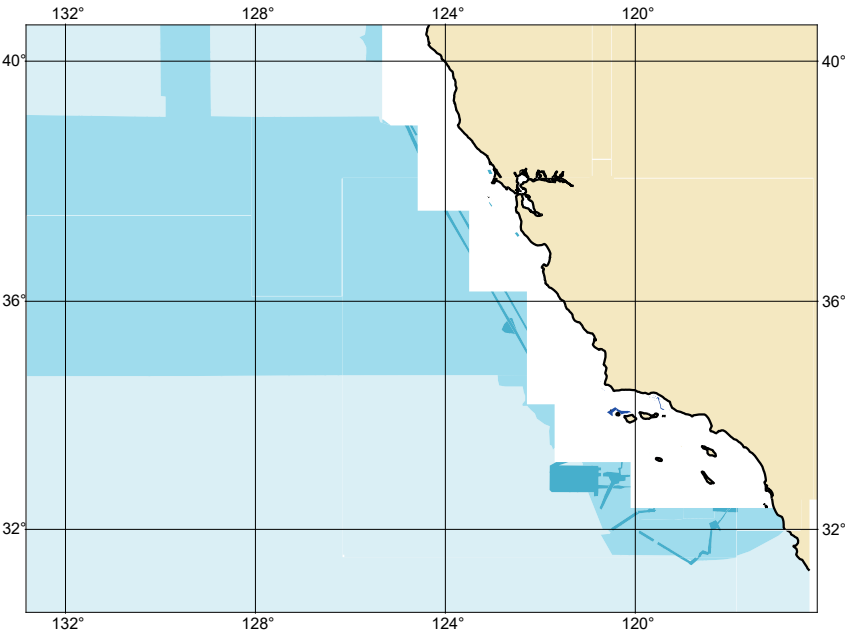


Zone of Confidence (ZOC) Diagram



ZOC CATEGORIES

ZOC	COLOR	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1		± 5 m + 5% depth ± 16.4 ft + 5% depth	= 0.50 m +1% d = 1.6 ft +1% d = 0.3 fm +1% d	All significant seafloor features detected.
A2		± 20 m ± 65.6 ft	= 1.00 m +2% d = 3.3 ft +2% d = 0.6 fm +2% d	All significant seafloor features detected.
B		± 50 m ± 164.0 ft	= 1.00 m +2% d = 3.3 ft +2% d = 0.6 fm +2% d	Uncharted features hazardous to surface navigation are not expected but may exist.
C		± 500 m ± 1640.4 ft	= 2.00 m +2% d = 6.6 ft +2% d = 1.1 fm +2% d	Depth anomalies may be expected.
D		Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected.
U		Unassessed - The quality of the bathymetric data has yet to be assessed.		

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NOAA CUSTOM CHART NOTES GEOSPATIAL DATABASE VERSION 3.0B - 20 FEBRUARY 2025

The records of the NOAA Custom Chart Notes Geospatial Database are current as of February 20, 2025. Subsequent additions and refinements are to be expected. Please refer to all available navigational publications for complete information about the charted area.

CAUTION CHART UPDATES

This NOAA Custom Chart contains up-to-date information only as of the time of creation, and will become outdated. Mariners are advised to visit <https://distribution.charts.noaa.gov/navigation-updates/> to check for critical and routine updates, and to render a new NOAA Custom Chart when the ENC data used to make the chart is updated. Notices to Mariners are not issued for corrections to this NOAA Custom Chart.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard and National Geospatial-Intelligence Agency.

COMMENTS REQUESTED

NOAA encourages users to submit inquiries, discrepancies, or comments about this chart via NOAA's ASSIST tool at <https://nauticalcharts.noaa.gov/customer-service/assist/>.

CAUTION AUTOMATED CHART GENERATION

This NOAA Custom Chart has been automatically rendered from NOAA Electronic Navigational Chart (NOAA ENC®) data. Mariners using this NOAA Custom Chart are advised that this is a static reproduction of the NOAA ENC®. This NOAA Custom Chart has not been individually quality checked or adjusted for optimal use for navigation. The portrayal may be at a different scale from that of the original NOAA ENC®. Mariners are advised to use caution when using this NOAA Custom Chart for navigation and are encouraged to use the latest NOAA ENC® to access the most up-to-date information. Mariners must also comply with all applicable regulatory requirements.

HEIGHTS

Heights of fixed aids to navigation and vertical clearances of overhead obstructions will be shown in feet if the units are set to feet or fathoms. If units are set to meters, heights will be shown in meters. Land elevation values are shown in meters only.

WATER LEVELS, CURRENTS, AND TIDES

Real-time water levels, tide predictions, and tidal current predictions are available on the internet from NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) at https://tidesandcurrents.noaa.gov/water_level_info.html and https://tidesandcurrents.noaa.gov/currents_info.html.

ABBREVIATIONS

For complete list of Symbols and Abbreviations, see Chart No. 1.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 and NGA Publication 153 for supplemental information.

SOUNDING DATUM

Soundings referred to Mean Lower Low Water (MLLW).

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 11th Coast Guard District in Alameda, CA or at the Office of the District Engineer, Corps of Engineers in Los Angeles, CA.

Refer to charted regulation section numbers.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

ADDITIONAL INFORMATION

Additional information can be obtained at www.nauticalcharts.noaa.gov

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information. Refer to charted regulation section numbers.

VERTICAL DATUM

Overhead clearances are referred to Mean High Water (MHW).

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 11th Coast Guard District in Alameda, CA or at the Office of the District Engineer, Corps of Engineers in San Francisco, CA.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 7. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 11th Coast Guard District in Alameda, CA or at the Office of the District Engineer, Corps of Engineers in Sacramento, CA.

Refer to charted regulation section numbers.

VESSEL TRANSITING

The U.S. Coast Guard and the Pacific States/British Columbia Oil Spill Task Force endorse a system of voluntary measures and minimum distances from shore for certain commercial vessels transiting along the coast anywhere between Cook Inlet, Alaska, and San Diego, California. See U.S. Coast Pilot, Chapter 3 for details.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

CAUTION
LIMITATIONS ON THE
USE OF RADIO SIGNALS

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

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MINERAL DEVELOPMENT STRUCTURES

Obstruction lights and sound (fog) signals are required for fixed mineral development structures, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 67).

OFFSHORE VESSEL MOVEMENT REPORTING
SYSTEM (OVMRS)

The U.S. Coast Guard operates an Offshore Vessel Movement Reporting System (OVMRS) covering the seaward approaches to San Francisco Bay. All commercial vessels over 300 gross tons and all tugs with tows are requested to contact Vessel Traffic Service San Francisco on VHF-FM channel 12 (156.60 MHz) when entering this area. All vessels in the area are encouraged to listen on channel 12 at fifteen and forty-five minutes past each hour for broadcast reports of known shipping traffic in the area. Additional information on the OVMRS is published in Coast Pilot 7 and information concerning specific operation procedures is available from the VTS.

SUBMERGED SUBMARINE OPERATING AREAS

Submerged submarine operations are conducted at various times in the waters contained on this chart. Proceed with caution.

CHEMICAL MUNITIONS DUMPING
AREA DISUSED

Site was formerly used or designated for U.S. chemical munitions dumping. Such use has been discontinued. Designation of such area in no way constitutes authority for dumping.

NOTE

IMO-adopted Recommended Tracks for vessels 304.8 metric tons/300 gross tons and above (except those carrying hazardous cargo in bulk or crude oil).

GREATER FARALLONES
NATIONAL MARINE SANCTUARY
(PROTECTED AREA: 15 CFR; SEE NOTE A)

National Marine Sanctuaries are protected areas, administered by NOAA, which contain abundant and diverse natural resources such as marine mammals, seabirds, fishes, and tidepool invertebrates. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges, and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas to avoid environmental impacts. A full description of Sanctuary regulations may be found in 15 CFR Part 922 and in the Coast Pilot.

NOTE

IMO-adopted Recommended Tracks for vessels carrying hazardous cargo in bulk (including ore concentrates, explosives, munitions, chemicals, liquefied gases, refined products, distillates or other non-persistent cargo). Vessels using these tracks should use the Western TSS when entering or leaving San Francisco.

CORDELL BANK
NATIONAL MARINE SANCTUARY
(PROTECTED AREA: 15 CFR 922; SEE NOTE A)

National Marine Sanctuaries are protected areas, administered by NOAA, which contain abundant and diverse natural resources such as marine mammals, seabirds, fishes, and tidepool invertebrates. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges, and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas to avoid environmental impacts. A full description of Sanctuary regulations may be found in 15 CFR Part 922 and in the Coast Pilot.

DAVIDSON SEAMOUNT
MANAGEMENT ZONE
(PROTECTED AREA: 15 CFR 922)

National Marine Sanctuaries are protected areas, administered by NOAA, which contain abundant and diverse natural resources such as marine mammals, seabirds, fishes, and tidepool invertebrates. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges, and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas to avoid environmental impacts. A full description of Sanctuary regulations may be found in 15 CFR Part 922 and in the Coast Pilot.

CHANNEL ISLANDS
NATIONAL MARINE SANCTUARY
(PROTECTED AREA: 15 CFR 922; SEE NOTE A)

National Marine Sanctuaries are protected areas, administered by NOAA, which contain sensitive and diverse natural and cultural resources. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas. A full description of Sanctuary regulations may be found in 15 CFR 922 and in the U.S. Coast Pilot. A full description of the federal regulations governing the Marine Protected Areas located within Channel Islands National Marine Sanctuary boundaries may be found in 15 CFR 922 and 50 CFR 660. A full description of the state regulations governing the Marine Protected Areas located within Channel Islands National Marine Sanctuary boundaries may be found in Title 14 California Code of Regulations (CCR) section 632.

MONTEREY BAY
NATIONAL MARINE SANCTUARY
(PROTECTED AREA: 15 CFR 922; SEE NOTE A)

National Marine Sanctuaries are protected areas, administered by NOAA, which contain abundant and diverse natural resources such as marine mammals, seabirds, fishes, and tidepool invertebrates. These areas are particularly sensitive to environmental damage such as spills of oil and other hazardous materials, discharges, and groundings. Exercise particular caution and follow applicable Sanctuary regulations when transiting these areas to avoid environmental impacts. A full description of Sanctuary regulations may be found in 15 CFR Part 922 and in the Coast Pilot.

SEA OTTER REFUGE

The State of California Fish and Game Code prohibits the use of bows or firearms and the trapping of birds or mammals in the California Sea Otter Game Refuge.

MINERAL DEVELOPMENT STRUCTURES

Obstruction lights and sound (fog) signals are required for fixed mineral development structures, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 67).

NAVAL OPERATING AREA

See Coast Pilot 7, Chapter 5 for information pertaining to the Naval Operating Area in Bechers Bay.

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LOCAL MAGNETIC DISTURBANCE

Differences of as much as 5° from the normal variation have been observed up to 3 miles off shore along the north, east and south coast of San Clemente Island.

LOCAL MAGNETIC DISTURBANCE

Differences of as much as 4° from the normal variation have been observed in the vicinity of Sixtymile Bank.