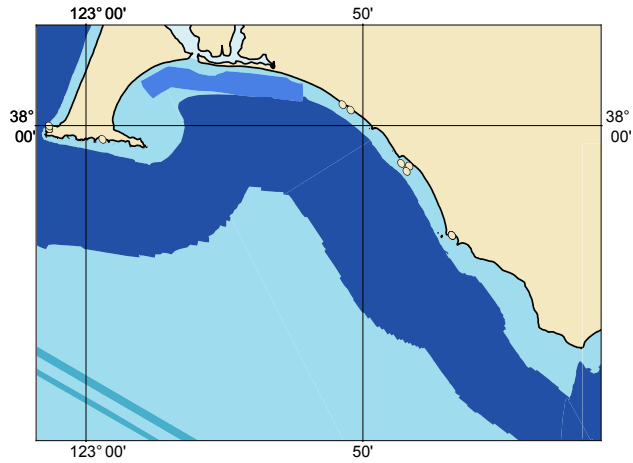


### Zone of Confidence (ZOC) Diagram



#### 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 1.3A - 17 AUGUST 2022

The records of the NOAA Custom Chart Notes Geospatial Database are current as of August 17, 2022. 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This NOAA Custom Chart contains up-to-date information only as of the time of creation, and will become outdated.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/weekly\\_updates/](https://distribution.charts.noaa.gov/weekly_updates/) to check for weekly updates, and to render a new NOAA Custom Chart when information 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/>.

## ABBREVIATIONS

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

## 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

Regardless of the units for depths, heights - including bridge and other overhead clearances - shown on this chart are in meters. Multiply meters by 3.28 to convert to feet.

## 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](https://tidesandcurrents.noaa.gov/water_level_info.html) and [https://tidesandcurrents.noaa.gov/currents\\_info.html](https://tidesandcurrents.noaa.gov/currents_info.html). 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](https://tidesandcurrents.noaa.gov/water_level_info.html) and [https://tidesandcurrents.noaa.gov/currents\\_info.html](https://tidesandcurrents.noaa.gov/currents_info.html).

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## 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).

## CAUTION

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

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details, see U.S. Coast Guard Light List.

## 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](http://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 San Francisco, CA.

Refer to charted regulation section numbers.

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## 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.

## 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 Francisco, CA KHB-49 162.4MHz

## 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.

## 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.