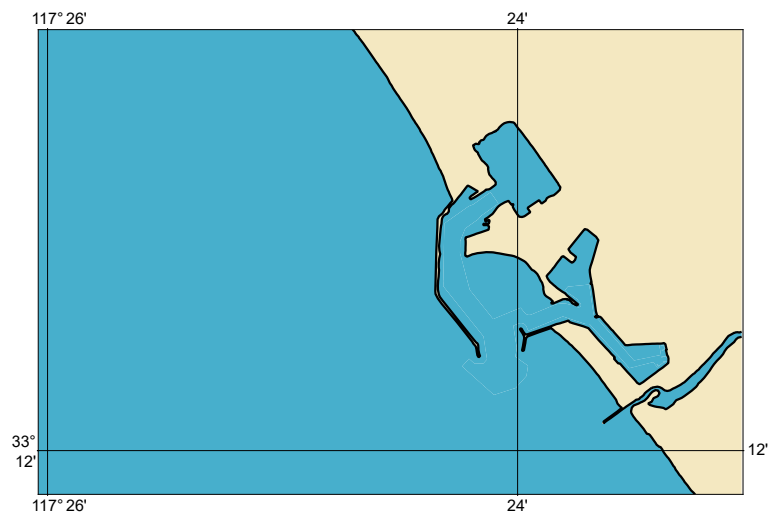


Zone of Confidence (ZOC) Diagram



ZOC CATEGORIES

ZOC	COLOR	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1		$\pm 5 \text{ m} + 5\% \text{ depth}$ $\pm 16.4 \text{ ft} + 5\% \text{ depth}$	$= 0.50 \text{ m} + 1\% \text{ d}$ $= 1.6 \text{ ft} + 1\% \text{ d}$ $= 0.3 \text{ fm} + 1\% \text{ d}$	All significant seafloor features detected.
A2		$\pm 20 \text{ m}$ $\pm 65.6 \text{ ft}$	$= 1.00 \text{ m} + 2\% \text{ d}$ $= 3.3 \text{ ft} + 2\% \text{ d}$ $= 0.6 \text{ fm} + 2\% \text{ d}$	All significant seafloor features detected.
B		$\pm 50 \text{ m}$ $\pm 164.0 \text{ ft}$	$= 1.00 \text{ m} + 2\% \text{ d}$ $= 3.3 \text{ ft} + 2\% \text{ d}$ $= 0.6 \text{ fm} + 2\% \text{ d}$	Uncharted features hazardous to surface navigation are not expected but may exist.
C		$\pm 500 \text{ m}$ $\pm 1640.4 \text{ ft}$	$= 2.00 \text{ m} + 2\% \text{ d}$ $= 6.6 \text{ ft} + 2\% \text{ d}$ $= 1.1 \text{ fm} + 2\% \text{ d}$	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.		

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This NOAA Custom Chart contains up-to-date information only as of the time of creation, and will become outdated.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 for important supplemental information.

Refer to charted regulation section numbers.

VERTICAL DATUM

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

COLREGS DEMARCATION LINE

The Inland Navigational Rules Act of 1980 is in effect for vessels transiting this area. The seaward boundaries of this area are the COLREGS demarcation lines. In the area seaward of the COLREGS demarcation lines, vessels are governed by COLREGS: International Regulations for Preventing Collisions at Sea, 1972. The COLREGS demarcation line is defined in COLREGS 33 CFR 80.1108.

CAUTION

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

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

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.

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).

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.

CAUTION

The shoaling in the entrance to Oceanside Harbor is causing severe surf conditions.

CAUTION

This area is reserved exclusively for use by vessels owned or operated by the Federal Government. Permission to enter the area must be obtained from the Commanding General, U.S. Marine Corps Base, Camp Pendleton, California, or by such agencies as they may designate.

CAUTION
AMPHIBIOUS ASSAULT AREA "CPAAA"

The obstruction area in the Gulf of Santa Catalina is used for large scale amphibious training exercises by craft not easily maneuvered when concentrated in large numbers. At such times, vessels are to remain clear and exit the area in a direction given them when approached or hailed by naval craft. Mariners must consult Local Notice to Mariners for information concerning amphibious activities conducted in this area.

CAUTION
SUBMERGED CABLES AND PIPELINES

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging or trawling.

Covered wells may be marked by lighted or unlighted buoys.

CAUTION

Depths in the entrance channels to Del Mar Boat Basin and Oceanside Harbor are subject to frequent change due to continuous shoaling. Local knowledge is required for safe navigation in these areas. Latest available depth information may be obtained from the Public Works Officer, Camp Pendleton California.

CAUTION
UNDERWATER INSTALLATION

Anchoring, dredging, fishing, and other activities which might foul underwater installations are prohibited. All vessels entering the RESTRICTED AREA shall proceed across it by the most direct route and without unnecessary delay.

CAUTION
AMPHIBIOUS ASSAULT AREA "CPAAA"

The area covered by this chart is used for large scale amphibious training exercises by craft not easily maneuvered when concentrated in large numbers. At such times, vessels are to remain clear and exit the area in a direction given them when approached or hailed by naval craft. Mariners must consult Local Notice to Mariners for information concerning amphibious activities conducted in this area.

NOTE

Buoys located in Oceanside Harbor and Camp Pendleton Boat basin are subject to relocation due to frequent change of channel conditions. Mariners should obtain local knowledge before navigating these channels.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.
Los Angeles, CA KW0-37 162.550 MHz

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.
San Diego Marine, CA WNG-637 162.425 MHz

CAUTION

USACE conducts hydrographic surveys to monitor navigation conditions. These surveys are not intended to detect underwater features. Uncharted features hazardous to surface navigation are not expected but may exist in federal channels. For more information visit <https://navigation.usace.army.mil/Survey/Hydro>.

NOTE Z

NO-DISCHARGE ZONE, 40 CFR 140

Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) website: <https://www.epa.gov/vessels-marinas-and-ports>.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.
San Diego, CA KEC-62 162.400 MHz