★ (6195) **CALIFORNIA—Channel Islands Harbor—Lights changed.**—The following lights have been changed as indicated:

(*a*) Channel Islands Harbor Breakwater South Light (LL 497) (34°09'16" N, 119°13'46" W. approx.), to show *flashing white* every *10 seconds*, flash *1 second*, of 520 candlepower, visible 7 miles (geographic range 11 miles). No other change.

(*b*) Channel Islands Harbor Breakwater North Light (LL 498), to show *flashing white* every *4 seconds*, of 220 candlepower, visible 5 miles (geographic range 11 miles). No other change.

(*c*) Channel Islands Harbor North Jetty Light (LL 501), to show *flashing green* every *4 seconds*. No other change.

(N.M. 43/65.)

(L.N.M. 46. C.G., Long Beach, Oct. 1. 1965.)
C. & G.S. Charts **5007** (and **Inset**), **5120, 5202.**
C.G. Light List, Vol. III, 1965 (see above).
C. & G.S. Coast Pilot 7, 1963, page 102.

.) trans-
kcs.,
the
)

000.

as about
offshore

a for

Beach

Lines 44–46/R; read:

Ventura Marina, a small-craft harbor built by the city of Ventura, lies just south of that city. The jettied entrance is marked by lights. In 1963, the reported controlling depth was 15 feet through the entrance and inside, and 10 feet alongside the facilities. Berths for over 500 small craft are here, and there is a fueling dock; water and groceries are available. (CL–943/63)

ble in

of a

★ (5922) **CALIFORNIA—Ventura—Fishing reef.**—An artificial fishing reef, consisting of 2,000 tons of quarry rock, with a height of 5 to 6 feet above the ocean floor, exists in about 60 feet of water in 34°14'30" N., 119°19'19" W.

(RS 13260/65.) (N.M. 41/65.)
C. & G.S. Charts **5007, 5120, 5202,** 5020.
C. & G.S. Coast Pilot 7, 1963, page 102.

★ (6344) **CALIFORNIA—Port Hueneme—Coastal warning display station relocated.**—The U.S. Weather Bureau advises that the coastal warning display station at Port Hueneme has been relocated in 34°08.6' N., 119°12.9' W.

(N.M. 44/65.)
(L.N.M. 48, C.G., Long Beach, Oct. 15, 1965.)
C. & G.S. Charts **5007, 5120.**
C. & G.S. Coast Pilot 7, 1963, pages 102, 278.

★ (730) **CALIFORNIA—Ventura Marina—Depth.**—The Ventura Port District advises that a survey by the Operations Department of the Ventura Port District shows the depth of the Ventura Marina entrance to be approximately 10 feet at M.L.L.W. between the ends of the north and south jetties (34°14′48″ N., 119°16′14″ W. approx.).

(Supersedes N.M. 8(934) 1964.)

(N.M. 6/65.)

(L.N.M. 2, C.G., Long Beach, Jan. 8, 1965.)
C. & G.S. Chart **5007.**
C. & G.S. Coast Pilot 7, 1963, page **102.**

★ (4143) **CALIFORNIA—Santa Barbara Channel—Port Hueneme—Radiobeacon established.**—Port Hueneme Radiobeacon has been established about 205 feet 092° from Point Hueneme Light (34°08.7′ N., 119°12.5′ W. approx.) transmitting the identifying characteristic "Y" — · — — on a frequency of [illegible] kcs., operating during the third minute of each 6 minute period, in seqnence [illegible] Point Loma Light, Los Angles Light, and Point Arguello Light.

(See N.M. 14(2045) 1966.)

(N.M. 26[illegible])

(L.N.M. 28, C.G., Long Beach, June 3, 1966.)
H.O. Charts **5760, 1006.**
C. & G.S. Charts **5007** (and **Insert**), **5120, 5202, 5101, 5020, 5002, 9000.**
C.G. Light List, Vol. III, 1965, Nos. **20/490,** and page facing **XVIII.**
C. & G.S. Coast Pilot 7, 1963, page **102.**
H.O. Pub. 117B, No. **1084.**

Lines 50–56/L; read:

An 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 Santa Margarita River, 1.7 miles west of the tank, also are prominent. The large white barn nearly 7 miles northwest of the boat basin is conspicuous from seaward. (NM–43/5551/63)

★ (5923) **CALIFORNIA—Ventura—Buoy information.**—1. The "anchor marking buoy" located in 34°15′46″ N., 119°18′01″ W. (approx.) will be expunged.

2. Tidewater Ventura Tanker Mooring Lighted Buoy, painted in orange and white stripes and showing a *flashing white* light every *10 seconds*, flash *1 second*, of 180 candlepower, has been established in 43 feet of water about 1,310 yards 218° from Ventura Wharf Light (34°16.3′ N., 119°17.5′ W. approx.)

Note.—The above private aid is maintained by the Tidewater Oil Co.

(N.M. 41/65.)

(L.N.M. 43, C.G., Long Beach, Sept. 17, 1965.)
C. & G.S. Charts 5007 (and Inset), 5120, 5202.
C.G. Light List, Vol. III, 1964, No. 507.55.
C. & G.S. Coast Pilot 7, 1963, page 102.

Page 102.—Lines 24–30/R; read:

Ventura County Harbor, a small-craft basin near **Hollywood by the Sea** a mile northwestward of Port Hueneme, has accommodations for over 500 boats. Federal project depth is 20 feet; in August 1963, the controlling depth was about 10 feet, although shoaling was reported at the entrance. The jetties and offshore breakwater are marked by lights. (CL–943/63)

with white cliffs eastward and westward. A small bare rock is 150 yards southward of the point, and a reef which uncovers is 150 yards farther out. A lighted whistle buoy is 0.5 mile off the point.

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

Chart 5202.—The 14-mile coast between Point Dume and Point Mugu is very rugged and there are no outlying dangers. About 2 miles eastward 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 moonlight nights. About 0.5 mile farther eastward is a pleasure pier extending out to the surf.

Point Mugu (Chart 5007), the seaward termination of the Santa Monica Mountains, is prominent on account of the lowland of the Santa Clara Valley to the westward. The cuts and fills of the highway which skirt the shore from Point Mugu eastward are prominent. Aluminum-colored twin tanks, 1.5 miles northwestward of the point and on the western slopes of Laguna Peak, show well from southeastward through west.

Caution.—The U.S. Navy advises navigation interests and others that extensive guided-missile firing operations may take place in the Pacific Missile Range, Point Mugu, Calif., Sea Test Range, daily Monday through Friday from sunrise to sunset until further notice. The test area extends for 170 miles in a southwesterly direction from Point Mugu and is up to 100 miles wide. The specific danger portions of the firing area are broadcast daily Monday through Friday at 9 a.m. and 12 noon on 2638 kc and 2738 kc.

A **danger zone** for a Navy small-arms firing range extends about 2 miles offshore at Point Mugu; limits and regulations are given in **204.201a,** Chapter 2.

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

Santa Barbara Channel is discussed in Chapter 5.

Chart 5007.—Point Hueneme, 53 miles northwestward of Point Fermin, is low, rounding, and sandy; it is the outermost point of the low land of the Santa Clara Valley. **Point Hueneme Light (34°08.7′ N., 119°12.5′ W.),** 52 feet above the water, is shown from a 48-foot buff square tower on the fog signal building on the point; a fog signal is at the station. Other landmarks include a large yellow building 500 yards east of the channel, a large oil tank the same distance west of the channel, and two elevated tanks along the shore northwestward of the jetties. The aero light at Oxnard, 3 miles to the northward, is a good night mark.

Port Hueneme, a basin inside Point Hueneme protected by jetties, is used by cargo vessels and commercial and sport fishing craft. The western jetty has a light at its outer end. A lighted bell buoy is off the end of the eastern jetty. A lighted range and lights mark the channel.

Boundary lines of inland waters.—The line established for Port Hueneme is described in **82.149,** Chapter 2.

The entrance channel has a controlling depth of 35 feet and inside depths range from 28 to 33 feet. A small-boat basin at the north end of the harbor has depths of 10 to 15 feet.

The harbor at Port Hueneme is under the jurisdiction of the U.S. Navy. All vessels over 300 gross tons are required to have a pilot holding a Federal pilot's license for Port Hueneme to enter. Harbor pilots are employed by the U.S. Navy. A request for a pilot should be made to the Marine Department, U.S. Naval Station, Port Hueneme, Calif. Vessels will lay-to 1 to 2 miles off the entrance to be boarded by a pilot.

The bulkhead wharf on the southern side of the central basin, which is used by merchant vessels, has a transit shed and railroad tracks. It is under the control of the Oxnard Harbor District. Fresh water is available on the wharf; diesel oil, gasoline, and marine supplies can be obtained locally. See Appendix for **storm warning display.**

In 1962, construction was under way on a new small-craft harbor, known as **Ventura County Harbor, near Hollywood by the Sea,** a mile northwestward of Port Hueneme. The Federal project provides for a jettied channel 20 feet deep into mooring basins of the same depth inside. The jetties and offshore breakwater have been completed and are marked by lights.

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

A 209-foot stack 0.6 mile northward of **Mandalay Beach** is conspicuous throughout the area. A private lighted buoy is 1.1 miles to the westward of the stack.

Ventura, 8.5 miles northward of Point Hueneme, has a 1,960-foot wharf with 19 feet of water at the outer end and 18 feet at the inner end of the 250-foot loading face. The outer end of the wharf is marked by a light. Fresh water is piped to the wharf and gasoline is available in the town.

In 1962, the city of Ventura began construction of a small-craft marina just south of the city. Lights mark the jettied entrance: a fog signal is on the south jetty.

Small pleasure and fishing boats anchor eastward of the wharf during the summer, but the anchorage is not safe in winter and spring because of southwesterly swells and comparatively shallow water. Vessels anchor anywhere in the bight with good holding ground, but there is no protection.

The buildings in the town, the oil tanks at the inner end of the wharf, and the railroad trestle crossing Ventura River immediately west of the town are prominent features in approaching. **Padre Junipero Serra's Cross,** on a 350-foot hill immediately northwestward of the center of the town, may be seen from the anchorage. There are several aluminum-colored tanks and many oil derricks

★ (6199) **CALIFORNIA—Santa Monica Bay—Marina del Rey—Light discontinued.**—Marina del Rey East Groin Light, previously temporarily established about 1,580 yards 057° from Marina del Rey Light 3 (formerly numbered 1) (33°57′45″ N., 118°27′38″ W. approx.), has been discontinued.

Note.—Removal of the sheet pile groins in the entrance channel to the harbor has been completed. The channel area formerly obstructed by the east and west groins is now open to navigation.

(Supersedes N.M. 38(4887) 1963.)

(See N.M. 49(6531) 1964; 32(4575), 39(5636) 1965.

(N.M. 43/65.)

L.N.M. 44, C.G., Long Beach, Sept. 24, 1965.)

C. & G.S. Chart 5144.

C. & G.S. Coast Pilot 7, 1963, page 101.

★ (1890) **CALIFORNIA—Santa Monica Bay—Marina del Rey—Lights changed.**—1. Marina del Rey Detached Breakwater Light 1 (LL **485.10**), has been equipped with a black square daymark with a green reflective border and white reflective "*1*". A fog signal, consisting of a diaphragm horn, sounding *2 blasts* every *20 seconds*, has been installed at the light.

Approx. position: 33°57.5′ N., 118°27.5′ W.

2. Marina del Rey Detached Breakwater North Light 2 (LL **485.11**), has been equipped with a red triangular daymark with a red reflective border and white reflective "2".

Approx. position: 33°57.8′ N., 118°27.8′ W.

3. The fog signal at Marina del Rey Light 3 (LL **485.21**), has been discontinued.

Approx. position: 33°57.8′ N., 118°27.7′ W.

(N.M. 13/66.)

(L.N.M. 11, C.G., Long Beach, Mar. 4, 1966.)

C. & G.S. Charts **5144**, 5101.

C.G. Light List, Vol. III, 1965 (see above).

C. & G.S. Coast Pilot 7, 1963, page **101.**

★ (6648) **CALIFORNIA—Santa Monica Bay—Redondo Beach—Coastal warning display station relocated.**—The U.S. Weather Bureau advises that the coastal warning display station at Redondo Beach has been relocated in 33°50.7′ N., 118°23.7′ W.

(N.M. 46/65.)

(L.N.M. 48, C.G., Long Beach, Oct. 15, 1965.)

C. & G.S. Charts **5144, 5101.**

C. & G.S. Coast Pilot 7, 1963, pages 101, **278.**

★ (3744) **CALIFORNIA—Santa Monica Bay—Redondo Beach—Lights established.**—1. The following lights, each exhibited from a pipe in 20 feet of water, previously temporarily established, have been permanently established as indicated; distances and bearings from Redondo Beach West Jetty Light (33°50.5′ N., 118°23.7′ W., approx.):

(*a*) King Harbor Light 2 (LL **482.32**) showing *fixed red*, about 1,027 yards **332°25′**.

(*b*) Portofino Light 1 (LL **482.21**), showing *fixed green*, about 758 yards **336°05′**.

(*c*) Portofino Light 2 (LL **482.22**), showing *fixed red*, about 747 yards 338°29′.

(Supersedes N.M. 32(4116) 1964.)

2. The following lights, each exhibited 17 feet above the water from a pipe, have been estahlished as indicated; distances and bearings from Redondo Beach West Jetty Light in (1):

(*a*) King Harbor Light 1 (LL **482.31**) showing *fixed green*, about 1,090 yards 332°30′.

(*b*) Mole C Light (LL **482.16**) showing *fixed red*, about 390 yards 346°.

Note.—The lights in (1) and (2) are privately maintained by the city of Redondo Beach.

(N.M. 26/65.)

★ (6343) **CALIFORNIA—Santa Monica Bay—Marina del Rey—Buoy established—Buoy moved.**—1. Marina del Rey Midchannel Buoy "C", a spar painted in black and white vertical stripes, equipped with a white reflector, has been established in 20 feet of water about 1,579 yards 061°36′ from Marina del Rey **Light 3** (33°57.8′ N., 118°27.6′ W. approx.).

Note.—The buoy is privately maintained.

2. Marina del Rey Midchannel Buoy "D" is now located in 20 feet of water about 2,234 yards 038°24′ from Marina del Rey Light 3.

(See N.M. 29(4204), 32(4575) 1965.)

(N.M. 44/65.)

(L.N.M. 47, C.G., Long Beach, Oct. 8, 1965.)
C. & G.S. Chart **5144.**
C.G. Light List, Vol. III, 1965. page **38.**
C. & G.S. Coast Pilot 7, 1963, page 101.

★ (4574) **CALIFORNIA—Santa Monica Bay—Fog signal established.**—Hermosa Beach Pier Fog Signal, consisting of a *diaphragm horn* sounding *1 blast* every *15 seconds*, blast *2 seconds*, has been established on the seaward end of Hermosa Beach Pier in (approx.) 33°51′41″ N., 118°24′16″ W.

Note.—The fog signal is privately maintained.

(See N.M. 6(729) 1965.)

(N.M. 32/65.)

(L.N.M. 34, C.G., Long Beach, July 16, 1965.)
C. & G.S. Chart **5144.**
C.G. Light List, Vol. III, 1964, No. **482.45.**
C. & G.S. Coast Pilot 7, 1963, page **101.**

Page 101.—Lines 6–7/R; read: entrance is marked by lights on the jetty ends; a fog signal is on the outer end of the north jetty and a marker radio-**beacon is** near the inshore end. In 1963, a detached angled breakwater was **being built** to prevent surge into the harbor; its northerly and southerly ends **were marked** by lighted and unlighted buoys. During construction a temporary channel is being maintained around the southerly end of the work site.

Mariners should approach from the south, leaving the lighted bell buoy on the port hand, and proceed northward inside the construction area to the jettied entrance. Traffic should favor the southerly side of the main entrance channel. (NM–34/4399/63, NM–42/5388/63, NM–45/5805/63)

ch

fl
of
lig

1,
2 *s*

★ (3745) **CALIFORNIA—Santa Monica Bay—Marina del Rey—Buoys established—Information.**—1. Marina del Rey East and West Groin Buoys, previously temporarily established, have been discontinued.

Approx. position East Groin Buoy: 33°58.1′ N., 118°26.9′ W.

(See N.M. 45(5803)1963.)

2. The following Spar buoys, each painted in black and white vertical stripes with white reflectors, have been established as indicated, distances and bearings from Marina del Rey Light 3 (33°57.8′ N., 118°27.6′ W. approx.):

(a) Marina del Rey Midchannel Buoy A, in 20 feet of water, about 360 yards **000°.**

(b) Marina del Rey Midchannel Buoy B, in 20 feet of water, about 1,003 yards 069°.

(See N.M. 49(6531)1964.)

Note.—Buoys (2a, b) are privately maintained.

(L.N.M. 24, C.G., Long Beach, May 14, 1965.) **(N.M. 26/65.)**
C. & G.S. Chart **5144.**
C.G. Light List, Vol. III, 1964, page **38.**
C. & G.S. Coast Pilot 7, 1963, page **101.**

★ (4052) **CALIFORNIA—Santa Monica Bay—Fog signal established.**—Venice Fishing Pier Fog Signal, consisting of a horn sounding *1 blast* every *10 seconds*, blast *2 seconds*, has been established on the seaward end of Venice **Fishing** Pier in (approximately) 33°58′35″ N., 118°28′12″ W.

Note.—The fog signal is privately maintained.

(See N.M. 8(1030) 1965.)

(N.M. 28/65.)

(L.N.M. 30, C.G., Long Beach, June 18, 1965.)
C. & G.S. Charts **5144, 5101.**
C.G. Light List, Vol. III, 1964, No. **486.90.**
C. & G.S. Coast Pilot 7, 1963, page **101.**

★ (3000) **CALIFORNIA—Santa Monica Bay—Marina del Rey—Breakwater completed—Light established.**—1. The Connolly Pacific Company advises that the detached breakwater across the entrance to Marina del Rey has been completed and all construction equipment removed including the line of mooring buoys seaward of the detached breakwater.

Approx. position breakwater: 33°57.7′ N., 118°27.7′ W.

2. Marina del Rey Detached Breakwater Light 1, showing *quick flashing white* of 220 candlepower, exhibited 30 feet above M.H.W. from a post, has been established on the southeast end of the detached breakwater.

Approx. position: 33°57.5′ N., 118°27.5′ W.

(N.M. 21/65.)

(L.N.M. 19, 20 C.G., Long Beach, Apr. 16, 23, 1965.)
C. & G.S. Charts **5144, 5101.**
C.G. Light List, Vol. III, 1964, No. **484.10.**
C. & G.S. Coast Pilot 7, 1963, page **101.**

★ (932) **CALIFORNIA—Redondo Beach—Aids changed.**—The following changes have been made:

(*a*) Redondo Beach East Jetty Light, showing *flashing red* every *2.5 seconds*, *flash 0.5 second*, of 1,900 candlepower, has been established on the seaward end of the east breakwater in (approximately) 33°50'31" N., 118°23'35" W. The light is exhibited 20 feet above the water from a steel pole.

(*b*) The intensity of Redondo Beach West Jetty Light has been increased to 1,200 candlepower. A *diaphragm horn* sounding *1 blast* every *30 seconds*, blast *2 seconds*, has been established at the light.

Approx. position: 33°50'27" N., 118°23'42" W.

(Supersedes N.M. 2(167) 1964.)

(N.M. 8/64.)

(L.N.M. 9, C.G., Long Beach, Jan. 31, 1964.)

C. & G.S. Charts **5144, 5101.**

C.G. Light List, Vol. III, 1963, Nos. **170.2, 170.1.**

C. & G.S. Coast Pilot 7, 1963, page **101.**

★ (1030) CALIFORNIA—Santa Monica Bay—Pier completed.—Venice Fishing Pier, previously reported under construction, has been completed. The pier extends from a point on shore about 1,960 yards 340°30′ from Marina del Rey Light 8 (33°57.8′ N., 118°27.6′ W., approx.) in a 232° direction for 1,100 feet.

Note.—The pier is illuminated its entire length at night by street lighting. (Supersedes N.M. 18(2226) 1964.).

(N.M. 8/65.)

(L.N.M. 5, C.G., Long Beach, Jan. 29, 1965.)
C. & G.S. Chart 5144, 5101.
C. & G.S. Coast Pilot 7, 1963, page 101.

oil refinery area in El Segundo can be seen from seaward. The twin stacks of a powerplant at the south edge of town and the lone striped stack about 1 mile north are quite prominent. An aluminnm-colored water tank is on the southern pier at Venice. In the city of Santa Monica are an aluminum-colored gas holder and a terra-cotta office building, surmounted by a tower upon which blazes a huge neon sign.

Malaga Cove, just northward of Flat Rock Point, is used occasionally by fishing boats with local knowledge, but it is open to the prevailing westerly 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°.

Redondo Beach, 6 miles northward of Point Vicente, is the site of a large man-made small-craft basin. Known as Redondo Beach King Harbor, the basin will accommodate hundreds of pleasure and fishing craft. The entrance, marked by a lighted bell buoy and a light on the south end of the north breakwater, has depths of 28 to 30 feet; the three mooring basins have depths of 8 to 15 feet. Available supplies include fuel, water, groceries, and marine hardware. Facilities include a repair yard with 60-ton Travelift, ramp launchers, and parking and shopping areas; general repairs can be made to hulls and engines. Several sport-fishing barges usually anchor 1 to 2 miles offshore dnring the summer months. See Appendix for **storm warning display.**

Boundary lines of inland waters.—The line established for Redondo Harbor is described in **82.153,** Chapter 2.

Submarine oil seepage.—About 1.5 miles off Redondo, 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 northwestward 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.

Hermosa Beach and **Manhattan Beach** are resorts continuing northward between Redondo Beach and El Segundo; the pleasure pier at Manhattan Beach, 2.5 miles northward of Redondo Beach, extends 300 yards from shore.

About 2 miles northward of Manhattan Beach an oil-loading wharf extends out to a depth of 28 feet. There are submerged oil-pipelines extending out north and south of the wharf; mooring buoys off the wharf and ends of the pipelines serve the tankers. A bell buoy is farther offshore. On shore, just south of the wharf, is a powerplant with prominent twin stacks. The water intake obstructions northward of the wharf are marked by buoys.

El Segundo, 1 mile inshore from the oil wharf, has extensive oil refineries. Nearly 100 large white oil tanks on the high ground are prominent. An aero light is 2.5 miles inshore at El Segundo.

A restricted area extends about 7 miles offshore at El Segundo; see **207.619,** Chapter 2, for limits and regulations. A large flood-lighted concrete stack 200 feet high, at the sewage disposal plant just north of El Segundo, is very conspicuous.

Marina del Rey, 13.5 miles north of Point Vicente and 3.5 miles southeastward of Santa Monica, is a small-craft harbor administered by the County of Los Angeles. The entrance is marked by a lighted whistle buoy a mile offsbore and by lights on the ends of the jetties and inside. Depths into the harbor and basin are at least 10 feet. Berths, fuel, water, and marine supplies are available. See Appendix for **storm warning display.**

Boundary lines of inland waters.—The line established for Marina del Rey is described in **82.151,** Chapter 2.

Santa Monica, 17 miles northward of Point Vicente, has a large pleasure pier which extends out to a depth of about 22 feet, but there is no water commerce. The buildings and structures along the beach are prominent. Fuel oil and gasoline are available. A 0.3-mile long breakwater, parallel to the beach, is about 200 yards off the outer end of the pier. A light is shown from the top of a building on the outer end of Santa Monica Wharf; a fog signal is at the light. A lighted bell buoy is southwestward of the breakwater. See Appendix for **storm warning display.** A **special anchorage area** for small craft is off the pier; limits and regulations are given in **202.1** and **202.110,** Chapter 2.

Chart 5101.—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 westward of Point Dume.

Kellers Shelter, 9 miles westward of Santa Monica, is an open bight offering protection from northerly and westerly winds in 5 to 7 fathoms, sandy bottom. A reef marked by kelp extends a short distance offshore about 0.5 mile westward of the anchorage.

A fishing and pleasure pier, 700 feet long with 15 feet of water at its outer end, is on the western side of Kellers Shelter. Twin white huildings 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 which leave for the nearby fishing grounds daily except during winter months. An aero light is about 2 miles northward of the beach at Kellers Shelter. Frequently the headlights of automobiles on the highway along the beach are directed toward the sea.

Paradise Cove, 2 miles northeastward 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 on account of possible dangers. A 400-foot pleasure pier and several moorings for small boats are in the cove. A fog signal is atop a building about halfway out on the pier.

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 hold rocky bluff. The bluff is reddish,

716-810 O–64—8

★ (6195) **CALIFORNIA—Channel Islands Harbor—Lights changed.**—The following lights have been changed as indicated:

(*a*) Channel Islands Harbor Breakwater South Light (LL **497**) (34°09′16″ N, 119°13′46″ W. approx.). to show *flashing white* every *10 seconds*, flash *1 second*, of 520 candlepower, visible 7 miles (geographic range 11 miles). No other change.

(*b*) Channel Islands Harbor Breakwater North Light (LL **498**), to show *flashing white* every *4 seconds*, of 220 candlepower, visible 5 miles (geographic range 11 miles). No other change.

(*c*) Channel Islands Harbor North Jetty Light (LL **501**), to show *flashing green* every *4 seconds*. No other change.

(N.M. 43/65.)

(L.N.M. 46, C.G., Long Beach, Oct. 1, 1965.)
C. & G.S. Charts **5007** (and **Inset**), **5120, 5202.**
C.G. Light List, Vol. III, 1965 (see above).
C. & G.S. Coast Pilot 7, 1963, page 102.

Lines 44–46/R; read:

Ventura Marina, a small-craft harbor built by the city of Ventura, lies just south of that city. The jettied entrance is marked by lights. In 1963, the reported controlling depth was 15 feet through the entrance and inside, and 10 feet alongside the facilities. Berths for over 500 small craft are here, and there is a fueling dock; water and groceries are available. (CL–943/63)

★ (5922) **CALIFORNIA—Ventura—Fishing reef.**—An artificial fishing reef, consisting of 2,000 tons of quarry rock, with a height of 5 to 6 feet above the ocean floor, exists in about 60 feet of water in 34°14′30″ N., 119°19′19″ W.

(RS 13260/65.) (N.M. 41/65.)
C. & G.S. Charts **5007, 5120, 5202,** 5020.
C. & G.S. Coast Pilot 7, 1963, page 102.

★ (6344) **CALIFORNIA—Port Hueneme—Coastal warning display station relocated.**—The U.S. Weather Bureau advises that the coastal warning display station at Port Hueneme has been relocated in 34°08.6′ N., 119°12.9′ W.

(L.N.M. 48, C.G., Long Beach, Oct. 15, 1965.) (N.M. 44/65.)
C. & G.S. Charts **5007, 5120.**
C. & G.S. Coast Pilot 7, 1963, pages 102, **278.**

★ (730) **CALIFORNIA—Ventura Marina—Depth.**—The Ventura Port District advises that a survey by the Operations Department of the Ventura Port District shows the depth of the Ventura Marina entrance to be approximately 10 feet at M.L.L.W. between the ends of the north and south jetties (34°14′48″ N., 119°16′14″ W. approx.).

(Supersedes N.M. 8(934) 1964.)

(N.M. 6/65.)

(L.N.M. 2, C.G., Long Beach, Jan. 8, 1965.)
C. & G.S. Chart **5007.**
C. & G.S. Coast Pilot 7, 1963, page **102.**

★ (4143) **CALIFORNIA—Santa Barbara Channel—Port Hueneme—Radiobeacon established.**—Port Hueneme Radiobeacon has been established about 205 feet 092° from Point Hueneme Light (34°08.7′ N., 119°12.5′ W. approx.) transmitting the identifying characteristic "Y" — • — — on a frequency of [illegible] kcs., operating during the third minute of each 6 minute period, in sequence [illegible] Point Loma Light, Los Angles Light, and Point Arguello Light.

(See N.M. 14(2045) 1966.)

(N.M. 2[illegible])

(L.N.M. 28, C.G., Long Beach, June 3, 1966.)
H.O. Charts **5760, 1006.**
C. & G.S. Charts **5007** (and **Insert**), **5120, 5202, 5101, 5020, 5002, 9000.**
C.G. Light List, Vol. III, 1965, Nos. **20/490,** and page facing **XVIII.**
C. & G.S. Coast Pilot 7, 1963, page **102.**
H.O. Pub. 117B, No. **1084.**

Lines 50–56/L; read:

An 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 Santa Margarita River, 1.7 miles west of the tank, also are prominent. The large white barn nearly 7 miles northwest of the boat basin is conspicuous from seaward. (NM–43/5551/63)

★ (5923) **CALIFORNIA—Ventura—Buoy information.**—1. The "anchor marking buoy" located in 34°15′46″ N., 119°18′01″ W. (approx.) will be expunged.

2. Tidewater Ventura Tanker Mooring Lighted Buoy, painted in orange and white stripes and showing a *flashing white* light every *10 seconds*, flash *1 second*, of 180 candlepower, has been established in 43 feet of water about 1,310 yards 218° from Ventura Wharf Light (34°16.3′ N., 119°17.5′ W. approx.)

Note.—The above private aid is maintained by the Tidewater Oil Co.

(N.M. 41/65.)

(L.N.M. 43, C.G., Long Beach, Sept. 17, 1965.)
C. & G.S. Charts 5007 (and Inset), 5120, 5202.
C.G. Light List, Vol. III, 1964, No. 507.55.
(7, 1963, page 102.

Page 102.—Lines 24–30/R; read:

Ventura County Harbor, a small-craft basin near **Hollywood by the Sea** a mile northwestward of Port Hueueme, has accommodations for over 500 boats. Federal project depth is 20 feet; in August 1963, the controlling depth was about 10 feet, although shoaling was reported at the entrance. The jetties and offshore breakwater are marked by lights. (CL–943/63)

with white cliffs eastward and westward. A small bare rock is 150 yards southward of the point, and a reef which uncovers is 150 yards farther out. A lighted whistle buoy is 0.5 mile off the point.

Dume Canyon is a submarine valley witb extremely steep slopes running about 0.3 mile offsbore from Point Dume, and extending northwestward roughly parallel to the beach. Moderately strong currents of a confused directional nature have been observed in the vicinity of this submarine valley.

Chart 5202.—The 14-mile coast between Point Dume and Point Mugu is very rugged and there are no outlying dangers. About 2 miles eastward 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 moonlight nights. About 0.5 mile farther eastward is a pleasure pier extending ont to the surf.

Point Mugu (Cbart 5007), the seaward termination of the Santa Monica Mountains, is prominent on account of the lowland of the Santa Clara Valley to the westward. The cuts and fills of the highway which skirt the shore from Point Mugu eastward are prominent. Aluminum-colored twin tanks, 1.5 miles northwestward of the point and on tbe western slopes of Laguna Peak, show well from southeastward through west.

Caution.—The U.S. Navy advises navigation interests and others that extensive guided-missile firing operations may take place in the Pacific Missile Range, Point Mugu, Calif., Sea Test Range, daily Monday through Friday from sunrise to suuset until further notice. The test area extends for 170 miles in a southwesterly directiou from Point Mugu and is np to 100 miles wide. The specific danger portions of the firing area are broadcast daily Monday through Friday at 9 a.m. and 12 noon on 2638 kc and 2738 kc.

A **danger zone** for a Navy small-arms firing range extends about 2 miles offshore at Point Mugu; limits and regulations are given in **204.201a,** Chapter 2.

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

Santa Barbara Channel is discussed in Chapter 5.

Chart 5007.—Point Hueneme, 53 miles northwestward of Point Fermin, is low, rounding, and sandy; it is the ontermost point of the low land of the Santa Clara Valley. **Point Hueneme Light (34°08.7′ N., 119°12.5′ W.),** 52 feet above the water, is shown from a 48-foot buff square tower on the fog signal building on the point; a fog signal is at the station. Other landmarks include a large yellow building 500 yards east of the channel, a large oil tank the same distance west of the channel, and two elevated tanks along the shore northwestward of the jetties. The aero light at Oxnard, 3 miles to the northward, is a good night mark.

Port Hueneme, a basin inside Point Hueneme protected by jetties, is used by cargo vessels and commercial and sport fishing craft. The western jetty has a light at its outer end. A lighted bell buoy is off the end of the eastern jetty. A lighted range and lights mark the channel.

Boundary lines of inland waters.—The line established for Port Hueneme is described in **82.149,** Cbapter 2.

The entrance channel has a controlling depth of 35 feet and inside depths range from 28 to 33 feet. A small-boat basin at the north end of the harbor has depths of 10 to 15 feet.

The harbor at Port Hueneme is under tbe jurisdiction of the U.S. Navy. All vessels over 300 gross tons are required to have a pilot holding a Federal pilot's license for Port Hueneme to enter. Harbor pilots are employed by the U.S. Navy. A request for a pilot should be made to the Marine Department, U.S. Naval Station, Port Hueneme, Calif. Vessels will lay-to 1 to 2 miles off the entrance to be boarded by a pilot.

The bulkhead wharf on the southern side of the central basin, which is used by merchant vessels, has a transit shed and railroad tracks. It is nnder the control of the Oxnard Harbor District. Fresh water is available on the wharf; diesel oil, gasoline, and marine supplies can be obtained locally. See Appendix for **storm warning display.**

In 1962, construction was under way on a new small-craft harbor, known as **Ventura County Harbor, near Hollywood by the Sea,** a mile northwestward of Port Hueneme. The Federal project provides for a jettied channel 20 feet deep into mooring basins of the same depth inside. The jetties and offshore breakwater have been completed and are marked by lights.

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

A 209-foot stack 0.6 mile northward of **Mandalay Beach** is conspicuous throughout the area. A private lighted buoy is 1.1 miles to the westward of the stack.

Ventura, 8.5 miles northward of Point Hueneme, has a 1,960-foot wharf with 19 feet of water at the outer end and 18 feet at the inner end of the 250-foot loading face. The outer end of the wharf is marked hy a light. Fresh water is piped to the wharf and gasoline is available in the town.

In 1962, the city of Ventura began construction of a small-craft marina just south of the city. Lights mark the jettied entrance: a fog signal is ou the south jetty.

Small pleasure and fishing boats anchor eastward of tbe wharf during the summer, but the anchorage is not safe in winter and spring hecause of southwesterly swells and comparatively shallow water. Vessels anchor anywhere in the bight with good holding ground, but there is no protection.

The buildings in the town, the oil tanks at the inner end of the wharf, and the railroad trestle crossiug Ventura River immediately west of the town are prominent features in approaching. **Padre Junipero Serra's Cross,** on a 350-foot hill immediately northwestward of the center of the town, may be seen from the anchorage. There are several aluminnm-colored tanks and many oil derricks

★ (7041) **CALIFORNIA—Carpinteria—Oil drilling platform completed.**—Oil drilling platform "Heidi" previously reported under construction in 34°20′31″ N. 119°31′06″ W. has been completed and is located in 34°20′21″ N., 119° 31′06″ W.

Note.—The submarine pipeline connecting platforms "Hope" and "Heidi" will be recharted accordingly.

(Supersedes N.M. 5(675) 1966.)

(N.M. 45/66.)

(RS 13761/66.)
C. & G.S. **5120, 5202, 5020.**
C. & G.S. Coast Pilot 7, 1963, page **103.**

★ (7441) **CALIFORNIA — Santa Barbara—Aids information.**—1. Santa Barbara Harbor Groin Light (LL **509.10**) showing *quick flashing white*, has been established 8 feet above the water on a piling on the end of the rock groin in (approx.) 34°24′26.5″ N., 119°41′25.7″ W.

Note.—The light is privately maintained.

2. The fog signal at Stearns Wharf Light (LL **511**) (34°24.5′ N., 119°41.0′ W. approx.) now sounds *2 blasts* every *20 seconds*, blast *2 seconds* silent *2 seconds*, blast *2 seconds*, silent *14 seconds*.

(L.N.M. 58, C.G., Long Beach, Nov. 4, 1966.) (N.M. 48/66.)
C. & G.S. Charts **5120 (Inset)**, 5202.
C.G. Light List, Vol. III, 1966 **(see above).**
C. & G.S. Coast Pilot 7, 1963, page **103.**

★ (6067) **CALIFORNIA—Ventura—Buoy changed.**—The spar buoy located about 1,350 yards 265° from Ventura Marina Light 1 (34°14′52″ N., 119°16′13″ W. approx.) has been replaced by *Union Ventura Tanker Lighted Buoy*, in 43 feet of water, painted in orange and white horizontal bands, equipped with a radar reflector, and showing a *flashing white* light every *4 seconds*, of 120 candlepower.

Note.—The buoy is a private aid to navigation marking a tanker mooring buoy system close inshore.

(N.M. 42/65.)

(L.N.M. 44, C.G., Long Beach, Sept. 24, 1965.)
C. & G.S. Charts **5007** (and Inset) **5120, 5202.**
C.G. Light List, Vol. III, 1964, No. **504.55.**
C. & G.S. Coast Pilot 7, 1963, page **103.**

★ (675) **CALIFORNIA — Carpenteria — Oil drilling platform — Informa-**
n.—Oil drilling platform "Heidi" is under construction in (approx.) °20'31" N., 119°31'06" W. During the early construction period the site will marked by lights and signals of the construction vessels. Later the platform ll exhibit one *quick flashing white* light from each of its four corners and be **ipped with** a fog signal consisting of a *diaphragm horn* sounding *1 blast* **ry 20 seconds**, blast *2 seconds*.
Note.—**Num**erous pieces of construction equipment may be found in the **inity during** the next few months and mariners are advised to exercise caution **l avoid the** area when possible.
(See N.M. 52(7623) 1965.)

(N.M. 5/66.)

(L.N.M. 2, C.G., Long Beach, Jan. 7, 1966.)
C. & G.S. Charts 5120, 5202, 5020.
C. & G.S. Coast Pilot 7, 1963, page 103.

★ (2051) **UNITED STATES—Pacific Coast—Aero light information.**—The following Aero lights have been discontinued :

(*a*) Los Angeles-San Francisco Airway Aero Light 6.
Approx. position : 34°19.5′ N., 119°22.0′ W.

(*b*) **Skyland** Ridge Aero Light 30.
Approx. position : 37°06.6′ N., 121°55.5′ W.

(*c*) **Rocky** Point Airway Aero Light 61B.
Approx. position : 46°10.5′ N., 122°54.3′ W.

(C. & G.S. CL-337/65.) (N.M. 15/65.)

C. & G.S. Charts **6153**(*c*), **5402**(*b*), **5202**(*a*), **5021**(*b*), **5020**(*a*, *b*), **5002**(*a*, *b*).

C. & G.S. Coast Pilot 7, 1963, pages **103**, 121, 169.

high up the slopes of the hills northwestward of the town. Radio towers in the southeast part of town are conspicuous. An aero light is 5 miles northwestward of Ventura. A lone oil derrick is close eastward of the light.

A submarine pipeline to floats about 1.5 miles southward of the wharf is used for loading fuel oil. A group of storage tanks marks the inshore end of the line. Another submarine pipeline to floats westward of the wharf is used for loading gasoline and fuel oil. Several large mooring buoys are maintained for the tankers loading from the floats. A lighted whistle buoy is 1 mile southwestward of the wharf.

Chart 5202.—From Ventnra River, the **Santa Ynez Mountains** extend to Point Conception and Point Arguello. For 10 miles westward 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 there are several small towns, and the highway and railroad skirt the shore; retaining walls are a common feature.

Pitas Point, 5.5 miles northwestward of Ventura, is the first bold point westward of Ventura River. A very steep gulch is on its western side. Eastward of the point is a 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 promiuent a mile east of the point; and the aero light on the hilltop above the tanks is a good mark at night.

Punta Gorda, 9 miles northwestward of Ventura, is low at its outer extremity but rises rapidly to prominent **Rincon Mountain.** Eastward of the point is a long pier supporting many oil pumps. Two derricks are conspicuous on the outer end of the pier. Tanks and numerous derricks are along the highway just east of the pier. West of this pier a causeway extends southerly from Punta Gorda for 0.5 mile to an artificial island used for oil operations. A light and fog signal are on the island.

Rincon Point, 11 miles northwestward of Ventura, is low and sandy. **Sand Point,** 3.5 miles westward of Rincon Point, is low and rounding, with the narrow opening to **El Estero,** a lagoon of no importance lying close under and eastward of it. A rock that uncovers is 550 yards offshore from Sand Point. Oil-drilling platforms are off Sand Point.

A light-colored clubhouse and short pier on the beach at the eastern side of **Carpinteria,** 8 miles eastward of Santa Barbara, are prominent. An aluminum-colored water tank may be seen among the buildings of the town. A submerged pipeline leads to mooring buoys 0.6 mile offshore where tankers are loaded. Storage tanks mark the inshore end of the pipeline.

Ortega Hill, just westward of **Summerland** and 18 miles northwestward 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.

Chart 5261.—Santa Barbara, 29 miles northwestward of Point Hueneme and 39 miles east of Point Conception, is the yachting center for this section of the coast. The harbor is used mostly by fishing and pleasure boats. **Lavigia Hill,** 0.6 mile northeasterly of Santa Barbara Light, is 459 feet high and the distinguishing feature in approaching Santa Barbara from eastward or westward.

Point Castillo, the eastern extremity of Lavigia Hill, extends from an almost perpendicular cliff about 50 feet high. **Santa Barbara Point,** the southeastern end, is a high cliff and is the eastern limit of the narrow tableland. **Santa Barbara Light (34°23.8′ N., 119°43.3′ W.),** 142 feet above water, is shown from a 24-foot white tower 1 mile westerly of the point.

Conspicuous landmarks are St. Anthony's Seminary Spire, the neon-lighted theater spire in the center of the town, the neon-lighted hotel tower on the beach 1 mile eastward of the town, and the many residences on the hillsides back of the town. At night the electric lights of Santa Barbara are prominent from the channel, but they are obscured from the westward by Lavigia Hill.

East of Stearns Wharf is a measured course 6,080 feet long on bearing 81°57′40″, the front structures are diamond targets on iron masts, and the rear structures are square targets on iron masts.

Boundary lines of inland waters.—The lines established for Santa Barbara Harbor are described in **82.147,** Chapter 2.

The harbor at Santa Barbara is formed by a 750-yard angular breakwater extending from Point Castillo on the south and 680-yard **Stearns Wharf** on the north. A light marks the outer end of the south breakwater, and a light and fog signal are on the outer end of the north wharf. The south breakwater is also lighted at night, but at times the lights are difficult to see against the background of city lights.

Depths are about 15 feet in the buoyed channel into the harbor, but after storms the chaunel may shoal to 6 feet or less.

Anchorage may be had inside the kelp, but large vessels anchor outside of it in better holding ground.

Small boats anchor in the basin behind the breakwater in a **special anchorage area;** limits and regulations are given in **202.1** and **202.115,** Chapter 2. The holding ground is good. Mooring space is assigned by the harbormaster, who has an office on the waterfront.

The prevailing winds are westerly. Southeasterly gales occur occasionally during the winter. See Appendix for **storm warning display.**

Boat landings, launching ramps, and small-boat hoists are on the western side of the harbor where water, gasoliue, and oil are available at float landings. Marine hardware and general supplies are also available here.

The U.S. Naval Reserve training station is at the long pier on the west side waterfront. Wharfage can be obtained at this pier, charges being paid to the city of Santa Barbara. A Coast Guard rescue vessel is stationed here.

Stearns Wharf has 18 to 24 feet alongside. Diesel oil,

★ (5524) **CALIFORNIA—Santa Barbara to Point Conception—Mooring buoys established.**—*Tidewater Gaviota Tanker Mooring Buoys* "*A*" through "*G*" have each been established in the positions indicated; distances and bearings from a point on shore in (approx.) 34°28′14.7″ N., 120°11′54.2″ W.:

(*a*) "A", a white cylindrical buoy, in 50 feet of water about 910 yards 209°.
(*b*) "B", a white cylindrical buoy, in 55 feet of water about 985 yards 200°.
(*c*) "C", a white cylindrical buoy, in 54 feet of water about 1,085 yards 198°.
(*d*) "D", a white cylindrical buoy, in 56 feet of water about 1,150 yards 215°.
(*e*) "E", a white cylindrical buoy, in 55 feet of water about 1,170 yards 230°.
(*f*) "F", a white dan buoy, in 43 feet of water about 1,000 yards 250°.
(*g*) "G", a white nun buoy, in 54 feet of water about 985 yards 208°.

Note.—The buoys are privately maintained by the Tidewater Oil Co.

(N.M. 38/65.)

(L.N.M. 39, C.G., Long Beach, Aug. 20, 1965.)
C. & G.S. Chart **5202.**
C. & G.S. Coast Pilot 7, 1963, page **104.**

★ (4243) **CALIFORNIA—Point Conception—Cojo Anchorage—Tanker mooring system constructed.**—A tanker mooring system has been constructed in Cojo Anchorage centered in 34°26′56″ N., 120°24′59″ W. The mooring system consists of 5 mooring buoys, 5 crown buoys and 1 hose marker (nun) buoy, all painted white, established in about 25 feet of water within a rectangle 300 yards long and 75 yards wide (the long axis lying in an east-west direction).

(N.M. 33/64.)

(L.N.M. 57, C.G., Long Beach, July 24, 1964.)
C. & G.S. Chart **5202.**
C. & G.S. Coast Pilot 7, 1963, page **104.**

★ (624) **CALIFORNIA—Santa Barbara Channel—Goleta Point—Experimental buoy field discontinued.**—General Motors Corp. advises that the experimental buoy field in the vicinity of 34°24.0′ N., 119°50.5′ W. has been discontinued.

(Supersedes N.M. 34 (4400) 1963.)

(N.M. 6/64.)

(L.N.M. 6, C.G., Long Beach, Jan. 17, 1964.)
C. & G.S. Chart **5202.**
C. & G.S. Coast Pilot 7, 1963, page **104.**

gasoline, and fresh water are available on the wharf. A 30-ton hoist on the wharf can handle boats up to 60 feet in length. Engine and hull repairs can be made.

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

Chart 5202.—The 8-mile coast from Santa Barbara westward 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. There are no dangers.

Goleta Point, 6.2 miles westward of Santa Barbara Light, is low and terminates in a cliff about 30 feet high. The aero light 1 mile northeastward and the two lighted radio towers 1.5 miles northeast of the point are good marks at night. A short pleasure wharf is in the bight east of the point.

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

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 fog signals.

Coal Oil Point, 1.8 miles westward 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.

Ellwood oil field, 2 miles northwestward of Coal Oil Point, extends more than 1 mile along the shore and is marked by numerous wharves and many tall derricks. One wharf has a length of more than 2,000 feet. Several large tanks may be seen on the bluffs above the beach. Large tankers call frequently for oil at the submarine pipeline off the wharves. The moorings are in about 10 fathoms, sandy bottom.

A rock covered 15 feet is 3.7 miles westward of Coal Oil Point and 0.9 mile offshore; it is surrounded by kelp. This rock is the outermost danger along the north side of the Santa Barbara Channel.

Capitan, 7.5 miles westward of Coal Oil Point, is in a small bight which offers little protection to small craft. About 1 mile northwestward of Capitan a submerged pipeline extends seaward 1 mile, where there are large mooring buoys for tankers receiving oil. There are few tanks on the bluff above the pipeline, and a lone tank stands on a bare hill 500 feet high and 0.3 mile inland.

Refugio Beach at **Orella,** 2.5 miles westward of Capitan, is a small auto camp at the mouth of the canyon. A small bight here offers some protection for small boats in northwesterly winds in about 15 feet.

A submarine oil-loading terminal is at **Gaviota,** 13.5 miles eastward of Point Conception. A number of large white 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. An aero light is 3 miles northeastward of Gaviota. This light has been reported seen by ships at distances of more than 60 miles; it should not be confused with the marine aids to navigation, particularly those on the Channel Islands.

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

Point Conception, 118 miles northwestward of Point Fermin and at the western 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 northward or eastward, it usually looks like an island. **Point Conception Light (34°26.9′ N., 120°28.2′ W.),** 133 feet above the water, is shown from a 52-foot white tower behind a dwelling near the western part of the point; a fog signal is at the station. A low black rock, nearly awash at high tide, is 220 yards offshore, southward and westward of the light.

A danger zone of the Point Mugu Missile Range has been designated in the Pacific Ocean between Point Conception and Point Sal; limits and regulations are given in **204.202,** Chapter 2.

Point Conception has been called the **Cape Horn of the Pacific** because of the heavy northwesterly 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.

From Point Conception, the coast trends in a gentle curve northwestward 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.

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.

Espada Bluff is a prominent cliff 370 feet high, 5.5 miles northward of Point Conception. The cliffs on each side drop sharply to less than 100 feet in height.

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.

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

Point Arguello is a narrow, jagged, rocky projection, extending about 800 yards westward 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 northern and southern sides. These form a saddle which, from northward and southward, looks like two heads. **Point Arguello Light (34°34.6′ N., 120°39.2′ W.),** 124 feet above the water, is shown from a 48-foot white skeleton tower on the western extremity of the point. A radiobeacon and fog signal are at the station. **Point Arguello Loran Station** (slave) is about 0.6 mile northeasterly of the light.

★ (5491) **CALIFORNIA—Point Arguello—Light information.**—Point Arguello Light has been determined to be located in 34°34′37.7″ N., 120°38′52.4″ W.
(N.M. 42/64.)

(U.S. Coast Guard, Wash., D.C.)
C. & G.S. Chart 5302, 5202.
C.G. Light List, Vol. III, 1963, No. **25.**
C. & G.S. Coast Pilot 7, 1963, page **105.**

★ (7453) **CALIFORNIA—San Clemente Island—Light information.**—The luminous visibility of Navy Anchorage South End Light is now 7 *miles* (geographic range 18 miles).

Approx. position 32°58.5′ N., 118°31.9′ W.

(N.M. **51/65.**)

(L.N.M. 56, C.G., Long Beach, Nov. 26, 1965.)
H.O. Chart **5760.**
C. & G.S. Charts **5118, 5111,** 5101, 5020, 5002.
C.G. Light List, Vol. III. 1965, No. 381.
C. & G.S. Coast Pilot 7, 1963, page 106.

(356) **CALIFORNIA—San Clemente Island—Shore bombardment area changed.**—1. The "Area to be kept clear during shore bombardment" bounded by a line joining the following approximate positions has been discontinued:

(a) 32°54.8'N., 118°29.2'W.
(b) 32°53.2'N., 118°40.0'W.
(c) 32°45.5'N., 118°40.0'W.
(d) 32°37.5'N., 118°27.0'W.
(e) 32°37.5'N., 118°16.0'W.
(f) 32°45.5'N., 118°10.0'W.
(g) 32°54.8'N., 118°21.0'W.

Note.—Zones 1 through 6 within the above area have been discontinued.

2. An "Area to be kept clear during shore bombardment" bounded by a line joining the following positions has been established:

(a) 32°45'45"N., 118°37'00"W.
(b) 32°45'45"N., 118°15'30"W.
(c) 32°50'30"N., 118°15'30"W.
(d) 32°55'00"N., 118°21'00"W.
(e) 32°55'00"N., 118°24'00"W.

Note.—The area in (2) has been charted on H.O. Chart 5195—OA. The note "Area to be kept clear during shore bombardment" should be charted **within** this area.

(Navy N.M. **45/65.**)

(RS 15588/62, COMPACRESFLT INST. P 3120.1E, Feb. 8, 1965.)
H.O. Charts **5195—OA, 15009—25—1, 15009—25—2, 15009—50—1, 11927—OA.**
C.& G.S. Coast Pilot 7, 1963, page 106.

★ (6340) **CALIFORNIA—San Miguel Island—Weather buoy south-southwestward discontinued.**—The weather buoy in (approx.) 32°55′ N., 121°10′ W. has been removed.

(Supersedes N.M. 26 (3741) 1965.)

(N.M. 44/**65.**)

(L.N.M. 47, C.G., Long Beach, Oct. 8, 1965.)
H.O. Chart **5760.**
C. & G.S. Charts **5020, 5002, 9000.**
C. & G.S. Coast Pilot 7, 1963, page 106.

★ (3168) **CALIFORNIA—San Clemente Island—Light information.**—Pyramid Cove Anchorage Light, showing *flashing red* every *4 seceonds*, flash *0.4 second*, of 50 candlepower, obscured from 040° to 307°, exists in 32°49′59″ N., 118°22′56″ W. The light is exhibited 887 feet above the water from a pole.

(N.M. 25/64.)

(L.N.M. 43, C.G., Long Beach, June 4, 1964.)

(Cmdr. 11 C. & G.S. C.G. Light C. & G.S. C

(6066) **CALIFORNIA—San Clemente Island—Chart amendment.**—1. China Point Light (32°48.2′ N., 118°25.5′ W. approx.) will be amended to show *Fl–5*. 2. Pyramid Head Light (32°49.2′ N., 118°21.2′ W. approx.) will be amended to show *Fl–6*.

(See N.M. 23 (3305) 1965.)

(N.M. 42/65.)

(O.O.)
H.O. Chart **5760.**
C.G. Light List Vol III, 1964, Nos. 379, 380.
C. & G.S. Coast Pilot 7, 1963, page 106.

5. CHANNEL ISLANDS, CALIFORNIA

Chart 5020.—The eight islands extending for 130 miles in a northwesterly direction off the coast of southern California from San Diego to Point Conception are known as the **Channel Islands.** They include the four islands of the southern group—San Clemente, Santa Catalina, San Nicolas, and Santa Barbara; and the four islands of the northern group also referred to as the **Santa Barbara Islands**—Anacapa, Santa Cruz, Santa Rosa, and San Miguel.

In approaching from the southward, there are several banks encountered before reaching the Channel Islands. **Sixtymile Bank,** 62 miles southwestward of Point Loma, has a least depth of 53 fathoms over it. Differences of 3° or more from the normal maguetic variation have been observed within a radius of 8 miles of this bank.

Chart 5101.—Bishop Rock, on which the clipper ship BISHOP struck in 1855, is covered only 2½ fathoms and is the shallowest point on **Cortes Bank.** The rock, marked by a lighted whistle buoy, is in 32°27′ N., 119°08′ W., 40 miles southwestward of San Clemente Island, and is the farthest outlying danger along the coast. The currents are largely nontidal in character; velocities between 1 and 2 knots have been measnred. These currents cause considerable swell and even in moderate weather the sea usually breaks at this rock.

The area for about 2.5 miles southeastward of Bishop Rock shond be avoided because of the broken bottom. Deep-draft vessels should also avoid a 9-fathom spot 5 miles west-northwestward of the rock where the bottom is extremely broken, although no breakers have been reported.

Tanner Bank covers an area about 15 miles long in a west-northwesterly direction and about 5 miles wide. The least survey depth over it is 12 fathoms, but in December 1945 a depth of 9 fathoms was reported in 32°42′ N., 119°08′ W. The northwestern end of the bank is 28 miles southeastward of San Nicolas Island.

A bank covered 52 to 70 fathoms is 18 miles northwesterly of Tanner Bank. The bank extends 9 miles in a northwesterly direction and has an average width of 2 miles. The bottom is hard with fine gray sand and shells. The bank is fished extensively during the winter season.

Chart 5111.—San Clemente Island, 43 miles south-southwestward of Point Fermin and 57 miles west-northwestward of Point Loma, is 18 miles long in a northwesterly direction, has a greatest width of 4 miles, and has greatest elevation of 1,965 feet. The island is a U.S. Naval Reservation and is closed to the public. Vessels including yachts and fishing craft, are warned that the vicinity of the island may be dangerous at any time on account of naval activities, including gunfire, bombing, and rocket firing.

Local magnetic disturbance.—Differences of as much as 5° from normal variation have been observed up to 3 miles offshore along the north, east, and south coasts of the island.

The top of the island appears as a tableland from a distance, and presents no definite natural features of value to navigation.

The northeastern side of the island is bold, with rocky cliffs. The water is generally deep close inshore, and kelp grows close to the beach. On this side of the island a prominent white rock is close inshore, 6 miles northwestward of Pyramid Head. On the beach behind this rock is a fresh-water spring, the only one available during the dry season.

The southwestern side of the island is more irregular, but it is lower and has more gentle slopes. Here the kelp extends several hundred yards offshore, and generally to or beyond the 10-fathom curve. Rocks are numerous close inshore and inside the kelp, but outside the kelp line the bottom slope is more gradual than on the other side of the island, and there are many places where vessels migbt anchor safely in the lee of the island during the northeastern storms, known as the Santa Anas.

Seal Cove, on the southwestern side of the island midway between the two ends, affords a boat landing and indifferent anchorage for small craft in northwesterly weather.

Outer Santa Barbara Passage lies between San Clemente and Santa Catalina Islands.

Chart 5117.—China Point is the southwestern extremity of San Clemente Island and on the western side of Pyramid Cove. A light is shown from a white pyramidal structure on the point.

Pyramid Cove, the deep bight in the southern end of San Clemente Island, offers protected anchorage in 10 fathoms or more during northwesterly weather. The cove is included in a **danger zone**; limits and regulations are given in **204.200,** Chapter 2. Vessels should not enter the kelp as there are indications of other dangers besides those already shown on the charts. Some swell makes into the cove most of the time, but landing on the beach is usually not difficult.

Pyramid Head, the southeastern point of San Clemente Island and the eastern side of Pyramid Cove, is about 900 feet high, sharp, jagged, and prominent. A light is shown from a white pyramidal structure on the head.

Chart 5118.—Wilson Cove, on the northeastern shore of San Clemente Island, 15.5 miles northwestward of Pyramid Head, is a fair anchorage in the prevailing westerly weather, but is uncomfortable at times as the swells make around the point from the northwestward. A strong wind usually blows down off the hills in the afternoon. A **restricted anchorage area** and a **naval restricted area** are in the vicinty of the cove; limits and regulations are given in **202.218** and **207.614,** Chapter 2.

Three lights shown from white pyramidal structures and a lighted range are in the vicinity of Wilson Cove. One is on the hill on the southwestern side of the cove, another 2 miles south of the cove, and the other 1 mile north of the cove. The range lights are in line with the Navy pier on bearing **198°.** A fog signal is on the end of the pier.

The buildings on the hill overlooking Wilson Cove are prominent from the southeastward. The best anchorage for small craft is in the lee of the kelp making off from a point nearly a mile northwestward of the wharf.

In the middle of Wilson Cove the U.S. Navy has a steel pier that extends 550 feet from shore. A landing section at its outboard end is 38 feet wide by 210 feet long, with its deck 18 feet above low water. Depths along the landing section vary from 14 feet inboard to 24 feet outboard. Two fixed breast moorings are in place on each side opposite the landing section and should be used to avoid danger of damage from surge. Time of the tide is about the same as that for Los Angeles. The mean range is 3.5 feet.

Northwest Harbor, on the northwestern end of the island, affords shelter in southerly weather and is a comfortable anchorage in the prevailing westerly weather, as the large beds of kelp and the low islet to the northward of the anchorage afford protection. It is open northward, and is unsafe in heavy northwesterly weather.

A light is shown from a white pyramidal structure on the headland at the north end of San Clemente Island.

A line of rocks extends westward from the northwestern extremity of San Clemente Island, terminating about 0.4 mile off the point in bold and rocky **Castle Rock.** A **danger area** for aerial bombing, rocket firing, and strafing extends 300 yards around this prominent islet.

West Cove, on the northwest side of San Clemente Island 1.5 miles southeastward of Castle Rock, offers some shelter from Santa Ana winds.

A **danger area** extends for 0.2 to 1.5 miles off the west coast of San Clemente Island for 3.2 miles southward of West Cove; limits and regulations are given in **204.200a,** Chapter 2.

A **measured nautical mile** on course **330°** is 1.3 miles southward from West Cove. The 70-foot towers of the front and rear markers on San Clemente Island are more than 500 feet high.

Chart 5112.—Santa Catalina Island, 18 miles southward of Point Fermin, is 18.5 miles long in a southeasterly direction and has a greatest width of 7 miles. About 6 miles from the western end, a deep northerly cut almost divides the island. The cut forms coves less than 0.5 mile apart at their heads, an because the isthmus separating these coves is low, the island appears as two from a few miles off. Rugged and mountainous, the island has steep, precipitous shores intersected occasionally by deep gulches and valleys, and is covered with a thick growth and some scrub oak. The highest peak, 2,125 feet, is about in the middle of the eastern part of the island. Sheep and cattle are raised to some extent.

Much of the northern shore is free from kelp, but the southern side in general has a narrow fringe of kelp close to the beach. The island rises abruptly from deep water, the 30-fathom curve being close inshore. Most of the dangers in the approaches to the island are inside the kelp.

Lights are shown from white pyramidal structures on the south end, **Long Point** (east side), and **West End** (northwest point) of the island.

Ribbon Rock, on the west side of Santa Catalina Island, 2.9 miles southeastward of West End, shows as a dark vertical rock wall with a gigantic ribbon of quartz veining which is visible many miles.

Farnsworth Bank, 9.2 miles southeastward of West End and 1.6 miles offshore, has a least known depth of 8 fathoms over it.

Shelter from Santa Ana winds can be had by anchoring in the bight near the **Palisades** on the southern side of the island, 2 to 3 miles northwestward of the southern extremity.

There are two prominent rock quarries on the eastern side of the island; one is 1.5 miles southward of Avalon Bay, and the other is 1 mile southeastward of Isthmus Cove.

White Cove, 3.5 miles northwestward of Avalon, affords anchorage in 8 fathoms; the protection is similar to that at Avalon.

Chart 5128.—Avalon Bay is on the northern shore of Santa Catalina Island, 2.5 miles from its southeastern extremity. The small bay affords indifferent anchorage in 8 fathoms, sandy bottom. A depth of 20 fathoms is immediately outside the points of the cove. The shelter is good in southwesterly weather, and fair in northwesterly weather if the wind is not too strong. The anchorage is not safe during the Santa Ana winds that occasionally blow from the eastward during the fall and winter. See Appendix for **storm warning display.** A **special anchorage area** is in the bay; limits and regulations are given in **202.1** and **202.105,** Chapter 2.

Boundary lines of inland waters.—The line established for Avalon Bay is described in **82.161,** Chapter 2.

A large white circular building on **Casino Point,** on the north side of the bay, is brilliantly illuminated for about half the night. **The Carillon,** a white concrete tower, 0.2 mile southwesterly of the point, is illuminated and is easily identified.

A radiobeacon is operated from Casino Point and a fog signal, sounded only upon approach of regularly scheduled passenger vessels, is on the pump house near **Bathhouse Point,** on the south side of Avalon Bay.

Avalon, an extensive resort and the principal settlement on the island, has several wharves. Daily ship and air-

plane service is maintained with San Pedro. A road along the beach extends some distance on each side of the cove, and at night the lights along this road are conspicuous from San Pedro Channel. The cove is important as a yacht anchorage and as a vacation resort. The customary yachting and fishing-boat supplies are available.

There is an **anchorage area** in **Descanso Bay,** just northward of Casino Point; limits and regulations are given in **202.216,** Chapter 2.

A **seaplane restricted area** is at **Hamilton Beach,** 0.4 mile northward of Casino Point; limits and regulations are given in **207.620,** Chapter 2.

Isthmus Cove, on the north shore 6 miles from the western end of the island, affords shelter for small vessels in southerly weather, but is dangerous in northwesterly weather. A wharf extends out to a depth of 17 feet. Several prominent buildings are on shore. Isthmus Cove and Avalon are connected by a road, and during the tourist season launch service is maintained between the two points. An **anchorage area** is in the cove; limits and regulations are given in **202.216,** Chapter 2.

Boundary lines of inland waters.—The lines established for Isthmus Cove are described in **82.159,** Chapter 2.

The approach to Isthmus Cove alongshore from the eastward is clear, but westward of the cove entrance there is **Eagle Reef,** covered by 3 feet. The reef is marked by growing kelp and by a buoy about 100 yards to the eastward. In approaching from northward, **Ship Rock,** about 1 mile northward of the cove, is the guide. A light is shown from a white pyramidal structure on top of the rock. From the channel the rock looks like a black haystack; the top is mostly white due to bird droppings. A reef extends about 120 yards southward of Ship Rock, ending in a rock that uncovers 3 feet.

Bird Rock, 37 feet high and about 150 yards in length, is about 500 yards off the beach northward from the eastern part of the cove entrance. The rock is covered with sand and grass. In places reefs extend off the rock more than 100 yards, but it may be approached close-to on the eastern side.

Harbor Reefs, 400 yards southwestward of Bird Rock, are 350 yards long in a northwesterly direction, and less than 100 yards wide. They usually are well marked by kelp. A rock near the eastern end uncovers about 2 feet. There is a lighted buoy at the south end of the reef and a buoy westward of the western end.

Fisherman Cove, in the eastern part of Isthmus Cove, is small, but is said to be the only shelter against Santa Ana winds on the north shore of Santa Catalina Island. The cove is an overnight anchorage for large and small pleasure boats, which frequently fill it during the summer months.

Catalina Harbor, on the southern side of the isthmus separating it from Isthmus Cove, affords shelter for small vessels in all but southerly weather. This harbor is funnel-shaped, open to the southward, free from hidden dangers, and easy of access. Small and bare **Pin Rock,** close inside the eastern head of the harbor, is 150 yards offshore and has deep water around it. The anchorage is in 4 to 5 fathoms, soft bottom, abreast **Ballast Point,** the long low point on the eastern shore. The head of the harbor is shoal. The 3-fathom curve is marked by kelp, and vessels entering should give the shores a berth of 150 yards.

Chart 5101.—San Pedro Channel is 17 miles wide between the mainland, Point Fermin to Point Vicente, and Santa Catalina Island. Current observations have been made 7 miles south of San Pedro Breakwater. Two periodic currents occur at this location; a tidal current, and a daily current apparently due to a land and sea breeze. Both are rotary, turning clockwise, and each is weak, having a velocity of 0.2 knot. The tidal current is very complicated but the daily current is simple, maintaining on the average an approximately constant velocity and shifting direction to the right about 15° each hour. It sets north about 9 a.m., east at 3 p.m., south at 9 p.m., and west at 3 a.m.

Currents due to winds and oceanic drifts vary in velocity and direction. The average current for the period of observations sets 112° with a velocity of 0.1 knot. Currents greater than 1 knot occur infrequently. The greatest velocity during 5 months of observations was 1.5 knots.

Chart 5113.—San Nicolas Island, the outermost of the group off southern California, is 53 miles off the nearest point of the mainland, 43 miles west-northwestward of San Clemente Island, and 24 miles southwestward of Santa Barbara Island. The island is 8 miles long in an easterly direction, 3 miles wide, and 905 feet high at its highest point; it is visible about 38 miles. The island has a gently rounding profile from a distance. The western part is covered with sand, some of which has drifted to the middle northern shore. The remainder of the island is cut by deep arroyos and the top of the mesa is spotted with patches of hurr clover and bunch grass. With the exception of the rocky points, the beaches are all sand. The island is practically surrounded by kelp. At the western end the kelp extends westward about 3 miles over very irregular bottom. Two reefs in the kelp extend 1.6 miles westward from the western extremity of the island. In thick weather great caution must be exercised in approaching from westward, and vessels should in no case pass inside the kelp. No dangers are known to exist outside the kelp.

An aero light, 981 feet above the water, is near the center of San Nicolas Island. Marine lights are shown from white pyramidal structures on the south, east, and north sides of the island. A lighted buoy is 1.3 miles southeastward of the easterly sandspit.

A **naval restricted area** extends 3 miles from the shoreline around the island; limits and regulations are given in **207.615,** Chapter 2.

Begg Rock, 15 feet high, is 8 miles northwestward of

★ (1060) **CALIFORNIA—Santa Barbara Channel—Anacapa Island—Radiobeacon to be changed.**—About April 12, 1966, Anacapa Island Radiobeacon, previously relocated, will be replaced by *Anacapa Island Marker Radiobeacon* operating continuously on a frequency of 324 kcs., transmitting a series of ½-*second* **dashes** for *13½ seconds*, silent *1½ seconds*.

Approx. position : 34°00′05″ N., 119°21′47″ W.

(See N.M. 6(851) 1966.)

(N.M. 7/66.)

(L.N.M. 3, C.G., Long Beach, Jan. 14, 1966.)

H.O. Charts 5760, 1006.

C. & G.S. Charts 5114, 5202, 5101, 5020, 5002, 9000.

C.G. Light List, Vol. III, 1965, No. 19 and page facing XVIII.

C. & G.S. Coast Pilot 7, 1963, page 109.

H.O. Pub. 117B, No. 1082.

★ (851) **CALIFORNIA—Santa Barbara Channel—Anacapa Island—Radiobeacon moved.**—Anacapa Island Radiobeacon has been moved and reestablished 230 yards 094° from its charted position.

Note.—Calibration shows bearings to be reliable within a sector from 107° to 061°.

Approx. charted position: 34°00′56″ N., 119°21′55″ W.

(N.M. 6/66.)

(L.N.M. 4, C.G., Long Beach, Jan. 21, 1966.)
H.O. Charts 5760, 1006.
C. & G.S. Charts 5114, 5202, 5101, 5020, 5002, 9000.
C.G. Light List, Vol. III, 1965, No. 19 and page facing XVIII.
C. & G.S. Coast Pilot 7, 1963, page 109.
H.O. Pub. 117B, No. 1082.

the western point of San Nicholas Island. A reef extends northward and southward of the rock over 100 yards in each direction. The rock rises abruptly from depths of 50 fathoms. A lighted whistle buoy is 500 yards northward of the rock.

A bank covered 30 to 50 fathoms extends 7.8 miles eastward from the eastern point of San Nicolas. From the 50-fathom curve the depths increase rapidly to the eastward and southward.

Restricted anchorage areas are off the northwest, southwest, and southeast ends of San Nicolas Island; limits and regulations are given in **202.220,** Chapter 2. Upon approval of naval authorities, indifferent anchorage may be had on the southern side of the 0.6-mile long sandspit on the eastern end of the island. Small craft anchor in 8 fathoms, hard sand bottom, near the inshore edge of the kelp. Larger vessels anchor farther offshore in 10 to 17 fathoms, hard sand bottom. The anchorage is often uncomfortable as the island tends to split the westerly seas and they break with equal force on both sides and meet off the end of the spit in a maelstrom of breakers. This condition tends to move the sand from the western end of the island and builds up the sandspit. After sunset there is frequently a strong wind blowing off the mesa, making holding difficult. In a blow, local fishermen usually leave this anchorage, preferring the one at Santa Barbara Island. A landing can usually be made at the eastern end on the southern side of the island during the summer without difficulty.

Chart 5110.—Santa Barbara Island, 33 miles south-southwestward of Point Dume and 21 miles westward from the western end of Santa Catalina Island, is 1.5 miles long in a northerly direction, and has a greatest width of 1 mile. The profile of the island is saddle-shaped, and at a considerable distance it appears to be two islands. The greatest elevation is 635 feet on the southern side of the saddle, and the island is visible for over 25 miles in clear weather. The shores are bold and precipitous and well marked by kelp extending to about 10 fathoms at irregular distances from the shore. Westward of the island the kelp makes out more than a mile over very irregular bottom; a rock that breaks in moderate swell is 0.7 mile westward of the west point. The water around the island is deep except where the kelp indicates foul or rocky bottom. A light is shown from a white pyramidal structure on the northeasterly point of the island.

Sutil Island, a rocky islet 300 feet high and surrounded by kelp, is 0.4 mile westward from the southern point of Santa Barbara Island; its northern face is steep. A smaller 145-foot-high rock islet is 200 yards offshore about 0.2 mile westward from the northern point of Santa Barbara Island.

A general anchorage area extends 2 miles off the east coast of the island; limits and regulations are given in **202.222,** Chapter 2. Inside this area a fair anchorage for small craft in the prevailing westerly weather may be had 700 yards southeastward of the northeastern point; large vessels can anchor within the 30-fathom curve with hard gray sand bottom.

Chart 5101.—Osborn Bank, 6.5 miles southward of Santa Barbara Island, is 5 miles long in a northwesterly direction and has an average width of a mile. The least depth found over it is 19 fathoms.

A submerged pinnacle rock of very small area covered by at least 17 fathoms is 16 miles north-northwestward of Santa Barbara Island.

Channel Islands National Monument.—Santa Barbara Island, Anacapa Island, and areas within one nautical mile of the shoreline of these islands, except for certain described parcels of land, have been reserved as Channel Islands National Monument, and are subject to rules and regulations prescribed by the Secretary of the Interior.

Chart 5114.—Anacapa Island, 11 miles southwestward of Point Hueneme, is the easternmost of the northern group of Channel Islands and consists of three islands separated by two very narrow openings which cannot be used as passages. The easterly opening is filled with rocks, is bare, and is crossed by a trestle walkway. The westerly opening is only 50 feet wide and is blocked by sand. **Anacapa Island Light (34°00.9′ N., 119°21.5′ W.),** 277 feet above the water, is shown from a white cylindrical tower on the east end of the island. A radiobeacon is 700 yards westward of the light and a fog signal is on the lower white square tower close eastward of the light.

From its eastern point the island extends 4.5 miles in a general westerly direction. The eastern and lowest island of the Anacapa group is 1 mile long, 0.2 mile wide, 250 feet high, and rather level on top. The middle one is 1.5 miles long, 0.2 mile wide, and 325 feet high. The western and largest island is 2 miles long, 0.6 mile wide, and rises to a 930-foot peak. The westernmost island is visible at a distance of 35 miles in clear weather, and the other two at 15 to 20 miles. The shores of Anacapa Island are perpendicular and filled with numerous caves. The eastern extremity terminates in 80-foot **Arch Rock,** with a 50-foot arch and a pyramidal rock just southward of its eastern end. The island is surrounded by kelp except in a few small places.

The light station attendants and several fishermen are the only persons on Anacapa Island. Seals and pelicans are present in large numbers. The cream-colored houses with tile roofs of the light station personnel are 300 to 400 yards westward of the light. A single large white building is 100 yards farther to the westward. There is a group of weatherbeaten shacks on the easternmost island about 100 yards from the pass which separates it from the middle island. They are visible only from the northward.

The best anchorage in southeasterly storms is on the northern side about 0.2 mile northward of the center of the middle island in depths of 9 to 12 fathoms. In northwesterly weather the best anchorage is 0.3 mile south-

★ (6200) **CALIFORNIA—Santa Rosa Island—Light changed.**—South Point Light has been changed to show *flashing white* every *10 seconds*, flash *2 seconds*, of 1,200 candlepower, visible 8 miles (geographic range 31 miles). **No other change.**

Approx. position: 33°53′51″ N., 120°07′06″ W.

(N.M. **43/65.**)

L.N.M. 19, C.G., Long Beach, April 16, 1965.)
H.O. Chart **5760.**
C. & G.S. Charts **5115, 5116, 5101, 5202, 5020, 5002, 9000.**
C.G. Light List, Vol. III, 1965, No. 402.
C. & G.S. Coast Pilot 7, 1963, page 110.

ward of the eastern opening in depths of 8 to 12 fathoms. However, it is best for larger vessels to lie at Smugglers Cove, on the eastern side of Santa Cruz Island, where the bottom is not so steep-to. Small boats anchor in 5 to 7 fathoms in **East Fish Camp,** a hight about 0.4 mile southwestward of the eastern opening. About the only protection from northeasters is to anchor as close as possible in the bight immediately westward of **Cat Rock,** on the southern side of the western island. The Coast Guard maintains a boat landing and hoist on the northern side near the eastern extremity. Landings can also he made on either side of the island near the western opening and at East Fish Camp. In thick weather, vessels in the area should stay in 50 fathoms or more, because the island rises abruptly from deep water.

Anacapa Passage, between Anacapa and Santa Cruz Islands, is 4 miles wide and free of dangers. It is steep-to on the Anacapa Island side and has a gradual slope to the shore of Santa Cruz Island. The passage is seldom used, and should not be attempted in thick weather as soundings give no warning of a close approach to the islands. Tide rips are strong under certain conditions of wind and current, especially during southeast storms and northeasters.

Charts 5114, 5115.—Santa Cruz Island, 17 miles westsouthwestward of Point Hueneme, is the largest of the Channel Islands. It is 21 miles long in a westerly direction and has an average width of 5 miles. The highest peak, in the western part of the island, rises to 2,434 feet, and in the eastern part the land attains an elevation of about 1.800 feet. The eastern part is very irregular, barren, and destitute of water; the western part has a few trees, is well covered with grass, and has several springs. Sheep and cattle are raised. The shores are high, steep, and rugged, with deep water close inshore, and there is considerably less kelp than aronnd the other islands. The reefs, extending a mile offshore on the south coast at Gull Island, are the only outlying dangers.

San Pedro Point is the eastern extremity of the island. There is a small-boat landing in **Scorpion Anchorage,** a shallow bight 1.8 miles northwestward of San Pedro Point: it consists of a cribbed area with a float and gangway at the end of the roadway. Several large buildings are along the roadway. Large clumps of trees are near the houses.

Chinese Harbor, in the eastern part of the broad bight on the northern shore, 4.5 miles west of San Pedro Point, affords anchorage in the kelp in 5 to 6 fathoms. The northeastern part of the harbor is an excellent anchorage in southeasterly to southwesterly weather in 9 to 10 fathoms. Fresh water may be obtained about 0.8 mile eastward of the anchorage. This harbor affords the best shelter on the island from northeasterly winds.

Prisoners Harbor, in the western part of the bight on the northern shore 8 miles west of San Pedro Point, affords shelter from all winds except from northeastward to westward. Some protection from northwesterly weather is afforded by the kelp but a heavy swell rolls in. In northeasterly weather the anchorage is unprotected and dangerous. A wharf with 16 feet at its face is in the harbor. A large white house, with tile roof, and other buildings stand back of this wharf. The best anchorage is in 12 to 15 fathoms, sandy bottom, abreast a white rock on the western shore of the bight, and the outer end of the wharf in range with the buildings at the inner end. ~~Fresh water can be obtained.~~

Pelican Bay, a small indentation in the northern shore of Santa Cruz Island 1 mile west-northwestward of Prisoners Harbor, is used as a yacht anchorage during the summer. In northwesterly weather small boats anchor close to the cliff which forms the western shore of the bay.

Painted Cave, 3 miles east of **West Point,** the northwestern extremity of the island, is a large cave into which small boats may be rowed for a considerable distance. The entrance is over 150 feet high. The inner end of the first chamber, 600 feet from the entrance, has depths of more than 2 fathoms.

Forney Cove, 1 mile eastward of **Fraser Point** at the western end of the island, affords shelter in northerly weather in 7 to 8 fathoms. The surf is heavy on the beach, but the rocky islet westward and the reef connecting it with the shore lessen the swell at the anchorage.

Gull Island, 65 feet high and about 0.2 mile in extent, is the largest and outermost of a group of small rocky islets, 0.7 mile southward of **Punta Arena,** on the southern side of Santa Crnz Island. Kelp surrounds Gull Island, and the bottom in the vicinity of the group is foul. A light is shown from a white pyramidal structure on the island.

Willows Anchorage, on the southern shore 3.6 miles eastward of Gull Island, can be used by small craft in northwesterly weather and affords a good boat landing.

Smugglers Cove, 1.2 miles southwestward of San Pedro Point, affords shelter in northwesterly weather in 5 fathoms, sandy bottom. Water may be obtained from wells on shore.

Santa Cruz Channel, between Santa Cruz and Santa Rosa Islands, is 5 miles wide, with good water close to both islands. The rocks off the western and southwestern points of Santa Cruz Island and the eastern and northeastern points of Santa Rosa Island are so close inshore that they cannot be considered as dangers in the channel.

Charts 5115, 5116.—Santa Rosa Island, 24.5 miles southwestward of Goleta Point on the mainland, is 15 miles long in a westerly direction and has a greatest width of nearly 10 miles. The highest point, near the middle of the island, is 1,589 feet in elevation and visible over 40 miles. The island has some water and is partially covered with vegetation, but there are no large trees. The shores are bold, higb, and rocky; kelp surrounds the greater part of the island. Depths in the approaches to the island shoal more abruptly from southward than from northward, where the 100-fathom curve is over 5 miles and the 20-fathom curve about 2 miles from the beach.

There are no harbors, but anchorage may be made in Bechers Bay and Johnsons Lee. There are several good boat landings.

East Point, the eastern extremity of Santa Rosa Island, is moderately high, sharp, and bold. A rock covered 2¾ fathoms is in the kelp 0.7 mile northward from the point, and a shoal covered 3½ fathoms is 2 miles northward of the point.

Skunk Point, 2.5 miles northward of East Point, is formed of drifts of sand; it is difficult to see on dark nights. There are sand beaches westward and southward, and the sand dunes behind the point are 250 feet high. Care should be taken to avoid the sandspit off the point where the sea breaks heavily in bad weather. The current is sometimes strong in the vicinity of the point.

Bechers Bay, a broad semicircular bight on the northeastern side of Santa Rosa Island, is 4.5 miles wide between Skunk and Carrington Points and 1.5 miles in depth. **Southeast Anchorage,** 1.3 miles westward of Skunk Point, affords protection in southeasterly weather in about 6 fathoms, sandy bottom. **Northwest Anchorage,** in the western part of the bight and 1.5 miles southward from Carrington Point, affords fair shelter in northwesterly weather. A wharf at the anchorage has 16 feet at its outer end. The best anchorage is in 6 to 7 fathoms off the end of the wharf.

Carrington Point, the northern point of the island, has a seaward face 0.8 mile in length. It is bold and rocky, and rises rapidly to an elevation of 440 feet.

Foul ground extends about 0.3 mile northward from Carrington Point and terminates in **Beacon Reef,** which covers 2¼ fathoms. The reef rarely breaks, and there is no safe passage behind it.

Brockway Point, high, bold, and rounding, is about midway along the northern shore of Santa Rosa Island. **Rodes Reef,** marked by kelp, is a patch of three sunken rocks 1.2 miles east-northeastward from Brockway Point and 0.8 mile offshore. It breaks in nearly all weather.

Sandy Point, the western extremity of the island, is moderately bold and rocky, with a detached rock lying close inshore and sand dunes 400 feet high extending inland. These white dunes are prominent when approaching from southward or westward. Shallow water extends off the point. During the general northwesterly weather, swells form at a considerable distance from the shore. The swell also reaches the point from a southwesterly direction.

An anchorage on the southern side of Sandy Point affords shelter from northerly and northwesterly winds to small vessels, but local knowledge is necessary to avoid outlying rocks.

Talcott Shoal, covered 1¾ fathoms, is on the edge of the kelp 1.5 miles north-northeastward from Sandy Point. Depths surrounding the shoal range from 4 to 12 fathoms. The shoal breaks only in heavy weather. In calm weather there is little indication of the shoal as the kelp is light and there is very little lumping of the water. A detached kelp patch is 1 mile northward of the shoal.

Bee Rock, 0.8 mile offshore 3.6 miles southeastward of Sandy Point, is 5 feet high, but is not easily seen. It is surrounded by kelp that stretches from South Point to Sandy Point. A smaller rock, 10 feet high, is about 100 yards southeastward of the rock. In ordinary weather there is a lumping of the water with an occasional break on the rock, covered 2 fathoms, 0.3 mile northwestward of Bee Rock. Another rock, covered 1¼ fathoms, is close southward of Bee Rock. Several other rocks and shoals exist inside the kelp. Vessels should not go inside the kelp in this area.

South Point, the southern point of Santa Rosa Island, terminates in a rocky bluff 100 feet high, and rises rapidly to a height of 460 feet, then to 603 feet. Cliffs, several hundred feet high and about 0.5 mile in extent, comprise the southwestern face of the point. A light is shown from a small white house on the point.

Johnsons Lee, an open roadstead immediately eastward of South Point, affords fair shelter from westerly and northwesterly winds but is dangerous in southerly weather. The Coast Guard makes landings on the west shore of Johnsons Lee with supplies for South Point Light.

San Miguel Passage, between Santa Rosa and San Miguel Islands, is 2.5 miles wide between the ledges which project from Sandy Point and Cardwell Point, the opposite points of the two islands. There is much broken water, with many current rips near these ledges. To avoid Talcott Shoal, vessels making the passage from the southwestward should not allow the outer rock off the western point of Santa Rosa Island to bear westward of south until clear of the shoal. Sailing vessels should avoid this passage as the light airs and calms under the lee of San Miguel Island and the currents frequently combine to set a vessel toward Talcott Shoal.

Chart 5116.—San Miguel Island, 23 miles south by east of Point Conception, is the westernmost of the Channel Islands and the most dangerous to approach. The island is irregular in shape and 7.6 miles long in a westerly direction, with an average width of 2 miles; the highest points, 831 and 822 feet, are near the middle of the island and are visible about 35 miles. The island is covered with grass, but there are no trees. The western part has more sand dunes on it than any of the other islands in the group. The shores are bold, broken, and rocky, with a few short stretches of beach, the southern shore being more precipitous than the northern. Several anchorages and boat landings are available along the northern and southern shores.

Prior approval of the Commandant, Eleventh Naval District, San Diego, or his authorized representative, is required to enter San Miguel Island.

Cardwell Point, the eastern extremity of the island, terminates in a low sandy point extending 0.5 mile eastward of a cliff 40 feet high. A dangerous reef extends 0.4 mile eastward of the point, and foul ground extends 0.8 mile north-northwestward. In 1962, shoaling was reported up to a mile eastward of the point. A sunken rock and a rock awash are about 400 yards southward of the middle of the sandy point. During prevailing weather breakers off this point are caused by the meeting of the seas.

Prince Island, 288 feet high, is 2.6 miles northwestward of Cardwell Point and 0.4 mile off the eastern head of Cuyler Harbor. The island is dark in color and rocky, with a precipitons seaward face.

Cuyler Harbor is a bight 1.2 miles long and 0.6 mile wide on the northen shore sonthwestward of Prince Island. The anchorage is in the western part of the harbor; the eastern part is fonl. Good shelter may be bad in southerly weather, bnt the holding ground is poor. In strong northwesterly weather the heavy swells that sweep around the northern shore and into the harbor make the anchorage dangerous. The harbor is not safe in rare northerly or easterly winds. Water may be obtained at a small spring abreast the anchorage. Prince Island and Harris Point are prominent in the approaches.

Middle Rock, 0.5 mile west-southwestward of Prince Island, uncovers about 4 feet; foul ground surrounds the rock for a distance of 100 yards. **Can Rock,** 4 feet high, is 0.3 mile southwestward of Prince Island; there is foul ground hetween the rock and the southern shore of the harbor. Kelp grows all over the bight.

To enter Cuyler Harbor, bring Harris Point to bear 261°, distant 1.7 miles, and the western point of Prince Island to bear 186°, distant 1.3 miles; thence steer **209°**, heading midway between Middle Rock and the western point at the entrance, and when the southern point of Prince Island bears midway between Middle and Can Rocks, anchor in 5 to 8 fatboms. The course heads for **Judge Rock,** small and black, near the western end of the sand beach. The western point at the entrance off **Bat Rock** should be given a berth of about 0.3 mile to avoid the shoal extending eastward for over 300 yards. If desired, anchorage may be made about 0.1 mile farther westward, where better protection is afforded in northwesterly weather. The passage between Prince Island and the eastern head should be attempted only hy small craft.

Harris Point, the northern extremity of the island, is bold and precipitous, rising to a hill, 485 feet high, 1 mile southward of the point. There are no outlying dangers, and the water is deep close-to.

Wilson Rock, 2.2 miles northwest of Harris Point, is 19 feet high and black. A reef, extending about 1 mile west-northwestward from the rock, uncovers in two places; foul ground is a short distance northward of the reef. It breaks in any light swell from the northwestward. There is foul ground southward and southwestward of the rock. The covered rock 0.3 mile southward of Wilson Rock breaks. This locality should not be approached in thick weather, as the dangers rise abruptly from deep water and are not marked by kelp; soundings give no positive warning of their proximity.

Simonton Cove, on the northwestern side of San Miguel Island, is a very shallow bight 2.4 miles wide and 0.6 mile in breadth. This cove has considerable kelp and a few covered rocks. There are several fresh-water springs in the bluffs just above high water. From the southwestern head of Simonton Cove, foul ground extends northwestward for nearly 1 mile.

Castle Rock, 180 feet bigh, is a three-beaded islet 1.6 miles north-nortbeastward from Point Bennett, in the middle of the kelp field, and 0.5 mile offshore. A shoal spot 0.5 mile westward of the rock is near the edge of the kelp.

Westcott Shoal, covered 4¾ fathoms, is 0.8 mile northward from Castle Rock. A 2¾-fathom spot near an oil spring is about 0.6 mile northward from the shoal.

Point Bennett, the western point of the island, is a long, narrow, jagged bluff, 74 feet high, rising rapidly to 337 feet. High sand dunes extend from the point for 2 miles. There are two rocky islets sonth of and close under the point, and foul ground extends about 0.5 mile westward and 1 mile nortbward of the point but inside the limit of the kelp. A lighted whistle buoy is about 0.8 mile southwestward of the point.

Caution.—Navigation in this area should not be attempted without local information.

Richardson Rock, 5.5 miles northwestward from Point Bennett, is 53 feet higb, white-topped, and small in area. Two smaller and lower rocks are close-to on tbe eastern side. Richardson Rock rises abrnptly from deep water, 30 to 40 fathoms being found within 0.3 mile. The rock is prominent in clear weather, bnt in thick weather tbe locality should be avoided, as soundings give no warning of a near approach. A lighted whistle buoy is about 0.5 mile northwestward of the rock.

Anchorage for small craft may be had at **Adams Cove,** immediately eastward of Point Bennett, and at several places along the southern shore of San Miguel Island, but local knowledge is necessary.

Tyler Bight, on the southern shore 1.8 miles eastward of Point Bennett, affords shelter for small craft in northwesterly weather. Anchor in 7 fathoms, sand bottom, at the northwestern part of the bight under the high bluff, with **Judith Rock,** at the western entrance of the bight, bearing 265°, 500 yards distant; kelp extends southward and eastward of the point. In moderate northwesterly weather, the winds may attain velocities up to 45 knots 0.5 mile offshore; the sea in the bight, however, is quite smooth.

Wyckoff Ledge, 1.4 miles westward from Crook Point and 0.5 mile offshore, is covered 1½ fatboms.

Crook Point, the southern point of the island, is low and irregular. A boat landing may be made on the southern shore of the island in a small cove immediately westward of the point, but there is no anchorage.

Chart 5202.—Santa Barbara Channel is 63 miles long and increases gradually in width from 11 miles at the eastern end to 23 miles at the western end. The channel is free of dangers and has depths of 40 to more than 300 fathoms along the recommended track from San Diego and Los Angeles to northern ports.

On the northern side of Santa Barbara Channel is the mainland between Point Hueneme and Point Conception. On the southern side is the northern group of the Channel Islands—Anacapa, Santa Cruz, Santa Rosa, and San Miguel—which break the force of the heavy westerly

Pacific swell and afford a lee in winter from the full force of the southeasterly gales.

The eastern entrance to Santa Barbara Channel has a clear width of 2 miles between the 100-fathom curves, and lies between Anacapa Island and Point Hueneme. On the northern side of this entrance is deep **Hueneme Canyon,** which extends from Point Hueneme in a south-southwesterly direction across the channel. The western entrance to the channel has a clear width of 10 miles between the 100-fathom curves, and lies hetween Richardson Rock and Point Conception.

Weather.—The prevailing winds are westerly and blow nearly every day, especially in the afternoon. Southeasterly storms occur in the winter, and at times the sea is too rough for several days to permit the passage of small vessels.

In the summer the winds in tbe channel are wholly different from those outside the islands and off the coast to the northwestward. Under the northern shore, which is protected by the bold range of the Santa Ynez Mountains, the westerly winds do not reach far eastward of Point Conception with much strength but are felt towards the islands, a strong northwesterly wind and heavy swell coming in from the open ocean. The climate in the Santa Barbara Channel, because of this blocking of the winds, is much milder than to the northward along the coast. However, during northwesterly weather boats crossing the channel from the mainland usually encounter heavier seas as the islands are approached. The belt of rough seas, locally known as **Windy Lane,** lies along the north shores of the islands and is about 6 miles wide. This sea condition is the opposite to that experienced in the crossing from Los Angeles-Long Beach to Santa Catalina Island. Strangers are cautioned that good seamanship sometimes calls for returning to the mainland rather than attempting Windy Lane when rough seas are encountered. These westerly winds usually begin about 10 a.m. and grow progressively stronger until sundown.

During heavy northwesterly weather strong squally winds draw down the canyons between Point Conception and Capitan and pass directly offshore, causing a severe choppy sea. Heavy northwesterly gales are often encountered off Point Conception on coming through Santa Barbara Channel, and great changes of climatic and meteorological conditions are experienced, tbe transition often being remarkably sudden and well defined.

In the fall and winter, stiff northeasters are occasionally experienced at and near the eastern end of the channel. They come up without warning, usually at night in clear dry weather, and when the barometer is either high or rising rapidly. At such times small boats should be prepared to seek shelter at a moment's notice.

During the summer heavy fogs are are a common occurrence in the Santa Barbara Channel and envelop the main shore, channel, and islands. Sometimes the mainland and channel are clear while tbe islands alone are hidden. At other times all are clear during the day, hut wrapped in dense wet fog at night. This condition, the fog lying offshore during the day and enveloping the land at night, is characteristic of the whole southern California coast. The fogs occur mostly during calm weather and light winds, and are generally dissipated hy the strong northwesterly winds.

Currents in Santa Barbara Channel are variable, depending to a great extent upon the wind. It appears that a weak nontidal flow sets eastward in the spring and summer, and westward in autumn and winter.

It has been observed that a strong inshore set prevails on a rising tide in the deep waters of Hueneme Canyon. In general, there are conflicting currents, at times quite strong, around the slopes of the submarine valleys both here and off Point Mugu.

The tidal current sets along the northern shore of Santa Barbara Channel with velocities of 0.5 to 1 knot. In heavy northwesterly weather, the current and heavy swells make into the southern side of the western entrance to the channel and along the northern shore of San Miguel Island.

The currents in the vicinity of the Channel Islands frequently follow the direction of the wind, with eddies under the lee of the islands and projecting points. Tidal cnrrents of about 1 knot set through the passages between the islands.

6. POINT ARGUELLO TO SAN FRANCISCO BAY, CALIFORNIA

Chart 5302.—From Point Arguello to Point Sal, the coast trends northward for 19.5 miles in two shallow bights, separated by Purisima Point. From Point Sal the coast continues northward for 14 miles, then bends sharply westward for 6 miles to Point San Luis, forming San Luis Obispo Bay. Soundings are useful along this stretch of the coast, and between Point Arguello and Point San Luis the 20-fathom curve can be followed with safety in thick weather. In clear weather the headlands and other natural features can he easily recognized.

Danger and restricted areas extend 3.5 miles offshore from south of Point Arguello to Point Sal; limits and regulations are given in **204.202,** Chapter 2.

Point Pedernales, 1.5 miles north of Point Arguello, and the largest of the numerous rocks as much as 300 yards offshore, are very dark and conspicuous alongside the sand dunes immediately northward of the point.

La Honda Canyon, 2 miles northward of Point Arguello, is a deep gulch crossed hy a railroad trestle easily distinguisbed when abreast the mouth. From here the coast to Purisima Point consists of a low tableland and sand dunes that contrast strongly with the dark cliffs southward.

Surf, 7 miles northward of Point Arguello, is a station along the railroad. The yellow station house is conspicuous.

Purisima Point, 10.6 miles northward of Point Arguello, is low and rocky, with reefs extending southeastward for 0.3 mile. The northern side of the point is bare sand. It has been reported that an inshore set is experienced off the coast in the vicinity of the point. From Purisima Point to Point Sal, the coast is sandy and lower than that southward

Point Sal, 19.5 miles north of Point Arguello, is a bold dark headland marked by stretches of yellow sandstone. From northwestward the headland looks like a low conical hill with two higher conical hills immediately behind it. It rises gradually to a ridge 1,640 feet high, 3 miles to the eastward. From southward the hills are not so well defined. **Lion (Seal) Rock,** 54 feet high, is a rocky islet 200 yards off the south face of Point Sal. A small rock is close to the point. Breakers and reefs extend nearly 600 yards southward and westward from Point Sal and 200 yards southwestward of Lion Rock.

Anchorage under Point Sal affords some protection from northwesterly winds in 7 to 9 fathoms, sandy bottom, hut is subject to swell. Shoal water extends nearly 0.5 mile westward from the southeastern point of the anchorage. The best anchorage is in 7 fathoms, 500 yards 303° from Lion Rock and with the northern end of the rock just open of the extremity of Point Sal.

From Point Sal northward the coast is a sand beach backed by low dunes for 14 miles, and then changes to bold rocky cliffs that curve sharply westward to Point San Luis and form the northern shore of San Luis Obispo Bay.

Oceano is a small resort 12 miles northward of Point Sal. The county airport is located here.

Pismo Beach is a resort 6 miles eastward of Point San Luis. The pleasure wharf is 1,200 feet long and has 12 feet at the outer end. There are no facilities for landing at the wharf. The place is noted for its clams. **Shell Beach** is a small residental settlement 1.5 miles northwestward of Pismo Beach. Two aero lights, one 4 miles northeast and the other 2.5 miles southeast of the city of San Luis Ohispo. are visible from seaward.

Chart 5386.—San Luis Obispo Bay, 35 miles north of Point Arguello, is a broad bight which affords good shelter in northerly or westerly weather. Southeasterly gales occur two or three times during the winter. The eastern shore is a narrow tableland that ends in cliffs 40 feet high. The northern shore has irregular cliffs 40 to 100 feet high to within 0.5 mile of **San Luis Obispo Creek** where a sand beach fronts **Avila Beach.** Westward of the creek, the shore is high, with rocky bluffs extending to **Point San Luis.**

Port San Luis, on the western shore of the bay, is the principal seaport for San Luis Obispo which is 10 miles inland. The port is primarily an oil-loading terminal, but is also used as a base for commercial fishing boats, sport-fiishing boats, and reereational craft.

San Luis Obispo Light (35°09.6′ N., 120°45.6′ W.), 130 feet above the water, is shown from a 40-foot white square tower on a dwelling on Point San Luis; a radiobeacon and fog signal are at the station. **San Luis Hill,** 0.5 mile northwestward of the light, is prominent from southward.

Boundary lines of inland waters.—The line established for San Luis Obispo Bay is described in **82.143,** Chapter 2.

Depths of 21 to 31 feet are available to the anchorage and wharves in the bay, but there are several shoal spots covered 11 to 18 feet that must be avoided.

Large vessels can anchor hetween the two long piers in the western part of the bay aceording to draft. This anchorage is exposed in southerly or southeasterly weather causing heavy swells.

A good anchorage for small vessels is about 0.2 mile southward of Port San Luis Wharf in 18 to 24 feet, muddy bottom. A **special small-craft anchorage** is easterly of County Wharf; limits and regulations are given in **202.1** and **202.120,** Chapter 2.

★ (2842) **CALIFORNIA — Estero Bay — Morro Bay — Light position amended.**—The position of Morro Bay West Breakwater Light will be amended to 35°21′46.3″ N., 120°52′07.9″ W.
(See N.M. 18 (2549) 1965.)

(Coast Guard, Wash., D.C.) (N.M. 20/65.)
C. & G.S. Charts **5387** (and **Inset**), **5302, 5020, 5002.**
C.G. Light List, Vol. III, 1964, Nos. **31.11/601.11.**
C. & G.S. Coast Pilot 7, 1963, page **115.**

★ (7172) **CALIFORNIA—Morro Bay—Channel depths.**—The following table shows the depths at M.L.L.W. in the improved channels in Morro Bay.

MORRO BAY CHANNEL DEPTHS

Tabulated from Surveys by the Corps of Engineers—Survey of August 1966

Controlling depths in channels entering from seaward in feet at Mean Lower Low Water					Project dimensions		
Name of channel	Left outside quarter	Middle half of channel	Right outside quarter	Date of survey	Width (feet)	Length (nautical miles)	Depth M.L.L.W (feet)
Entrance Channel	17.1	9.6	* 2.1	8–66	350	0.3	16
Navy Channel	15.9	9.0	11.0	8–66	350–750	0.6	16

* The channel has shoaled near the edge between Lighted Buoy 4 and Buoy 6; a depth of 8.3 feet was available in the inside half of the quarter.

Note.—The Corps of Engineers should be consulted for changing conditions subsequent to the above.
(Supersedes N.M. 36 (5689) 1966.)

(N.M. 46/66.)

C. & G.S. CL–1238/66; BP–70526.)
C. & G.S. Chart **5387.**
C. & G.S. Coast Pilot 7, 1963, page **115.**

★ (5689) **CALIFORNIA—Morro Bay—Channel depths.**—The following table shows the depths at M.L.L.W. in the improved channels in Morro Bay.

MORRO BAY CHANNEL DEPTHS

Tabulated from surveys by the Corps of Engineers—Survey of August 1965

Name of channel	Controlling depths in channels entering from seaward in feet at Mean Lower Low Water				Project dimensions		
	Left outside quarter	Middle half of channel	Right outside quarter	Date of survey	Width (feet)	Length (nautical miles)	Depth M.L.L.W. (feet)
Entrance Channel	16. 6	14. 8	[a] 4. 2	8–65	350	0. 3	16
Navy Channel	15. 2	13. 8	12. 4	8–65	350–750	0. 6	16

[a] The quarter has shoaled between Lighted Buoy 4 and Buoy 6; a depth of 11.2 feet was available in the remainder of the reach.

Note.—The Corps of Engineers should be consulted for changing conditions subsequent to the above.

(Supersedes N.M. 3(329) 1965.) (N.M. 36/66.)

(C. & G.S. CL–911/66; BP–70079.)

C. & G.S. Chart **5387.**

C. & G.S. Coast Pilot 7, 1963, page **115.**

★ (3910) **CALIFORNIA—Estero Bay—Morro Bay—Radiobeacon established.**—A marker radiobeacon has been established at Morro Bay West Breakwater Light. The beacon operates continuously on a frequency of 296 kc.; transmitting a series of ½-second dashes for 13½ seconds, silent 1½ seconds.

Note.—The above marker radiobeacon is being calibrated and should not be used for navigation until further notice.

Approx. position: 35°21'46.3" N., 120°52'07.9" W.

(Supersedes N.M. 23(3310) 1965.)

(N.M. 27/65.)

(L.N.M. 25, 28, C.G., San Francisco, June 9, 23, 1965.)

C. & G.S. Charts **5387** (and **Inset**), **5302, 5020, 5002.**

C.G. Light List, Vol. III, 1964, Nos. **31.11/601.11** and page facing **XVIII.**

C. & G.S. Coast Pilot 7, 1963, page **115.**

H.O. Pub. 117B, No. **1089.**

★ (329) **CALIFORNIA—Morro Bay—Channel depths.**—The following table shows the depths at M.L.L.W. in the improved channels in Morro Bay.

MORRO BAY CHANNEL DEPTHS

Tabulated from surveys by the Corps of Engineers—Survey of November 1964

Name of channel	Controlling depths in channels entering from seaward in feet at Mean Lower Low Water				Project dimensions		
	Left outside quarter	Middle half of channel	Right outside quarter	Date of survey	Width (feet)	Length (nautical miles)	Depth M.L.L.W (feet)
Entrance Channel	15.5	13.7	12.3	11–64	350	0.3	16
Navy Channel	13.8	15.7	• 11.0	11–64	350–750	0.6	16

• Shoal depth is located at junction with Navy Channel; a depth of 16.2 feet was available in the inside half of the quarter.

Note.—The Corps of Engineers should be consulted for changing conditions subsequent to the above.

(Supersedes N.M. 25(3170) 1964.)

(N.M. 3/65.)

(C. & G.S. BP–66968.)

C. & G.S. Chart **5387.**

C. & G.S. Coast Pilot 7, 1963, page **115.**

★ (3170) **CALIFORNIA—Morro Bay—Channel depths.**—The following table shows the depths at M.L.L.W. in the improved channels in Morro Bay.

MORRO BAY CHANNEL DEPTHS

Tabulated from surveys by the Corps of Engineers—Survey of December 1963

Controlling depths in channels entering from seaward in feet at Mean Lower Low Water					Project dimensions		
Name of channel	Left outside quarter	Middle half of channel	Right outside quarter	Date of survey	Width (feet)	Length (nautical miles)	Depth M.L.L.W (feet)
Entrance Channel	13. 0	[a] 7. 4	[a] 0. 2	12–63	350	0. 3	16
Navy Channel	11. 0	[b] bare at M.L.L.W.	[b] bare at M.L.L.W.	12–63	350–750	0. 6	16

[a] A shoal has encroached across the right outside quarter from the junction with Navy Channel to 500 yards southwest; a depth of 15 feet was available in the left inside quarter.

[b] A shoal has encroached northeasterly across the right outside and right inside quarters from Morro Bay Channel Lighted Buoy 8 to the upper end of the reach; a depth of 10½ feet was available in the left inside quarter of Navy Channel.

NOTE.—The Corps of Engineers should be consulted for changing conditions subsequent to the above.

(Supersedes N.M. 10(1181) 1964.)

(N.M. 25/64.)

(C. & G.S. BP–65300.)
C. & G.S. Chart **5387.**
C. & G.S. Coast Pilot 7, 1963, page **115.**

The dangers off the entrance to San Luis Obispo Bay are buoyed; the eastern part of the bay is foul. **Souza Rock,** 2.1 miles southeastward of San Luis Obispo Light, is covered 16 feet and rises abruptly from 19 fathoms. **Westdahl Rock,** 1.3 miles southwestward of the light, is covered 18 feet and rises abruptly from 10 fathoms. **Howell Rock,** 1.6 miles east of the light, is covered 13 feet. **Lansing Rock** covered 18 feet and **Atlas Rock** covered 13 feet are 0.7 and 0.5 mile eastward of the light.

An 800-yard breakwater, extending southeastward from Point San Luis through **Whaler Island** to a ledge partly bare at low water, provides some protection to vessels at anchor or at the wharves. Several small fishermen houses are on **Smith Island,** 0.2 mile northward of Whaler Island.

Storm warning displays are made; see Appendix.

San Luis Obispo Bay may be entered from southward by passing 100 yards westward of the lighted gong buoy marking Souza Rock, thence a **000°** course for about 2 miles until past Lansing Rock, and thence to anchorage or to the wharves. From northward stay ontside of the lighted bell buoy marking Westdahl Rock and the lighted whistle buoy off Point San Luis breakwater, then head into the bay as previously mentioned.

Port San Luis is a customs port of entry. The deputy collector of Customs and the Immigration offices are at San Luis Obispo.

Port San Luis Wharf, 0.7 mile northward of Point San Luis, is privately owned and has a warehouse on the outer end. It is used by commercial and sport fishermen, and small cargo vessels. The berthing space opposite the warehouse has 28 feet alongside.

Pier 2 (Middle Dock), a mile northeastward of Point San Luis, is maintained by the Union Oil Company of California. The pier has 31 feet along both sides; a rocky patch covered 17 feet is 200 yards inshore from the west outer end of the pier. A light and a fog signal are privately operated on the outer end of the pier when ships are expected; the pier is lighted throughout its length when ships are being loaded. It is not safe to moor alongside in strong northerly weather; vessels usually leave the pier on the approach of a storm and anchor until it moderates. Mooring buoys are used to keep vessels clear of the pier, and a tug is available for handling lines to the buoys.

County Wharf, 1.4 miles northeastward of Point San Luis, is used by fishing and pleasure boats. The pier has 25 feet at the outer end and is lighted all night.

Fuel, oil, water, and some groceries are available. Small boats can be hoisted onto Port San Luis Wharf. A launching hoist is also at the end of County Wharf.

Transportion is by automobile to San Luis Obispo where rail, bus, and air connections can be made.

Chart 5387.—From Point San Luis to Point Buchon, the coast trends northwestward for 9 miles and consists of cliffs 40 to 60 feet high. The land rises rapidly from the cliffs to Mount Buchon. There are numerous outlying rocks and sunken ledges that extend more than a mile from the shore in some places.

Mount Buchon, a rugged mountain mass between San Luis Obispo Bay, Estero Bay, and the valley of San Luis Obispo, is promiuent from either northward or southward. **Saddle Peak,** 4.1 miles north-northwest of San Luis Obispo Light, is visible for over 40 miles.

Santa Rosa Reef, 1.4 miles westward from San Luis Obispo Light, is covered 2¾ fathoms and rises abruptly from 13 fathoms. **Lone Black Rock,** 2 feet high and of small extent, is 0.5 mile westward from the light and 0.2 mile offshore.

Pecho Rock, 40 feet high, is 3 miles west-northwest from the light and 0.5 mile offshore. A smaller rock, 2 feet high, is 0.3 mile eastward from it. Foul ground, marked by kelp, is between the rocks and the shore.

A sharp prominent dark gray rock, 111 feet high, is 2.9 miles northwestward of Pecho Rock and 0.1 mile offshore.

Lion Rock, 2.6 miles southeastward of Point Buchon and 0.2 mile offshore, is 240 yards long in a northwesterly direction and 136 feet high. A high rock lies between it and the shore, and a small low rock is 200 yards westward.

Point Buchon ends in an overhanging cliff 40 feet high, with a low tableland behind that rises rapidly to a bare hill a mile to the eastward. There are a few detached rocks close under the cliffs. A lighted whistle buoy is 1 mile southwestward of the point and about 400 yards westward of a rock covered 3¾ fathoms.

Estero Bay is formed by a curve in the coast between Point Buchon and **Point Estero,** 13.5 miles northwestward. The shore of the bay follows a general northerly direction from Point Buchon for 11 miles, and then turns sharply westward for 5 miles to Point Estero. The northern part of Estero Bay is fringed with covered rocks and scattered kelp. The seaward faces of Cayucos Point and Point Estero are cliffs 50 to 90 feet high.

The coast drops abruptly from bold Monnt Buchon to a sandy spit bordering Morro Bay and then rises to a bluff-bordered treeless country of rolling hills.

Morro Bay, abont midway between Point Buchon and Point Estero, is a shallow lagoon separated from Estero Bay by a narrow strip of sand beach. The port faciilties at the town of **Morro Bay,** a mile inside the entrance, are used by commercial fishing and sport-fishing boats, and recreational craft.

Morro Rock, on the north side of the entrance to Morro Bay, is a prominent cone with a light and fog signal on the south side. The outer half of the 600-yard breakwater extending southward from the rock is submerged at high water, but in 1962, it was being rebuilt with rock blasted off the seaward side of Morro Rock.

The 450-foot-high power plant stacks nsually floodlighted at night, 0.5 mile eastward of Morro Rock, have been reported visible for 30 miles. **Hollister Peak,** 4.2 miles east-southeastward of Morro Rock, is the most prominent of a row of peaks behind Morro Bay, because of its jagged outline.

Boundary lines of inland waters.—The lines established for Estero-Morro Bay are described in **82.141,** Chapter 2.

★ (3919) **COLUMBIA RIVER—The Dalles to McNary Dam—John Day Dam—Buoys discontinued.**—The following buoys have been permanently discontinued:

(*a*) John Day Dam Lock Buoys 10, 10A, and 12.
Approx. position, Buoy 10: 45°43′32″ N., 120°41′00″ W.

(*b*) Middle John Day Rapids Buoy 30.
Approx. position: 45°43′39″ N., 120°39′59″ W.

(See N.M. 25 (3177) 1964.)

(N.M. 27/65.)

(L.N.M. 35, C.G., Seattle, June 10, 1965.)

C. & G.S. Chart 6159.

C.G. Light List, Vol. III, 1964, pages 116, 117.

C. & G.S. Coast Pilot 7, 1963, page 174.

★ (6572) **CALIFORNIA—Estero Bay to Pt. Piedras Blancas—Buoy renumbered.**—Von Helm Rock Light Gong Buoy 12VH (35°32.2′ N., 121°07.0 W. approx.) has been renumbered "4".

(N.M. 42/66.)

(L.N.M. 64, C.G., San Francisco, Sept. 20, 1966.)
C. & G.S. Chart **5302.**
C.G. Light List, Vol. III, 1966, No. **32.**
C. & G.S. Coast Pilot 7, 1963, page 116.

The entrance to Morro Bay is through a buoyed channel between a 350-yard opening in the protective breakwaters. The controlling depth is about 11 feet to the piers at the town of Morro Bay, although in 1962, shoaling on the easterly side of the entrance channel was reported. Depths of 5 to 12 feet are available to the boat basin 2.7 miles above the entrance.

Special anchorage areas for small craft are in Morro Bay, 1 and 2 miles above the entrance, in 2 to 20 feet; limits and regulations are given in **202.1** and **202.125,** Chapter 2.

Currents in the entrance channel and around the breakwaters are strong at times. It is advisable to approach the entrance from southwestward because of the currents and sea conditions. Sharp turns should be avoided in the vicinity of the breakwaters, especially in heavy weather.

See Appendix for **storm warning display.**

County Wharf, on the north side of the harbor at the town of Morro Bay, has 20 feet alongside. A Coast Guard rescue vessel is stationed at the wharf. A fish pier with 16 feet alongside and several small landings are abreast the town. A boat works has facilities for hoisting craft up to 40 tons.

Gasoline, diesel oil, lubricants, water, ice, marine hardware, and groceries are available in the port.

For 3 miles northward of Morro Rock, submerged pipelines extend to oil-loading terminals up to 0.8 mile offshore in Estero Bay; the outer limits are marked by buoys. Loading ships lie head-to in the direction of the prevailing northwesterly wind. Adequate lines for offshore breast moorings are absolutely essential to prevent damage to the vessel and terminal equipment in case of a southerly wind. A mooring master supervises the mooring of vessels.

A rock covered 5¼ fathoms, 1.3 miles northwestward of Morro Rock, is marked by a buoy.

Cayucos, 11.5 miles northward of Point Buchon and in the northeastern part of Estero Bay, has a wharf used by small fishing boats; a depth of 12 feet is at the outer end. A general store has a limited amount of groceries.

Anchorage with fair shelter from the northward and northwestward may be had in 11 fathoms, sandy bottom, with the prominent white concrete tank on a hill westward of Cayucos bearing 017°.

Mouse Rock, 0.7 mile westerly of Cayucos, is covered ½ fathom and breaks heavily in all but smooth weather; it is marked by a bell buoy.

Cayucos Point, 2 miles westerly of Cayucos, is a low rocky promontory. **Constantine Rock,** 0.5 mile south of the point, is covered 1¼ fathoms and breaks heavily in a moderate swell; it is marked on the southerly side by a buoy.

Chart 5302.—From Point Estero northward for 8 miles to the village of Cambria, the bluffs increase in height, and the range of grassy hills is close to shore. The shore is well fringed with kelp; several rocks are close inshore. **White Rock,** 6 miles northwestward of Point Estero, is the most prominent. A pinnacle rock, 0.7 mile southwest of White Rock, is covered 5½ fathoms.

Von Helm Rock, 7.2 miles northwestward of Point Estero and nearly a mile offshore, is covered 2½ fathoms. The rock is very sharp and breaks only in the roughest weather; it is marked by a lighted gong buoy.

Cambria is about 1 mile inland in a grove of pine trees. Some of the streets and buildings are visible from seaward. No landing or anchorage is recommended.

From Cambria for 6.5 miles to San Simeon, rocks continue close inshore but the bluffs decrease in height and the hills recede from the shoreline. Thick groves of pine trees scatter the hillsides. Of the several rocks offshore, **Cambria Rock,** 10 feet high, and **Pico Rock,** 12 feet high, are the largest, but they are not prominent from seaward. Shoal patches up to 360 yards surround Cambria Rock and there is foul ground northwestward and southward of Pico Rock. A shoal, 580 yards southwesterly from Pico Rock, is covered 3¾ fathoms.

San Simeon Bay, 14 miles northwestward of Point Estero, is formed by the shoreline curving sharply to the westward, and on the western side by **San Simeon Point,** a low wooded projection extending southeastward. The trees show well from westward, but from southward the warehouses and buildings in San Simeon are more prominent. From westward the point itself is not easily recognized by those not familiar with it.

A lighted bell buoy, 0.4 mile southeast of the point, marks the entrance to San Simeon Bay. The bay offers good shelter in northerly weather but is exposed to southerly gales in winter. The best anchorage is in the middle of the bight in 5 to 8 fathoms, hard sand bottom.

San Simeon, eastward of San Simeon Point, is a small town with a general store where some groceries may be obtained. A 500-foot sport fishing pier is 1.7 miles east-southeastward of the point. Prominent **Hearst Castle,** 2.7 miles northeastward of San Simeon, is the former palace of the late William Randolph Hearst: it is now a State Historical Monument. The structure is lighted at night.

The coast from San Simeon Point for 5 miles to Point Piedras Blancas, is low, with numerous detached rocks lying in some cases over 0.5 mile offshore and usually well marked by kelp.

Point Piedras Blancas is a low rocky point projecting about 0.5 mile from the general trend of the coast. **Piedras Blancas Light (35°39.9′ N., 121°17.1′ W.),** 142 feet above the water, is shown from a 74-foot white conical tower with flat top on the point; a fog signal is at the station.

Piedras Blancas are two large white rocks, 74 and 31 feet high, 500 yards offshore and about 0.8 mile eastward of the point. From the southward they look like one rock.

Outer Islet, a large and prominent white rock 110 feet high, is close westward of the point. In hazy weather this rock is sometimes visible from the northwestward and southward when the light cannot be seen.

Anchorage for a small vessel, with protection, from northwesterly winds, may be had under Point Piedras

★ (5091) **CALIFORNIA—Cape San Martin—Light changed.**—Cape San Martin Light (35°53.4′ N., 121°27.7′ W. approx.) has been changed to *flashing white* every *6 seconds*, flash *1 second*. No other change.

(Supersedes N.M. 18(2801) 1966.)

(N.M. 32/66.)

(L.N.M. 42, C.G., San Francisco, July 18, 1966.)
C. & G.S. Charts **5302, 5020, 5002.**
C.G. Light List, Vol. III, 1965, No. **35.**
C. & G.S. Coast Pilot 7, 1963, page 117.

★ (5092) **CALIFORNIA—Monterey Harbor—Buoy changed.**—Monterey Bay Lighted Bell Buoy 4 has been changed to show a *flashing white* light every *4 seconds*, of 120 candlepower.

Approx. position: 36°37.5′ N., 121°53.7′ W.

(Supersedes N.M. 9(1357) 1966.)

(L.N.M. 42, C.G., San Francisco, July 18, 1966.)
C. & G.S. Charts **5403, 5402.**
C.G. Light List, Vol. III, 1965, No. **609.**
C. & G.S. Coast Pilot 7, 1963, page 119.

(N.M. 32/66.)

Blancas in 4 to 5 fathoms, sandy bottom, with the light about 0.2 mile bearing 280°.

A bank covered 11 fathoms, 3 miles west-northwestward from Piedras Blancas Light, has been reported breaking in a heavy westerly swell.

From Point Piedras Blancas for 8.6 miles to the mouth of the San Carpoforo Valley, the coast is low, with small bluffs and rolling treeless hills. Numerous rocks, fringed with kelp, extend well offshore. **Harlech Castle Rock,** 0.7 mile offshore 1.5 miles northwestward from Piedras Blancas Light, is the outermost and uncovers 1 foot; it is not usually marked by kelp. A shoal covered 2¾ fathoms, 0.5 mile northwestward of this rock, is surrounded by 10 to 12 fathoms.

La Cruz Rock, 48 feet high and fairly prominent, is 3 miles north-northwestward of Piedras Blancas Light and just southward of Point Sierra Nevada. A sandy beach inshore from the rock is a fair landing place in heavy northwesterly weather. This stretch of beach is free from breakers. There is a suitable anchorage for small boats east of the northerly limits of the rock in heavy northwesterly or light southerly weather.

Point Sierra Nevada, a low inconspicuous bluff, is named for the steamship SIERRA NEVADA which stranded on the rocks 400 yards northwestward of the point.

About 1.8 miles northward of Point Sierra Nevada is a group of isolated buildings inland from **Breaker Point;** the point is not prominent nor easily identified.

Ragged Point, 6 miles northward of Point Piedras Blancas, is a low projection readily identified, being the first point southward of prominent San Carpoforo Valley; visible rocks and ledges extend about 0.3 mile westward of the point.

From Ragged Point northward for 41 miles to the Big Sur River, the coast is very bold and rugged. The cliffs are 200 to 500 feet high and the land rises rapidly to elevations of 2,500 to 5,000 feet within 2 to 3 miles from the coast. There are few beaches and few outlying rocks. The highway along the coast is plainly visbile from seaward.

Two conspicuous landmarks lie between Ragged Point and Cape San Martin. **White Rock No. 1,** 39 feet high and rather sharp, is 0.5 mile offshore and 3.8 miles northwestward of Ragged Point; about 200 yards west of White Rock No. 1 is a rock awash. **White Rock No. 2,** 64 feet high and with a rounded top, is 0.2 mile offshore and 4.5 miles southeastward of Cape San Martin.

Salmon Cone, 500 feet high, is a rocky butte close to the shore and 0.5 mile northward of White Rock No. 1. The cone is not conspicuous as it blends into the background.

Several deep narrow gulches indent the coast between Salmon Cone and Cape San Martin. Two of the most prominent, **Villa Creek** and **Alder Creek,** are crossed by conspicuous white bridges.

A pinnacle rock, covered 1¾ fathoms, is 1.7 miles southeastward of Cape San Martin and 0.5 mile offshore.

Whaleboat Rock, which uncovers 5 feet, and **Bird Rock,** 5 feet high, are about a mile southeastward of Cape San Martin; they are conspicuous only when close inshore. A white barn is prominent in a group of buildings on the bluff just northward of these rocks.

Cape San Martin, 16 miles northwestward of Point Piedras Blancas, has a ragged precipitous seaward face and is readily identified by the **San Martin Rocks.** From southward, the inner rock, which is 100 yards offshore, is the most prominent, being 144 feet high and white in appearance. The middle rock is 34 feet high and triangular. The outer rock is cone-shaped, 44 feet high, and 0.5 mile offshore. A light is shown from a white structure near the western extremity of Cape San Martin. The structure is not conspicuous.

Willow Creek bridge, 0.3 mile northward of the light, is prominent from westward.

From Cape San Martin for 10 miles to Lopez Point, the coast forms an open bight with rugged shores intersected occasionally by deep narrow valleys. There are a few detached rocks but, with two exceptions, they do not extend far from the shoreline.

Plaskett Rock is a large prominent white rock, 110 feet high, 2 miles northward of Cape San Martin and 0.3 mile offshore.

Tide Rock, 4 miles northward of Cape San Martin and 0.7 mile offshore, is awash and quite sharp; it is a menace in smooth weather as there is no breaker to indicate its position.

Lopez Point, 9.5 miles northwestward of Cape San Martin, is a narrow tableland, 100 feet high, projecting a short distance from the highland. **Lopez Rock,** 51 feet high, is 0.3 mile offshore and 0.8 mile northwestward of Lopez Point. A shoal covered 6 fathoms is 0.3 mile southwestward of Lopez Rock.

An open anchorage affording some protection from northwesterly weather may be had about 1 mile southeastward of Lopez Point in 10 fathoms, sandy bottom. Smaller vessels may obtain better shelter by anchoring inside the kelp bed in about 5 fathoms, sandy bottom, with Lopez Point bearing about 287°. A rock covered 1¾ fathoms is in the kelp beds 0.5 mile southeastward of Lopez Point.

Harlan Rock, 10 feet high, is 0.3 mile offshore 1.7 miles east-southeastward of Lopez Point. The rock is conspicuous only when approaching the anchorage. A shoal covered ¾ fathom is 680 yards southeastward from Harlan Rock.

Several peaks are prominent behind Lopez Point. **Junipero Serra Peak,** 10 miles northeastward of Lopez Point, has pines on and near the summit. **Twin Peak** and **Cone Peak,** 4 miles northeastward of Lopez Point, are known as the twin peaks; they have scattered trees on their summits and are good landmarks even at night. An observation tower on the summit of Cone Peak is lighted when occupied.

From Lopez Point for 17.5 miles to Pfeiffer Point, the coast is rugged, and high mountains rise precipitously from the shore. The coastline makes in slightly, forming a shallow bight. Several hundred feet above the beach, the slopes are marked by numerous highway cuts, and

716-810 O-64—9

the highway bridges over these are conspicious from offshore.

Square Black Rock, 4 miles northward of Lopez Point, is 62 feet high and has a conspicuous cleft in its center. It is the most prominent landmark visible from offshore between Lopez Point and Pfeiffer Point.

Dolan Cone, 4.5 miles northward of Lopez Point, is white in appearance and 77 feet above the water.

Little Slate Rock, 7.5 miles northward of Lopez Point, is 4 feet high; **Slate Rock** is 18 feet high. Both rocks are discernible only when close inshore.

A prominent dwelling, visible westward and northward, is on a bluff 5 miles southeastward of Pfeiffer Point. Several conspicuous highway bridges cross the canyons. The highway leaves the coast about 3.5 miles southward of Pfeiffer Point and does not appear again until northward of Point Sur.

A deep submarine valley makes in from the sonthward in the bight 13.5 miles northward of Lopez Point and 4.5 miles southeastward of Pfeiffer Point. The head of the canyon parallels the shore for ahout a mile and tbe 100-fathom curve lies only 500 yards from shore.

Chart 5476.—Pfeiffer Point, 17.5 miles northward of Lopez Point and 6 miles southward of Point Sur, is 400 to 500 feet high; it is the seaward end of a long ridge 2,000 feet high, 1.5 miles northeastward of the point. The point presents a bold, precipitous, light-colored face to seaward. It is distinguished from the southward by its color, and from northward the pointed summit stands out. The point is more prominent from northward than from southward. **Sycamore Canyon** is immediately northward of the point.

Anchorage, affording fair protection in northerly and northwesterly weather, may be had for small vessels about 0.9 mile east-southeastward of Pfeiffer Point and 0.5 mile offshore in 10 fathoms, sandy bottom, with chain sufficient to clear the kelp line. Small boats may anchor in a bight in the kelp about 0.2 mile offshore, just northward of the anchorage, and obtain better protection. This anchorage is used extensively by local fishermen. Access by land is difficult as the road is poor.

Cooper Point, 1.5 miles northwestward of Pfeiffer Point, is marked by a prominent pinnacle 172 feet high and an off-lying rock 18 feet high.

From the mouth of **Big Sur River,** 3.5 miles northward of Pfeiffer Point, to Point Sur, the shore is low, with sand beaches and dunes extendiug eastward. Sunken rocks and ledges extend a mile offshore in some places between Cooper Poiut and Point Sur.

False Sur, 1.2 miles southeastward of Point Sur Light, is a 206-foot rounded hillock of somewhat similar appearance to Point Sur, and during fog and low visibility may be mistaken for it.

Point Sur, 121 miles northwestward of Point Arguello and 96 miles southeastward of San Francisco Bay entrance, is a black rocky butte 362 feet high with low sand dunes extending eastward from it for over 0.5 mile. From northward or southward, it looks like an island and in clear weather is visible about 25 miles. The buildings on the summit of Point Sur may confuse the stranger. **Point Sur Light (36°18.4′ N., 121°54.0′ W.),** 270 feet above the water, is shown from a 50-foot gray stone tower on the seaward face of the point. A radiobeacon and fog signal are at the station. Recently construction was started on a number of buildings for oceanographic studies about 0.5 mile eastward from the light. A lighted float of the Scripps Institution of Oceanography is 78 miles southwestward of the light.

Pico Blanco, 4.5 miles eastward of Point Sur, rises from the long ridge bordering the south side of Little Sur River. The pointed and white-topped peak is prominent in clear weather from both northward and southward of Point Sur.

Sur Rock, 1.8 miles south-southeastward from Point Sur Light, is awash nearly 0.8 mile offshore. A shoal covered 2 fathoms, 0.3 mile westward of Point Sur, breaks heavily in all but very smooth weather. Abont 0.5 mile southwestward from Sur Rock is a shoal covered 4½ fathoms that breaks in heavy weather. Extending 0.9 mile from Sur Rock toward Point Sur are many covered rocks that show breakers in moderately smooth weather. Foul ground lies between the rocks and the beach. These dangers are usually well marked by kelp, but it is a dangerous locality in thick or foggy weather, and vessels should stay in depths greater than 30 fathoms.

Chart 5402.—The coast trends north-northwestward from Point Sur for 17 miles to Point Cypress, then northeastward for 4 miles to Point Pinos.

Monterey Bay is a broad open bight 20 miles wide between Point Pinos and Point Santa Cruz. The shores decrease in height and boldness as Point Pinos is approached, wbile those of Mouterey Bay are, as a rule, low and sandy. The valleys of Salinas and Pajaro Rivers, which empty into the eastern part of Monterey Bay, are marked depressions in the coastal mountain range and are prominent as such from a considerable distance seaward. From Point Santa Cruz the coast curves westward and northward for 23 miles to Pigeon Point, and then extends for 25 miles in a general north-northwesterly direction to Point San Pedro, the southern headland of the Gulf of the Farallones.

Between Point Cypress and Point Pinos the coast is bold and the 30-fathom curve is less than a mile from shore in many places; deep submarine valleys extend into Carmel Bay and Monterey Bay. Northward of Monterey Bay, depths are more regular and the few dangers extend less than a mile from shore.

Chart 5476.—Just north of Point Sur a sandy beach and bluff continue for 1.8 miles to **Little Sur River,** where the coast becomes bold, the 30-fathom curve lying in many cases less than a mile from shore. The highway returns to the coast just north of Point Sur and is visible from seaward uutil it reaches Carmel Point. It is marked by several bridges.

Ventura Rocks, 2.2 miles northward of Point Sur, are two rocks close together, about 0.6 mile offshore. The northern rock is conical-shaped and 12 feet high. It is

fairly conspicuous when seen from the northward with the sand bluff north of Point Sur as a background, but when seen from the southward it is confused with the rocks near the beach and to the northward. The southern rock uncovers.

From the conspicuous valley of the Little Sur River for more than 7 miles to Soberanes Point, the coast, although moderately straight, is bold, rugged, and broken, with numerous detached rocks and covered ledges close inshore.

Bixby Landing, 4 miles north of Point Sur, is identified by a prominent concrete arch bridge showing well to the westward but obscured to the northward. Less prominent is another concrete arch bridge on the north side of the 620-foot hill in this locality.

Soberanes Point projects slightly from the general trend of the coast. An isolated 200-foot grassy hillock lies immediately back of the point, and a grassy ridge extends inland to heights of 1,600 feet.

The 4.6-mile coastline from Soberanes Point to Carmel Point is rugged and broken, but becomes less precipitous and the mountain ridges lessen in height as Carmel Point is approached. Innumerable rocks and ledges extend in some cases over 0.3 mile offshore.

Lobos Rocks, a group of small rocky islets, are nearly 0.5 mile westward of Soberanes Point. The two larger islets are white-topped, and each is about 40 feet high. From seaward they rise abruptly from 20 fathoms, but there is foul ground between them.

Mount Carmel, 7.3 miles northeastward of Point Sur, is round and bare on the summit. This peak and **Pico Blanco,** 4.5 miles east by north of Point Sur, sometimes can be seen when the lower land is covered by fog or haze.

Yankee Point, 2.5 miles northward of Soberanes Point, projects 0.3 mile from the general trend of the coast. The seaward face is irregular and broken, with numerous detached rocks. **Yankee Point Rock,** 6 feet high, is 125 yards westward of the point. A covered rock that generally breaks is 0.4 mile southward of the point and the same distance offshore.

Carmel Point, the outer tip of **Point Lobos** and the southern point at the entrance to Carmel Bay, is an irregular, jagged, rocky point 100 feet high. **Whalers Knoll,** the 200-foot-high hill 0.5 mile east of Carmel Point, is one of the prominent knobs on Point Lobos. There are rocks off the point. **Whalers Rock,** 12 feet high and 0.5 mile southwestward, is the most conspicuous and the farthest offshore. This rock is more prominent from northward than from southward.

The entire Point Lobos area is included in a State Park reserve; rules prohibit landing anywhere but in **Whalers Cove,** the bight on the north shore 0.7 mile east of Carmel Point.

Carmel Bay is a 2.8-mile wide open bight between Carmel Point and Point Cypress. The beach in front of the city of Carmel is low, but the land on the south side of the bay is bare and mountainous, and the north side is hilly and heavily wooded.

Carmel Bay affords shelter in northerly and southerly weather to small craft having local knowledge. In northerly weather anchorage may be had in two coves on the northern shore, **Pebble Beach** on the west and **Stillwater Cove** on the east. These are shallow kelp-filled bights, with rock and gravel bottom. Anchorage is in 1 to 3 fathoms, but local knowledge is necessary to avoid the dangers. Stillwater Cove has a landing at its head with 5 feet alongside. In southerly weather, anchorage may be had in **Carmel Cove,** a small indentation on the southern shore about a mile eastward of Carmel Point, in 3 to 4 fathoms, rock or gravel bottom, but there is a rock covered 1¾ fathoms near the middle of the cove.

Carmel Canyon, a deep submarine valley, heads in the southeastern part of Carmel Bay and has depths of 50 fathoms less than 0.2 mile from the beach. The bay is not recommended for strangers.

On the northeastern shore of Carmel Bay, and northward of **Carmel River,** is the city of **Carmel.** The lights of Carmel are prominent on a clear night. The Carmel Mission at the southern end of the town is a conspicuous structure.

Point Cypress, on the northern side of the entrance to Carmel Bay, is comparatively low and extends about 2 miles beyond the general trend of the coast. The cliffs are steep, and numerous detached rocks are close under them. The point is heavily wooded to within 400 yards of its tip. **Point Cypress Rock,** 12 feet high, is 450 yards northwestward of Point Cypress and is prominent from either northward or southward. A lighted gong buoy is northwestward of the point.

Chart 5403.—From Point Cypress to Point Pinos, the coast trends northeastward for 4 miles. Numerous small rocks and ledges closely border the shoreline. The land is low, with the height of the cliff decreasing toward **Point Joe,** a rocky extension of the shoreline where the surf breaks heavily. From this point to Point Pinos, white sand dunes are conspicuous against the dark trees behind them, even in moonlight.

Point Pinos, on the southern side of Monterey Bay, is low, rocky, and rounding, with visible rocks extending offshore for less than 0.3 mile. The point is bare for about 0.2 mile back from the beach, and beyond that is covered with pines. **Point Pinos Light (36°38.0′ N., 121°56.0′ W.),** 89 feet above the water, is shown from a 43-foot white tower on a dwelling near the northern end of the point. A radiobeacon is at the light and a fog signal is 450 yards northwestward. A lighted whistle buoy is off the point.

Monterey Bay, between Point Pinos and Point Santa Cruz, is a broad 20-mile wide open roadstead. The shores are low, with sand beaches backed by dunes or low, sandy bluffs. **Salinas Valley,** the lowland extending eastward from about the middle of the bay, is prominent from seaward as it forms the break between the Santa Lucia Range southward and the high land of the Santa Cruz Mountains northward. The bay is free of dangers, the 10-fathom curve lying at an average distance of 0.7 mile offshore. The submarine **Monterey Canyon** heads near the middle of the bay with a depth of over 50 fathoms

★ (3502) **CALIFORNIA—Monterey Bay—Moss Landing Harbor—Channel depths.**—The following table shows the depths at mean lower low water in the improved channel in Moss Landing Harbor:

MOSS LANDING HARBOR

Tabulated from surveys by the Corps of Engineers—Report of June 1965 and surveys of Apr. 1966

Controlling depths in channels from seaward in feet at mean lower low water					Project dimensions		
Name of channel	Left outside quarter	Middle half of channel	Right outside quarter	Date of survey	Width (feet)	Length (nautical miles)	Depth M.L.L.W. (feet)
Entrance channel	14. 0	[a] 10. 0	[a] 6. 0	4–66	200	0. 3	15
Turning basin	15. 2	15. 0	14. 5	4–66	300	. 1	15
Inner channel	14. 7	15. 0	12. 0	4–66	100	. 4	15
Inner turning basin	[b] 12. 8	[b] 12. 0	[b] 12. 5	4–66	100–200	. 1	15

[a] Shoal extends into the channel in the vicinity of Moss Landing Harbor Entrance Light; a depth of 13 feet was available in the left half of the channel.
[b] Except for shoaling to 1 foot in the southerly 70 feet of the basin.

Note.—The Crops of Engineers should be consulted for changing conditions subsequent to the above.

(Supersedes N.M. 3(391) 1966.)

(N.M. 28/66.)

(C. & G.S. CL–721/66; BP–69768.)
C. & G.S. Chart **5403 (Inset).**
C. & G.S. Coast Pilot 7, 1963, page **120.**

★ (3503) **CALIFORNIA—Moss Landing Harbor—Bridge information.**—A temporary trestle (Removable Span) with an authorized horizontal clearance of 25 feet and a vertical clearance of 2 feet has been established over the Inner Channel in Moss Landing Harbor centered in 36°48′16″ N., 121°47′04″ W. on a bearing of 090°–270°.

Note.—This crossing to be removed about September 1, 1966.
(See N.M. 14(2046) 1966.)

(N.M. 22/66.)

(C. & G.S. CL–551/66.)
C. & G.S. Chart **5403 (Inset).**
C. & G.S. Coast Pilot 7, 1963, page **120.**