

CAUTION
AUTOMATED CHART GENERATION

This NOAA Custom Chart has been automatically rendered from NOAA Electronic Navigation 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.

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This NOAA Custom Chart contains up-to-date information only as of the time of creation, and will become outdated.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

WARNING

The resident mariners will exist only as long as you, the skipper, do.

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.

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.

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

WATER LEVELS, CURRENTS, AND TIDES

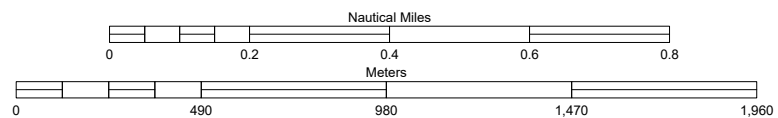
Real-time water levels, tide predictions, and tidal current predictions are available on the internet from NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) at https://tidesandcurrents.noaa.gov/water_level_info.html and https://tidesandcurrents.noaa.gov/currents_info.html.

WGS 1

Figure 1 consists of two schematic diagrams. The top diagram illustrates the structure of a single trial, showing a sequence of phases: Baseline, Training, and Test. The bottom diagram illustrates the structure of the entire experiment, showing a sequence of phases: Baseline, Training, and Test, repeated for multiple sessions. The timeline for the entire experiment is marked with 0 and 450, indicating the duration of the training phase.

Projection Information
WGS 1984 World Mercator (Calculated)
SCALE 1:20000 at Lat. 39°17.07'
GCS WGS 1984

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



AIDS TO NAVIGATION
Consult the U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

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.

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.

CAUTION
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.

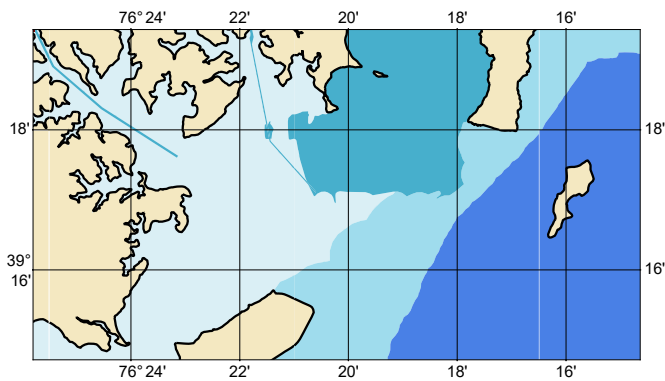
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

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

Middle River to Pooles Island

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.		

Middle River to Pooles Island

NOAA CUSTOM CHART
NOTES GEOSPATIAL DATABASE
VERSION 3.0 - 15 JULY 2024

The records of the NOAA Custom Chart Notes Geospatial Database are current as of July 15, 2024. Subsequent additions and refinements are to be expected. Please refer to all available navigational publications for complete information about the charted area.

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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.

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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.

Middle River to Pooles Island

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 3 for important supplemental information.

VERTICAL DATUM

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

SMALL CRAFT WARNINGS

During the boating season small-craft warnings will be displayed from sunrise to sunset on Maryland Marine Police Cruisers while underway in Maryland waters of the Chesapeake Bay and tributaries.

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 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.

Middle River to Pooles Island

OYSTER AQUACULTURE

Oyster bed aquaculture leases may exist within the limits of this chart. Mariners are cautioned that numerous markers may exist and watermen may be active in the area. Caution should be exercised when navigating in or near these areas, not to anchor or ground, in order to avoid damage to the beds. Depths may be shallower than the soundings shown. For more information, contact the local department of natural resources.

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

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>.

CAUTION

Improved channels are subject to shoaling, particularly at the edges.

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 FISH TRAP AREAS

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

CAUTION

Small craft operators in Frog Mortar Creek are advised to use extreme caution in the vicinity of Martin State Airport, Runway 33. Small craft with mast exceeding 37 feet /11.3 meters in height above the waterline may create an obstruction with aircraft using the airport.

CAUTION FISH TRAPS AND STRUCTURES

Mariners are warned that numerous uncharted duck blinds and fishing structures, some submerged, may exist in the fish trap areas. Such structures are not charted unless known to be permanent. Regulations to assure clear passage to and through dredged and natural channels, and to established landings, are prescribed by the Corps of Engineers in the Code of Federal Regulations. Definite limits of fish trap areas have been established in some areas. Where definite limits have not been prescribed, the location of fishing structures is restricted only by the regulations.

Middle River to Pooles Island

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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.

SUSQUEHANNA NATIONAL WILDLIFE REFUGE (PROTECTED AREA)

LOCAL MAGNETIC DISTURBANCE

Differences of as much as 5° from the normal variation have been observed in the channel from Pooles Island to Howell Point and 3° to 8° in Elk River Channel from Grove Point to Courthouse Point.

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.
Baltimore, MD KEC-83 162.400 MHz

SEASONAL FISH TRAP AREA

Fish Trap Area 1 in the Chesapeake Bay, south of Gunpowder Neck allows fishing traps from October 2 to May 19 inclusive.

ABERDEEN PROVING GROUND RESTRICTED AREA CFR 334.140

Unexploded ammunition or ordnance (duds) may exist within the limits of the Restricted Area.

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.
Sudlersville, MD WXX-97 162.500 MHz