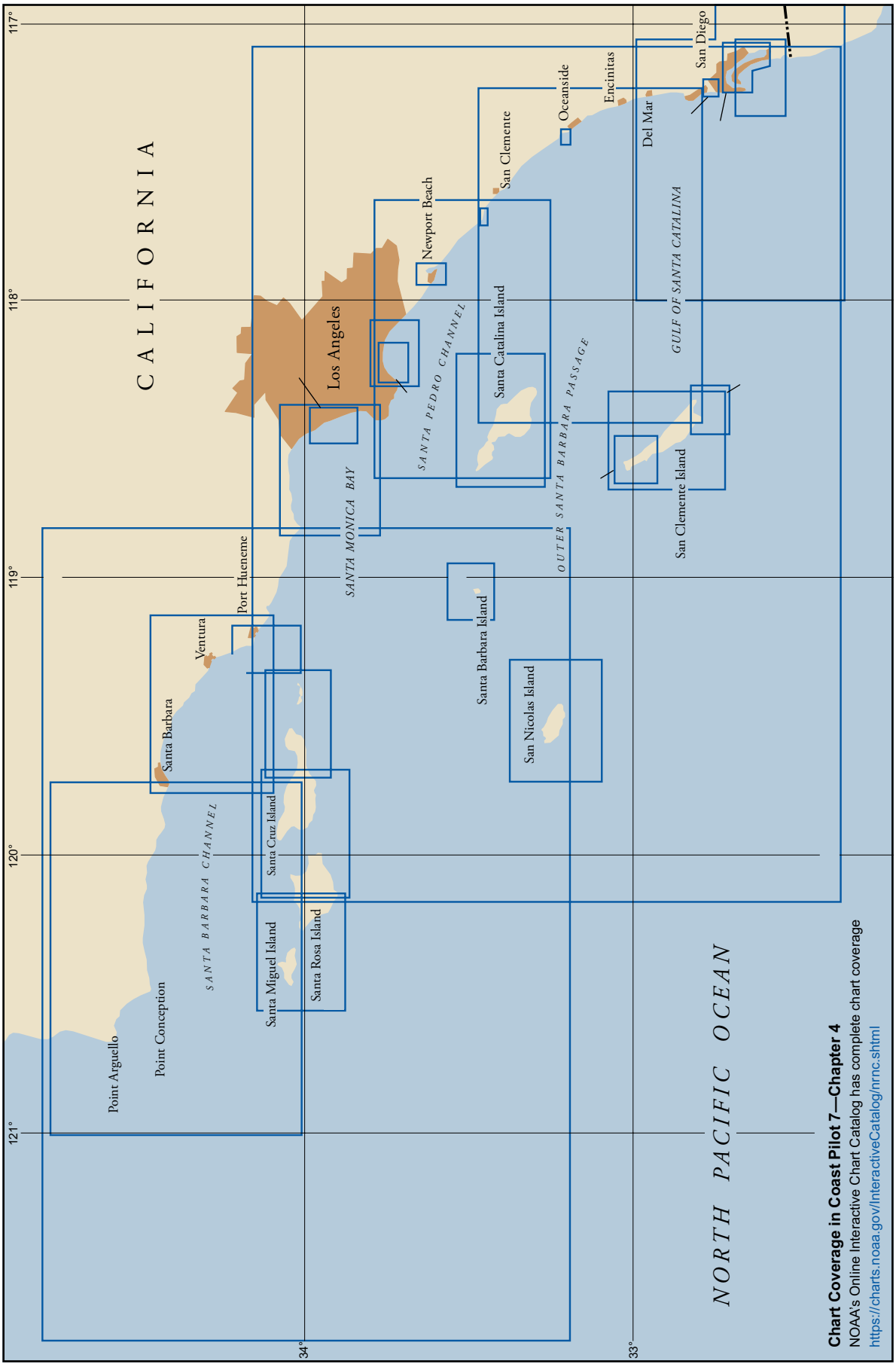
CALIFORNIA
NORTH PACIFIC OCEAN
Point Arguello
Point Conception
SANTA BARBARA CHANNEL
Santa Miguel Island
Santa Rosa Island
Santa Cruz Island
Santa Barbara
Ventura
Port Hueneme
SANTA MONICA BAY
Los Angeles
Santa Barbara Island
San Nicolas Island
SANTA PEDRO CHANNEL
Newport Beach
Santa Catalina Island
San Clemente
OUTER SANTA BARBARA PASSAGE
Oceanside
Encinitas
Del Mar
San Clemente Island
GULF OF SANTA CATALINA
San Diego
117°
118°
119°
120°
121°
34°
33°
Chart Coverage in Coast Pilot 7—Chapter 4
NOAA's Online Interactive Chart Catalog has complete chart coverage
https://charts.noaa.gov/InteractiveCatalog/nrnc.shtml

San Diego to Point Arguello, California

(13)

METEOROLOGICAL TABLE – COASTAL AREA OFF SAN DIEGO, CA
Between 31°N to 34°N and 116°W to 120°W

WEATHER ELEMENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEARS OF RECORD
Wind > 33 knots [1]	0.4	0.5	0.4	0.4	0.3	0.1	0.0	0.0	0.1	0.1	0.2	0.5	48
Wave Height > 9 feet [1]	0.8	1.3	1.7	1.8	1.2	0.8	0.5	0.3	0.4	0.6	0.9	1.2	48
Visibility < 2 nautical miles [1]	4.4	4.5	2.8	2.4	1.5	3.2	2.9	2.2	3.0	4.7	3.3	4.0	48
Precipitation [1]	3.6	3.6	2.4	1.7	1.2	1.4	0.8	0.5	0.9	0.9	2.1	3.1	1.8
Temperature > 69° F	1.2	0.8	1.2	1.4	1.9	3.0	9.2	14.7	14.8	9.0	4.4	1.7	5.4
Mean Temperature (°F)	58.3	58.4	58.5	59.3	60.4	62.1	64.7	66.4	66.5	65.2	62.7	59.9	61.9
Temperature < 33° F [1]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean RH (%)	77	79	78	79	81	83	84	84	83	81	77	76	80
Overcast or Obscured [1]	19.4	21.4	22.2	25.7	37.9	48.1	45.7	38.8	31.4	26.3	15.4	16.7	29.3
Mean Cloud Cover (8ths)	3.8	3.9	4.1	4.2	5.0	5.5	5.6	5.3	4.6	4.2	3.4	3.5	4.4
Mean SLP (mbs)	1018	1018	1017	1015	1015	1013	1013	1013	1012	1014	1017	1018	1015
Ext. Max. SLP (mbs)	1040	1040	1037	1034	1030	1029	1027	1027	1028	1031	1035	1040	1040
Ext. Min. SLP (mbs)	996	996	995	998	999	998	999	998	997	997	999	995	995
Prevailing Wind Direction	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
Thunder and Lightning [1]	0.1	0.1	0.2	0.1	0.0	0.1	0.2	0.1	0.3	0.2	0.1	0.1	0.1

[1] Percentage Frequency

(1) This chapter describes the 240-mile irregular coast of southern California from the Mexican border to Point Arguello. The coast extends in a general northwest direction and includes the major ports of San Diego, Long Beach, Los Angeles and Port Hueneme. This chapter also describes the recreational and fishing ports of Oceanside, Newport Beach, Ventura, Santa Barbara and the many other ports on San Pedro and Santa Monica Bays and along the Santa Barbara Channel.

(2)

COLREGS Demarcation Lines

(3) The lines established for this part of the coast are described in **33 CFR 80.1104** through **80.1126**, chapter 2.

(4)

Blue, fin and humpback whales

(5) All whales are protected under the Marine Mammal Protection Act (MMPA) and, when in Sanctuary waters, under the National Marine Sanctuaries Act (NMSA). Certain large whales, including blue, fin and humpback whales, are also listed as endangered under the Endangered Species Act (ESA). See chapter 3 for more information.

(6) There are several islands and dangers from 7 to 100 miles off the southern California coast; they are described in chapter 5.

(7) Many restricted and danger areas are in these waters. (See **33 CFR 334.860**, **334.870**, **334.880**, and **334.890**, chapter 2 for limits and regulations.) In addition, missile firing, gunnery and bombing operations are conducted on and over offshore waters not included in the areas defined in chapter 2 and at times endanger surface vessels. Information about these areas is published in Local Notice to Mariners issued by Commander, Eleventh Coast Guard District, Alameda, CA, and Notices to Mariners issued by National Geospatial-Intelligence Agency, Washington, DC.

(8) Submerged submarine operations are conducted at various times in the waters off the coast of southern California; proceed with caution.

(9)

Weather, San Diego to Point Arguello

(10) The mild climate from San Diego to Point Arguello is controlled by the Pacific high-pressure system. Aided by the sea breeze, it brings winds from off the water, mainly south through north, which help keep coastal temperatures up in winter and down in summer. Coldest average temperatures range from the middle to upper fifties (12° to 16°C), while summertime readings are most often in the seventies (22° to 27°C). Occasionally a hot dry flow off the land in autumn will cause temperatures to soar into the nineties (33° to 38°C), and a rare winter outbreak from the east can drop temperatures to below freezing (<0°C). Winter is the rainy season, although not much rain falls along these coasts.

(11) Strong winds and rough seas, while less frequent than farther north, can be a problem from the middle of fall through late spring. Strong pressure gradients, distant storms and infrequent close storms account for most of

the gales and seas of 12 feet (3.7 m) or more, particularly off Point Arguello and in the Santa Barbara Channel. Strong local winds (Santa Ana) also generate gales along sections of this coast.

(12) Advection or sea fog, formed by warm moist air flowing over cool water, frequently confronts mariners in these waters. It is a persistent and widespread problem, particularly in the summer and fall north of Santa Monica and in fall and winter south of Santa Monica.

(14)

Coronado Islands

(15) In clear weather, vessels coming from south will sight Table Mountain and its surrounding high land and Los Coronados before picking up the San Diego landmarks.

(16) **Table Mountain**, conspicuous and flat-topped, is in Mexico, 25 miles southeast of Point Loma and 6 miles inland.

(17) **Los Coronados (Coronado Islands)** are four bare, rocky islands, extending 4.5 miles in a northwest direction, 7 miles offshore in Mexican waters, and 15 miles south of Point Loma. These islands are prominent in clear weather, and the passage east of them is commonly used by vessels. Depths in the vicinity of the islands are irregular, and in thick weather or at night caution must be observed when near them.

(18) A light is shown from a white cylindrical masonry tower on the south end of the south island; it is obscured from certain directions by the north islands. Another light is shown from a white square masonry tower near the north end of the south island; local fog sometimes obscures it.

(19) The boundary between the United States and Mexico is marked by a 14-foot white marble obelisk on a pedestal 41 feet above the water near the edge of a low table bluff. The visible marker is 200 yards from the beach and 10 miles 142° from Point Loma Light. A large circular concrete arena is conspicuous just south of the marker. A stone mound, 365 feet above the water and 1 mile east of the obelisk, marks another point on the boundary line. Directly north of the obelisk the mesa falls to the low marshy land south of San Diego Bay.

(20) About 1.5 miles north of the border at Imperial Beach is a fishing pier extending 400 yards to seaward.

(21) In the approach from seaward in clear weather, San Clemente Island, the southernmost of the off-lying islands, will be sighted before the distinguishing features of the coast are seen. This will check the vessel's position and indicate subsequent shaping of the course for Point Loma. Upon a nearer approach, Cuyamaca Peak and the high land of the interior, Los Coronados, and Point Loma will be distinguished. Several aerolights in the vicinity of San Diego are visible at night from seaward.

(22) When making the approach to San Diego, useful radar targets are San Clemente Island, Los Coronados, the pleasure piers at Imperial Beach and Ocean Beach, the jetties of Mission Bay, Point Loma and Ballast Point.

(23) When entering the harbor, the buoys marking the channel and Ballast Point are easily identified targets, thence Shelter Island, the radar reflector on North Island, and the various piers on either side of the channel; thence Harbor Island, the Coast Guard station pier, B Street Pier and the Tenth Avenue Marine Terminal.

(24)

San Diego Bay

(25) **San Diego Bay** is a crescent shaped bay, 10 miles northwest of the U.S./Mexico boundary. The bay is one of the finest natural harbors in the world, and affords excellent protection in any weather; it is free of excessive tidal current movements. A low, narrow sand spit, which expands to a width of 1.6 miles at North Island on its northwest end, separates the bay from the ocean. The port of San Diego, which occupies much of the bay, is a major U.S. Naval base and has good commercial marine facilities.

(26) The city of **San Diego** is on the northeast shore of the bay. **Coronado** is on the sandspit opposite San Diego. **National City** and **Chula Vista** are south of San Diego on the southeast shore of the bay. The principal wharves are at San Diego and National City. Coronado, connected to San Diego by a highway bridge, is a residential and resort area of little commercial importance.

(27)

Prominent features

(28) **Point Loma**, on the west side of the entrance to San Diego Bay, is a ridged peninsula with heights of about 400 feet. The ridge is bare of trees except in the gullies and where planted around the houses near the summit and is sparsely covered with grass, sagebrush and cactus. The tanks and buildings of a sewage treatment plant are conspicuous about 0.9 mile north of the point. At a distance the point usually has the appearance of an island. **Point Loma Light** (32°39'54"N., 117°14'34"W.), 88 feet above the water, is shown from a black house on a 90-foot white square pyramidal skeleton tower at the south end of the point. A mariner-radio-activated sound signal at the light is initiated by keying the microphone five times on VHF-FM channel 81A. Thick kelp beds extend more than 1.5 miles south of the point, and a sunken wreck is about 0.5 mile south of the light.

(29) On the nearer approach, an abandoned lighthouse will be seen on the highest part of the hill immediately back of Point Loma Light. The old lighthouse and grounds form the **Cabrillo National Monument**, honoring the discoverer of San Diego Bay. The statue of Cabrillo, about 300 yards northeast of the abandoned lighthouse, is reported to be an excellent mark when fog obscures the old lighthouse. From inside the bay, prominent objects along the crest of the ridge are a large red and white checkered elevated tank, a green standpipe and a tall lookout tower all about 2.5 miles north from the light.

(30) **Ballast Point**, low and sandy, projects 0.4 mile northeast from the east side of Point Loma, 1.3 miles north from Point Loma Light. **Ballast Point Light B** (32°41'11"N., 117°13'58"W.), 16 feet above the water, is shown from a dolphin with a green and white diamond-shaped daymark off the end of the point. A mariner-radio-activated sound signal at the light is initiated by keying the microphone five times on VHF-FM channel 81A. Three piers of the Naval Submarine Base are just north of Ballast Point.

(31) **North Island**, the filled northwest end of the sand spit on the east side of the bay entrance, is Naval Base Coronado. On its southeast side is the City of Coronado. Prominent features that show up well from the entrance are the tall condominiums at Coronado Shores 2.7 miles east of the entrance, the cupola of Hotel del Coronado 3 miles east of the entrance, and the tower of the Naval Air Station Administration Building, which is marked by an aerolight and is operated intermittently with varying characteristics. In clear weather the skyline of the city of San Diego is very prominent on the south approach.

(32)

COLREGS Demarcation Lines

(33) The lines established for San Diego Harbor are described in **33 CFR 80.1104**, chapter 2.

(34)

Channels

(35) A **federal project** provides for a dredged channel with depths of 55 feet in the approach, thence 47 feet in the entrance and through North San Diego Bay to the turning basin on the northeast side of North Island (near Pier K), thence 42 feet to just northwest of the San Diego-Coronado Bay bridge, thence 37 feet to a basin southwest of the National City Marine Terminal. For detailed channel information and minimum depths as reported by the U.S. Army Corps of Engineers (USACE), use NOAA Electronic Navigational Charts. Surveys and channel condition reports are available through the USACE hydrographic survey website listed in Appendix A.

(36)

Anchorages

(37) General anchorages, special anchorages and anchorages for Government vessels have been established in San Diego Bay. (See **33 CFR 110.1**, **110.90**, and **110.210**, chapter 2, for limits and regulations. The Port of San Diego has temporarily prohibited anchoring or mooring in **Special Anchorage A-8** (Sweetwater Anchorage), in South San Diego Bay.

(38) Permission to use anchorage berths 212 through 216 and Mooring Buoy 19, south of Harbor Island, must be obtained from Navy Afloat Training Group Pacific at 619–556–0914.

(39) Vessels waiting outside the entrance for a pilot will find good anchorage in 36 feet or more southeast of the entrance to the channel, although permission to anchor in the restricted area must be obtained from the local naval authorities. For permission to use anchorage berths 125, 126, 147, 158 and 171, contact Navy Afloat Training Group Pacific at 619–556–0914. For permission to use anchorage berths 124, 135, 146, and 170, contact Navy Region Southwest Port Operations at 619–556–3147 or 619–556–3148. For permission to use all other anchorage berths off Silver Strand, contact COMNVBEACHGRU at 619–437–2476. An obstruction in anchorage berth 171 is reported to be a fouled anchor in about 32°38'21"N., 117°11'50"W.—mariners are advised against anchoring near this area.

(40) The area in the lee of Point Loma, south of Ballast Point and west of the east line of the project channel, is reserved for pilot boats and harbor patrol or U.S. Government craft. (See **33 CFR 334.880**, chapter 2, for limits and regulations.)

(41)

Dangers

(42) A submerged jetty, marked by lights and a sound signal at the seaward end, extends 1 mile south along **Zuñiga Shoal** from **Zuñiga Point**, the southwest extremity of North Island. The outer two-thirds of the jetty has only small sections visible at high water. The lights marking the jetty have a white daymark with orange border and the words "DANGER SUBMERGED JETTY."

(43) A submerged jetty, marked by lights with daymarks that read "DANGER SUBMERGED JETTY," extends about 220 yards west from Zuñiga Point.

(44) There are numerous wrecks and obstructions in the shallow area of southeast San Diego Bay. Caution should be exercised when navigating outside the marked channels.

(45)

Regulated navigation areas

(46)

Restricted Areas in San Diego Bay

Title and Part Number	Location
33 CFR 334.860	On the western shore of South San Diego Bay
33 CFR 334.865	North side of North Island in North San Diego Bay
33 CFR 334.870	• Between Ballast Point and Zuñiga Point (degaussing station) • West side of North Island. • West of the dredged channel, 0.4 mile north of Ballast Point. • North San Diego Bay, surrounding the Navy Pier
33 CFR 334.880	In the lee of Point Loma and south of Ballast Point.
33 CFR 334.890	Large area south of Point Loma

(47)

Safety and Security Zones in San Diego Bay

Title and Part Number	Location
33 CFR 165.1101	South San Diego Bay, Naval Station San Diego (See Note)
33 CFR 165.1102	Between Ballast Point and Shelter Island, Naval Base Point Loma (See Note)

Safety and Security Zones in San Diego Bay	
Title and Part Number	**Location**
33 CFR 165.1103	West Basin, west of Harbor Island
33 CFR 165.1104	North San Diego Bay, north side of North Island (See Note)
33 CFR 165.1105	West side of North Island
33 CFR 165.1106	North San Diego Bay, east of Harbor Island
33 CFR 165.1108	Surrounding all cruise ships
33 CFR 165.1110	Surrounding the Coronado Bay Bridge
33 CFR 165.1120	Southeast of Glorietta Bay
Note – A series of floating protection barriers, anchored by lighted buoys, surrounds the Naval facilities within these security zones.	

(48) **Regulated navigation areas** have been established in all waters of San Diego Bay, Mission Bay and their approaches and adjacent to the Naval Submarine Base just north of Ballast Point, extending east across the channel to the west shore of North Island. (See **33 CFR 165.1122** and **165.1107**, chapter 2, for limits and regulations.)

(49)

Bridges

(50) A fixed highway bridge linking San Diego and Coronado crosses San Diego Bay 0.3 mile southeast of the Tenth Avenue Marine Terminal.

(51)

San Diego-Coronado Bay Bridge Clearances (feet)		
Span	**Horizontal**	**Vertical**
Piers 14 and 15	194	156
Piers 18 and 19	600	195
Piers 19 and 20	600	214
Piers 21 and 20	500	175
RACONS mark the center of the spans between piers 18-19 and 19-20 and a sound signal is on pier 19.		

(52)

Currents

(53) The currents set generally in the direction of the channels. In the vicinity of the entrance the usual velocity varies from 0.5 to 5 knots depending upon the stage of the tide. South of the end of the jetty there is a slight set toward Zuñiga Shoal on the ebb. Great care should be taken while passing Ballast Point as a vessel may take a sudden sheer because of a crosscurrent deflected from Ballast Point.

(54) The eddy usually encountered along the ends of the municipal piers makes docking difficult. The velocity and direction of the eddy are irregular, and the greatest care must be exercised by even the most experienced. Strangers should not attempt to dock large vessels without a pilot. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(55)

Weather, San Diego

(56) In the San Diego Bay area, visibilities are reduced to less than 0.5 mile (0.9 km), mostly by radiation fog, on about 3 to 7 days per month from September through April. December is the foggiest month. This fog is worst during the late night and early morning hours. Dense fog is as frequent at North Island as it is at Imperial Beach. However, sound signals indicate that in general it is foggier around the entrance to the bay than it is in the north sections. For example, in December, the sound signal at Point Loma is operating about 20 percent of the time, compared to 10 percent at Ballast Point.

(57) Winds in the area are strongest from March through September, when they blow 17 knots or more about 2 percent of the time. Gales are unheard of. Wind gusts have reached 50 knots or more during January. Strong winds often have a southerly component, but they also blow from the west and east. Winds along the coast are often affected by local topography, particularly when the flow is off the land. For example, at Imperial Beach, east winds blow 15 to 20 percent of the time from November through March. At Lindbergh Field Municipal Airport, prevailing winds are out of the north through northeast during this period. West through northwest winds are also common at both places. They become increasingly more frequent by March. During the late spring and summer, southwest through northwest winds prevail at both locations. However, at the more exposed Imperial Beach, west winds occur up to 25 percent of the time, whereas the flow is more variable at San Diego. By October, the winter wind regime begins to reestablish itself.

(58) No vessel over 1,600 designed displacement tons should transit the Coronado Bay Bridge in low visibility conditions if the bridge is not held visually within stopping distance. Tank ships or barges carrying petroleum products, explosive or other hazardous materials should not commence a movement in the approaches to or within the outer or inner harbor of San Diego when visibility of less than 0.5 mile or 1,000 yards is prevalent.

(59) The National Weather Service maintains an office at Lindbergh Field Municipal Airport; barometers may be compared there or by telephone.

(60)

Pilotage, San Diego

(61) All foreign vessels and vessels from a foreign port or bound thereto, and all vessels over 300 gross tons sailing under register between the port of San Diego and any other U.S. port, are subject to pilotage. Further information regarding pilotage requirements are detailed in the Pilotage section of the **Port of San Diego Tariff**, available through the ship's agent or directly from the Port District at (619) 686–6343.

(62) Vessels sailing under enrollment and licensed, and engaged in the coasting trade, between the port of San

Diego and other U.S. ports, are exempt from all pilotage, unless a pilot is actually employed.

(63) Pilotage and berthing requirements for naval vessels are coordinated by Navy Region Southwest Port Operations, 619–556–1433.

(64) Estimated time of arrival is required 48 hours in advance with changes at least 2 hours before arrival. Vessels are advised to avoid arriving between 0715 and 1045 hours on Mondays, or on mornings following public holidays, due to increased U.S. Naval vessel movements. San Diego Bay is served by the San Diego Bay Pilots Association, Inc. (Dispatch phone 619–233–3096). The pilot boat monitors VHF-FM channels 16 and 12, 1 hour prior to scheduled vessel arrivals; VHF-FM channel 12 is used as a working frequency. If contact with the pilot is needed prior to 1 hour in advance of arrival, information should be relayed via the ship's agent.

(65) Pilot boat NATIONAL CITY is a 38-foot white monohull with the word PILOT on the forward-facing bulkhead. An AIS transmitter identifies the vessel as "SD Pilot Boat." International Code flag 'H' is displayed during daylight hours and white over red lights are displayed at night.

(66) Arrangements for pilots are made via ship's agent and boarding information via radio by calling "San Diego Pilots" on VHF-FM channel 12. Pilots will monitor VHF-FM channels 12 and 16 one hour prior to scheduled arrivals.

(67) Pilots board vessels just southeast of the San Diego Bay Approach Lighted Whistle Buoy SD in approximate position 32°37'12"N., 117°14'00"W. Vessels should pass to the south and east of the buoy leaving it on the port side when making the approach, unless otherwise directed by the pilot. When boarding, pilots request vessels maintain a speed of 7 knots and rig the pilot ladder 6 feet (2 meters) above the water on the lee side (typically starboard side).

(68) The San Diego Unified Port District operates a VHF-FM radio station from Harbor Control Headquarters at Shelter Island for contacting merchant ships, port pilots and other nearby stations. Channel 16 is for calling; channels 12 and 17 are for port operations. The station call sign is KJC-824.

(69)

Towage

(70) Tugs to 5,000 hp are available from commercial operators in the San Diego area. Naval tugs handle navy vessels but will assist commercial vessels in emergencies.

(71)

Quarantine, customs, immigration and agriculture quarantine

(72) San Diego is a customs port of entry. U.S. Customs requires that all non-commercial vessels, including corporate yachts, less than 130 feet in length returning from a foreign port or place, report directly to the Harbor Police Dock (32°42'30"N., 117°14'05"W.) on Shelter Island. When space is unavailable at the dock, vessels should utilize one of the three quarantine buoys located across from the dock until space is available. Commercial and non-commercial vessels greater than 130 feet in length returning from a foreign port or place must contact the Harbor Police Communications Center at 619–686–6272, eight hours prior to arrival and request dock space. Only the master may leave the vessel to contact Customs and Border Protection in order to request an inspector respond to Shelter Island. All persons aboard the clearing vessel are quarantined to the vessel until cleared by Customs. Additionally, no visitors are allowed aboard the vessel. Persons of foreign nationality should identify themselves to make arrangements to declare entry into the county with the Immigration and Naturalization Service. Officials usually board documented vessels at their berths. Customs and Border Protection can be reached at 619–685–4300, 24 hours a day.

(73) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(74)

Coast Guard

(75) Coast Guard Sector San Diego is on the mainland just northeast of the east end of Harbor Island. Coast Guard Sector San Diego is a consolidated unit that includes an air station, a small boat station, cutters, an aids-to-navigation team, a command center and other personnel. The Prevention Department handles the business of the former Marine Safety Office (see Appendix A for address); telephone, 619–278–7000. On San Diego Bay adjacent to the base is a **safety zone** for Coast Guard search and rescue and law enforcement missions.

(76)

Harbor regulations

(77) The Port of San Diego is under control of the San Diego Unified Port District. Rules and regulations are enforced by a Port Director, who is appointed by the Board of Port Commissioners. The general offices of the port district are at 3165 Pacific Highway, San Diego. The manager of marine operations and the chief wharfinger have offices at the Tenth Avenue Marine Terminal, 687 Switzer Street, San Diego. The office of wharfinger can be reached by telephone at 619–686–6346, by fax at 619–686–6354, or by email at tamt@portofsandiego.org.

(78) The Coast Guard Captain of the Port, San Diego, has designated the ship channels in San Diego Harbor as "narrow channels" for the purposes of enforcing Rule 9 of the Navigation Rules. Vessels of less than 20 meters (65.6 feet), sailing vessels, vessels engaged in fishing and crossing vessels shall not impede the passage of a vessel that can safely navigate only within a narrow channel.

(79) As a general rule, the areas of the bay that are not regulated by a speed zone are to be navigated at a safe and prudent speed with regards to Rule 6 of the U.S. Coast Guard Navigation Rules. South San Diego Bay is governed by a 5 mph speed limit and is delineated by concrete pylons. All lagoons are posted as 5 mph zones. These include the Shelter Island Yacht Basin, the

(86)

Facilities in the Port of San Diego

Name	Location	Berthing Space (feet)	Depths* (feet)	Deck Height (feet)	Mechanical Handling Facilities and Storage	Purpose	Owned/ Operated by:
B Street Pier Cruise Ship Terminal	32°43'03"N., 117°10'36"W.	2,400	35-37	13	Passenger terminal	Mooring cruise ships; Boarding passengers	San Diego Unified Port District
Broadway Pier	32°42'57"N., 117°10'36"W.	2,135	35	13	n/a	Mooring cruise ships; Mooring miscellaneous excursion vessels and craft for US Customs	San Diego Unified Port District
Tenth Avenue Marine Terminal (Berths 1 and 2)	32°42'05"N., 117°09'32"W.	1,120	30	13	Tank storage (167,850 barrels); Pipelines extend from storage tanks to berths	Receipt and shipment of conventional and containerized general cargo and perishable food; Bunkering vessels	San Diego Unified Port District/ Jankovich & Son
Tenth Avenue Marine Terminal (Berths 3, 4, 5 and 6)	32°41'55"N., 117°09'28"W.	2,244	41	13	Covered storage (40,000 tons); Open storage (3.5 acres); Tank storage (3 million gallons); One traveling gantry cement unloader served by a conveyer	Receipt and shipment of conventional and containerized general cargo and perishable food; Receipt of bulk fertilizer and cement; Bunkering vessels	San Diego Unified Port District/ Jankovich & Son/ Pacific Coast Cement Corp.
Tenth Avenue Marine Terminal (Berths 7 and 8)	32°41'48"N., 117°09'12"W.	920	41-42	13	Tank/Silo storage (33,000 metric tons); One traveling bulk shiploader served by a belt conveyer	Receipt and shipment of miscellaneous dry bulk commodities and conventional/ containerized general cargo; Bunkering vessels	San Diego Unified Port District/ Jankovich & Son/ North American Terminals, Inc.
National City Marine Terminal (Berths 24-1 and 24-2)	32°39'25"N., 117°07'18"W.	1,400	20-35	13	Open storage (107 acres); Covered storage (40,320 square feet); Tank storage (348,000 barrels)	Receipt and shipment of general cargo and automobiles; Occasional reciept of fuel oil	San Diego Unified Port District
National City Marine Terminal (Berths 24-3 and 24-4)	32°39'14"N., 117°07'18"W.	1,000	35	13	One traveling container crane (40 long tons); One mobile straddle carrier (40 tons)	Receipt and shipment of conventional and containerized general cargo and automobiles; Occasional reciept of fuel oil	San Diego Unified Port District
National City Marine Terminal (Berths 24-10 and 24-11)	32°38'56"N., 117°06'54"W.	1,430	35	13	Open storage (76 acres)	Receipt and shipment of conventional general cargo and automobiles; Receipt of lumber; Shipment of cattle	San Diego Unified Port District

* The depths given above are reported. For information on the latest depths contact the port authorities or the private operators.

America's Cup Harbor, Harbor Island West and East Lagoons and Glorietta Bay. The speed limit for areas near anchorages is 5 mph.

(80) The Navy Port Operations Manager requests that vessels slow to 7 knots when an aircraft carrier is moored in the restricted area (See **33 CFR §334.865**, chapter 2) on the northeast side of North Island. This is especially important for heavier/larger vessels as the surge is greater than smaller vessels.

(81) The State of California, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in San Diego Bay. The NDZ is comprised of the portion of San Diego Bay that is less than 30 feet deep at mean lower low water (MLLW), as determined from the most recent NOAA nautical chart.

(82) Within the NDZ, discharge of sewage, whether treated or untreated, from all vessels is prohibited. Outside the NDZ, discharge of sewage is regulated by **40 CFR 140** (see chapter 2).

(83) In addition to the **No-Discharge Zone** and concurrent with the federal regulations above, the **San Diego Unified Port District Code** (section 8.50) prohibits the discharge of any material, including sewage, into San Diego Bay without written permission by the Port Director.

(84)

Wharves

(85) The **San Diego Unified Port District** owns the deepwater commercial facilities in the bay and operates them either independently or in conjunction with private firms. The port piers and wharves have water, rail and

highway connections. There are a number of smaller privately operated wharves and piers used for receiving oil and repairing vessels and for mooring and fueling small craft. Only the deep-draft commercial facilities are listed in the table. The alongside depths given for each facility listed are reported depths. (For information on latest depths, contact the Port of San Diego.)

(87) General cargo at the port is usually handled by ship's tackle; special handling equipment, if available, is listed in the table for the particular facility.

(88) In the port area, the San Diego Unified Port District and private companies operate warehouses having a total of 764,500 square feet of dry storage space and 1,997,400 cubic feet of cold storage space. A large amount of transit shed space and open storage is available.

(89)

Supplies

(90) Marine supplies of all kinds are available in San Diego. Bunker fuel, diesel oil and lubricants are available. Large vessels can be bunkered via pipeline at the Tenth Avenue Marine Terminal, or arrangements can be made to fuel at all commercial berths from barges. Water is available at most of the berths.

(91)

Repairs

(92) There are shipbuilding and repair yards in San Diego with floating drydocks, the largest of which has a lifting capacity of 44,000 tons. The largest marine railway can handle craft up to 1,000 tons. Complete shipyard facilities are available for all types of repair work.

(93) A U.S. Navy graving dock, located at the naval station near the foot of 32nd Street, may be used by local repair firms by prior arrangements with the San Diego Unified Port District and local naval authorities. The dock has a clear inside length of 693 feet and an entrance width of 90 feet. The dock is served by a 27½-ton full portal traveling crane. The graving dock at National Steel and Shipbuilding Co., about 0.9 mile northwest of the Navy graving dock, has a clear length of 1,000 feet and an entrance width of 108 feet.

(94)

Communications

(95) San Diego has transcontinental railroad connections to the north and east. Major airline service is available at San Diego International Airport, Lindbergh Field. San Diego is the port of call for many steamship and cruise lines. Major bus, railroad and motor freight lines serve the city.

(96)

Small-craft facilities

(97) **Shelter Island**. across the channel from North Island and 1.5 miles above Ballast Point, includes the **Shelter Island Yacht Basin** on the south and the **Americas Cup Harbor** on the north. Shelter Island is the most important small-boat area in San Diego Bay. The yacht basin has several large marinas and yacht clubs. It can accommodate more than 2,000 boats at its piers, floats, and moorings. The entrance channel has depths of 20 feet to inside the entrance, thence 15 feet to most of the facilities; the least depth is 9 feet. The entrance is marked by lights and lighted buoys. The **354°** lighted range marking the entrance to San Diego Bay also marks the approach to the entrance to Shelter Island Yacht Basin. The **harbor police** are at the Harbor Control Headquarters just inside the entrance to the yacht basin. The police dock is also the boarding station for the inspection of small craft by Customs, Public Health, Immigration and Agricultural quarantine personnel when such inspections are necessary. Harbor police boats, providing fire protection, law enforcement and assistance to small boats in distress, operate from this facility on a 24-hour basis. Overnight berths for transient vessels are usually available at one of the marinas; if no such berth is available, temporary mooring or berthing may be made available through the harbor police. The Americas Cup Harbor has accommodations for over 600 vessels and is the home port for many commercial fishing vessels. Repair yards in the basin have marine railways that can handle craft up to 800 tons. All kinds of repairs to small vessels may be obtained here. Both the yacht basin and the Americas Cup Harbor have fueling docks, a launching ramp and marine supplies.

(98) **Harbor Island**, about 0.5 mile northeast of Shelter Island, is in the northernmost part of the bay. **Harbor Island West Basin** has berthing and mooring accommodations for nearly 1,600 craft. A number of marinas, hotels, restaurants and shops are along the shore of the basin. A light shows from atop a building near the west end of the island.

(99) A **090°–270° measured nautical mile** is off the south side of Harbor Island. Each range is marked by two diamond-shaped markers.

(100) **Glorietta Bay**, on the south side of Coronado and 6 miles from Ballast Point, is a small-craft harbor occupied by a yacht club and a small marina. The facilities include berths for over 215 yachts and small craft. A channel marked by lighted and unlighted buoys and a **232°** lighted range leads from the main channel in San Diego Bay to the basin in Glorietta Bay. In 2004, the controlling depth in the channel was 15 feet; thence in 1993, depths of 15 to 17 feet were reported in the basin with lesser depths along the edges. A 5 mph **speed limit** is enforced in Glorietta Bay. Water, ice, and a launching ramp are available.

(101) A **restricted area**, marked by buoys, is outside the southeast limit of the channel into Glorietta Bay. (See **33 CFR 334.860**, chapter 2, for limits and regulations.)

(102) A **security zone** is also outside the southeast limit of the channel into Glorietta Bay, within the restricted area off the Naval Amphibious Base. (See **33 CFR 165.1** through **165.8**, **165.30**, **165.33**, and **165.1120**, chapter 2, for limits and regulations.)

(103) **Speed Control Lights** cross South San Diego Bay, near the head, north of Chula Vista.

(104) **Chula Vista Harbor** is on the east side near the head of South San Diego Bay at Chula Vista. The entrance is protected by breakwaters marked at the outer ends by

private lights. The entrance channel and basin channel are marked by private buoys, lights and daybeacons. In 2002, the approach to the basin had a reported depth of 18 feet with 16 feet reported alongside the piers. Berthing, electricity, water, ice, sewage pump-out, nautical supplies and a launching ramp are available.

(105)

Gulf of Santa Catalina

(106) The 80-mile coast between San Diego Bay and San Pedro Bay is thickly settled, and the buildings of numerous towns and resorts are prominent from offshore. Several small-boat harbors and the port of Newport Bay are along the coast.

(107) The first 11 miles of the coast, between Point Loma and Point La Jolla, is extremely rocky, and the kelp beds extend up to 2 miles from shore; vessels should stay well offshore.

(108) About 1 mile north of Point Loma Light is a submerged sewer outfall line extending about 1 mile to the west.

(109) **Ocean Beach**, 5 miles north of Point Loma, has a large Y-shaped fishing pier with a private sound signal on the end.

(110)

Weather, Gulf of Santa Catalina

(111) Over the Gulf of Santa Catalina and along its shores, fog is a problem during fall and winter. This is most often a land (radiation) fog that drifts out over the gulf at night. By late morning, conditions begin to clear, particularly along the coast. Offshore, fog reduces visibilities to less than 0.5 mile (0.9 km) on about 4 to 9 days per month, from September through February and in May. September and October are the worst months. Along the coast, visibilities drop below 0.5 mile (0.9 km) on about 2 to 8 days per month from August through April. November, December and February are the worst months.

(112) Gale force winds never occur as much as 1 percent of the time in the Gulf of Santa Catalina. They are infrequently encountered from November through April. Wind speeds of 17 knots or more occur about 1 to 3 percent of the time from December through May. Winds on the coast are often light. At Camp Pendleton, winds less than 3 knots occur 40 to 50 percent of the time from September through March. Seas are most likely to get choppy from November through April, when distant storms south of 40°N. generate west swells. These swells are 6 feet (1.8 m) or more, about 2 to 5 percent of the time. In winter, they occasionally exceed 9 feet (2.7 m) and some 12-foot (3.7 m) swells have been reported.

(113)

Mission Bay to Del Mar

(114) **Mission Bay**, entered between two jetties 5.5 miles north of Point Loma, is a recreational small-craft harbor administered by the city of San Diego. Lights mark the entrance to the bay as well as a sound signal on the outer end of the north jetty. The mariner-radio-activated sound signal is initiated by keying the microphone five times on VHF-FM channel 81A. A prominent feature when approaching the harbor is the municipal fishing pier at Ocean Beach, 0.3 mile south of the entrance. The lighted 338-foot tower at Sea World is prominent 1.8 miles east of the entrance. Sound signals are sounded from the fishing pier. A dredged channel leads from deep water in the Pacific Ocean to the highway bridge about 1.3 miles above the entrance. **Quivira Basin** and **Mariners Basin**, on the east and west sides of the channel, respectively, are entered about 1 mile above the entrance. A jetty marked on its outer end by a light extends about 125 yards northwest from the south side of the entrance to Quivira Basin.

(115) The entrance to Mission Bay can be difficult to navigate under certain conditions. Large swells in any season and from virtually any direction can break completely across the entrance channel. With a rough sea outside, a heavy surge exists inside the bay, especially in Quivira Basin. Boats must be securely moored to prevent damage from this surge condition. Mission Bay contains an enormous amount of water that is funneled in and out of the narrow entrance channel with tidal changes. During periods of unusually large tidal flow, an extremely strong current may be present in the channel; mariners are urged to use caution when transiting the entrance.

(116)

No-Discharge Zone

(117) The State of California, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in Mission Bay. It encompasses the entire bay; see the chart for zone limits.

(118) Within the NDZ, discharge of sewage, whether treated or untreated, from all vessels is prohibited. Outside the NDZ, discharge of sewage is regulated by **40 CFR 140** (see chapter 2).

(119)

COLREGS Demarcation Lines

(120) The lines established for Mission Bay are described in **33 CFR 80.1106**, chapter 2.

(121) Two fixed highway bridges cross Mission Bay. The first bridge, crossing above the entrance between Ventura Point and Sunset Point, has a clearance of 38 feet. The second bridge, connecting Vacation Isle with Crown Point to the north and Dana Landing to the south, has a clearance of 31 feet under the north span and 38 feet under the south span.

(122) An aerial tramway cable, with a clearance of 42 feet, crosses the entrance to **Perez Cove**, immediately southeast of Dana Landing.

(123) The San Diego City Lifeguard Headquarters and the San Diego Police Department, Mission Bay Harbor Unit, are on the south side of the entrance to Quivira Basin. Harbor regulations are enforced and emergency assistance is provided by the two units. The Lifeguard Service

maintains a 24-hour watch on VHF-FM Channel 16 and handles all dispatches. Police matters are dispatched to the Police Harbor Patrol. Calls for assistance in Mission Bay and within 3 miles of the coastline, from Point Loma to the south, to Blacks Beach, about 3 miles north of Point La Jolla to the north, are the responsibility of the Lifeguard Service. Both units have patrol boats and make safety inspections. Water skiing, swimming, sailing, fishing and speed regulations are enforced in Mission Bay. Most regulations are posted; complete regulations are available from the City Lifeguard Headquarters Office. A full service repair facility is available in Quivira Basin. A 100-ton hoist for hull and engine repairs, gasoline, diesel fuel, water, ice and marine supplies are available. There are numerous launching ramps and parking areas around the bay. The inner bay has several marinas and many private moorings.

(124)

Anchorages

(125) **Special anchorages** are along the west side of Mission Bay in **San Juan Cove**, **Santa Barbara Cove**, **Bonita Cove**, Mariners Basin and Quivira Basin. (See **33 CFR 110.1** and **110.91**, chapter 2, for limits and regulations.)

(126) **Mission Beach**, 6.5 miles north of Point Loma, is an amusement place with prominent buildings. From seaward the highest part of the roller coaster looks like a dome.

(127) **Pacific Beach**, 8 miles north of Point Loma, has a pleasure pier extending about 260 yards from the beach. The pier was partially destroyed in the winter of 1984, and submerged piles are reported within 90 yards of the seaward end; caution is advised.

(128) A 2-mile rounding rocky point, 9 miles north of Point Loma, is the first high land north of San Diego Bay. The point is a spur from 822-foot **Soledad Mountain**. The south end of this headland is called **False Point**, and the north end is **Point La Jolla**. In the vicinity of Point La Jolla, rock cliffs with caves rise abruptly from the water to heights of 80 feet. The buildings at **La Jolla** and Pacific Beach, and the television towers on Soledad Mountain are prominent.

(129) **Scripps Institution of Oceanography**, one of the leading institutions in research in oceanography and marine biology, has extensive facilities 12 miles north of Point Loma. The institution maintains a long pier for observation purposes.

(130) Just north of Scripps Institution the bluffs rise to a height of 300 feet, then decrease gradually for the next 5 miles to heights of 20 to 80 feet.

(131) A **000°–180° measured nautical mile** has been established 13.5 miles north of Point Loma; each range is marked by two steel towers.

(132) **Del Mar**, 18 miles north of Point Loma, is a resort city.

(133) The coast from Del Mar north for 31 miles to San Mateo Point is a low, flat tableland with abrupt cliffs 60 to 130 feet high and with broad beaches. The tableland is intersected by numerous deep valleys with streams that usually dry in the summer. In the north part, the high ridges of the interior are much nearer the coast. Paralleling this coast are U.S. Highway 101 and a Class I railroad.

(134)

Carlsbad to San Mateo Point

(135) **Carlsbad**, 30 miles north of Point Loma, is a resort area with a number of hotels and motels. A submerged pipeline extends 0.9 mile seaward; caution is advised. Near the north edge of town the low white square tower on the west end of the San Diego Army and Navy Academy is distinctive.

(136) The pleasure pier at **Oceanside**, 32.5 miles north of Point Loma, has a fish haven covered 10 feet around its seaward end. The pier is marked by lights.

(137) **Oceanside Harbor**, at the north end of the city, 1.2 miles northwest of the pleasure pier, is a small-craft harbor administered by the City of Oceanside, Department of Harbor and Beaches. The harbor, which can accommodate about 950 small craft, shares a common entrance with Del Mar Boat Basin (**Camp Pendleton Marine Corps Base**) to the north.

(138) Prominent features when approaching the harbor include a large lighted sign reading "OCEANSIDE" in white letters on a blue background located on a grassy bluff overlooking the middle of the harbor, a tall condominium on the east side of the harbor, a lighted tower on the southeast side of the harbor resembling a lighthouse, and a hotel in the vicinity of the harbor entrance.

(139) The common entrance to Oceanside Harbor and Del Mar Boat Basin is between two jetties. The long west jetty is marked by a single light at the seaward end. The short east jetty has a north and south extension that are both marked by lights. A mariner-radio-activated sound signal at the light on the south extension is initiated by keying the microphone five times on VHF-FM channel 81A. Inside the common entrance is a lighted junction buoy separating the entrance channels to Oceanside Harbor and Del Mar Boat Basin. The entrance channel for Oceanside Harbor is marked by lighted buoys, lights and a daybeacon. A submerged jetty, just north of the entrance channel to Oceanside Harbor, is marked by a danger buoy at its outer end.

(140)

No-Discharge Zone

(141) The State of California, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in Oceanside Harbor. It encompasses the entire harbor including Del Mar Boat Basin.

(142) Within the NDZ, discharge of sewage, whether treated or untreated, from all vessels is prohibited. Outside the NDZ, discharge of sewage is regulated by **40 CFR 140** (see chapter 2).

(143)

COLREGS Demarcation Lines

(144) The lines established for Oceanside Harbor are described in **33 CFR 80.1108**, chapter 2.

(145)

Channels

(146) A dredged channel leads from deep water through the entrance jetties, thence branches east to Oceanside Harbor and north to Del Mar Boat Basin. Strangers should not attempt the entrance at night in rough seas without assistance. The entrance channel is subject to severe wave action and shoaling, and buoys are frequently shifted with changing conditions. Mariners are requested to contact the harbor patrol on VHF-FM channel 16 before entering.

(147)

Harbor regulations

(148) The harbor is under the control of the City of Oceanside, Department of Harbor and Beaches. The harbor headquarters building is on the east side of the harbor opposite the entrance. About 50 berths for transient craft are available at the harbor headquarters. All moorage must be arranged with the harbor office in the headquarters building. Prepaid reservations are accepted for 24 guest slips, with the remainder available on a first come, first served basis. The **Oceanside Harbor Police** operates from the headquarters building. The police boats are equipped with rescue and fire fighting equipment. The police boats monitor VHF-FM channel 16, 24 hours a day, and work on channel 12.

(149)

Weather, Oceanside

(150) Wind speeds at Oceanside rarely get above 28 knots; they are most likely to occur from December through April. Fog is sometimes a late night and early morning navigational hazard from August through March. During this period, visibilities drop below 0.5 mile (0.9 km) on 2 to 8 days per month; November is usually the foggiest month. The worst time of day is between midnight and 0500. Swells are most frequent from January through April.

(151)

Supplies

(152) Gasoline and diesel fuel are pumped at the fuel dock. Marine supplies, ice and pumpout facilities are available.

(153)

Repairs

(154) A repair yard just north of the harbor district headquarters has a mobile lift that can handle craft to 42 feet and 14 tons. Hull, engine and electronic repairs are available.

(155) **Del Mar Boat Basin (Camp Pendleton)**, just north of Oceanside Harbor, is part of the U.S. Marine Corps reservation. (See **33 CFR 334.910**, chapter 2, for limits and regulations of the **restricted area.**) The boat basin shares a common entrance with Oceanside Harbor. The channel is marked by buoys and daybeacons. A **restricted area** is off the outer breakwater. (See **33 CFR 334.900**, chapter 2, for limits and regulations.)

(156) A **military exercise area** extends about 3 miles seaward from about 2 miles northwest of the boat basin northwestward to San Clemente. Mariners are advised to consult Eleventh Coast Guard District Local Notice to Mariners for scheduled exercise dates and times.

(157) A **restricted area** is within the military exercise area and centered about 4.5 miles northwest of Del Mar Boat Basin entrance. (See **33 CFR 334.905**, chapter 2, for limits and regulations.)

(158) A red and white checkered elevated tank, 1.7 miles northeast of the boat basin, is prominent from well offshore. The highway bridge and the trestlework of the railroad crossing of the **Santa Margarita River**, 1.7 miles west of the tank, also are prominent. A large white building nearly 7 miles northwest of the boat basin is conspicuous from seaward.

(159) **San Onofre Mountain**, 44 miles north of Point Loma and 1.5 miles inland, is the highest of the coastal range in the area.

(160) **San Mateo Point**, locally known as **Cottons Point** and 47 miles northwest of Point Loma, ends in cliffs 60 feet high and is the north head at the mouth of **San Mateo Creek**. Both San Mateo Creek and **Arroyo San Onofre**, a mile southeast, are crossed by a trestle. Two large domes of a nuclear power plant are 2.3 miles southeast of San Mateo Point. A smaller dome-shaped building is on top of the bluff a few hundred yards southeast.

(161)

San Clemente to Santiago Peak

(162) From San Mateo Point to Dana Point, 7.5 miles northwest, the land is higher and more rugged and is broken by **San Juan Creek** about 1.5 miles east of Dana Point. The railroad and the highway run close together along the beach under the bluffs in this stretch of the coast to San Juan Creek, where the railroad turns inland.

(163) **San Clemente**, 2 miles north of San Mateo Point, has many white houses with red-tiled roofs, making the place conspicuous from the sea. There is a small pleasure pier at the town; a fish haven covered 10 feet is off its seaward side. A reef that uncovers 3 feet is about 700 yards northwest of the pier.

(164) **Dana Point**, 8 miles northwest of San Mateo Point, is the seaward end of a high ridge. The spur forming the point ends in a moderately bold sandstone cliff 220 feet high with a precipitous broken face. Outlying rocks and ledges marked by a lighted whistle buoy extend offshore for 350 yards. **San Juan Rock**, 6 feet high and about 50 feet in extent, is 340 yards south of the highest point on the cliff, and a rock covered 2 fathoms is 2.4 miles southeast of the point.

(165) **Dana Point Harbor** is a small-craft harbor in the lee of Dana Point. The harbor, administered by the Orange County Harbor, Beaches, and Parks District, is entered from the east between two breakwaters each marked by

a light on the seaward end. A mariner-radio-activated sound signal at the south light is initiated by keying the microphone five times on VHF-FM channel 81A. A church with a giant cross is very visible on the hill above the harbor. A submerged sewer outfall line extends about 0.6 mile from shore, passing about 300 yards east of the south breakwater light. A rock, covered 7½ feet and marked by a lighted buoy, is about 300 yards northeast of the south breakwater light. When entering the harbor care should be taken to remain clear of these dangers, especially during low stages of the tide and/or periods of heavy southeast swell.

(166) Numerous uncharted private racing buoys are off the entrance to the harbor.

(167) The harbor's east and west basins are separated by a fixed highway bridge with a 45-foot channel span and a clearance of 20 feet. Berths in the east basin can accommodate over 1,400 vessels, and berths in the west basin can accommodate over 1,000 vessels. A **harbormaster** assigns berths in the harbor.

(168) The Dana Point Harbor Patrol has an office in the most southeasterly building observed after passing through the breakwater. Patrol craft equipped with rescue and fire fighting equipment are stationed here. The patrol maintains a 24-hour radio watch on 2182 kHz and VHF-FM channel 16. Berthing assignments for about 42 transient craft are available at the harbor patrol office.

(169) A **speed limit** of 5 mph is enforced in Dana Point Harbor. A swimming area, marked by private buoys, is in the northwest corner of the harbor.

(170)

Anchorage

(171) A **special anchorage** is in the west part of the harbor. (See **33 CFR 110.1** and **110.93**, chapter 2, for limits and regulations.)

(172)

No-Discharge Zone

(173) The State of California, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in Dana Point Harbor. It encompasses the entire harbor; see the NOAA charts for zone limits.

(174) Within the NDZ, discharge of sewage, whether treated or untreated, from all vessels is prohibited. Outside the NDZ, discharge of sewage is regulated by **40 CFR 140** (see chapter 2).

(175)

COLREGS Demarcation Lines

(176) The lines established for Dana Point Harbor are described in **33 CFR 80.1110**, chapter 2.

(177)

Supplies and repairs

(178) Most supplies and repairs are available at the marinas and service facilities at the harbor. Lifts to 25 tons are available.

(179) **San Juan Capistrano**, a small town about 4 miles inland from Dana Point, is the site of the old mission founded in 1776. The grounds and the buildings have undergone extensive preservation, and services are held regularly in the chapel used by founding Father Junipero Serra. This mission is famous for the return of the swallows each March 19.

(180) The 11.5-mile coast from Dana Point to Newport Bay is bold with rocky cliffs 40 to 100 feet high; these are the seaward ends of ridges separated by narrow, deep valleys. The community of **Laguna Beach** is midway along this stretch. A fishing and pleasure pier is near the mouth of **Aliso Creek** about 3.5 miles northwest of Dana Point.

(181) **Santiago Peak**, 17.5 miles northeast of Dana Point and visible 80 miles, is the dominant feature of this part of the coast; the peak is double headed and dark in contrast with the immediate coastal range.

(182)

Newport Bay

(183) **Newport Bay**, 64 miles northwest of Point Loma, is an extensive lagoon bordered on the seaward side by a 3-mile sandspit. The bay is an important yachting and sport fishing center and offers excellent anchorage for large yachts and small craft under all weather conditions. The city of **Newport Beach** embraces the districts of **Newport** and **Balboa**, on the sandspit, and **Corona del Mar**, east of the entrance.

(184)

Prominent features

(185) The numerous houses and buildings along the beach and on the hills back of the bay are prominent from seaward. The tall office buildings at the Newport Center, 1.4 miles north of the harbor entrance, are the most conspicuous. The memorial hospital building, 0.3 mile north of the turning basin, and the light-colored concrete school buildings on the high ground 1 mile back from the beach are also conspicuous.

(186) The entrance to Newport Bay is between jetties 275 yards apart with lights at their outer ends. A mariner-radio-activated sound signal at the west jetty light is initiated by keying the microphone five times on VHF-FM channel 81A. A lighted bell buoy is off the entrance.

(187) A **111°37'–291°37' measured nautical mile** is in San Pedro Channel, about 1.3 miles west of the entrance to Newport Bay. The east range is marked in front by a daymark on an 800-foot pleasure pier and in the rear by a daymark on shore at Balboa Beach. The west range is marked by daymarks on shore at Newport Beach. Another 950-foot pleasure pier is 2.8 miles northwest of the west jetty.

(188)

COLREGS Demarcation Lines

(189) The lines established for Newport Bay are described in **33 CFR 80.1112**, chapter 2.

(190)

Channels

(191) A **federal project** provides for a 20-foot main channel from the entrance to a turning basin of the same depth northwest of Lido Isle and a 10-foot Balboa Island North Channel extending north from the entrance along the east and north sides of Balboa Island. (See Notice to Mariners and latest editions of charts for controlling depths.)

(192)

Anchorages

(193) Special anchorages are in Newport Bay. (See **33 CFR 110.1** and **110.95**, chapter 2, for limits and regulations.) Assignments are made by the harbormaster.

(194)

Dangers

(195) A **speed limit** of 5 mph in Newport Bay has been established by the Orange County Harbors, Beaches, and Park District. The upper reaches of the bay are extremely shoal.

(196)

Bridges

(197) There are no bridges over the main channel. None of the bridges to the islands in the bay restrict passage to the anchorage areas.

(198)

Weather, Newport Bay

(199) Severe storms are rare. The Santa Ana is an exceptional wind that blows from the northeast or east with great violence, although of short duration. (See Weather, Los Angeles, indexed as such, this chapter for discussion of Santa Ana winds.)

(200)

Harbor regulations

(201) The City of Newport Harbor Department controls the movement and berthing of vessels under the direction of a harbormaster. The harbormaster's office is located at the Marina Park Community and Sailing Center, 1600 W. Balboa Boulevard, Newport Beach, CA—about 2¾ miles from the bay's entrance. Patrol and assistance craft operate from the harbor office on a 24-hour basis. The harbor office may be contacted by telephone 949–270–8159 or VHF-FM channel 17. The patrol boats monitor VHF-FM channel 16.

(202)

Coast Guard

(203) A search and rescue craft of the U.S. Coast Guard is stationed at the pier adjacent to the Harbor District Headquarters.

(204)

Wharves

(205) The numerous small wharves and landings in the bay are mostly for the use of local yachts and fishing craft. Five berths and several offshore moorings are available for transient craft at the Harbor District Headquarters pier. The harbormaster must be consulted before mooring. Five other transient berths are usually available at a marina at the northwest end of the turning basin.

(206)

Supplies

(207) Fuel, water, and marine supplies are available at most of the facilities in the bay.

(208)

Repairs

(209) The largest marine railway in Newport Bay has a capacity of 325 tons and can handle craft up to 150 feet. Machine shops are available. Several shipyards can haul out small boats for general repairs.

(210)

Huntington Beach State Park to Sunset Beach

(211) The 20-mile coast from Newport Bay to Point Fermin is low, and there are several lagoons near the beach. There are no trees near the shore; towns and resorts are almost continuous along the beach.

(212) **Huntington Beach State Park** is a recreational area that extends 2 miles northwest along the coast from the mouth of **Santa Ana River**, which is 4.5 miles northwest of Newport Bay entrance. The trestle crossing the mouth of this river is conspicuous. A buoy marks the seaward end of a terminal structure of a water conduit extending from shore 1.4 miles northwest of Santa Ana River. The twin stacks of the Southern California Edison Co. plant on shore and a spire about 1 mile back from the beach are conspicuous from any direction.

(213) A submerged oil pipeline extends nearly 1.2 miles seaward, 2 miles northwest of Santa Ana River; mooring buoys are off the end of the pipeline. **Huntington Beach**, a resort 5 miles northwest of Newport Beach, is identified by its many oil derricks. The city has a fishing and pleasure pier that has a fish haven covered 10 feet around its seaward end. **Sunset Beach** is a small town 5 miles northwest of Huntington Beach. An elevated tank is near the west extremity of the town.

(214)

Anaheim Bay to Alamitos Bay

(215) **Anaheim Bay**, 14 miles northwest of Newport Bay, is the site of the U.S. Naval Weapons Station. Jetties protect the entrance to the bay. Waters inside the jetties are within a **restricted area**, and **explosive anchorages** have been established on the east and west sides of the channel. (See **33 CFR 334.930** and **33 CFR 110.215**, chapter 2, for limits and regulations.) All boating traffic is required to stay within the small craft channel at all times.

(216) An entrance channel leads northeast between converging jetties to a turning basin inside Anaheim Bay. The channel is marked by lighted and unlighted buoys, lights and a **036°48'** lighted range. The outer ends of the jetties are marked by lights. A mariner-radio-activated sound signal on the west jetty light is initiated by keying

the microphone five times on VHF-FM channel 81A. An inner breakwater is under construction (2022) centered at about 33°43'56"N., 118°05'43"W., covered 15 feet; caution is advised.

(217) In Anaheim Bay, during a flooding tide, the current 50 to 75 yards from the Naval Weapons Station's pier flows east to west as opposed to the normal flow of west to east. This causes a ship approaching the berth for a portside mooring to experience difficulty in twisting to starboard. An ebbing tide has an opposite effect. After a heavy rain, runoff water from the area north of Anaheim Bay during an ebbing tide increases the rate of ebb up to 5 knots with resultant swirls and countercurrents.

(218)

COLREGS Demarcation Lines

(219) The lines established for Anaheim Bay are described in **33 CFR 80.1114**, chapter 2.

(220) **Huntington Harbour**, a small-boat basin, is just south of Anaheim Bay. The harbor is a private development, and, with the exception of two small marinas, consists of private docks adjacent to waterfront homes.

(221) The harbor is entered through the restricted waters of Anaheim Bay, and permission to pass must be obtained from the Commanding Officer, U.S. Naval Weapons Station, Seal Beach, CA. (See **33 CFR 334.930**, chapter 2, for regulations governing passage.)

(222) The **Harbor Patrol** office is adjacent to the boat launch ramp in the northwest corner of the harbor. A repair yard can handle craft to 50 feet and 25 tons for engine and hull repairs. Gasoline, diesel fuel and marine supplies are available in the harbor. Launching ramps are in the northwest and southeast corners of the harbor.

(223) **Seal Beach**, just northwest of Anaheim Bay, has several resort structures and a 1,650-foot pleasure pier, which has a fish haven covered 9 feet at its seaward end.

(224) **Alamitos Bay**, 15 miles northwest of Newport Bay, is the site of the **Long Beach Marina**, a small-craft harbor administered by the city of Long Beach Marine Department. The harbor is entered from the south between two jetties each marked by a light on the seaward end. A mariner-radio-activated sound signal at the light on the west jetty is initiated by keying the microphone five times on VHF-FM channel 81A.

(225) A dangerous wreck (33°43'45"N., 118°07'26"W.) is in the approach to the entrance of Alamitos Bay and a dangerous wreck (33°44'10"N., 118°07'35"W.), covered 19 feet, is just west of the entrance.

(226) A **general anchorage** has been designated around the entrance channel to Alamitos Bay. (See **33 CFR 110.214**, chapter 2, for limits and regulations.)

(227) The fixed bridge across Marine Stadium, which forms the inner part of the bay, has a fixed span with a clearance of 32 feet. A fixed bridge with a clearance of 13 feet crosses the junction of the west waterway and Marine Stadium. A fixed bridge, with a clearance of 11 feet, crosses the east waterway off Marine Stadium that leads to a northeast basin. A fixed bridge, with a clearance of 4 feet, crosses the west waterway between Naples and Belmont Shore. The five fixed bridges crossing the Rivo Alto Canal on Naples Island have a least clearance of 7 feet, and the power cable has a reported clearance of 55 feet.

(228) Berths in Long Beach marina are limited to about 1,800 boats, but extensive parking and ramp-launching areas are provided for trailer-drawn craft. Visiting yachts may obtain temporary berthing on a first-come first-served basis. All mooring is controlled by a **harbormaster**, who has an office on the east side of the entrance channel near the end of the point about 500 yards above the bend in the channel.

(229)

Supplies and repairs

(230) All types of supplies and services are available at the marinas and service facilities in the bay. The largest repair yard can handle craft up to 40 tons and 60 feet.

(231) A pleasure pier on the west side of Belmont Shore, 1.7 miles northwest of Alamitos Bay entrance, extends about 340 yards from the beach; a fish haven is 100 feet off the seaward end. A reported wreck covered 16 feet is about 940 yards south of the end of Belmont Pier.

(232)

Los Angeles/Long Beach

(233) **San Pedro Bay**, between Seal Beach on the east and Point Fermin on the west, is 82 miles northwest of San Diego. On the shores of the bay are the cities and port areas of **Long Beach** and **Los Angeles. Terminal Island**, in the northwest part of San Pedro Bay, separates the outer bay from Los Angeles and Long Beach inner harbors. The bay is protected by breakwaters and is a safe harbor in any weather.

(234) **Long Beach Harbor**, in the east part of San Pedro Bay, includes the City of Long Beach and part of Terminal Island.

(235) **Los Angeles Harbor**, at the west end of San Pedro Bay, includes the districts of **San Pedro** and **Wilmington** and a major part of Terminal Island.

(236) Long Beach and Los Angeles Harbors are connected by Cerritos Channel. The distance between the seaward entrance to the two harbors is about 4 miles.

(237) Four oil production islands, marked by lights, are to the north and east of Long Beach Pier J. A sound signal is sounded from the south end of each island.

(238) The **Port of Long Beach**, one of the largest ports on the Pacific coast, has the reputation of being America's most modern port. It has extensive foreign and domestic traffic with modern facilities for the largest vessels. It is a major container cargo port with several of the largest and most efficient container terminals on the Pacific coast. Principal exports are bulk petroleum, bulk coke, chemicals, waste paper and foods. Principal imports are crude petroleum, electronics, plastics, furniture and clothing.

(249)

Vessel Operating Procedures for Los Angeles/Long Beach (Best Maritime Practices)

Anchoring Procedures

In addition to observing all port tariffs and U.S. Coast Guard regulations, the Master of any commercial vessel at anchor shall implement the following Standards of Care:

- Maintain a 24-hour bridge watch by an English speaking licensed deck officer monitoring VHF-FM Channel 16.
- Make frequent checks to assure vessel is not dragging anchor.
- When winds exceed 40 knots, have the propulsion plant on standby ready to bring on line on short notice and make another anchor ready to let go. Accurate wind speed can be determined by contacting either VTS or the appropriate pilot station.
- Provide 15-minute advance notice to the Long Beach pilot station (for inside anchorages) or to VTS (for outside anchorages) before heaving anchor to get underway.

General Anchoring Guidelines

Santa Catalina Island

The three federal anchorages offshore of Santa Catalina Island (A, B and C) will be assigned by the Vessel Traffic Service.

Outside the Federal breakwaters:

- All anchorages outside the Federal breakwater will be managed and monitored by the Vessel Traffic Service (VTS).
- Any vessel desiring to use one of these anchorages must advise their intentions to VTS on VHF-FM Channel 14 and receive clearance to do so from VTS.
- VTS will not assign an anchorage to tankers or vessels exceeding 200 meters in length overall (LOA) on the first row of anchorage sites closest to the breakwater (G-1 to G-3 and F-1 to F-4).
- VTS will not provide shoreside radar direction during anchoring; however, ranges and bearings for either the Angel's Gate or Queen's Gate Light to the center of a particular anchorage site will be offered, if requested.
- Pilot or tug assistance outside the federal breakwater is not required for anchoring.

Inside the Federal breakwaters:

- All anchorages inside the Federal breakwater will be managed and monitored by the Long Beach Pilot Station.
- All vessels with a draft of 15.2 meters or greater must use a minimum of one tug to ensure proper placement of the anchor and chain, as well as to assist in turning the vessel at the proper placement of the anchor site. Tank vessel masters shall refer to the tug escort/assistant standards.

Under-Keel Clearance

Masters and Pilots should use their vessel's deepest draft in still water when calculating under-keel clearance. Masters and pilots should apply a plus or minus allowance for the tide when calculating depth of water, and consider the following factors: Vessel trim and list characteristics, depth of transit area, depth at the facility or anchorage, tide and current conditions and weather impact on water depth.

Port of Los Angeles

- Between **Los Angeles Approach Channel Lighted Buoy 1** and **Los Angeles Main Channel Lighted Buoy 11**, minimum under-keel clearance before correction for roll and pitch is 10 percent of vessel's draft.
- In the channel between **Los Angeles Main Channel Lighted Buoy 11** and a position off the designated berth, minimum under-keel clearance is 2.0 feet (0.61 meters).
- Vessels must always remain afloat in the final approach to the berth and while at berth.
- Shifts via outer harbor between Los Angeles and Long Beach, minimum under-keel clearance is 3.0 feet (0.91 meters).

Port of Long Beach

- Between the **Long Beach Channel Approach Lighted Whistle Buoy LB** and **Long Beach Channel Lighted Buoy 3**, minimum under-keel clearance before correction for roll and pitch is 10 percent of vessel's draft.
- In the channel between **Long Beach Channel Lighted Buoy 3** and a position off the designated berth, minimum under-keel clearance is 2.0 feet (0.61 meters).
- Vessels must always remain afloat in the final approach to the berth and while at berth.
- At anchorages inside the breakwater, minimum under-keel clearance is 4.0 feet (1.22 meters) for Anchorages B-7 and B-11 when vessels draft is 50 feet (15.24 meters) or more and 2.5 feet (0.76 meters) for all other anchorages.
- Shifts via outer harbor between Los Angeles and Long Beach, minimum under-keel clearance is 3.0 feet (0.91 meters). Tank vessel masters and operators should also be guided by the under-keel clearance regulations for tank vessels contained in 33 CFR §157.455. Chapter XIV of the Harbor Safety Plan includes formulas for calculating the increase in draft due to pitch or list.

(250)

Vessel Operating Procedures for Los Angeles/Long Beach (Best Maritime Practices)

Inclement Weather—Standards of Care for Vessel Movements

Inclement weather requires heightened awareness and vigilance. This section is intended to provide clear guidance to mariners as to what is expected of them when navigating in inclement weather in the area covered by the Harbor Safety Plan. Nothing in this section shall be construed to require the master of a vessel to commence a transit during inclement weather, nor does this section replace compliance with the COLREGS. It is recognized, however, under certain circumstances, **vessels may safely transit during inclement weather provided that equivalent safety levels are applied**.

Inclement Weather Definitions

High winds are defined once the National Weather Service issues a *small craft advisory* for sustained winds of 21 to 33 knots, potentially in combination with wave heights exceeding 10 feet (or wave steepness values exceeding local thresholds).
Restricted visibility is defined once conditions of visibility fall below the following:
• For tankers 150,000 DWT or greater: 1 nautical mile
• For tankers greater than 60,000 DWT, but less than 150,000 DWT: 0.75 nautical mile
• For all other vessels 45-foot draft or more: 0.75 nautical mile
• For all other tankers and petroleum barges: 0.5 nautical mile
• For all other vessels: Three (3) times vessel's LOA

Guidelines for Commencing a Transit During Inclement Weather Definitions

Vessel characteristics, navigational equipment and the availability of shoreside support must be considered when a movement is undertaken during inclement weather. Conditions of visibility and wind can vary considerably throughout the port complex at any given time and may impact the decision to proceed. While specific movement parameters are difficult, if not impossible, to define, it is recommended that mariners carefully consider commencing vessel movements inside the federal breakwater when conditions reach the defined thresholds shown above under **Inclement Weather Definitions**.

Piloted Vessel Guidelines

When inclement weather exists along a vessel's intended route, the respective pilot station management will be notified. Prior to commencing a transit, the operating pilot will conduct a risk analysis that includes consultation with a second pilot. This expanded participation is a key risk reduction measure.
Reduced Visibility
• When visibility inside the federal breakwater is less than 0.5 mile, the respective vessel traffic center (VTC) will impose one-way traffic restrictions when and where appropriate.
• When commencing a vessel movement in reduced visibility (0.75 nautical mile) shoreside radar assistance and carry-on enhanced navigational tools such as a Portable Pilot Unit (PPU) shall be readily available for use.
• When reduced visibility is encountered after commencing a transit, the operating pilot should take appropriate precautions to minimize the risk of collision. Precautions may include but are not limited to continuing the transit or anchoring, reducing speed, enlisting shore-based radar support and securing additional tug assistance.
High Winds
Vessel movements will proceed on a case by case basis. Depending on direction and force of wind, type and characteristics of the vessel, movements requiring more than 50 tons of force to hold the vessel against a wind on the beam shall be carefully considered. Below are examples of wind velocities acting on corresponding sail areas that would require 50 tons of counter force exerted by tugs and/or thrusters.

Wind Force

		Force (tonnes per square meter)						
Wind force (knots)	Wind force (m/sec)	1000 m^2	5000 m^2	7500 m^2	10,000 m^2	12,000 m^2	14,000 m^2	16,000 m^2
5	2.5	0.3	1.74	2.60	3.5	4.2	4.9	5.6
10	5	1.4	6.94	10.42	13.9	16.7	19.4	22.2
15	7.5	3.1	15.63	23.44	31.3	37.5	43.8	50.0
20	10	5.6	27.78	41.67	55.6	66.7	77.8	88.9
25	12.5	8.7	43.40	65.10	86.8	104.2	121.5	138.9
30	15	12.5	62.50	93.75	125.0	150.0	175.0	200.0
35	17.5	17.0	85.07	127.60	170.1	204.2	238.2	272.2
40	20	22.2	111.11	166.67	222.2	266.7	311.1	355.6
45	22.5	28.1	140.63	210.94	281.3	337.5	393.8	450.0
50	25	34.7	173.61	260.42	347.2	416.7	486.1	555.6

$V^2/18$ = tonnes per 1000 m^2
V = wind speed in m/sec

(251)

Vessel Operating Procedures for Los Angeles/Long Beach
(Best Maritime Practices)

Non-piloted Vessel Guidelines
It is recommended that all vessels develop, and follow, their own internal operating guidelines for inclement weather transits, including a provision for second opinion consultation.

Application of Equivalent Safety Levels
When a vessel master intends to commence a transit during inclement weather, at a minimum, the following equivalent safety levels should be adhered to.

Vessels 1600 GT or greater:
• When operating inside the federal breakwater, be under the control of a USCG licensed pilot with the appropriate endorsement for the vessel and area of operation.
• Have shore-based radar immediately available to assist the vessel.

All vessel masters and pilots (if employed) should make a positive evaluation of the following:
• The number of vessels transiting within the harbor and expected traffic concentrations.
• Planned transit speeds appropriate for the prevailing conditions.
• The maneuvering characteristics of the vessel.
• The quality of the vessel's radar and navigation systems.
• The vessel's size and draft in relation to the area to be transited.
• Number, type and power of assist tugs.
• Number and power of bow/stern thrusters available.
• Maneuvering room at various stages of the transit.
• Quality of the vessel's bridge team.
• Special circumstances to be encountered (e.g. dredging projects, obstructions).
• Wind direction in relation to planned maneuvers.

COTP Notification of Intention to Move in Inclement Weather Without Applying Equivalent Safety Levels
Vessels 1600 GT or greater that intend to commence a vessel transit during inclement weather without complying with **inclement weather standards of care for vessel movements** (including shore-based radar support) shall make the following broadcast to the VTS on VHF Channel 14 at least 15 minutes prior to getting underway:

*"**Vessel name/call sign**, making our inclement weather COTP notification, as per guidance within the Harbor Safety Plan, that we intend to transit from **vessel location to intended destination**."*

In addition, a safety broadcast will be made on Channel 13 and the vessel will coordinate its movement with the appropriate pilot station and the VTS.

(239) The **Port of Los Angeles**, also one of the largest ports on the Pacific coast, has a history of leading the Pacific coast ports in terms of tonnage handled. It has extensive facilities to accommodate all types of traffic. Some of the principal exports are crude minerals, iron and steel scrap, inorganic chemicals, animal feed, cotton, manufactured fertilizers and fresh fruits and nuts. Some of the principal imports are iron and steel products, motor vehicles and parts, organic chemicals, fresh fruits/nuts, paper/paperboard, sugar, molasses and syrups, glass and fresh/frozen fish.

(240)

Prominent features

(241) **San Pedro Hill**, 3.3 miles northwest of Point Fermin, is the distinguishing feature for making San Pedro Bay from southeast or west. The hill terminates seaward in steep, rocky cliffs about 60 feet high, with several horizontal terraces between them and the summit. On top of the summit are two large white radar domes.

(242) Because it is high above the usual low-lying fog area, the lighted tower atop Santa Catalina Island is reported a useful guide for vessels approaching the Los Angeles-Long Beach area; the light can be seen for about 16 miles.

(243) **Point Fermin**, the southeast extremity of San Pedro Hill, is a bold cliff about 100 feet high. **Point Fermin Light** (33°42'17"N., 118°17'38"W.), 120 feet above the water, is shown from a pole on the southern extremity of the point. A prominent pavilion (The Bell of Friendship) is on the high ground about 0.3 mile north of the light.

(244) In Long Beach Harbor, prominent charted objects are a hotel tower located just north of the Municipal Auditorium and the white stone tower of another hotel 0.4 mile east and the lighted large white dome on the south side of the entrance to Queensway Bay. The derricks on the artificial oil islands east of Long Beach Pier J are constructed to appear as high-rise apartment buildings.

(245) Prominent charted objects in Los Angeles Harbor that are of use to the navigator are the green and white tank near the south end of Pier 1, the lighted radio tower atop San Pedro City Hall and the stack on Terminal Island.

(246) **Long Beach Light** (33°43'23"N., 118°11'13"W.), 50 feet above the water, is shown from a 42-foot white

rectangular tower on a white building on the east end of Middle Breakwater; a sound signal is at the light.

(247) **Note:** The Long Beach Pilots have established a current meter in about 57 feet of water 0.41 mile and bearing 198.5° from Long Beach Light. A cable runs from the meter to the Long Beach Light. Mariners are requested to avoid anchoring or bottom fishing in this area.

(248) **Los Angeles Light**, (33°42'31"N., 118°15'06"W.), 73 feet above the water, is shown from a white cylindrical tower with black stripes on a concrete block on the outer end of the San Pedro breakwater; a sound signal is at the light.

(252)

COLREGS Demarcation Lines

(253) The lines established for San Pedro Bay are described in **33 CFR 80.1114**, chapter 2.

(254)

Traffic Separation Scheme

(255) **Traffic Separation Schemes for Los Angeles/Long Beach** are between the Gulf of Santa Catalina and San Pedro Channel and along the coast between Point Arguello and Point Vicente—see **33 CFR 167.1** through **167.15**, **167.450** through **167.452** and **167.500** through **167.503**. This Traffic Separation Scheme is recommended for use by all vessels traveling between the points involved. They have been designated to aid in the prevention of collisions at the approaches to major harbors and along heavily traveled waters but are not intended in any way to supersede or to alter the applicable Navigation Rules. Separation zones are intended to separate inbound and outbound traffic and to be free of ship traffic. Separation zones should not be used except for crossing purposes. Mariners should use extreme caution when crossing traffic lanes and separation zones. Rule 10 of the Navigation Rules apply to this Traffic Separation Scheme. Note—parts of the charted Traffic Separation Scheme have been amended by the International Maritime Organization (IMO), and have not been updated in the Code of Federal Regulations. (See IMO COLREG.2/Circ.64.)

(256) Extreme caution must be exercised in the Precautionary Area off the entrances to Los Angeles and Long Beach Harbors as both incoming and outgoing vessels use this area. (See also Traffic Separation Schemes, chapter 1, for additional information.)

(257) **Ferry Routes** in the Gulf of Santa Catalina and San Pedro Channel differ from the Traffic Separation Scheme in that area. Mariners using the area's Traffic Separation Scheme are advised to **use caution and beware of crossing ferries** enroute between local coastal ports and ports at Santa Catalina Island.

(258)

Vessel Traffic Service

(259) The **Vessel Traffic Service (VTS) Los Angeles/Long Beach**, jointly operated by the U.S. Coast Guard and the Marine Exchange, has been established within the approaches to San Pedro Bay and the ports of Los Angeles and Long Beach. The VTS is a California State mandatory service and a federally mandated Vessel Movement Reporting System (VMRS). It is designed to enhance navigational safety in the main approaches to the ports of Los Angeles and Long Beach.

(260) The VTS area consists of the waters of San Pedro Bay and San Pedro channel, including Santa Monica Bay, within a 25-nautical-mile radius of Point Fermin Light and Los Angeles and Long Beach Harbors, inside the breakwater. This includes parts of the Traffic Separation Scheme Lanes and the Precautionary Area. Communication in the VTS area outside the breakwater will be handled by the Marine Exchange Vessel Traffic Center (VTC) and inside the breakwater by the appropriate Pilot Station. All reports and communications made to the VTC (voice call **San Pedro Traffic**) shall be on VHF-FM channel 14, to Los Angeles Pilots on VHF-FM channel 73, and to Long Beach Pilots on VHF-FM channel 12. All stations monitor VHF-FM channels 16 and 13.

(261) Participating vessels are to ensure that a copy of the **VTS User Manual** is available on board the vessel when operating within the VTS area. The manual is available at no charge from the Marine Exchange of Southern California, P.O. Box 1949, San Pedro, CA 90733, phone 310–832–6411. The manual can be viewed and downloaded at *www.mxsocal.org*.

(262) The State of California has established Tank Vessel Escort Regulations for tank vessels underway in the Los Angeles/Long Beach Harbor and their approaches. The full text of the regulations can be found at *wildlife.ca.gov/ospr* or can be obtained from the California Office of Spill Prevention and Response 24-hour Communications Center at 916–445–0045.

(263) Tug Escort Applicability: All laden tank vessels (tankers or barges carrying as cargo a total volume of oil greater than or equal to 5,000 metric tons of oil) entering the port should ensure proper implementation of either the Tanker Force Selection Matrix or the Tank Barge and Tug Matching Criteria listed below. In addition, except for tank barge/primary towing units that have total displacements of 20,000 metric tons or less, escort tugs must be tethered.

(264) Three Tank Vessel Escort Zones are established as follows:

(265) Zone 1: Upon all waters within 2.0 nautical miles to seaward of the Federal Breakwater, escort tugs required for all laden tank vessels.

(266) Zone 2: Upon all waters in the approaches to the Port of Long Beach within 3.5 nautical miles to seaward of the Federal Breakwater, escort tugs required for all laden tank vessels with static deep draft greater than 16.5 meters.

(267) Zone 3: Upon all waters in the approaches to the Port of Los Angeles within 4.0 nautical miles to seaward of the Federal Breakwater, escort tugs required for all laden tank vessels with static deep draft greater than 14.0 meters.

(268) Inbound, laden Oil and Chemical Tank Vessels shall not proceed closer than the seaward limit of the applicable Tank Vessel Escort Zone, unless the prescribed escort tug(s) are in position at the seaward limit of the applicable Tank Vessel Escort Zone. Masters shall also ensure the anchors are ready for letting go prior to entering the applicable Tank Vessel Escort Zone. The tank vessel master/pilot shall hold a "pre-escort conference" that should at a minimum include:

(269) 1. Contacting the escort tug operator to confirm the number and position of the escort tug(s); and

(270) 2. Establishing the radio frequency to be used; and

(271) 3. Establishing the destination of the tank vessel; and

(272) 4. Discussing any other pertinent information that the master/pilot and escort tug operator deem necessary.

(273) An "escort tug," as defined by California regulations, is a tug that is designed primarily for pushing or pulling ahead or astern, or towing alongside another vessel. A tug is considered to be designed for escort work whether or not it is involved in such activity. In the harbors of Los Angeles/Long Beach, an "assist/escort tug" means any tug that is accepted by the tank vessel master and/or pilot to escort a tank vessel that is transiting waters where an assist/escort is required. Arrangements should be made via the vessel agent, tug company and appropriate pilot service. Outbound laden tank vessels are not required to use tugs once they have safely cleared the breakwater. All tank vessels shifting within the harbor(s) (including dock to anchor, anchor to anchor, and dock to dock) shall comply with the escort requirements. Arrangements should be made via the vessel agent, tug company or appropriate pilot service to ensure compliance.

(274)

TANKER FORCE SELECTION MATRIX

Tanker Displacement	Forces For Tug(s) Tethered at the Stern (see notes below)
Metric Tons	**Short Tons**
0 to < 60,000	10
60,000 to < 100,000	20
100,000 to < 140,000	30
140,000 to < 180,000	40
180,000 to < 220,000	50
220,000 to < 260,000	62
260,000 to < 300,000	75
300,000 to < 340,000	87
340,000 to < 380,000	105
380,000 to < 420,000	128
Note 1: Ahead forces for tugs using stern lines (e.g., Voith-Schneider propeller – VSP tugs). Astern forces for tugs using headlines (e.g., azimuth stern drive – ASD tugs)	
Note 2: The *Forces For Tugs* described in the Tanker Force Selection Matrix were evaluated in a water depth equal to 1.2 times the tanker's deep draft for tankers with a displacement of less than 260,000 metric tons, and in a water depth equal to 1.1 times the tanker's deep draft for tankers with a displacement equal to or greater than 260,000 metric tons.	

(275)

Small Tank Barge Matrix

Total Displacement Tonnage of the Tank Barge and the Primary Towing Tug	Minimum Required Escort Tug(s) Static Bollard Pull *tethered escort tug(s)/un-tethered escort tug(s)*
0 to 20,000 displacement tons	10 short tons/15 short tons
> 20,000 displacement tons	A total astern static bollard pull (in pounds) equal to or greater than the sum of both the primary towing tug(s) and barge(s) total displacement tonnage. (e.g., where the total towing tug and tank barge displacement is 25,000 displacement tons, the escort tug(s) astern static bollard pull shall be at least 25,000 pounds or 12.5 short tons.)

(276) All the escort tugs required to satisfy the Tanker Force Selection Matrix shall be tethered on the tanker's stern.

(277) These force requirements reflect favorable circumstances and conditions. The tanker master/pilot shall arrange for additional escort tug(s) should adverse weather conditions, unusual port congestion, the contemplated movement of the vessel or other conditions or circumstances so require.

(278) (See **33 CFR 157**, chapter 2, for regulations for Tank Vessels Carrying Oil in Bulk and Maneuvering Performance Capability.)

(279) **Vessel Speed Reductions**, in addition to the mandatory 12 knot speed limit in the Los Angeles/Long Beach Vessel Traffic Service (VTS) Precautionary Area, the following excerpt is from Rule 402 from the South Coast Air Quality Management District (SCAQMD):

(280) The Port of Long Beach asks every vessel entering or leaving the port to observe the **voluntary 12-knot speed limit** that extends seaward 40 nautical miles from Point Fermin. Reducing ship speed will reduce exhaust emissions into Southern California's air, which will result in better air quality. The speed of every vessel in the speed reduction zone is measured and recorded by the Marine Exchange of Southern California; please contact the Marine Exchange for more information. Your cooperation with this important air quality improvement program is greatly appreciated.

(281) Vessels making the breakwater entrances should proceed at speeds no greater than is necessary for steerage. Vessels that approach the entrance close in and attempt to turn at or near the entrance are in danger of collision with outbound vessels, especially with smaller craft at night when their lights are not easily distinguishable at low tide or against the background of lights in the harbor.

(282) Vessels awaiting a pilot should stay well to seaward and east of the outer fairway buoys.

(283) **San Pedro Breakwater** extends about 0.9 mile in a southeast direction from the east side of Point Fermin, then turns east-northeast for another 0.9 mile to Los Angeles Light. **Middle Breakwater** extends east-northeast for 2.1 miles from the Los Angeles entrance, thence east for 1 mile to the Long Beach entrance, and is marked at both ends by lights. **Long Beach Breakwater** extends east 2.2

(305)

Structures across the Channels of Long Beach and Los Angeles Harbor

Name	Type	Location	Clearance (feet)		Information
			Horizontal	Vertical*	
Vincent Thomas Bridge	fixed	33°44'58"N., 118°16'17"W.	1,150	165 (185 for central 500 feet)	
Henry Ford Bridge	vertical lift	33°45'57"N., 118°14'25"W.	180	165 (up) 6 (down)	Notes 1 and 2
Commodore Schuyler F. Heim Bridge	fixed	33°45'58"N., 118°14'23"W.	180	52	Note 2
Overhead power cables		33°46'09"N., 118°13'35"W.		155	Note 3
Long Beach International Gateway Bridge	suspension	33°45'53"N., 118°13'16"W.	302	205	
Queen's Way/Magnolia Avenue Bridge	fixed	33°45'35"N., 118°11'58"W.	500	31 (45 at center)	

* Vertical clearance is referenced to mean high water
Note 1 – See **33 CFR 117.1** through **117.59** and **117.147**, chapter 2, for draw bridge regulations.
Note 2 – It is reported that clearance gages have been established on a pier flanking the navigable span of the Heim Bridge and on the dolphins flanking the Henry Ford Bridge. The gages indicate the vertical navigational clearance beneath each of the bridges at any height of tide.
Note 3 – Vessels are required to have a clearance of at least 6 feet under the cables to avoid the danger of arcing.

miles from Long Beach entrance and is marked by lights on both ends. Ranges for a 090°–270° measured nautical mile are on the Long Beach Breakwater. They are yellow diamond-shaped daymarks on iron pipes.

(284) Kelp beds are along the inside edge of the west end of Middle Breakwater and a shallow water habitat is on the inside edge of San Pedro Breakwater; the shallow water habitat is surrounded by a submerged dike and is marked by lights.

(285) **Fish Harbor**, on the south side of Terminal Island near its west end, is protected by two sets of breakwaters and the mole of Pier 300, the outer ends of which are marked by lights. A dredged channel with a controlling depth of about 14 feet leads between the outer and inner breakwaters to Fish Harbor, which has depths of about 16 to 18 feet. The seawall is lined with canneries and other fish works. The outer breakwaters enclose the Yacht Club Anchorage, sometimes called the Fish Harbor Extension. This anchorage has depths of 17 to 20 feet east and depths of 11 to 14 feet west of the dredged channel.

(286)

Channels

(287) **Long Beach Channel** leads northwest from west of Long Beach Breakwater for 2.2 miles to **Middle Harbor**, thence north to **Back Channel** and the **Inner Harbor**. A **restricted harbor** entrance area has been designated in the channel and side areas that extends from about 1 mile north of the breakwater to inside Middle Harbor. The Board of Harbor Commissioners maintains these regulations in the Port of Long Beach, Tariff Number 004. These regulations grant priority to outbound vessels and stipulate a **6-knot speed limit** in this restricted area. The tariff is available from the Port of Long Beach website, *www.polb.com*.

(288) Most of the channels in Long Beach Harbor are maintained at more than the project depth of 35 feet. (See Notice to Mariners and latest editions of charts for depths.)

(289) **Los Angeles Main Channel** leads northwest from east of the San Pedro Breakwater for about 1 mile, thence north to the Inner Harbor turning basin, thence northeast through **East Basin Channel** and **Cerritos Channel**. About 0.6 mile northwest of the breakwater, **Super Tanker Channel** leads west from the Main Channel to the deep-draft facilities at Berths 45–50. Los Angeles Main Channel from the breakwater to the Super Tanker Channel and the Super Tanker Channel are maintained at more than the project depth of 45 feet and 40 feet, respectively. (See Notice to Mariners and latest editions of charts for depths.)

(290) Los Angeles Main Channel is marked by lights, lighted buoys and a **295.8°** lighted range.

(291) The Los Angeles and Long Beach main channels are considered narrow channels. Vessels less than 20 meters in length, sailing vessels, vessels engaged in fishing, or any vessel attempting to cross these channels shall not impede a vessel that can only safely navigate within a narrow channel per Inland Navigation Rules, Rule 9. To obtain information on the movement of deep draft vessels inside the Federal Breakwater, contact the Los Angeles Pilot Station on VHF-FM channel 73 or Long Beach Pilot Station of VHF-FM channel 74.

(292)

Anchorages

(293) Limits and regulations of general, naval, explosives and special anchorage areas in San Pedro Bay are given in **33 CFR 110.1**, **110.100**, and **110.214**, chapter 2. When inside the breakwaters, vessels are required to anchor in the anchorage area prescribed in the regulations except in cases of great emergency. The Santa Ana is the only wind dangerous to vessels anchored inside the breakwaters.

(294) The shallow water habitat along the east side of Pier 400 and about 0.4 mile south of the Naval Base Mole extends into Special Anchorage B-1 (**33 CFR 110.100**); however, there are no boating or anchorage restrictions associated with the shallow water habitat.

(295) Vessels are cautioned against anchoring in the vicinity of pipeline and cable areas shown on the charts.

(296)

Dangers

(297) A shoal area, with rocks having a least depth of 2 feet, extends about 0.3 mile south of the shore just east of Point Fermin Light. A lighted whistle buoy is about 300 yards southwest from the south end of the shoal area.

(298)

Regulated navigation areas

(299) A **regulated navigation area** has been established in the waters south of the Los Angeles-Long Beach breakwater encompassing the approaches to both Los Angeles and Long Beach harbors, the pilot areas, and Commercial Anchorage G. (See **33 CFR 165.1** through **165.13** and **165.1152**, chapter 2, for limits and regulations.)

(300) **Safety zones** have been established in San Pedro Bay, including around the oil drilling platforms, in

(301)

33°35'45"N., 118°08'27"W.	Platform Edith (§147.1108)
33°35'00"N., 118°07'40"W.	Platform Elly (§147.1104)
33°34'57"N., 118°07'42"W.	Platform Ellen (§147.1104)
33°33'50"N., 118°07'00"W.	Platform Eureka (§147.1111)

(302) See **33 CFR 147.1** through **147.20** for general regulations and the specific regulations listed above in chapter 2; also see **Oil Well Structures** in chapter 3 for additional information.

(303) A **naval restricted area** is in the West Basin off the south shore of Terminal Island inside the jetty of the Naval Base Mole (See **33 CFR 334.990**, chapter 2, for limits and regulations.)

(304) A **restricted area** is off the east side of Reservation Point. (See **33 CFR 334.938**, chapter 2, for limits and regulations.)

(306)

Currents

(307) The tidal currents follow the axis of the channels and rarely exceed 1 knot. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(308)

Surge

(309) Both Los Angeles and Long Beach Harbors are subject to seiche and surge. The most persistent and conspicuous oscillation has a period of approximately 1 hour. In the vicinity of Reservation Point and near the east end of Terminal Island, the hourly surge is very prominent, causing velocity variations that at times may be as great as 1 knot, and which often overcome the lesser tidal current so that the current floods and ebbs at half-hour intervals. Because of the more restricted channel, the surge through Back Channel at the east end of Terminal Island usually reaches a greater velocity than through the channel west of Reservation Point. In Back Channel, the hourly variation may sometimes be 1.5 knots or more. The hourly surge, together with other oscillations of shorter period and of more irregular occurrence, at times causes a very rapid change both in height of the water and the velocity and direction of the current and may endanger vessels tied up at the piers. A 3-minute surge is reported to be responsible for major ship movements and damage. Pilots advise taut lines to reduce the effect of the surge.

(310)

Weather, Los Angeles

(311) Fog is most likely from October through February. Out over the bay, it drops visibilities below 0.5 mile (0.9 km) on about 11 days per month during this period. It is mostly a land (radiation) fog that drifts out and is worst in the late night and early morning. Smoke from nearby industrial areas often adds to the thickness and persistence of the fog. There are times when it will hang over the inner channels for several days and along the coast can be very local in occurrence. For example, at Long Beach, which is particularly susceptible to cold air drainage, fog reduces visibilities to less than 0.5 mile (0.9 km) on an average of 18 more days annually than at nearby Los Angeles International Airport. Along the shores, visibilities drop to less than 0.5 mile (0.9 km) on about 3 to 8 days per month from August through April; December is usually the worst month.

(312) Winds are variable particularly in fall and winter. They are also strongest during this period when the **Santa Ana wind** can blow. This is an offshore desert wind which, though infrequent, may be violent. It occurs when a strong high-pressure system sits over the plateau region and generates a northeast to east flow over southern California. The air streams through Cajon Pass into the Great Valley, swings toward the southwest, and follows either the Santa Ana River Canyon through the Santa Ana Mountains or moves directly over the low mountains south of the canyon and then follows a well-defined path over the plains of Orange County to reach the ocean near Newport. It diminishes little in intensity immediately after passing over the bay, and some reports credit it with blowing far out to sea. However, beyond 50 miles (93 km) from shore, Santa Anas are of little concern. These winds have reached speeds of 50 knots or more along the coast.

(313) Aside from weather forecasts, there is little warning of the onset of a Santa Ana. For some hours preceding its arrival, good visibility and unusually low humidity often prevail. Shortly before its arrival on the coast, the Santa Ana may be observed as an approaching dark-brown dust cloud. This will often give from 10 to 30 minutes warning and is a positive indication. The Santa Ana may come at any time of the day. It can be reinforced by a land breeze in the early morning or weakened by a sea breeze during the afternoon.

(314) Winter storms are also responsible for strong winds over San Pedro Bay, particularly from the southwest

through northwest. Winds of 17 knots or greater occur about 1 to 2 percent of the time from November through May. Winter winds often have an east component, although west-northwest winds are most frequent at Long Beach. At Los Angeles International Airport, west and northeast winds are the most common, while at Los Alamitos, northeast, east and southwest winds are frequent. However, at both locations, calm conditions are as common or more so from fall through spring. Southwest through west winds begin to prevail in spring, and this lasts through the summer and into early fall. Gales are rare and have occurred occasionally during March and November. March, April and May are the windiest months and December the most calm. An all-time peak gust of 54 knots was recorded in March 1952.

(315) The National Weather Service maintains an office in Los Angeles—see Appendix A for address. Barometers may be compared here or by telephone/internet.

(316)

Pilotage, Port of Los Angeles

(317) All vessels 300 gross registered tons and over and all foreign vessels leaving, entering or shifting within the Port of Los Angeles are subject to pilotage. Vessels licensed and engaged in the fishing trade and enrolled vessels of the United States under the direction of an officer federally licensed for the port are exempt from pilotage.

(318) The Port of Los Angeles Pilot Service boards vessels in the vicinity of Los Angeles Approach Channel Lighted Whistle Buoy 3. Tank vessels will be boarded at least two miles from the Los Angeles entrance. Deep-draft vessels (draft more than 55 feet) will be boarded in the vicinity of Los Angeles Approach Channel Lighted Buoy 1. The pilot boats, STEPHEN M. WHITE and PHINEAS BANNING, have black hulls and white cabins with L.A. PILOTS displayed on each side. The pilot station is at the southeast end of Pier 1. Pilotage can be arranged through the pilot station, telephone 310–732–3805, or VHF-FM channels 73 and 16; call sign KEB-260. The pilot station and boats monitor and use as working frequencies VHF-FM channels 73, 14 and 16. The pilot boats display the standard day and night signals. The pilot station requests 2 hours advance notice of estimated time of arrival on VHF-FM channel 73. The pilots normally board the vessels on the starboard side with the ladder about 1 meter above the water. Vessels may not be boarded during periods of poor visibility or severe weather.

(319)

Pilotage, Port of Long Beach

(320) All foreign vessels and U.S. vessels of 300 gross registered tons and over sailing under register are subject to a pilotage fee whether or not a municipal pilot is actually employed. Vessels sailing under U.S. enrollment and licensed and engaged in coastwise, intercoastal or fishing trades under the direction of an officer federally licensed for the port are exempt from pilotage unless a municipal pilot is employed.

(321) The Jacobsen Pilot Service, Inc., handles pilotage for San Pedro Bay, Los Angeles Harbor, Anaheim Bay and primarily Long Beach Harbor. The pilots board vessels 1 mile south of Long Beach Approach Lighted Whistle Buoy LB. Large deep-draft vessels are boarded 2 miles or more south of the approach buoy. The pilot boats, POLARIS, VEGA, ORION and ALTAIR have yellow hulls and white cabins with LONG BEACH PILOTS displayed on each side. The pilot station is at the northwest end of Pier F. Pilotage can be arranged by telephone (562–432–0664) or through VHF-FM channel 12. The pilot station monitors VHF-FM channels 12 and 16; the pilot boats monitor VHF-FM channels 12, 13, 14 and 16. The pilot boats display the standard day and night signals. The pilot station requests 2 hours advance notice of estimated time of arrival (ETA) by radiotelephone; call sign, KMA-372. Vessels should state name, call sign, ETA at the pickup station and draft and, for vessels equipped with bow or stern thrusters, the operational status of the thrusters. Vessels will be given information regarding the desired lee for boarding. In normal weather, pilots board on the starboard side, with the ladder about 2 meters above the water, and a moderate speed. Accommodation ladders must not be used outside the breakwater. In very thick fog vessels may be requested to anchor outside the breakwater in Anchorage F.

(322)

Towage

(323) Several tugboat companies operate in the Los Angeles-Long Beach area with tugs up to 5,000 hp available. Large vessels usually have one or more tugs in attendance while berthing at or departing from the wharves along the inner channels.

(324)

Quarantine, customs, immigration and agricultural quarantine

(325) The Los Angeles/Long Beach Seaport is a customs port of entry (See Vessel Arrival Inspections, chapter 3.)

(326) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(327)

Coast Guard

(328) A **sector office** is located in the Los Angeles/Long Beach Harbor complex. (See Appendix A for addresses.)

(329) **Los Angeles/Long Beach Coast Guard Station** is on the east side of Main Channel at **Reservation Point**.

(330)

Harbor regulations

(331) Local rules and regulations for the Port of Los Angeles are enforced by the Port Warden of the Harbor Department. The Los Angeles Harbor Department Headquarters are at 425 South Palos Verdes Street, San Pedro.

(332) Similar regulations for the Port of Long Beach are enforced by the Executive Director of the Harbor Department assigned by a Board of Harbor Commissioners.

(337)

Facilities in the Port of Los Angeles

Name	Location	Berthing Space	Depths*	Deck Height	Mechanical Handling Facilities and Storage	Purpose	Operated by
POLA Liquid Bulk Terminal (Berths 45-47)	33°42'53"N., 118°16'31"W.	1063	47	16	Two hydraulic unloading arms	Crude oil	Port of Los Angeles
POLA Breakbulk Terminal (Berths 49-53)	33°43'08"N., 118°16'26"W.	2100	35-51	14.6	Open storage (24 acres)	Breakbulk steel	Port of Los Angeles
SSA (Berths 54-55)	33°43'29"N., 118°16'34"W.	1340	35	14	Transit shed (211,000 sq feet)	Imported meats, Imported fruits	Stevedoring Services of America
Westway (Berths 70-71)	33°43'29"N., 118°16'29"W.	800	35	14.8	Tank storage (593,000 barrels)	Liquid bulk	Westway Terminal Company
World Cruise Center (Berths 91-93)	33°44'51"N., 118°16'34"W.	2850	37	15	Terminal buildings and warehouses	Handling passenger vessels	Pacific Cruise Ship Terminals
West Basin Container Terminal (Berth 100)	33°45'09"N., 118°16'30"W.	1200	45-53	15	• Four Panamax cranes • Open storage (75 acres)	General cargo in containers	West Basin Container Terminal LLC
Kinder Morgan Liquid Terminal	33°45'22"N., 118°16'51"W.	825	35	13	Tank storage (498,000 barrels)	Petroleum products	Kinder Morgan, Inc.
West Basin Container Terminal (Berths 121-131)	33°45'39"N., 118°16'33"W.	3500	35-45	15	• Eight Panamax cranes • Open storage (186 acres)	General cargo in containers	West Basin Container Terminal LLC
TraPac Terminal (Berths 135-139)	33°46'00"N., 118°16'25"W.	4050	35-53	15.7	• Eleven Panamax cranes • Open storage (173 acres)	General cargo in containers	Trans Pacific Container Service Corp.
ConocoPhillips Terminal (Berths 148-151)	33°45'18"N., 118°16'22"W.	1328	37	15.2	Tank storage (825,000 barrels)	Petroleum products	ConocoPhillips
Warehouse Terminal (Berths 153-155)	33°45'23"N., 118°16'12"W.	1781	34	12.8	Covered storage (26,880 sq ft)	General cargo	Port of Los Angeles
Valero (Berths 163-164)	33°45'36"N., 118°16'03"W.	888	40	13.7	Tank storage (1.5 million barrels)	Petroleum products	Valero
Ultramar (Berth 164)	33°45'35"N., 118°16'03"W.	888	40	13.7	Tank storage (947,000 barrels)	Petroleum products	Ultramar
Borax (Berths 165-166)	33°45'30"N., 118°16'05"W.	679	37	14.2	Storage for (350 tons)	Industrial borates	U.S. Borax Inc.
Shell Oil (Berths 167-169)	33°45'18"N., 118°16'04"W.	1238	40	13	Tank storage (580,000 barrels)	Petroleum products	Shell Oil
Pasha (Berths 174-181)	33°45'43"N., 118°15'40"W.	3300	35-45	15	• Three cranes (40 tons) • Transit shed (235,000 sq feet)	Steel	Pasha Properties Inc.
Vopak (Berths 187-191)	33°45'50"N., 118°15'35"W.	2336	38	15	• Tank storage (700,000 barrels) • Covered storage (86,000 sq feet)	Liquid bulk chemical products	Vopak
WWL Vehicle Services (Berths 195-199)	33°46'07"N., 118°15'09"W.	2250	32-34	16-18	Storage for up to 8000 vehicles	Automobiles	WWL Vehicle Services Americas, Inc.
POLA Container Terminal (Berths 206-209)	33°45'46"N., 118°14'55"W.	2180	40-45	15.5	• Four gantry cranes • Open storage (86 acres)	General cargo in containers	Port of Los Angeles
Hugo Neu-Proler (Berths 210-211)	33°45'40"N., 118°15'12"W.	1500	35	13.7	Open storage (26.7 acres)	Scrap metal (ferrous/non-ferrous)	Hugo Neu-Proler Co.
Yusen Terminal (Berths 212-225)	33°45'16"N., 118°15'46"W.	5800	35-45	15	• 10 Panamax cranes • Open storage (185 acres)	General cargo in containers	Yusen Terminals Inc.
Seaside Terminal (Berths 226-236)	33°44'32"N., 118°16'26"W.	4700	38-45	13-15	• Eight Panamax cranes • Open storage (205 acres)	General cargo in containers	Seaside Transportation Services, LLC
ExxonMobil (Berths 238-240C)	33°44'01"N., 118°16'21"W.	903	37	14	Tank storage (2.3 million barrels)	Petroleum products	ExxonMobil
LAXT (Berth 301)	33°43'51"N., 118°15'46"W.	1000	72	16	•Open and domed storage •Enclosed conveyor sysytem	Petroleum coke	Los Angeles Export Terminal, Inc.
APL Terminal/Global Gateway South (Berths 302-305)	33°44'00"N., 118°15'14"W.	4000	50	15	• 12 Panamax cranes • Open storage (292 acres)	General cargo in containers	Eagle Marine
APM Terminals/Pier 400 (Berths 401-406)	33°43'44"N., 118°15'30"W.	7190	55	15.2	• 14 Panamax cranes • Open storage (484 acres)	General cargo in containers	APM Terminals

Dimensions given are in feet
* The depths given above are reported. For information on the latest depths contact the port authorities or the private operators.

(341)

Facilities in the Port of Long Beach

Name	Location	Berthing Space	Depths*	Deck Height	Mechanical Handling Facilities and Storage	Purpose	Operated by:
Pier J (Berths 266-270)	33°44'11"N., 118°11'24"W.	2711	47-56	15	• 16 gantry cranes • Open storage (64 acres)	General cargo in containers	SSA Marine
Pier J (Berths 243-247)	33°44'36"N., 118°11'44"W.	3300	36-40	16	• Open storage (57 acres) • Covered storage (100,000 sq feet)	General cargo in containers	SSA Marine
Pier G (Berths 226-236)	33°44'39"N., 118°11'56"W.	6379	36-42	15	• 16 gantry cranes • Open storage (160 acres) • Container freight station (70,000 sq feet)	General cargo in containers	International Transportation Service
Pier G (Berths 212-215)	33°44'52"N., 118°12'23"W.	1900	50	18-19	• Two traveling shiploaders • Covered storage (540 tons)	Petroleum Coke, Coal, Potash, Borax, Soda ash, Concentrates, Prilled sulfer	Metropolitan Stevedore Company
Pier F (Berths 211A and 209)	33°45'02"N., 118°12'24"W.	800	43	19	• Pipeline system • Tank storage (425,000 barrels)	Petroleum products	Chemoil Marine Terminal
Pier F (Berth 211)	33°45'02"N., 118°12'28"W.	1100	40	19	• Terminal services for bulk materials	Petroleum coke	Koch Carbon, Inc.
Pier F (Berth 210)	33°44'59"N., 118°12'34"W.	700	40	19	Belt conveyor system	Bulk salt	Morton Salt Company
Pier F (Berth 208)	33°44'54"N., 118°12'44"W.	420	29-33	19	• Storage space (50,000 sq feet) • Belt conveyor system	Bulk cement	MCC-Lucky Cement Company
Pier F (Berths 206-207)	33°44'46"N., 118°12'43"W.	1200	32	18.5	• Open storage (12.2 acres) • Covered storage (190,000 sq feet)	Steel products, Plywood, Lumber, Large machinery	Crecent Terminal (SSA)
Pier F (Berths 204-205)	33°44'38"N., 118°12'32"W.	1265	36	18.5	• Open storage (5.5 acres) • Covered storage (180,000 sq feet)	Steel products, Plywood, Lumber	Cooper/T. Smith Stevedoring
Pier F (Berths 6-10)	33°45'15"N., 118°12'40"W.	2750	50	14.4	• Seven gantry cranes • 240 reefer outlets	General cargo in containers	Long Beach Container Terminal, Inc.
Pier E (Berths 24-26)	33°45'35"N., 118°12'50"W.	2100	48	17.7	• Five gantry cranes • Open storage (58 acres) • 400 reefer outlets	General cargo in containers	California United Terminals
Pier D (Berths 30-31)	33°45'31"N., 118°12'55"W.	700	43	19.5	• Tank storage (6.7 million gallons)	Tallow, Vegetable oils	Baker Commodities, Inc.
Pier D (Berths 32-33)	33°45'31"N., 118°13'00"W.	680	36	13.8	• Silo storage (50k tons) • Open storage (87k sq. feet)	Bulk cement	Pacific Coast Cement Corp.
Pier T (Berths 134-140)	33°45'13"N., 118°14'08"W.	5000	55	14.7	• 14 gantry cranes • Open storage (237 acres) • 1088 reefer outlets	General cargo in containers	TTI-Hanjin Shipping Co.
Pier T (Berth 122)	33°45'17"N., 118°13'08"W.	600	40	23	• Open storage (7.7 acres) • Covered storage (15,000 sq feet)	Lumber and Lumber products	Fremont Forest Group Corp.
Pier T (Berth 121)	33°45'24"N., 118°13'11"W.	1140	76	20	• Tank storage available in Carson	Crude oil and Petroleum products	BP
Pier T (Berth 118)	33°45'39"N., 118°13'14"W.	900	36	22	• Vessel loading crane • Open storage (13.5 acres)	Recyclable metal & steel products	SA Recycling Co.
Pier T (Berths 116-117)	33°45'47"N., 118°13'17"W.	600	32-35	23	• Open storage (9.9 acres)	Lumber and Lumber products	Weyerhaeuser Company
Pier D (Berth 46)	33°46'10"N., 118°12'44"W.	640	40	17.2	• Belt-conveyor system • Storage shed (40,000 tons)	Gypsum	Georgia Pacific Gypsum Corp.
Pier D (Berths 50-54)	33°46'16"N., 118°12'36"W.	2370	36	10-17	• Open storage (6.9 acres) • Transit shed (495,000 sq feet)	Newsprint and Lumber	Crescent Warehouse Co.
Pier C (Berths 60-62)	33°46'13"N., 118°13'00"W.	1800	42	14.5	• Three gantry cranes • Open storage (57 acres)	General cargo in containers & Automobiles	SSA Marine-Matson Terminal
Pier B (Berths 76-78)	33°46'33"N., 118°12'47"W.	2200	46	14.4	Tank storage (1.8 million barrels)	Petroleum products	BP
Pier B (Berths 82-83)	33°46'28"N., 118°13'05"W.	1300	45	14.4	• Tank storage (410k barrels) • Open storage (110 acres) • Transit shed (150k sq. feet)	Bulk and Automobiles	Petro-Diamond and Toyota
Pier B (Berths 84-87)	33°46'20"N., 118°13'21"W.	1980	52	16.8	Tank storage (254k barrels)	Crude oil, Petroleum products, Bunker fuel	Tesoro Refining and Marketing Company

Facilities in the Port of Long Beach

Name	Location	Berthing Space	Depths*	Deck Height	Mechanical Handling Facilities and Storage	Purpose	Operated by:
Pier A (Berths 88-96)	33°46'09"N., 118°13'54"W.	3600	50	14.2	• Ten gantry cranes • Open storage (90 acres) • 652 reefer outlets	General cargo in containers	SSAT Long Beach Terminal

Dimensions given are in feet
* The depths given above are reported. For information on the latest depths contact the port authorities or the private operators.

The Long Beach Harbor Department Administration Building is located at 415 W. Ocean Blvd., Long Beach, CA 90802. The **speed limit** for Middle Harbor and Inner Harbor is 6 knots.

(333) Permits are required from the Port Warden for any method of underwater diving within Los Angeles Harbor. Similarly, a permit from the Port Manager is required in Long Beach Harbor.

(334) Copies of the regulations may be obtained from the local office concerned.

(335)

Wharves

(336) All land of the Port of Los Angeles is owned by the City of Los Angeles. This land is leased to various facilities listed in the table; only the major deep-draft facilities are listed. The alongside depths given in the table are reported. (For information on the latest depths contact the port authorities or the private operators.) Most of the piers and wharves have shore connections (electrical/water), highway and railroad connections.

(338) General cargo at the port is usually handled by ship's tackle. Special handling equipment, if available, is noted in the table. Floating cranes to 350 tons are available.

(339) The office of the chief wharfinger is at 425 South Palos Verdes Street, San Pedro.

(340) All land of the Port of Long Beach is owned by the City of Long Beach. This land is leased to various facilities listed in the table; only the major deep-draft facilities are listed. The alongside depths given in the table are reported. (For information on the latest depths contact the port authorities or the private operators.) Most of the piers and wharves have shore connections (electrical/water), highway and railroad connections.

(342) The famous passenger liner QUEEN MARY, retired in 1967 and purchased by the Port of Long Beach, is moored on the northeast side of Pier H, parallel to the skyline of the city of Long Beach. The ship is used as a floating museum, hotel and convention center.

(343) The large lighted white dome south of the QUEEN MARY was once the exhibit center for Howard Hughes' famous flying boat SPRUCE GOOSE. The dome is now used by Carnival Cruise Lines to support the Long Beach Cruise Terminal.

(344)

Supplies

(345) Fuel oil, water and marine supplies can be had in any quantity at both Los Angeles and Long Beach. Fuel oil can be supplied at the oil docks or by barge.

(346)

Repairs

(347) Los Angeles Harbor is well equipped with marine repair plants. The largest marine railway, at Berth 264 in the northeast end of Fish Harbor in East San Pedro, has a hauling power of 1,000 tons. There are a number of smaller facilities. There are no graving docks. The port is well equipped with salvage facilities. A trained salvage crew and a corps of expert divers are ready at all times to render aid in any disaster to shipping along the coast and at distant localities.

(348) Long Beach Harbor is also well equipped for marine repairs. A variety of barge cranes are available in the 40- to 275-ton capacity range. There are several marine railways for small craft at Long Beach Harbor.

(349)

Communications

(350) Los Angeles and Long Beach Harbors have connections to the extensive freeway system that connects the cities of Los Angeles and Long Beach and their suburbs; four U.S. or Interstate highways extend from the area freeway system to the north, south and east. The harbors are served by three major railroads and many airlines. The harbors are ports of call for many foreign and domestic steamship lines and by coastal barge lines.

(351) While the Ports of Los Angeles and Long Beach are separate entities, their harbor facilities are closely interrelated.

(352)

Small-craft facilities

(353) The major small-craft facilities in Long Beach are Long Beach Marina in Alamitos Bay and the Downtown Marina on Queensway Bay, west of oil Island Grissom. Other facilities in Long Beach Harbor are just inside the entrances to both Channel Two and Channel Three. All repair facilities, supplies, fuel, moorage and related yacht requirements may be had at individual private marinas or from other establishments in the Middle Harbor. Several boatyards are in Channel Two and Channel Three.

(354) Los Angeles Harbor has small-craft facilities on both sides of Cerritos Channel from the Heim lift bridge to East Basin, on the east side of East Basin, in Watchhorn Basin and along the west side of West Channel. All the berths, fuel, supplies and services required for small boats are available at the individual private marinas or may be obtained nearby.

(355)

Point Fermin to Point Vicente

(356) From Point Fermin the coast trends in a general west direction 6.5 miles to Point Vicente and forms the north shore of San Pedro Channel, which is discussed in chapter 5. From Point Vicente the shoreline curves north. The coast is free of off-lying dangers and is well marked by kelp.

(357) The Traffic Separation Scheme between Point Fermin and Point Conception is discussed earlier in this chapter.

(358) Several submarine sewers extend 1.3 miles offshore near **White Point**, 1.3 miles northwest from Point Fermin.

(359) **Point Vicente**, 6.3 miles northwest of Point Fermin, is a steep rocky cliff, 120 feet high, white and red in color, with red predominating. A rock awash is 250 yards southwest from the point with kelp extending 100 yards farther to seaward. A small black 25-foot high pyramidal rock is close inshore 0.3 mile east of the point.

(360) **Point Vicente Light** (33°44'31"N., 118°24'38"W.), 185 feet above the water, is shown from a cylindrical tower on the southwest end of the point.

(361)

Danger zone

(362) A **danger zone** for practice firing extends off Point Vicente. (See **33 CFR 334.940**, chapter 2, for limits and regulations.)

(363)

Palos Verdes Point to Point Dume

(364) **Palos Verdes Point**, 2 miles north-northwest of Point Vicente, is a bold, bluff point, 120 feet high, rising abruptly to the west extremity of Palos Verdes Hills. There are no dangers off the point, but heavy kelp extends 0.6 mile offshore and is marked by a lighted bell buoy 0.7 mile west of the point.

(365) **Lunada Bay** is a small bight on the south side of Palos Verdes Point. **Resort Point** forms the south side of this bay.

(366) **Flat Rock Point**, 1.7 miles northeast of Palos Verdes Point, is on the south side of Santa Monica Bay. A narrow spur protrudes from the otherwise rounded point. **Flat Rock**, 6 feet high, and **Bit Rock**, 5 feet high, are 175 yards and 250 yards, respectively, off the end of the spur. **Bluff Cove** is a shallow bight on the south side of Flat Rock Point. The beach is covered with boulders.

(367) **Santa Monica Bay** is formed by the curving coast between Point Vicente and Point Dume. From Flat Rock Point to Santa Monica the shore is comparatively low with a sand beach backed by a continuous city area to the inland mountains. The depths of Santa Monica Bay are comparatively shoal, the 10-fathom curve in general lying about 1 mile from shore, except at Redondo Beach where a deep submarine valley, **Redondo Canyon**, heads close to the shore.

(368) **Malaga Cove**, just north of Flat Rock Point, is used occasionally by fishing boats with local knowledge, but it is open to the prevailing west winds. Boats enter through a break in the kelp and anchor inside in 6 to 7 fathoms, with the south point of the cove bearing 207°.

(369) **King Harbor**, 4.5 miles north-northeast of Palos Verdes Point, is a large small-craft harbor at **Redondo Beach**. The harbor is used mostly by pleasure craft and accommodates upwards of 1,400 boats.

(370)

Prominent features

(371) At the north end of King Harbor and about 200 yards inshore is a large power plant with five large smokestacks approximately in line and parallel with the beach. A private light is shown from atop the power plant.

(372)

COLREGS Demarcation Lines

(373) The lines established for Redondo Harbor are described in **33 CFR 80.1116**, chapter 2.

(374) The entrance is between two lights at the ends of the breakwaters at the south end of the harbor. A mariner-radio-activated sound signal at the light on the east side of the entrance is initiated by keying the microphone five times on VHF-FM channel 81A. A lighted bell buoy is south-southwest of the south end of the west breakwater. The channel is marked by private buoys, with lights at the entrances to Basins 1 and 2. Natural depths through the entrance are 27 to 30 feet with a depth of 8 feet in the three basins, except for an isolated depth of 6 feet in the northeasternmost channel of Basin 1. In 1977, shoaling was reported on the south side of the entrance to Basin 3, and in 1989, rocks awash were reported near the north side of the entrance to the basin.

(375)

Harbor regulations

(376) The harbor is administered by the city of Redondo Beach and is under the control of a harbormaster, who has an office near the entrance to Basin 2. Transients should contact the **harbormaster** for berth assignments. The harbor patrol operates from Basin 2. Both the harbor office and the patrol monitor radiotelephone VHF-FM channel 16 and can be reached be telephone at 310–318–0632.

(377)

Supplies

(378) There is a fuel dock that has gasoline and diesel fuel; most other small-craft supplies are available.

(379) A yacht club is in Basin 3.

(380)

Repairs

(381) A boatyard here can handle craft up to 50 feet and 60 tons for all general repairs.

(382)

Caution

(383) The city of Los Angeles advises that under certain tidal conditions, underwater installations between King

Harbor and Marina del Rey, seaward to 9 fathom depths, present possible hazards to surface navigation.

(384) Sport fishing barges usually anchor 1 or 2 miles offshore during the summer; caution is advised to avoid them.

(385)

Submarine oil seepage

(386) About 1.5 miles off Redondo Beach, in the deep water of Redondo Canyon, there is a submarine oil seepage and the water surface is often covered with a film of petroleum. Gas bubbles have been reported in several locations in this vicinity. A second seepage 3.5 to 4 miles to the northwest is more noticeable and more continuously in action. On calm days, globules and large blobs of oil have been seen projected clear of the water surface. Gas also escapes continuously in large bubbles often 3 to 6 inches in diameter.

(387) **Hermosa Beach** and **Manhattan Beach** are between Redondo Beach and El Segundo; both have public fishing piers with fish havens covered 9 feet around their seaward ends. The pier at Hermosa Beach is about 1.3 miles north of Redondo Beach and extends about 275 yards from shore; a private sound signal is at the outer end. The Manhattan Beach pier, 2.5 miles north of Redondo Beach, extends almost 175 yards from shore.

(388) **El Segundo**, about 2 miles north of Manhattan Beach, has extensive oil refineries with several large oil tanks on high ground being prominent. Other prominent features are an aero light north of El Segundo at Los Angeles International Airport, two 334-foot striped stacks in about 33°55'06"N., 118°25'39"W., and a power plant with four stacks about 0.6 mile south-southeast of the striped stacks. A rock groin, marked at its outer end by a private light, extends seaward from the north end of the power plant.

(389) An offshore oil terminal with two multi-buoy sea berths is about 1.3 miles west of El Segundo. The terminal, operated by Chevron USA, loads and discharges tankers through several submerged hoses and pipelines. A private lighted bell buoy is west of the offshore terminal and a safety zone surrounds the terminal. (See **33 CFR 165.1156**, chapter 2, for limits and regulations.) Two anchorages are west-southwest of the offshore terminal for vessels awaiting berthing assignments at the terminal. Vessels intending to use these anchorages must first contact the Vessel Traffic Information Service on VHF-FM channel 14 for assignment and further instruction.

(390)

Caution

(391) Mariners should exercise caution when navigating over the sewer outfalls and submerged pipelines that extend seaward from El Segundo. Numerous uncharted buoys and other potential hazards to navigation exist within this area.

(392) A **restricted area** extends about 7 miles offshore at El Segundo. (See **33 CFR 162.195**, chapter 2, for limits and regulations.)

(393) **Marina del Rey**, 7.6 miles north-northwest of Redondo Beach and King Harbor, is a large manmade small-craft harbor. It has a capacity for over 6,000 pleasure craft.

(394)

COLREGS Demarcation Lines

(395) The lines established for Marina del Rey are described in **33 CFR 80.1118**, chapter 2.

(396) A detached breakwater parallel to the shore is just to seaward of the jetties protecting the entrance channel.

(397)

Channels

(398) A dredged entrance channel leads northeast from the detached breakwater for about 0.7 mile, then the harbor channel continues north for about 0.6 mile to the north end of the harbor. There are two openings between the jetties and the detached breakwater; the chart is the best guide for navigating the openings. The north and south ends of the detached breakwater and the outer ends of the jetties are marked by lights. A mariner-radio-activated sound signal at the light on the outer end of the north jetty is initiated by keying the microphone five times on VHF-FM channel 81A.

(399) A **restricted area** governing navigation inside the detached breakwater has been established. (See **162.200**, chapter 2, for limits and regulations.)

(400) **Traffic separation lanes** have been established in the entrance channel to Marina del Rey. These lanes are marked by State Waterway Regulatory Buoys with the words “No Sail.” All vessels under power, or power and sail, shall keep these buoys to their port when entering or departing the harbor. The center lane between the buoys is used by vessels solely under sail, both entering or departing the harbor.

(401)

Anchorage

(402) A **special anchorage** is in the upper reach of the harbor channel. (See **33 CFR 110.1** and **110.111**, chapter 2, for limits and regulations.)

(403)

Coast Guard

(404) A search and rescue craft is stationed at the pier just south of the harbor office, on the east side of the bend in the entrance channel.

(405)

Harbor regulations

(406) The harbor is administered by the Los Angeles County Department of Beaches and Harbors. The Harbormaster, under the Los Angeles County Sheriffs Department, has an office on the east side of the bend in the entrance channel. Guest berths are available further down the channel at Burton Chace Park.

(407) The Sheriff’s Harbor Patrol operates the office on the east side of the entrance channel, providing 24-hour service. Radiotelephone VHF-FM channel 16 is monitored

on a 24-hour basis, and the Sheriff's Department can be reached by telephone at 310–823–7762.

(408)

Supplies

(409) Marine supplies of all kinds can be obtain at most of the marinas and repair yards. Gasoline and diesel fuel are available at the fuel docks. Several yacht clubs are on the shores of the various basins. Medical facilities are available at the harbor, and a hospital is nearby.

(410)

Repairs

(411) There are two boatyards in the harbor that have hull and engine repair facilities. The largest lift can handle vessels to 100 tons.

(412) Fish havens, marked by private buoys, are about 1.1 miles west of the light at the north end of the detached breakwater.

(413) About 1 mile north of the entrance to Marina del Rey is the 1,100-foot-long Los Angeles city public fishing pier at Venice; a fish haven covered 10 feet surrounds its seaward end.

(414) A **144°40'-324°40' measured nautical mile** is off Marina del Rey. The south range is two triangular white and orange markers located at the midpoint of Marina del Rey detached breakwater. The north range is an orange and white triangle located on the centerline of Los Angeles city public fishing pier.

(415) **Santa Monica**, 3.5 miles northwest of Marina del Rey, has a large pleasure pier, but there is no water commerce. A private sound signal is on the outer end of the pier. A 0.3-mile-long breakwater, submerged at high tide, is off the outer end of the pier and parallel to the beach.

(416) The city of Santa Monica Harbor Patrol maintains a temporary office on the large pleasure pier. VHF-FM channels 12 and 16 are monitored on a 24-hour basis. A rescue boat is on call for emergencies.

(417) The buildings and structures along the beach are prominent. Most conspicuous from offshore are the tall General Telephone Building with a red and white antenna on top, and the clock tower atop a bank building.

(418) The 16-mile coast between Santa Monica and Point Dume is bold, rocky, and rugged. Steep cliffs rise abruptly from the water's edge, ascending gradually within 3 or 4 miles to the summits of the Santa Monica Mountain Range, about 3,000 feet high. The seaward termination of this range is at Point Mugu, 14 miles west of Point Dume.

(419) **Kellers Shelter**, 9 miles west of Santa Monica at **Malibu Beach**, is an open bight offering protection from north and west winds in 2 to 7 fathoms, sandy bottom. A reef marked by kelp extends a short distance offshore about 0.5 mile west of the anchorage.

(420) A fishing and pleasure pier, 700 feet long with 15 feet of water at its outer end, is on the west side of Kellers Shelter. Twin white buildings are prominent marks at the outer end of the pier. Private mooring buoys are maintained east of the pier for the use of sport fishing boats that leave for the nearby fishing grounds. Frequently the headlights of automobiles on the highway along the beach are directed toward the sea.

(421) **Paradise Cove**, 2 miles northeast of Point Dume, affords protection similar to Kellers Shelter. The anchorage is abreast the fourth break or arroyo in the cliffs from Point Dume, and is immediately outside the kelp line, in 6 to 7 fathoms, sand bottom, with Point Dume bearing 240°. Kelp should be avoided because of possible dangers. A 300-foot sport fishing pier is on the northwest side of Paradise Cove. A rescue vessel is moored in Paradise Cove.

(422) In 1985, hazardous submerged pilings were reported about 300 yards south-southwest of the fishing pier in about 34°01.1'N., 118°47.1'W.

(423) **Point Dume** is the seaward end of a rather low plateau that terminates in a dome-shaped head, about 200 feet high, rising from a bold rocky bluff. The bluff is reddish, with white cliffs east and west. A small bare rock is 150 yards south of the point, and a reef that uncovers is 150 yards farther out. Foul ground extends about 500 yards east of the reef.

(424) A rescue boat is moored at **Zuma Beach**, about 1 mile northwest of Point Dume. The rescue boat can be contacted through the Coast Guard or the lifeguard station, which monitors VHF-FM channel 16, from 0900-1700 daily; call sign, Bay Watch.

(425) **Dume Canyon** is a submarine valley with extremely steep slopes running about 0.3 mile offshore from Point Dume and extending northwest roughly parallel to the beach. Moderately strong currents of a confused directional nature have been observed in the vicinity of this submarine valley.

(426)

Point Mugu

(427) The 14-mile coast between Point Dume and Point Mugu is very rugged, and there are no known outlying dangers. About 2 miles east of Point Mugu, on the beach at the foot of a very high bluff, is a 140-foot sand dune. This is quite prominent and can be made out on clear moonlit nights. The dune is charted as a "prominent slide."

(428) **Point Mugu**, the seaward termination of the Santa Monica Mountains, is prominent because of the lowland of the Santa Clara Valley to the west. The cuts and fills of the highway that skirt the shore from Point Mugu east are prominent. Aluminum-colored twin tanks, 1.5 miles northwest of the point and on the west slopes of Laguna Peak, show well from southeast through west. A pipeline runs from the tanks to a prominent white radar structure atop Laguna Peak. The tanks and the pipeline are marked by flashing red lights.

(429)

Weather, Point Mugu

(430) Fog hampers visibilities most often from July through December, when the visibility drops below 0.5

(431)

METEOROLOGICAL TABLE – COASTAL AREA OFF POINT MUGU, CA
Between 34°N to 36°N and 119°W to 125°W

WEATHER ELEMENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEARS OF RECORD
Wind > 33 knots [1]	1.0	1.5	2.0	2.2	1.8	1.5	0.7	0.4	0.5	0.9	1.1	1.4	1.3
Wave Height > 9 feet [1]	4.4	6.0	8.1	10.4	10.6	8.1	5.3	4.4	3.9	3.8	4.6	6.4	6.4
Visibility < 2 nautical miles [1]	4.5	6.3	4.6	4.9	5.7	5.8	8.5	8.0	7.7	8.7	5.5	5.6	6.3
Precipitation [1]	5.5	5.8	5.0	3.2	1.6	1.7	1.5	1.6	1.4	1.4	3.4	4.8	3.0
Temperature > 69° F	0.6	0.5	0.5	0.5	0.7	1.4	3.4	3.6	4.2	2.6	1.5	0.8	1.7
Mean Temperature (°F)	55.5	55.8	55.9	56.7	57.6	59.4	61.1	62.1	62.8	61.7	59.5	57.4	58.8
Temperature < 33° F [1]	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean RH (%)	79	79	80	80	82	84	86	86	85	84	81	79	82
Overcast or Obscured [1]	21.2	25.7	24.4	24.5	32.1	40.0	50.6	48.2	36.6	29.4	18.9	20.4	31.4
Mean Cloud Cover (8ths)	4.1	4.3	4.3	4.2	4.5	4.7	5.4	5.4	4.6	4.3	3.7	3.9	4.5
Mean SLP (mbs)	1019	1019	1018	1017	1016	1015	1015	1015	1014	1016	1018	1019	1017
Ext. Max. SLP (mbs)	1036	1036	1045	1043	1035	1031	1033	1030	1032	1034	1040	1039	1045
Ext. Min. SLP (mbs)	987	992	990	996	997	995	998	998	996	998	996	991	987
Prevailing Wind Direction	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
Thunder and Lightning [1]	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1

[1] Percentage Frequency

mile on about 5 to 8 days per month; September is usually the worst month. North through northeast winds are common from October through March, while west winds prevail from April through September. While gales are infrequent, wind gusts have reached 50 to 60 knots from fall through spring. These strong winds often blow out of the east-northeast. Calm conditions are frequent all year round, but particularly from May through October.

(432)

Caution

(433) The U.S. Navy advises navigation interests and others that continuous hazardous operations may take place on the Point Mugu Sea Range, Monday through Sunday. The range extends for 180 miles in a southwest direction from Point Mugu and is up to 210 miles wide. The specific danger portions of the firing area are broadcast daily Monday through Friday at 0900 and 1200 on 2638 kHz and 2738 kHz (See Eleventh Coast Guard District Local Notice to Mariners for additional information). The U.S. Navy will make broadcast every 30 minutes on VHF-FM Marine bridge-to-bridge radio channels 11 and 16 during hazardous operations. For information regarding the current hazardous operations status contact "PLEAD CONTROL" on VHF-FM channels 11 or 16, or at 805–989–8841/8843 from 0600-1800, or 805–816–0792 RODO (Range Operation Duty Officer) after 1800. A recorded message is available at 805–989–1470. If PLEAD CONTROL cannot be reached, contact "San Pedro Traffic" on VHF-FM channel 14 or 310–832–6411.

(434) The U.S. Navy requests all vessels transiting through the Point Mugu Sea Range submit a notification to PLEAD CONTROL indicating the vessel name, destination and estimated time of entry into and departure from the test range. Notifications can be faxed to 805–989–0102. This is for information only and does not constitute approval to enter the range. When inbound, contact PLEAD CONTROL or "San Pedro Traffic" to determine when and where an exercise is scheduled. Communicate in sufficient time to divert or adjust vessel speed to avoid naval operations. When outbound, advise "San Pedro Traffic" intention to transit "Northbound" (through the Santa Barbara Channel) or "Westbound" (south of the Channel Islands) when reporting fifteen minutes prior to departing the federal breakwater. San Pedro Traffic will provide the most recent information regarding hazardous naval operations.

(435)

Danger zone

(436) **Danger zones** for Navy small-arms firing ranges extend about 2 miles offshore at Point Mugu and about 3 miles offshore at Laguna Point. (See **33 CFR 334.1120** and **334.1125**, chapter 2, for limits and regulations.)

(437) **Mugu Canyon** is a submarine valley with its head near Mugu Lagoon. The 50-fathom curve is about 0.5 mile offshore.

(438) **Santa Barbara Channel** is discussed in chapter 5.

(439)

Point Hueneme

(440) **Point Hueneme** (pronounced: y-nee-me), 22 miles west-northwest of Point Dume is low, rounding, and sandy. It is the outermost point of the low land of the Santa Clara Valley.

(441) **Port Hueneme Light** (34°08'43"N., 119°12'36"W.), 52 feet above the water, is shown from a 48-foot white square tower on a building. A mariner-radio-activated sound signal at the light is initiated by keying the microphone five times on VHF-FM channel 81A. A sewer outfall line, about 1.4 miles south-southeast of Point Hueneme Light, extends about 1 mile from shore.

(442)

Weather, Point Hueneme

(443) In the coastal waters from Point Hueneme to Santa Barbara, sea fog hampers navigation most often from July through October. It is generally more widespread and often more persistent than land (radiation) fog. Visibilities fall below 0.5 mile (0.9 km) on about 5 to 10 days per month during these months; August and September are usually the worst.

(444) **Port Hueneme** is an inland basin, about 1,400 feet long by 1,200 feet wide, located at the head of a submarine canyon, **Hueneme Canyon**. It is under the control of the U.S. Navy, Naval Base Ventura County. The southeast part of the basin is owned by the Oxnard Harbor District and is operated as a deep-draft commercial terminal. The commercial terminal is used by cargo vessels, commercial and offshore supply vessels operating from here to offshore drilling rigs.

(445)

Prominent features

(446) The most prominent objects around the shores of the harbor are two lighted red and white striped stacks at a power plant, 2.4 miles southeast of the harbor, a good night mark.

(447)

COLREGS Demarcation Lines

(448) The lines established for Port Hueneme are described in **33 CFR 80.1120**, chapter 2.

(449) A **Safety Fairway** leading to the channel has been established. (See **33 CFR 166**, chapter 2, for limits and regulations.)

(450)

Channel

(451) The dredged channel leads between two jetties and through a land cut into the basin. The outer ends of the jetties are marked by lights. A lighted whistle buoy is about 800 yards southwest of the outer end of the east jetty. Lighted buoys and a **037°** lighted range mark the channel.

(452) A **federal project** provides for a depth of 40 feet in the entrance channel and 40 feet in the basin. Mariners are advised that between periodic dredging, depths in the channel and basin are subject to change due to minor silting. Vessels with deep drafts are advised to consult with the Port Hueneme Pilots Association (805–986–3213) concerning the available depths prior to vessel arrival. General guidelines call for under-keel clearances of 3 feet for inbound vessels and 2 feet for outbound vessels, taking tidal height into consideration. The narrowest width of the entrance channel is 330 feet. However, because of prevailing fresh winds only one-way traffic is permitted for large ships. The pilots control the traffic direction.

(453)

Anchorage

(454) There is no anchorage area in the harbor basin because of space limitations. The recommended anchorage for deep-draft vessels is about 1.7 miles south of Port Hueneme Light. This location offers no protection in heavy weather.

(455)

Dangers

(456) A **naval restricted area** is in Port Hueneme. (See **33 CFR 334.1** through **334.1127**, chapter 2, for limits and regulations.)

(457)

Currents

(458) The Port Hueneme inner harbor is not noticeably affected by tidal streams or currents. However, the shoreline current that normally sets down the coast, but occasionally sets the opposite direction, is most noticeable just outside the entrance jetties. This shoreline current varies with several influences including wind direction and force, state of the tide, and freshwater runoff during storm conditions. The shoreline current can pose problems for vessels as they enter the harbor.

(459)

Tides

(460) The mean range of tide at Port Hueneme is 3.7 feet. The diurnal range of tide is about 5.4 feet and a range of about 9 feet may occur at times of maximum tide. The lowest water is about 1.6 feet below Mean Lower Low Water.

(461)

Pilotage, Port Hueneme

(462) All commercial vessels 300 gross registered tons and over entering, leaving or shifting within the Port of Hueneme, including the area of the Oxnard Harbor District, must be piloted by a port pilot duly licensed to perform the services of piloting vessels within the Port. The Oxnard Harbor district does not maintain pilots. Requests for pilots may be made by calling the Port Hueneme Pilots Association, telephone 805–986–3213. Pilots are available on a 24-hour basis and board vessels from a tug at a point 2 miles from the sea buoy on the entrance range. When pilots are boarding, vessels should stay on the range line and reduce speed to 6 knots or less.

(463) Per IMO and SOLAS regulations, pilot ladder should be rigged on the lee side (normally starboard while inbound, port side outbound) amidship, about 5 feet (1.5 m) above the water. Pilot ladder should be rigged well away from any overboard discharge. At night, the ladder must be properly lighted.

(464) Access to and from the ladder to the deck of the ship should be through a break in the rail, or if the ladder tends over the rail, then steps should be provided on the inboard side to permit access back to the deck level. Manropes should NOT be rigged, when boarding a Pilot, coming from sea.

(465) A proper ring-buoy (with light and line attached) should be provided at the boarding area. The Harbormasters guard VHF-FM channel 14 and VHF-FM channel 16, 24-hours per day, 365 days per year. Vessels should check in with the Harbormasters on VHF-FM channel 14.

Vessels are cautioned to remain a safe distance offshore when calling pilots because dock space must be cleared.

(466)

Towage

(467) Tug service for the port is furnished by a private tug company. Requests for service may be made by telephone, 805–986–1600. Tugs up to 5,000 hp are available on a 24-hour basis.

(468)

Quarantine, customs, immigration and agricultural quarantine

(469) Port Hueneme is a U.S. Customs port of entry and can be reached at 805–488–8574. (See Vessel Arrival Inspections, chapter 3.)

(470) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(471)

Agricultural quarantine

(472) All vessels from outside of California that dock at Port Hueneme, except those specifically exempt, must be inspected by U.S. Department of Agriculture and/or the Ventura County Department of Agriculture. There are local representatives in the Oxnard area.

(473)

Harbor regulations

(474) The U.S. Navy exercises overall Port Control Authority. Port Hueneme, Control One, is on duty from 0800-1600 Monday through Friday, no weekends or holidays. The Oxnard Harbor District is responsible for its commercial operations. The Wharfinger is on duty at all times and guards VHF-FM channel 14; the entrance to the Naval Base Ventura County is restricted, and photography is not permitted.

(475) No garbage, waste or refuse shall be discharged in in any manner from any vessel in accordance with the California Administrative Code. A 5-knot **speed limit** is enforced in the harbor.

(476)

Wharves

(477) The Port of Hueneme has two deep draft wharves. Wharf No. 1 (the southern wharf) is 1,800 feet long and consists of two berths (1 and 2). These two berths are where the port typically lands container and tanker vessels. The north wharf (Wharf No. 2) is 1,450 feet long and consists of berths 4 and 5. These berths are where the port typically lands roll on/roll off vessels. There is also a smaller berth (Berth No. 3) at the west end of the port that is 379 feet long and is typically used for commercial fishing and other offshore industries. The port has an active Joint Use Agreement (JUA) in place with Naval Base Ventura County (NBVC) Port Hueneme that permits the commercial port, via advanced notice and an approved JUA request, to utilize Navy Wharf No. 3 (NW3) and for assigned labor and supportive equipment to transit via Gate 14 on a not to interfere basis. This wharf is a commercial low use wharf that is typically used by container and or roll/roll off vessels. Navy Wharf No. 3 is approximately 1,000 feet long.

(478) Wharf No. 1: 40 feet alongside from the 1,800 to the 600-foot mark; 35 feet alongside from the 600 to the 50-foot mark, deck height, 14 feet; one dockside refrigerated warehouse is on the east end.

(479) Wharf No. 2: 1,450 feet long; 35 feet alongside; deck height, 14 feet.

(480) Berth No. 3: 15 to 18 feet alongside.

(481) Navy Wharf No. 3 (NW3): 35 feet alongside; deck height, 14 feet.

(482)

Supplies

(483) Water and most marine supplies are available. Diesel oil is obtainable from dockside pipeline.

(484)

Repairs

(485) Minor repairs may be made in the port. Machine shops in Ventura and Oxnard are qualified for normal voyage repair work.

(486)

Communications

(487) Oxnard has good rail, air and highway connections with Los Angeles and points north.

(488)

Channel Islands Harbor to Santa Barbara

(489) **Channel Islands Harbor**, 1 mile northwest of Port Hueneme and 5.8 miles southeast of Ventura Marina, is a small-craft harbor. It is used by pleasure and sport fishing vessels and has existing berthing facilities for over 2,400 boats.

(490)

No-Discharge Zone

(491) The State of California, with the approval of the Environmental Protection Agency, has established a No-Discharge Zone (NDZ) in Channel Islands Harbor. It encompasses the entire harbor; see the chart for the zone limits.

(492) Within the NDZ, discharge of sewage, whether treated or untreated, from all vessels is prohibited. Outside the NDZ, discharge of sewage is regulated by **40 CFR 140** (see chapter 2).

(493)

COLREGS Demarcation Lines

(494) The lines established for Channel Islands Harbor are described in **33 CFR 80.1122**, chapter 2.

(495)

Channels

(496) The entrance to Channel Islands Harbor is between two jetties protected by an offshore breakwater. Each end of the breakwater and both the seaward and inshore ends of both jetties are marked by lights. A mariner-radio-activated sound signal at the light on the south jetty is

initiated by keying the microphone five times on VHF-FM channel 81A.

(497) The areas southeast of the entrance channel and northwest of the north jetty are subject to rapid and uncertain shoaling. Mariners are advised to approach the entrance channel from the south and to exercise caution when approaching the harbor at night.

(498)

Coast Guard

(499) The Channel Islands Harbor Coast Guard Station is just south of the harbormaster's office. Search and rescue vessels are stationed here.

(500)

Harbor regulations

(501) The harbor is administered by the Harbor County Department, Ventura County, and is under control of a **harbormaster**, who has an office on the east side of the harbor about 400 yards north of the first bend in the channel. The harbor office maintains guest berths for 70 craft. Transients should report to the harbormaster for berth assignments. The harbormaster guards VHF-FM channel 16, 24 hours a day. Harbor patrol boats operate from the office.

(502)

Supplies

(503) Gasoline and diesel fuel are pumped at a fueling dock on the east side of the harbor just north of the harbor office. Water, ice and most marine supplies are available.

(504)

Repairs

(505) Two full-service marine repair yards are on the east side of the channel, about 0.5 mile north of the harbormaster's office. Mobile lifts can handle craft to 25 tons, and a fixed lift can handle vessels to 60 tons.

(506) A **147°51'–327°51'measured nautical mile** is off the breakwater and beach just north of the harbor entrance. The south range is marked by the breakwater south light and the south jetty light. The north range is marked by less visible poles on the beach.

(507) A row of cottages extends northwest along the beach for 2 miles from Point Hueneme. From the point, low sand beaches and dunes trend northwest for 9 miles to the mouth of **Ventura River**.

(508) A striped 209-foot stack having a bright flashing red light on top is 0.6 mile north of **Mandalay Beach** and is conspicuous throughout the area.

(509) **Ventura** is 8.5 miles north of Point Hueneme on **Pierpont Bay**. It has a 1,960-foot fishing pier with about 19 feet of water at the outer end, and about 18 feet at the inner end of a 250-foot loading face.

(510) Freshwater is piped to the pier, and gasoline is available in the town.

(511) Two fish havens are about 2.3 miles southwest and 1.7 miles south, respectively, from Ventura Pier.

(512) Small craft may anchor anywhere in Pierpont Bay, but the anchorage is unprotected and is not recommended except for short day use. Boats may obtain moorage at Ventura Harbor.

(513) The most prominent features around Ventura are the lighted microwave tower, atop a hill 1.8 miles northeast of the seaward end of Ventura Pier, and the tall motel, about 300 yards west of the pier. Also prominent are the railroad trestle crossing Ventura River, just west of town, and **Padre Junipero Serra Cross**, on a 350-foot hill immediately northwest of the center of town. There are several aluminum-colored tanks and many oil derricks high up the slopes of the hills northwest of town.

(514) **Ventura Harbor**, 6.7 miles north of Point Hueneme and just north of Santa Clara River, is a small-craft harbor used by pleasure craft and commercial fishing vessels. It has existing berthing facilities for about 1,500 boats. Commercial fish-handling facilities are available in the harbor.

(515)

COLREGS Demarcation Lines

(516) The lines established for Ventura Harbor are described in **33 CFR 80.1124**, chapter 2.

(517) The entrance to Ventura Harbor is between two jetties protected by a 1,800-foot detached breakwater. The south end of the breakwater and the seaward ends of both jetties are marked by lights. A mariner-radio-activated sound signal at the light on the south jetty is initiated by keying the microphone five times on VHF-FM channel 81A.

(518) Dangerous breakers can develop in the approach area to the entrance channel in winter when the prevailing winds are from the west. Inbound and outbound vessels are advised by local interests to run a direct course between Ventura Marina Entrance Lighted Whistle Buoy 2V and the breakwater entrance.

(519)

Channels

(520) The dredged entrance channel leads northeast between the jetties, then turns east into the harbor. The buoys in the entrance channel and harbor are frequently relocated due to changing conditions. Mariners are advised to exercise extreme caution and to contact the harbormaster for the latest channel and harbor conditions prior to entering.

(521)

Harbor regulations

(522) Ventura Harbor is administered by the Ventura Port District and is under the control of a **harbormaster**, who has an office on the point north of the entrance basin. Transients should report to the harbormaster for guest slip assignments. The harbormaster monitors VHF-FM channels 16 and 12, from 0600 to 0200 daily.

(523)

Supplies

(524) Gasoline and diesel fuel are available just east of the harbormaster's office and at the south end of the harbor. Water, ice and marine supplies are available. Two yacht clubs are on the shores of the harbor.

(525)

Repairs

(526) Boatyards in the harbor have mobile lifts that can haul out vessels to 150 tons for hull and engine repairs. Electronic service is also available.

(527) From Ventura River, the **Santa Ynez Mountains** extend to Point Conception and Point Arguello. For 11 miles west from the river to Rincon Point the coast is very rugged; elevations of over 2,000 feet being found within 1 mile of the beach. The dangers do not extend over 0.5 mile from the beach, which is well fringed with kelp. Between Ventura and Santa Barbara are several small towns, and the highway and railroad skirt the shore; retaining walls are a common feature.

(528) **Pitas Point**, 5.5 miles northwest of Ventura, is the first bold point west of Ventura River. A very steep gulch is on the west side. East of the point is 1 mile of beach cottages. High on the steep slopes above the cottages are the derricks and tanks of an oil field. Aluminum-colored tanks and oil-processing plants are prominent 1 mile east of the point.

(529) **Punta Gorda**, 9 miles northwest of Ventura, is low at its outer extremity but rises rapidly to prominent **Rincon Mountain**. Tanks and numerous derricks are along the highway southeast of Punta Gorda. A causeway extends south from Punta Gorda for 0.5 mile to an artificial island used for oil operations.

(530) **Rincon Point**, 11 miles northwest of Ventura, is low and sandy. **Sand Point**, 3.5 miles west of Rincon Point, is low and rounding. A rock that uncovers is 550 yards offshore from Sand Point.

(531) Just east of **Carpinteria**, several submerged pipelines lead to offshore oil drilling platforms over three miles offshore. A pier here is used to load support boats operating to and from the oil platforms.

(532) **Ortega Hill**, just west of **Summerland** and 18 miles northwest of Ventura, is 250 feet high and conspicuous because of the extensive cuts for the highway; from offshore it has the appearance of a large slide.

(533) **Santa Barbara**, 29 miles northwest of Point Hueneme, is a resort city and popular yachting harbor. The harbor is used mostly by pleasure craft and fishing vessels. There are about 1,200 slips in the harbor.

(534) **Santa Barbara Light** (34°23'47"N., 119°43'21"W.), 142 feet above the water, is shown from a 24-foot white tower about 2 miles west of the harbor entrance. **Lavigia Hill**, 0.6 mile northeast of the light is 459 feet high and the distinguishing feature in approaching Santa Barbara from the east or west.

(535) Submerged shellfish structures are about 0.7 mile southeast of Santa Barbara Light in about 34°23'15"N., 119°42'45"W.

(536) **Santa Barbara Point**, 1 mile east of the light, is a high cliff at the southeast limit of the narrow tableland extending from Lavigia Hill. The point is the beginning of a sand beach extending 0.6 mile east to **Point Castillo**, the west point of the breakwater forming Santa Barbara Harbor.

(537) Conspicuous landmarks are the neon-lighted hotel tower on the beach 1 mile east of the town, the several radio towers and the many residences on the hillsides back of the town. At night the lights of Santa Barbara are prominent from the channel, but they are obscured from the west by Lavigia Hill.

(538)

COLREGS Demarcation Lines

(539) The lines established for Santa Barbara Harbor are described in **33 CFR 80.1126**, chapter 2.

(540) The harbor has a 500-yard breakwater extending northeast from **Point Castillo** to an extensive sandbar that forms the south side of the harbor. A jetty extends across the sandbar about 400 yards north from the northeast end of the breakwater. A light is at the end of the jetty and a light and sound signal mark the connection between the breakwater and jetty. The sound signal is activated by the Santa Barbara Harbor Patrol. The northeast side of the harbor is formed by Stearns Wharf; the wharf is marked by a light at the south end. A groin, about 125 yards long, extends south from shore about 0.3 mile west of Stearns Wharf. At night, sometimes the lights are difficult to see against the background of city lights.

(541)

Channels

(542) A dredged entrance channel leads northwest between the breakwater and Stearns Wharf then turns southwest into the harbor. The channel is marked by lighted buoys which are frequently relocated due to changing conditions. The entrance and harbor are subject to rapid shoaling. The harbormaster advises that the entrance channel has a tendency to shoal after southeast storms. Mariners should contact the harbormaster on VHF-FM channel 16 for channel conditions and assistance in entering.

(543)

Anchorage

(544) A special anchorage area is in the basin behind the breakwater. (See **33 CFR 110.1** and **110.115**, chapter 2, for limits and regulations.) Anchoring inside the harbor is usually prohibited by the harbormaster. A seasonal anchorage area (April–October) and a permitted mooring area are east of Stearns Wharf; the mooring area contains several mooring buoys. Anchorage is prohibited within 300 feet east of Stearns Wharf. Large vessels should anchor outside the anchorage and mooring areas in better holding ground. The harbormaster desires advanced requests for permission to anchor (805–564–5530).

(545)

Regulated navigation area

(546) A security zone exists within a 100-yard radius of any cruise ship located within 3 nautical miles of the Santa Barbara Harbor Breakwater Light. (See **33 CFR 165.1157**, chapter 2, for limits and regulations.)

(547)

Caution

(548) The long sandbar north of the breakwater light is inconspicuous on a high-tide night, but the masts of boats moored in the harbor are quite visible over the breakwater. The **harbormaster** reports that these circumstances have caused several groundings on the sandbar when strangers making for the harbor at night failed to identify the breakwater light, failed to see the sandbar, but sighted the masts in the harbor and steered toward them, consequently going hard aground on the sandbar. The shoreline of the sandbar is subject to continual change. Caution should be exercised when entering at night; the buoyed channel should be carefully followed.

(549)

Weather, Santa Barbara

(550) Fog plagues the harbor most often from August through November, when it reduces visibilities to less than 0.5 mile (0.9 km) on 4 to 7 days per month. Morning is usually the worst time. Winds are often calm at Santa Barbara. Winds of 3 knots or less occur 18 percent of the time or more year round and 25 to 40 percent of the time from September through March. The sea breeze helps reduce this percentage. These spring and summer winds are mainly out of the east through west-southwest. Northeast winds, common throughout the year, are the most frequent winds from November through February, though a distant second to calm conditions.

(551)

Coast Guard

(552) A Coast Guard rescue vessel is stationed at the city pier in the southwest part of the harbor; Marine Safety Detachment is nearby.

(553)

Harbor regulations

(554) Santa Barbara Harbor is administered by the City of Santa Barbara Water Front Department and is under the control of a **harbormaster**, who has an office at the southwest corner of the harbor. Transients should report to the harbormaster for guest slip assignments. The office monitors VHF-FM channel 16 and can be reached by telephone 805–564–5530.

(555) The harbor patrol is on 24-hour duty and monitors VHF-FM channel 16. Strangers desiring assistance entering the harbor will be assisted by a patrol boat as needed when requested.

(556)

Supplies

(557) The City Pier, inside the harbor, has diesel fuel, gasoline, commercial ice, water and other marine supplies.

(558)

Repairs

(559) The City Pier has a hoist with a maximum lift of 2 tons. There is a boatyard on the southwest side of the basin that can handle craft up to 25 tons and 50 feet for hull and engine repairs. A small floating drydock in the harbor can lift craft up to 20 tons for hull maintenance and repair. There are several other boat builders and repair yards in the city of Santa Barbara.

(560)

Communication

(561) Communication is by rail and motor vehicle and by airplane. The Santa Barbara Municipal Airport is at **Goleta**, 7 miles west of the harbor.

(562)

Goleta Point to Point Arguello

(563) The 8-mile coast from Santa Barbara west to Goleta Point consists of bluffs 30 to 100 feet high with short stretches of sand beach and is fringed with kelp 0.2 mile offshore.

(564) **Goleta Point**, 6.2 miles west of Santa Barbara Light, is low and terminates in a cliff about 30 feet high. The buildings of the University of California at Santa Barbara are conspicuous just north of the point and are dominated by a lone tower. The aerolight 1.5 miles north and the two lighted radio towers 1.5 miles northeast of the point are good marks at night. A 1,475-foot pleasure pier is in the bight east of the point. A 4-ton hoist is available.

(565) The 32-mile coast from Goleta Point to Point Conception is more rugged than that Eastward. **Cañada de la Gaviota**, 12 miles east of Point Conception, is a conspicuous break in the mountains back of this coast. A railroad skirts the shore over trestles and embankments that cross the mouths of numerous gulches and arroyos. The kelp grows quite heavily and in some places extends over a mile offshore. The Pacific Coast Highway parallels the coast from Santa Barbara to Gaviota, where it turns inland.

(566) The **Chumash Heritage National Marine Sanctuary** has been established to recognize the significance of the ecological, historical, archaeological, and cultural resources of the submerged lands and marine waters along and offshore of the coast of central California. (See 15 CFR 922.230 through 922.235, chapter 2, for limits and regulations.)

(567) Oil well production heads covered 6 fathoms or more and submerged pipelines to shore extend as much as 3 miles offshore between Goleta Point and Point Conception. Several oil-well structures in the area are lighted and equipped with racons and fog signals.

(568)

Safety zones

(569) Safety zones have been established around oil drilling platforms and an offshore storage and treatment vessel mooring area, about 13 miles west of Goleta Point, in

(570) 34°23'27"N., 120°07'14" W. **(Platform Honda):**

(571) 34°22'36"N., 120°10'03"W. (**Platform Harmony**);

(572) 34°21'01"N., 120°16'45"W. (**Platform Heritage**); and

(573) 34°24'19"N., 120°06'00"W. (**vessel mooring area**). (See **33 CFR 147.1** through **147.20**, **147.1105**, **147.1106**, **147.1114** and **147.1115**, chapter 2, for limits and regulations and chapter 3 under **Oil well structures** for additional information.)

(574) Temporary drilling platforms can be found along this coastline and may be moved periodically. Mooring buoys for tankers are southwest of Coal Oil Point and south of Gaviota.

(575) **Coal Oil Point**, 1.8 miles west of Goleta Point, is low and may be distinguished by the strong odor of petroleum discharged by a spring. This odor is noticeable over 2 miles offshore.

(576) Pilings of former piers and ruins of a drilling rig may exist from Coal Oil Point for about 2.5 miles northwest to the pier at **Ellwood**. The private 2,300-foot pier is owned by Arco Oil. Passage without local knowledge is not advisable.

(577) A rock covered 14 feet is at 34°25'18"N., 119°57'06"W., about 4.3 miles west of Coal Oil Point and 0.9 mile offshore; it is surrounded by kelp.

(578) **Capitan**, 7.5 miles west of Coal Oil Point, is in a small bight that offers little protection to small craft. A lone tank stands on a bare hill 500 feet high and 0.3 mile inland.

(579) **Refugio Beach** at **Orella**, 2.5 miles west of Capitan, is a state park for camping at the mouth of the canyon. A small bight here offers some protection for small boats in northwesterly winds in about 15 feet.

(580) Oil is loaded from a submerged pipeline at **Gaviota**, 13.5 miles east of Point Conception. A number of large green storage tanks mark the inshore end of the pipeline. About 1 mile west of Gaviota is a state beach park with a 545-foot pleasure-fishing pier. An electric hoist for launching skiffs is available. The railway trestle along the beach is quite prominent.

(581) **Cojo Anchorage**, 1.5 miles east of Point Conception, affords protection off the mouth of the Cojo Valley from moderate west and northwest winds. The suggested anchorage is opposite a culvert under the railroad tracks in 5 to 10 fathoms, hard sandy bottom. The cove 1.7 miles east of this anchorage known as Little (Old) Cojo is foul and affords little protection.

(582) **Point Conception**, 118 miles northwest of Point Fermin and at the west end of Santa Barbara Channel, is a bold headland 220 feet high that marks an abrupt change in the trend of the coast. There is comparatively low land immediately behind it. At a distance from north or east, it usually looks like an island.

(583) Point Conception has been called the **Cape Horn of the Pacific** because of the heavy northwest gales encountered off it during the passage through Santa Barbara Channel. A marked change of climatic and meteorological conditions is experienced off the point, the transition often being remarkably sudden and well defined. When the northwesterly winds are strong they blow down the canyons between Point Conception and Capitan and cause heavy offshore gusts.

(584) **Point Conception Light** (34°26'55"N., 120°28'15"W.), 133 feet above the water, is shown from a 52-foot white tower behind a building near the west part of the point. A low black rock, nearly awash at high tide, is 220 yards offshore, southwest of the light.

(585)

Danger and safety zones

(586) **Danger zones** extend offshore from Point Conception to Point Sal. (See **33 CFR 334.1130**, chapter 2, for limits and regulations.) For additional information on Vandenberg Danger Zones, contact 800–648–3019 or 805–606–8825.

(587) **Safety zones** have been established around oil drilling platforms in:

(588) 34°27'19"N., 120°38'47"W. (Platform Hermosa);

(589) 34°28'10"N., 120°40'46"W. (Platform Harvest); and

(590) 34°29'42"N., 120°42'08"W. (Platform Hidalgo); see **33 CFR 147.1** through **147.20**, **147.1109**, **147.1110**, and **147.1112**, chapter 2, for limits and regulations and chapter 3 under **Oil well structures** for additional information.)

(591) From Point Conception, the coast trends in a gentle curve northwest for 12 miles to Point Arguello and consists of bold rocky cliffs, 100 to 400 feet high. The coast railroad runs along these cliffs and through several tunnels.

(592) The 100-fathom depth curve off Point Arguello, and to a lesser extent off Point Conception, is characterized by a succession of indenting deeps or gorges. In following the curve during thick weather with an echo sounder, these submarine features should be found extremely useful.

(593) **Espada Bluff** is a prominent cliff 378 feet high, 5.5 miles north-northwest of Point Conception. The cliffs on each side drop sharply to less than 100 feet in height.

(594) **Tranquillon Mountain**, near the seaward end of the Santa Ynez Mountains, is prominent in clear weather. It terminates in Rocky Point, Point Arguello and Point Pedernales.

(595) **Rocky Point**, 1.2 miles south of Point Arguello, has numerous detached rocks extending in some cases 300 yards offshore.

(596) **Point Arguello** is a narrow, jagged, rocky projection, extending about 800 yards west of the general trend of the coast. An outlying rock is about 200 yards seaward. The extremity of the point overhangs the water's edge, and about 200 yards inshore the point is nearly divided by gullies on the north and south sides. These form a saddle which, from north and south, looks like two heads. **Point Arguello Light** (34°34'37"N., 120°38'50"W.), 97 feet above the water, is shown from a 15-foot high post on the west end of the point.

(597)

Weather, Point Arguello

(598) Off Point Arguello, sea fog becomes a persistent and frequent navigational hazard. The cool California Current is responsible for a sudden increase in fog frequencies. These fogs are often thick, and Point

Arguello is considered by mariners to be one of the most dangerous areas along the coast. The observing station at Point Arguello, 371 feet (113 m) above mean sea level, records an annual average of twice as many days with visibilities less than 0.5 mile (0.9 km) as at any location farther south. From June through October, visibilities drop below 0.5 mile (0.9 km) on about 12 to 20 days per month; July and August are the worst months.

(599)

Lake Mead

(600) **Lake Mead**, Arizona-Nevada, is a National Recreation Area on the **Colorado River** impounded by **Hoover Dam** (36°01.0'N., 114°44.2'W.).

(601) Restricted and anchorage areas established by federal regulations are in Lake Mead. (See **33 CFR 110.1**, **110.127**, and **162.220**, chapter 2, for limits and regulations.) Additional information may be obtained from the local office of the National Park Service, U.S. Department of the Interior, 601 Nevada Highway, Boulder City, NV 89005.

(602) Eleventh Coast Guard District Local Notice to Mariners contains information concerning boating events, boating safety, bridge construction and lighting, aids to navigation, and anchorages on the Colorado River, Lake Mead National Recreation Area, and Glen Canyon National Recreation Area. These notices may be obtained through the web address listed in Appendix A under *Publications and Services*.