp. Fl. W., 60 sec. 3 flashes.	On southwest side of island 37 06.5	122 20.2	73	14
173	PIGEON POINT ----- Fl. W., 10 sec.	On end of point 37 10.9	122 23.6	148	18

CALIFORNIA

SAN FRANCISCO DIST.

No.	Candlepower Apparatus Illuminant	Light characteristic Fog signal	Structure, vessel or buoy	
			Top of lantern above ground	Established Rebuilt
163	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec. DIAPHONE , air; group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. RADIOBEACON : Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — •). Antenna lead-in at light- house.	Feet 50	Year 1889
164	130 200 mm a	Flash 2 sec.----- GONG , on buoy.	Red.	
165	29,000 3 e	Light 20 sec., eclipse 10 sec.--- HORN , diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec.	White tower on dwelling. 43	1855 1907
166	140 375 mm a	Flash 1 sec.----- WHISTLE , on buoy.	Red.	
167	160 200 mm a	Flash 1 sec.----- BELL , on buoy.	Red.	
168	90 300 mm a	Flash 1 sec.-----	White square house.	1934
168.5		BELL electric; 1 stroke every 15 sec.		1940
169	11,000 300 mm e	3 flashes, 1 sec. each; 2 eclipses, 2 sec. each; 1 eclipse 8 sec. Not visible northward of 99°.	White square tower on dwell- ing. 39	1869 1940
170		WHISTLE , on buoy-----	Black and white vertical stripes.	
171	720 e	Maintained by Santa Cruz Portland Cement Co.		1934
172	17,000 4 e	Flash 2 sec., eclipse 2 sec., flash 2 sec., eclipse 2 sec., flash 2 sec., eclipse 50 sec. DIAPHONE , air, two-tone; group of 3 blasts every 60 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 2 sec., blast 2 sec., silent 50 sec. Siren if diaphone is disabled.	White, square pyramidal, skeleton tower. 49	1872 1914
173	900,000 1 e	Flash 1.2 sec., eclipse 8.8 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. DIAPHONE , air, two-tone; group of 2 blasts every 30 sec.; blast 2 sec., silent 6 sec., blast 2 sec., silent 20 sec. Siren if diaphone is dis- abled.	White conical tower. 115	1872

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SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
161	PIEDRAS BLANCAS ----- Gp. Fl. W., 15 sec. 2 flashes.	On point----- 35 39.9	121 17.1	Feet 158	19
162	CAPE SAN MARTIN ----- Fl. W., 30 sec. U.	Near end of point of cape----- 35 53.3	121 27.8	200	11
163	POINT SUR ----- Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.	On westerly end of Point Sur----- 36 18.4	121 54.0	270	23
164	<i>Point Cypress Lighted Gong</i> <i>Buoy 14C PT.</i> Fl. W., 10 sec.	In 108 feet----- 36 35.0	121 59.0	12	8
165	POINT PINOS ----- Occ. W., 30 sec.	On point, south side of en- trance to Monterey Bay. 36 38.0	121 56.0	89	15
166	<i>Point Pinos Lighted Whistle</i> <i>Buoy 2 Pt. P.</i> Fl. R., 10 sec.	In 135 feet, off point south side of Monterey Bay. 36 38.7	121 56.4	16	9
167	<i>Monterey Lighted Bell Buoy 4</i> Fl. W., 10 sec.	In 120 feet, off Point Cab- rillo.		12	9
168	MONTEREY BAY BREAK- WATER ----- Fl. R., 6 sec. U.	At outer end of breakwater----- 36 36.5	121 53.2	20	
168.5	MONTEREY FOG SIGNAL -----	On northerly end of Mon- terey Municipal Wharf.			
169	Santa Cruz ----- Gp. Fl. W., 15 sec., U. 3 flashes.	On point, west side of en- trance to Santa Cruz Har- bor. 36 57.1	122 01.6	55	13
170	<i>Santa Cruz Whistle Buoy SC</i> -----	In 60 feet, off Santa Cruz Harbor. 36 56.3	122 05.0		
171	DAVENPORT WHARF ----- F. R. U.	On outer end of wharf----- 37 00.5	122 12.0	30	11

CALIFORNIA

SAN FRANCISCO DIST.

No.	Candlepower Apparatus Illuminant	Light characteristic Fog signal	Structure, vessel or buoy	
			Top of lantern above ground	Established Rebuilt
161	250,000 1 e	Flash 0.8 sec., eclipse 3 sec., flash 0.8 sec., eclipse 10.4 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. DIAPHONE, air; blast 3 sec., silent 27 sec. Siren if dia- phone is disabled.	Feet White conical tower. 100	Year 1875
162	480 375 mm a	Flash 2 sec-----	White structure.	1934
163	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec. DIAPHONE, air; group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. RADIOBEACON: Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — •). Antenna lead-in at light- house.	Gray square stone tower on fog signal building. 50	1889
			DISTANCE-FINDING STA- TION. For method of op- eration, see p. 10.	
164	130 200 mm a	Flash 2 sec----- GONG, on buoy.	Red.	
165	29,000 3 e	Light 20 sec., eclipse 10 sec.--- HORN, diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec.	White tower on dwelling. 43	1855 1907
166	140 375 mm a	Flash 1 sec----- WHISTLE, on buoy.	Red.	
167	160 200 mm a	Flash 1 sec----- BELL, on buoy.	Red.	
168	90 300 mm a	Flash 1 sec-----	White square house.	1934
168.5		BELL electric; 1 stroke every 15 sec.		1940
169	11,000 300 mm e	3 flashes, 1 sec. each; 2 eclipses, 2 sec. each; 1 eclipse 8 sec. Not visible northward of 99°.	White wooden tower. 39	1869 1941
170		WHISTLE, on buoy-----	Black and white vertical stripes.	
171	720 e	Maintained by Santa Cruz Portland Cement Co.		1934

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SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
161	PIEDRAS BLANCAS ----- Gp. Fl. W., 15 sec. 2 flashes.	On point----- 35 39.9	----- 121 17.1	Feet 158	19
162	CAPE SAN MARTIN ----- Fl. W., 30 sec. TE. U.	Near end of point of cape----- 35 53.3	----- 121 27.8	200	11
163	POINT SUR ----- Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.	On westerly end of Point Sur----- 36 18.4	----- 121 54.0	270	23
164	<i>Point Cypress Lighted Gong</i> <i>Buoy 14C PT.</i> Fl. W., 10 sec. CR.	In 108 feet----- 36 35.0	----- 121 59.0	12	8
165	POINT PINOS ----- Occ. W., 30 sec.	On point, south side of en- trance to Monterey Bay. 36 38.0	----- 121 56.0	89	15
166	<i>Point Pinos Lighted Whistle</i> <i>Buoy 2 Pt. P. CR.</i> Fl. R., 10 sec.	In 135 feet, off point south side of Monterey Bay. 36 38.7	----- 121 56.4	16	9
168	MONTEREY BAY BREAK- WATER. U. Fl. R., 6 sec. CR.	At outer end of breakwater----- 36 36.5	----- 121 53.2	20	-----
168.5	MONTEREY FOG SIGNAL -----	On northerly end of Mon- terey Municipal Wharf.	-----	-----	-----
169	Santa Cruz ----- Gp. Fl. W., 15 sec., U. 3 flashes.	On point, west side of en- trance to Santa Cruz Har- bor. 36 57.1	----- 122 01.6	55	13
170	<i>Santa Cruz Whistle Buoy SC</i> -----	In 60 feet, off Santa Cruz Harbor. 36 56.3	----- 122 05.0	-----	-----
171	DAVENPORT WHARF ----- F. R. U.	On outer end of wharf----- 37 00.5	----- 122 12.0	30	11

TE—Temporarily extinguished.

CR—Candlepower reduced.

No.	Candlepower Apparatus Illuminant	Light characteristic		Structure, vessel or buoy	
		Fog signal		Top of lantern above ground	Established Rebuilt
161	250,000 1 e	Flash 0.8 sec., eclipse 3 sec., flash 0.8 sec., eclipse 10.4 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise.		Feet 100	Year 1875
162	480 375 mm a	DIAPHONE, air; blast 3 sec., silent 27 sec. Siren if dia- phone is disabled.		White structure.	1934
163	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec. DIAPHONE, air; group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. RADIOBEACON: Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — •). Antenna lead-in at light- house.		Gray square stone tower on fog signal building. 50	1889
164	130 200 mm a	Flash 2 sec.----- GONG, on buoy.		Red.	
165	29,000 3 e	Light 20 sec., eclipse 10 sec.----- HORN, diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec.		White tower on dwelling. 43	1855 1907
166	140 200 mm a	Flash 1 sec.----- WHISTLE, on buoy.		Red.	
168	90 300 mm a	Flash 1 sec.-----		White square house.	1934
168.5	-----	BELL electric; 1 stroke every 15 sec.			1940
169	11,000 300 mm e	3 flashes, 1 sec. each; 2 eclipses, 2 sec. each; 1 eclipse 8 sec. Not visible northward of 99°.		White wooden tower. 39	1869 1941
170	-----	WHISTLE, on buoy-----		Black and white vertical stripes.	
171	720 e	Maintained by Santa Cruz Portland Cement Co.			1934

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SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
161	PIEDRAS BLANCAS ----- Gp. Fl. W., 15 sec. 2 flashes.	On point----- 35 39.9	----- 121 17.1	Feet 158	19
162	CAPE SAN MARTIN ----- Fl. W., 30 sec. TE. U.	Near end of point of cape----- 35 53.3	----- 121 27.8	200	11
163	POINT SUR ----- Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.	On westerly end of Point Sur. 36 18.4	----- 121 54.0	270	23
164	<i>Point Cypress Lighted Gong</i> <i>Buoy 14C PT.</i> Fl. W., 10 sec.	In 108 feet----- 36 35.0	----- 121 59.0	12	8
165	POINT PINOS ----- Occ. W., 30 sec.	On point, south side of en- trance to Monterey Bay. 36 38.0	----- 121 56.0	89	15
166	<i>Point Pinos Lighted Whistle</i> <i>Buoy 2 Pt. P.</i> Fl. R., 10 sec.	In 135 feet, off point south side of Monterey Bay. 36 38.7	----- 121 56.4	16	9
168	MONTEREY BAY BREAK- WATER. U. Fl. R., 6 sec.	At outer end of breakwater----- 36 36.5	----- 121 53.2	20	-----
168.5	MONTEREY FOG SIGNAL -----	On northerly end of Mon- terey Municipal Wharf.	-----	-----	-----
168.6	<i>Moss Landing Approach Bell</i> <i>Buoy ML.</i>	In 114 feet, 1/4 miles off en- trance. 36 48.4	----- 121 48.7	-----	-----
168.7	MOSS LANDING WHARF FOG SIGNAL.	On end of wharf----- 36 48.1	----- 121 47.4	-----	-----
169	Santa Cruz ----- Gp. Fl. W., 15 sec., U. 3 flashes.	On point, west side of en- trance to Santa Cruz Har- bor. 36 57.1	----- 122 01.6	55	13
170	<i>Santa Cruz Whistle Buoy SC</i> -----	In 60 feet, off Santa Cruz Harbor. 36 56.3	----- 122 05.0	-----	-----
171	DAVENPORT WHARF ----- F. R. U.	On outer end of wharf----- 37 00.5	----- 122 12.0	30	11

TE—Temporarily extinguished.

CALIFORNIA

SAN FRANCISCO DIST.

No.	Candlepower Apparatus Illuminant	Light characteristic Fog signal	Structure, vessel or buoy	
			Top of lantern above ground	Established Rebuilt
161	250,000 1 e	Flash 0.8 sec., eclipse 3 sec., flash 0.8 sec., eclipse 10.4 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. DIAPHONE, air; blast 3 sec., silent 27 sec. Siren if dia- phone is disabled.	Feet White conical tower. 100	Year 1875
162	480. 375 mm a	Flash 2 sec-----	White structure.	1934
163	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec. DIAPHONE, air; group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. RADIOBEACON: Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — — •). Antenna lead-in at light- house.	Gray square stone tower on fog signal building. 50	1889
164	130 200 mm a	Flash 2 sec----- GONG, on buoy.	Red.	
165	29,000 3 e	Light 20 sec., eclipse 10 sec. HORN, diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec. Siren if horn is disabled.	White tower on dwelling. 43	1855 1907
166	140 200 mm a	Flash 1 sec----- WHISTLE, on buoy.	Red.	
168	90 300 mm a	Flash 1 sec-----	White square house.	1934
168.5	-----	BELL electric; 1 stroke every 15 sec.	-----	1940
168.6	-----	BELL, on buoy-----	Black and white vertical stripes.	
168.7	-----	SIREN, electric; group of 2 blasts every 20 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 14 sec.	-----	1943
169	11,000 300 mm e	3 flashes, 1 sec. each; 2 eclipses, 2 sec. each; 1 eclipse 8 sec. Not visible northward of 99°.	White wooden tower. 39	1869 1941
170	-----	WHISTLE, on buoy-----	Black and white vertical stripes.	
171	720 e	Maintained by Santa Cruz Portland Cement Co.	-----	1934

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SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
205	PIEDRAS BLANCAS Gp. Fl. W., 15 sec. 2 flashes.	On point 35 39.9	121 17.1	158	19
206	CAPE SAN MARTIN Fl. W., 30 sec. TE. U.	Near end of point of cape 35 53.3	121 27.8	200	11
207	POINT SUR Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.	On westerly end of Point Sur. 36 18.4	121 54.0	270	23
208	Point Cypress Lighted Gong Buoy 14C PT. Fl. W., 10 sec.	In 108 feet 36 35.0	121 59.0	12	8
209	POINT PINOS Occ. W., 30 sec.	On point, south side of en- trance to Monterey Bay. 36 38.0	121 56.0	89	15
210	Point Pinos Lighted Whistle Buoy 2 Pt. P. Fl. R., 10 sec.	In 135 feet, off point south side of Monterey Bay. 36 38.7	121 56.4	16	9
211	Monterey Lighted Bell Buoy 4 Fl. W., 10 sec.	In 120 feet, off Point Cabrillo 36 37.5	121 53.7	12	9
212	MONTEREY BAY BREAK- WATER. Fl. R., 6 sec. U.	At outer end of breakwater 36 36.5	121 53.2	20	
213	MONTEREY FOG SIGNAL	On northerly end of Mon- terey Municipal Wharf.			
214	Moss Landing Approach Whis- tle Buoy ML.	In 114 feet, 1/4 miles off en- trance. 36 48.4	121 48.7		
215	MOSS LANDING WHARF FOG SIGNAL.	On end of wharf 36 48.1	121 47.4		
216	Santa Cruz Gp. Fl. W., 15 sec., U. 3 flashes.	On point, west side of en- trance to Santa Cruz Har- bor. 36 57.1	122 01.6	55	13

TE—Temporarily extinguished.

CALIFORNIA

SAN FRANCISCO DIST.

No.	Candlepower Apparatus Illuminant	Light characteristic Fog signal	Structure, vessel or buoy	
			Top of lantern above ground	Established Rebuilt
205	250,000 1 e	Flash 0.8 sec., eclipse 3 sec., flash 0.8 sec., eclipse 10.4 sec. From Nov. 1 to Mar. 1 light is displayed from 1 hour before sunset to 1 hour after sunrise. DIAPHONE, air; blast 3 sec., silent 27 sec. Siren if dia- phone is disabled.	Feet White conical tower. 100	Year 1875
206	480 375 mm a	Flash 2 sec.	White structure.	1934
207	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec DIAPHONE, air, two-tone; group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. RADIO BEACON: Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — •). Antenna lead-in at light- house.	Gray square stone tower on fog signal building. 50	1889
208	130 200 mm a	Flash 2 sec.	Red.	
209	29,000 3 e	Light 20 sec., eclipse 10 sec. HORN, diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec. Siren if horn is disabled.	White tower on dwelling. 43	1855 1907
210	140 375 mm a	Flash 1 sec.	Red.	
211	160 200 mm a	Flash 1 sec.	Red.	
212	90 300 mm a	BELL, on buoy. Flash 1 sec.	White square house.	1934
213		BELL, electric; 1 stroke every 15 sec.		1940
214		WHISTLE, on buoy	Black and white vertical stripes.	
215		SIREN, electric; group of 2 blasts every 20 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 14 sec.		1943
216	11,000 300 mm e	3 flashes, 1 sec. each; 2 eclipses, 2 sec. each; 1 eclipse 8 sec. Not visible northward of 99°.	White wooden tower. 39	1869 1941

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SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
204	<i>San Simeon Lighted Bell Buoy 1.</i> Fl. W., 5 sec.	In 42 feet, southeast of San Simeon Point.		Feet 12	7
205	PIEDRAS BLANCAS Gp. Fl. W., 15 sec. 2 flashes.	35 37.7	121 11.3	158	19
		On point			
		35 39.9	121 17.1		
206	CAPE SAN MARTIN Fl. W., 30 sec. U.	Near end of point of cape		200	11
207	POINT SUR Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.	On westerly end of Point Sur.		270	23
		36 18.4	121 54.0		
208	<i>Point Cypress Lighted Gong Buoy 14C PT.</i> Fl. W., 10 sec.	In 108 feet		12	8
		36 35.0	121 59.0		
209	POINT PINOS Occ. W., 30 sec.	On point, south side of entrance to Monterey Bay.		89	15
		36 38.0	121 56.0		
210	<i>Point Pinos Lighted Whistle Buoy 2 Pt. P.</i> Fl. R., 10 sec.	In 135 feet, off point south side of Monterey Bay.		16	9
		36 38.7	121 56.4		
211	<i>Monterey Lighted Bell Buoy 4.</i> Fl. W., 10 sec.	In 120 feet, off Point Cabrillo		12	9
		36 37.5	121 53.7		
212	MONTEREY BAY BREAK-WATER. Fl. R., 6 sec. U.	At outer end of breakwater		20	
		36 36.5	121 53.2		
213	MONTEREY FOG SIGNAL	On northerly end of Monterey Municipal Wharf.			
214	<i>Moss Landing Approach Whistle Buoy ML.</i>	In 114 feet, 1¼ miles off entrance.			
		36 48.4	121 48.7		
215	MOSS LANDING WHARF FOG SIGNAL.	On end of wharf			
		36 48.1	121 47.4		
216	Santa Cruz Gp. Fl. W., 15 sec., 3 flashes. U.	On point, west side of entrance to Santa Cruz Harbor.		55	13
		36 57.1	122 01.6		

CALIFORNIA

SAN FRANCISCO DIST.

No.	Candlepower Apparatus Illuminant	Light characteristic Fog signal	Structure, vessel or buoy	
			Top of lantern above ground	Established Rebuilt
204	55 150 mm e	Flash 1 sec. BELL, on buoy.	Feet Black.	Year
205	250,000 1 e	Flash 0.8 sec., eclipse 3 sec., flash 0.8 sec., eclipse 10.4 sec. From Nov. 1 to Mar. 1 light is displayed from 1 hour before sunset to 1 hour after sunrise. DIAPHONE, air; blast 3 sec., silent 27 sec. Siren if dia- phone is disabled.	White conical tower. 100	1875
206	400 375 mm a	Flash 2 sec.	White structure.	1934
207	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec DIAPHONE, air, group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour be- fore sunset to 1 hour after sunrise. RADIO BEACON: Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — •). Antenna lead-in at light- house.	Gray square stone tower on fog signal building. 50	1889
			DISTANCE-FINDING STA- TION. For method of op- eration, see p. 9.	
208	130 200 mm a	Flash 2 sec. GONG, on buoy.	Red.	
209	29,000 3 e	Light 20 sec., eclipse 10 sec. HORN, diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec. 447 yards 336° from lighthouse.	White tower on dwelling. 43	1855 1907
210	140 375 mm a	Flash 1 sec. WHISTLE, on buoy.	Red.	
211	160	Flash 1 sec.	Red.	
212	200 mm a 90 300 mm a	BELL, on buoy. Flash 1 sec.	White square house.	1934
213		BELL, electric; 1 stroke every 15 sec.		1940
214		WHISTLE, on buoy	Black and white vertical stripes.	
215		SIREN, electric; group of 2 blasts every 20 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 14 sec.		1943
216	11,000 300 mm e	3 flashes, 1 sec. each; 2 eclipses, 2 sec. each; 1 eclipse 8 sec. Not visible northward of 99°.	White wooden tower. 39	1869 1941

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SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
199	<i>Toro Creek Bell Buoy 10A</i> -----	In 55 feet, in Estero Bay		Feet	
		35 24.4	120 53.0		
200	<i>ESTERO WHARF</i> ----- F. R. U.	35 24.7	120 52.7	30	
201	<i>Estero Submarine Terminal Gong Buoy.</i>	35 24.3	120 53.3		
202	<i>Mouse Rock Bell Buoy 3 MR.</i>	In 40 feet. Marks rock at entrance to Cayucos Land- ing.			
		35 26.3	120 54.7		
203	<i>Von Helm Rock Lighted Whistle Buoy 12VH.</i> Fl. W., 10 sec.	In 120 feet, seaward of rocks		16	9
		35 32.2	121 07.0		
204	<i>San Simeon Lighted Bell Buoy 1.</i> Fl. W., 5 sec.	In 42 feet, southeast of San Simeon Point.		12	7
		35 37.7	121 11.3		
205	<i>PIEDRAS BLANCAS</i> ----- Gp. Fl. W., 15 sec. 2 flashes.	On point		158	19
		35 39.9	121 17.1		
206	<i>CAPE SAN MARTIN</i> ----- Fl. W., 30 sec. U.	Near end of point of cape		200	11
		35 53.3	121 27.8		
207	<i>POINT SUR</i> ----- Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.	On westerly end of Point Sur.		270	23
		36 18.4	121 54.0		
208	<i>Point Cypress Lighted Gong Buoy 14C PT.</i> Fl. W., 10 sec.	In 108 feet		12	8
		36 35.0	121 59.0		
209	<i>POINT PINOS</i> ----- Occ. W., 30 sec.	On point, south side of en- trance to Monterey Bay.		89	15
		36 38.0	121 56.0		
210	<i>Point Pinos Lighted Whistle Buoy 2 Pt. P.</i> Fl. R., 10 sec.	In 135 feet, off point south side of Monterey Bay.		16	8
		36 38.7	121 56.4		
211	<i>Monterey Lighted Bell Buoy 4.</i> Fl. W., 10 sec.	In 120 feet, off Point Cabrillo		12	9
		36 37.5	121 53.7		
212	<i>MONTEREY BAY BREAK- WATER.</i> Fl. R., 6 sec. U.	At outer end of breakwater		20	
		36 36.5	121 53.2		

CALIFORNIA

TWELFTH DIST.

No.	Candlepower Apparatus Illuminant	Light characteristic Fog signal	Structure, vessel or buoy	
			Top of lantern above ground	Established Rebuilt
199		BELL , on buoy. Maintained by Standard Oil Co. of California.	Feet White.	Year
200	540 e	Maintained by the Standard Oil Co. of California.		1935
201		GONG , on buoy. Maintained by Standard Oil Co. of California.	White.	
202		BELL , on buoy	Black.	
203	380 375 mm a	Flash 1 sec----- WHISTLE , on buoy.	Red.	
204	60 200 mm a	Flash 1 sec----- BELL , on buoy.	Black.	
205	250,000 1 e	Flash 0.8 sec., eclipse 3 sec., flash 0.8 sec., eclipse 10.4 sec. From Nov. 1 to Mar. 1 light is displayed from 1 hour before sunset to 1 hour after sunrise. DIAPHONE , air; blast 3 sec., silent 27 sec. Siren if dia- phone is disabled.	White conical tower. 100	1875
206	400 375 mm a	Flash 2 sec-----	White structure.	1934
207	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec DIAPHONE , air, group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour be- fore sunset to 1 hour after sunrise. RADIO BEACON : Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — •). Antenna lead-in at light- house.	Gray square stone tower on fog signal building. 50	1889
208	110 200 mm a	Flash 2 sec----- GONG , on buoy.	Red.	
209	29,000 3 e	Light 20 sec., eclipse 10 sec-- HORN , diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec. 447 yards 336° from lighthouse.	White tower on dwelling. 43	1855 1907
210	100 375 mm a	Flash 1 sec----- WHISTLE , on buoy.	Red.	
211	140 200 mm a	Flash 1 sec----- BELL , on buoy.	Red.	
212	90 300 mm a	Flash 1 sec-----	White square house.	1934

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SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
199	<i>Toro Creek Bell Buoy 10A</i> -----	In 55 feet, in Estero Bay		<i>Feet</i>	
		35 24.4	120 53.0		
200	<i>ESTERO WHARF</i> -----	35 24.7	120 52.7	30	
	<i>F. R. U.</i>				
201	<i>Estero Submarine Terminal Gong Buoy.</i>	35 24.3	120 53.3		
202	<i>Mouse Rock Bell Buoy 3 MR.</i>	In 40 feet. Marks rock at entrance to Cayucos Landing.			
		35 26.3	120 54.7		
203	<i>Von Helm Rock Lighted Whistle Buoy 12VH.</i>	In 120 feet, seaward of rocks.		16	9
	<i>Fl. W., 10 sec.</i>	35 32.2	121 07.0		
204	<i>San Simeon Lighted Bell Buoy 1.</i>	In 42 feet, southeast of San Simeon Point.		12	7
	<i>Fl. W., 5 sec.</i>	35 37.7	121 11.3		
205	<i>PIEDRAS BLANCAS</i> -----	On point		158	19
	<i>Gp. Fl. W., 15 sec. 2 flashes.</i>	35 39.9	121 17.1		
206	<i>CAPE SAN MARTIN</i> -----	Near end of point of cape		200'	11
	<i>Fl. W., 30 sec. U.</i>	35 53.3	121 27.8		
207	<i>POINT SUR</i> -----	On westerly end of Point Sur.		270	23
	<i>Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.</i>	36 18.4	121 54.0		
208	<i>Point Cypress Lighted Gong Buoy 14C PT.</i>	In 108 feet		12	8
	<i>Fl. W., 10 sec.</i>	36 35.0	121 59.0		
209	<i>POINT PINOS</i> -----	On point, south side of entrance to Monterey Bay.		89	15
	<i>Occ. W., 30 sec.</i>	36 38.0	121 56.0		
210	<i>Point Pinos Lighted Whistle Buoy 2 Pt. P.</i>	In 135 feet, off point south side of Monterey Bay.		16	8
	<i>Fl. R., 10 sec.</i>	36 38.7	121 56.4		

CALIFORNIA

TWELFTH DIST.

No.	Candlepower Apparatus Illuminant	Light characteristic Fog signal	Structure, vessel or buoy	
			Top of lantern above ground	Established Rebuilt
199		BELL, on buoy. Maintained by Standard Oil Co. of California.	<i>Feet</i> White.	<i>Year</i>
200	540 e	Maintained by the Standard Oil Co. of California.		1935
201		GONG, on buoy. Maintained by Standard Oil Co. of California.	White.	
202		BELL, on buoy	Black.	
203	380 375 mm a	Flash 1 sec WHISTLE, on buoy.	Red.	
204	60 200 mm a	Flash 1 sec BELL, on buoy.	Black.	
205	250,000 1 e	Flash 0.8 sec., eclipse 3 sec., flash 0.8 sec., eclipse 10.4 sec. From Nov. 1 to Mar. 1 light is displayed from 1 hour before sunset to 1 hour after sunrise. DIAPHONE, air, two-tone; blast 3 sec., silent 27 sec. Siren if diaphone is disabled.	White conical tower. 100	1875
206	400 375 mm a	Flash 2 sec	White structure.	1934
207	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec DIAPHONE, air, group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. RADIO BEACON: Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — •). Antenna lead-in at lighthouse.	Gray square stone tower on fog signal building. 50	1889
			DISTANCE-FINDING STATION. For method of operation, see p. 11.	
208	110 200 mm a	Flash 2 sec GONG, on buoy.	Red.	
209	29,000 3 e	Light 20 sec., eclipse 10 sec. HORN, diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec. 447 yards 336° from lighthouse.	White tower on dwelling. 43	1855 1907
210	100 375 mm a	Flash 1 sec WHISTLE, on buoy.	Red.	

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SEACOAST

No.	Name Character and period of light	Location		Light above water	Miles seen
		Latitude, N.	Longitude, W.		
SEACOAST					
199	<i>Toro Creek Bell Buoy 10A</i>	In 55 feet, in Estero Bay		Feet	
		35 24.4	120 53.0		
200	<i>ESTERO WHARF</i>	35 24.7	120 52.7	30	
	F. R. U.				
201	<i>Estero Submarine Terminal Gong Buoy.</i>	35 24.3	120 53.3		
202	<i>Mouse Rock Bell Buoy 3 MR.</i>	In 40 feet. Marks rock at entrance to Cayucos Landing.			
		35 26.3	120 54.7		
203	<i>Von Helm Rock Lighted Whistle Buoy 12VH.</i>	In 120 feet, seaward of rocks.		16	9
	Fl. W., 10 sec.	35 32.2	121 07.0		
204	<i>San Simeon Lighted Bell Buoy 1.</i>	In 42 feet, southeast of San Simeon Point.		12	7
	Fl. W., 5 sec.	35 37.7	121 11.3		
205	<i>PIEDRAS BLANCAS</i>	On point		158	19
	Gp. Fl. W., 15 sec. 2 flashes.	35 39.9	121 17.1		
206	<i>CAPE SAN MARTIN</i>	Near end of point of cape		200	11
	Fl. W., 30 sec. U.	35 53.3	121 27.8		
207	<i>POINT SUR</i>	On westerly end of Point Sur.		270	23
	Fl. W., 15 sec. Radiobeacon. Distance-Finding Station.	36 18.4	121 54.0		
208	<i>Point Cypress Lighted Gong Buoy 14C PT.</i>	In 108 feet		12	8
	Fl. W., 10 sec.	36 35.0	121 59.0		
209	<i>POINT PINOS</i>	On point, south side of entrance to Monterey Bay.		89	15
	Occ. W., 30 sec.	36 38.0	121 56.0		
210	<i>Point Pinos Lighted Whistle Buoy 2 Pt. P.</i>	In 135 feet, off point south side of Monterey Bay.		16	8
	Fl. R., 10 sec.	36 38.7	121 56.4		

CALIFORNIA

TWELFTH DIST.

No.	Candlepower Apparatus Illuminant	Light characteristic Fog signal	Structure, vessel or buoy	
			Top of lantern above ground	Established Rebuilt
199		BELL, on buoy. Maintained by Standard Oil Co. of California.	Feet White.	Year
200	540 e	Maintained by the Standard Oil Co. of California.		1935
201		GONG, on buoy. Maintained by Standard Oil Co. of California.	White.	
202		BELL, on buoy	Black.	
203	380 375 mm a	Flash 1 sec. WHISTLE, on buoy.	Red.	
204	60 200 mm a	Flash 1 sec. BELL, on buoy.	Black.	
205	250,000 1 e	Flash 0.8 sec., eclipse 3 sec., flash 0.8 sec., eclipse 10.4 sec. From Nov. 1 to Mar. 1 light is displayed from 1 hour before sunset to 1 hour after sunrise. DIAPHONE, air, two-tone; blast 3 sec., silent 27 sec.	White conical tower. 100	1875
206	400 375 mm a	Flash 2 sec.	White structure.	1934
207	1,000,000 1 e	Flash 0.6 sec., eclipse 14.4 sec DIAPHONE, air, group of 2 blasts every 60 sec., blast 2 sec., silent 1 sec., blast 3 sec., silent 54 sec. From Nov. 1 to Mar. 1, light is displayed from 1 hour before sunset to 1 hour after sunrise. RADIOBEACON: Transmits on 302 kc, groups of dot, 2 dashes, dot (• — — •). Antenna lead-in at lighthouse.	Gray square stone tower on fog signal building. 50	1889
208	110 200 mm a	Flash 2 sec. GONG, on buoy.	Red.	
209	29,000 3 e	Light 20 sec., eclipse 10 sec. HORN, diaphragm, air; group of 2 blasts every 30 sec.; blast 2 sec., silent 2 sec., blast 2 sec., silent 24 sec. 447 yards 336° from lighthouse.	White tower on dwelling. 43	1855 1907
210	100 375 mm a	Flash 1 sec. WHISTLE, on buoy.	Red.	

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