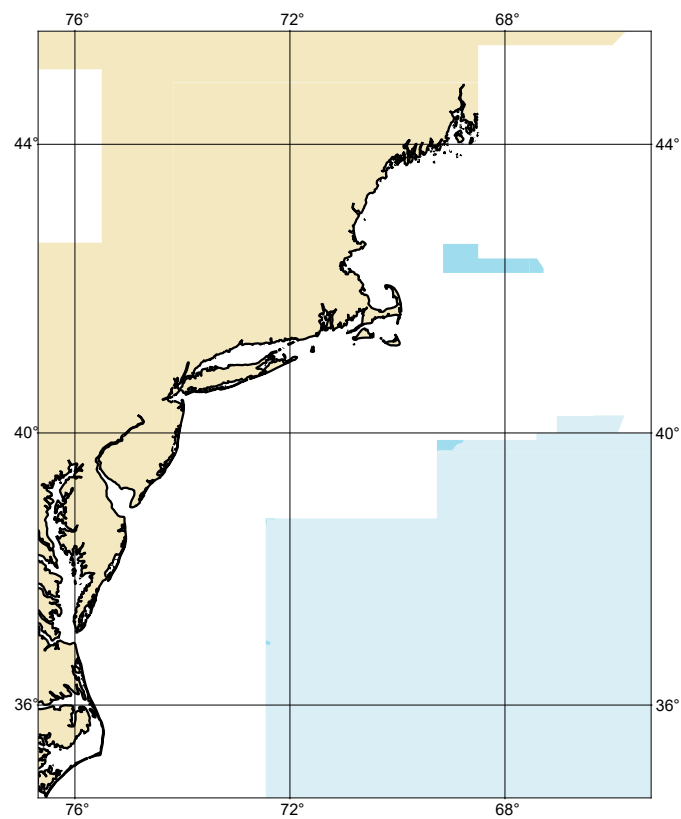


Zone of Confidence (ZOC) Diagram



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.		

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This NOAA Custom Chart contains up-to-date information only as of the time of creation, and will become outdated.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 1 for important supplemental information.

Refer to charted regulation section numbers.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 2 for important supplemental information.

Refer to charted regulation section numbers.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 3 for important supplemental information.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

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 1, NGA Publication 145, and Canadian Sailing Directions, Gulf of Maine and Bay of Fundy for important supplemental information.

Information concerning Canadian Nautical Charts, Sailing Directions, Tide Tables, and other Government publications of interest to mariners may be obtained on request to the Dominion Hydrographer, Canadian Hydrographic Service, Department of Fisheries and Oceans, Ottawa.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 4 for important supplemental information.

Refer to charted regulation section numbers.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6, NGA Publication 145, and Canadian Sailing Directions, St Lawrence River, Montreal to Kingston for important supplemental information.

Information concerning Canadian Nautical Charts, Sailing Directions, Tide Tables, and other Government publications of interest to mariners may be obtained on request to the Dominion Hydrographer, Canadian Hydrographic Service, Department of Fisheries and Oceans, Ottawa. For the St. Lawrence Seaway Regulations and Circulars, special equipment, radio frequencies used in Traffic Control and related information, refer to THE SEAWAY HANDBOOK.

Information concerning Canadian Nautical Charts, Sailing Directions, Tide Tables, and other Government publications of interest to mariners may be obtained on request to the Dominion Hydrographer, Canadian Hydrographic Service, Department of Fisheries and Oceans, Ottawa.

SOUNDING DATUM

In Canadian waters, soundings are referred to Lowest Normal Tide.

VERTICAL DATUM

Overhead clearances in the Great Lakes are reduced correspondingly when water surface is above Low Water Datum. See U.S. Coast Pilot 6 for clearances.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 and Canadian Sailing Directions, Lake Ontario for important supplemental information.

Information concerning Canadian Nautical Charts, Sailing Directions, Tide Tables, and other Government publications of interest to mariners may be obtained on request to the Dominion Hydrographer, Canadian Hydrographic Service, Department of Fisheries and Oceans, Ottawa.

SOUNDING DATUM

Soundings referred to Mean Lower Low Water (MLLW).

SOUNDING DATUM

Soundings in Lake Ontario are referred to Low Water Datum, which is 243.3 feet / 74.2 meters above Mean Water Level at Rimouski, Quebec, the International Great Lakes Datum 1985 (IGLD 1985) reference point.

VERTICAL DATUM

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

VERTICAL DATUM

In Canadian waters, overhead clearances are referred to Higher High Water Large Tides.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 1. 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, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in Concord, MA.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. 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, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in Concord, MA.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 3. 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, 5th Coast Guard District in Portsmouth, VA or at the Office of the District Engineer, Corps of Engineers in Norfolk, VA.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. 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, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in New York, NY.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 3. 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, 5th Coast Guard District in Portsmouth, VA or at the Office of the District Engineer, Corps of Engineers in Baltimore, MD.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 3. 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, 5th Coast Guard District in Portsmouth, VA or at the Office of the District Engineer, Corps of Engineers in Philadelphia, PA.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 4. 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, 5th Coast Guard District in Portsmouth, VA or at the Office of the District Engineer, Corps of Engineers in Wilmington, NC.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. 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, 1st Coast Guard District in Boston, MA or at the Office of the District Engineer, Corps of Engineers in New York, NY.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. 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, 9th Coast Guard District in Cleveland, OH or at the Office of the District Engineer, Corps of Engineers in Buffalo, NY.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 4. 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, 5th Coast Guard District in Portsmouth, VA or at the Office of the District Engineer, Corps of Engineers in Norfolk, VA.

Refer to charted regulation section numbers.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. 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, 9th Coast Guard District in Cleveland, OH or at the Office of the District Engineer, Corps of Engineers in New York, NY.

Refer to charted regulation section numbers.

CANADIAN
AIDS TO NAVIGATION

See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

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HURRICANES AND TROPICAL STORMS

Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris in unknown locations. Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved. Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

PRECAUTIONARY AREA

Traffic within the Precautionary Area may consist of vessels operating between one of the established traffic lanes. Mariners are advised to exercise extreme care in navigating within this area.

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.

PRECAUTIONARY AREA

Traffic within the Precautionary Area may consist of vessels making the transition between operating in Ambrose or Sandy Hook Channels and one of the traffic lanes. Mariners are advised to exercise extreme care in navigating within this area.

RECOMMENDED TWO WAY ROUTES

Recommended two-way routes have been established including deep-water routes for vessels in the approaches to Portland Harbor and Casco Bay, through Hussey Sound to Cousins Island and through Broad Sound to Harpswell, Maine. While not mandatory, deep draft commercial vessels (including tugs and barges) are requested to follow the designated routes at the master's discretion. Other vessels, while not excluded from these routes, should exercise caution in and around these areas and monitor VHF Channel 16 or 13 for information concerning deep draft commercial vessels (including tugs and barges) transiting these routes. See U.S. Coast Pilot 1, Chapter 8.

CAUTION

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

CAUTION
FISH TRAP AREAS

Uncharted stakes, piles and, fishing structures, some submerged, may exist within this area.

CAUTION
POTABLE WATER INTAKE

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

CAUTION
UNEXPLODED ORDNANCE

This area is a former firing range active from 1952 to 1961. Mariners are cautioned against anchoring, dredging or trawling in this area due to the possible existence of unexploded ordnance.

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.

AREA TO BE AVOIDED

To avoid the risk of pollution and damage to the environment, this area has been designated an Area to be Avoided. All vessels carrying petroleum, dangerous or toxic cargoes, or any other vessel exceeding 1,000 gross tons should avoid this area.

CAUTION

Due to periodic high water conditions, in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

CAUTION
ISLES OF SHOALS

Trawlers or other vessels should exercise caution while dragging the ocean floor within a 6.7 mile radius of Isles of Shoals Light since it is known that JATO (Jet-Assisted Take Off) racks and associated debris exist in the area.

CAUTION
DISPUTED AREA

This area is disputed by United States and Canada.
Cette zone est l'objet d'un désaccord entre les États-Unis et le Canada.

DANGER AREA

Offshore area east of Cape Henlopen to Rehoboth Beach is open to unrestricted surface navigation, but all vessels are cautioned neither to anchor, dredge, trawl, lay cables, bottom, nor conduct any other similar type of operation because of residual danger from mines on the bottom.

DANGER AREA

Area approaching Chesapeake Bay Entrance is open to unrestricted surface navigation but all vessels are cautioned neither to anchor, dredge, trawl, lay cables, bottom, or conduct and similar type of operation because of residual danger from mines on the bottom.

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. Commercial vessel sewage shall include graywater. 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>.

FIRING PRACTICE AND EXERCISE AREAS

Limits of Canadian Firing Practice and Exercise Areas. See Canadian Notice to Mariners No. 35 of each year.

AREA TO BE AVOIDED (ATBA)

In order to significantly reduce the risk of ship strikes to the highly endangered North Atlantic Right Whale, ships of 300 gross tons and above should avoid the area between the period of Apr 1st through Jul 31st. Reference IMO Sn/Circ. 272. Where the boundary of the Area to Be Avoided (ATBA) is co-linear with the boundary of the Traffic Separation Scheme or the boundary of the Mandatory Ship Reporting Area, it has been offset slightly for clarity.

AREA TO BE AVOIDED

All vessels carrying cargoes of oil or hazardous materials and all other vessels of more than 1,000 gross tons should avoid the area (MSC IMO XLIII/18).

DEEPWATER PORTS

The Neptune and Northeast Gateway Deepwater Ports are encompassed by multiple boundaries. The outermost boundary represents an Area to Be Avoided and is referenced in 33 CFR 150.940. The central boundaries represent areas designated as No Anchoring Areas as well as Regulated Navigation Areas and referenced in 33 CFR 150.940 and 33 CFR 165.117, respectively. The innermost boundaries represent Safety Zones and Security Zones, both of which are referenced in 33 CFR 165.117. See Note A for information regarding the publication of Navigation regulations.

RECOMMENDED SEASONAL
AREA TO BE AVOIDED

This area has been established in order to reduce the risk of ship strikes of the endangered North Atlantic right whale. It is recommended that ships of 300 gross tonnage and upwards solely in transit during the period of Jun 1st through Dec 31st should avoid the area. (MSC IMO SN.1/CIRC.263)

RIGHT WHALE CRITICAL HABITAT
(PRECAUTIONARY AREA: 50 CFR 226.203,
224.103C; SEE NOTE A)

It is illegal to approach any right whale anywhere closer than 500 yards/457.2 meters.

STELLWAGEN BANK
NATIONAL MARINE SANCTUARY
(PROTECTED AREA: 15 CFR 922)

The following activities are prohibited within Stellwagen Bank Marine Sanctuary: certain discharging or dumping, industrial exploring or developing, drilling and dredging, removing historical artifacts, lightering. Refer to 15 CFR 922 for details of sanctuary regulations.

NOTE

An area in the vicinity of Grand Manan Channel is disputed by United States and Canada.

LOCAL MAGNETIC DISTURBANCE

Magnetic disturbance has been reported in the vicinity of 44°31.5'N, 66°55'W, and 44°33'N, 66°45'W.

MONITOR MARINE SANCTUARY
(PROTECTED AREA: 15 CFR 922; SEE NOTE A)

Anchoring, fishing, or diving within the boundary of Monitor National Marine Sanctuary is prohibited without a permit.

For information write:
Monitor National Marine Sanctuary
NOAA
Building 1519
Fort Eustis, VA 23604-5544.

LOCAL MAGNETIC DISTURBANCE

Differences of as much as 3° from the normal variation have been observed, 6 to 12 nautical miles offshore from Wimble Shoals to Cape Hatteras.