CONTINUED ON CHART 12311

CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:
Pipeline Area — Cable Area
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.

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).

PLANE COORDINATE GRID
(based on NAD 1927)
The New Jersey State Grid is indicated on this chart at 40,000 foot intervals thus: ++
The last three digits are omitted.

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

COHANSEY RIVER
Controlling depths were 5 feet to Fairton; thence 6 feet to approximately 2000 yards south of Bridgeton; thence 1 foot to Bridgeton.
Mar 1988 - Sep 2003

DELAWARE RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 2014

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
BRANDYWINE RANGE	39.8	41.8	41.7	40.2	1-14	1000	10.94	40
MAH MAULL RANGE	41.2	41.3	41.0	37.8	1-14	1000	7.02	40
ELBOW OF CROSS LEDGE RANGE	40.6	43.5	43.3	41.3	4-14	1000	3.39	40
LISTON RANGE (BELOW SHIP JOHN LIGHT)	42.0	40.7	42.2	38.3	4-14	1000	5.57	40
LISTON RANGE (ABOVE SHIP JOHN LIGHT)	41.5	42.6	42.9	41.6	4-14	1000-800	12.42	40

A. 40 FOOT OBSTRUCTION LOCATED AT 39°04'29.76"N, 75°10'49.48"W.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

FORTESCUE CREEK
Controlling depth for centerline is 2 feet from Delaware Bay to Downe Avenue Bridge.
Sep 1986

MAURICE RIVER
Numerous buoys are not charted because they are frequently shifted in position.
Obstruction reported extending across the eastern half of the river at the shipbuilding company about 5 miles above the mouth.
Numerous uncharted wrecks exist along the banks of the river above Mauricetown.
The controlling depth is reported to be 6 feet from Buckshutem to Millville in 1967.

MARINER ACTIVATED SOUND SIGNALS
Sound signals labeled with (MRASS) require user activation. See USCG Light List.

SCALE 1:80,000
Nautical Miles
Yards

TIDAL INFORMATION

PLACE NAME	(LAT/LONG)	Height referred to datum of soundings (MLLW) Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Cape May Point	(38°57'N/74°58'W)	5.4	5.0	0.2
Breakwater Harbor	(38°47'N/75°07'W)	4.7	4.2	0.2
Murderkill River Entrance	(39°04'N/75°24'W)	5.7	5.3	0.1
Woodland Beach	(39°20'N/75°28'W)	6.4	6.1	0.2

Dashes (- -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.
(Aug 2014)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)
Aids to Navigation (lights are white unless otherwise indicated):
AERO aeronautical; Al alternating; Bl black; Bn beacon; C can; DIA diaphone; F fixed; Fl flashing; G green; IQ interrupted quick; Iso isophase; LT HO lighthouse; M nautical mile; m minutes; MICRO TR microwave tower; Mkr marker; Mo morse code; N nun; OBSC obscured; Oc occulting; Or orange; Q quick; R red; Ra Ref radar reflector; R Bn radiobeacon; R TR radio tower; Rot rotating; s seconds; SEC sector; St M statute miles; VQ very quick; W white; WHIS whistle; Y yellow
Bottom characteristics:
Bldrs boulders; bk broken; Cy clay; Co coral; gy gritty; Gr gravel; Grs grass; h hard; M mud; Oys oysters; Pk rock; S sand; so soft; Sh shells; sy sticky
Miscellaneous:
AUTH authorized; ED existence doubtful; Obstn obstruction; PA position approximate; PD position doubtful; Rep reported; Subm submerged
Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
Rocks that cover and uncover, with heights in feet above datum of soundings.
COLREGS: International Regulations for Preventing Collisions at Sea, 1972.
Demarcation lines are shown thus: — — — —

NOTE X
Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

AIDS TO NAVIGATION
Consult 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.

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.

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.

RACING BUOYS
Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

CAUTION
Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus: ⊙

CAUTION
Improved channels shown by broken lines are subject to shoaling, particulary at the edges.

OYSTER GROUNDS
CAUTION - Numerous stakes and obstructions exist within these areas.

CAUTION
FISH TRAP AREAS 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, and those limits are shown thus:
Where definite limits have not been prescribed, the location of fishing structures is restricted only by the regulations.

CAUTION
BASCULE BRIDGE CLEARANCES
For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

NOTE E
CAUTION
The controlling depth within the Five Fathom Bank inbound traffic lane is 40 feet. The Mariners Advisory Committee recommends that vessels with drafts of 35 feet or greater use the Delaware to Cape Henlopen inbound traffic lane.
The controlling depth within the Cape Henlopen to Five Fathom Bank outbound traffic lane is 43 feet.

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.
Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio stations listed below provide 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.

Atlantic City, NJ	KHB-38	162.400 MHz
Salisbury, MD	KEC-92	162.475 MHz
Lewes, DE	WXJ-94	162.550 MHz
Sudlersville, MD	WXK-97	162.500 MHz

NOTE S
Regulations for Ocean Dumping Sites are contained in 40 CFR, Parts 220-229. Additional information concerning the regulations and requirements for use of the sites may be obtained from the Environmental Protection Agency (EPA). See U.S. Coast Pilots appendix for addresses of EPA offices. Dumping subsequent to the survey dates may have reduced the depths shown.

SOURCE

A 1990-2013	NOS Surveys	full bottom coverage
B1 1990-2013	NOS Surveys	partial bottom coverage
B2 1970-1989	NOS Surveys	partial bottom coverage
B5 Pre-1900	NOS Surveys	partial bottom coverage

SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES – EAST COAST
NEW JERSEY – DELAWARE

DELAWARE BAY

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

Mercator Projection
Scale 1:80,000 at Lat. 39°06'
North American Datum of 1983
(World Geodetic System 1984)
SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

HORIZONTAL DATUM
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.407" northward and 1.347" eastward to agree with this chart.

HEIGHTS
Heights in feet above Mean High Water.

SCALE 1:80,000
Nautical Miles
Yards

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

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 3. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia or at the Office of the District Engineer, Corps of Engineers in Philadelphia, Pennsylvania.
Refer to charted regulation section numbers.

NOTE B
DANGER AREA
Area 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.

NOTE C
TRAFFIC SEPARATION SCHEME
One-way traffic lanes overprinted on this chart are RECOMMENDED for use by all vessels traveling between the points involved. They have been designed to aid in the prevention of collisions at the approaches to Delaware Bay, but are not intended in any way to supersede or alter the applicable Rules of the Road. Separation zones are intended to separate inbound and outbound traffic and to be free of ship traffic. Separation zones should not be used except for crossing purposes. When crossing traffic lanes and separation zones use extreme caution.

NOTE D
PRECAUTIONARY AREA
Traffic within the PRECAUTIONARY AREA may consist of cruising pilots and vessels making the transition between operating in Delaware Bay and one of the traffic lanes. Mariners are advised to exercise extreme care in navigating within this area.

MISPILLION RIVER
The Corps of Engineers has confirmed (September 2013) that the channel past the jetties in the Mispillion River to Milford remains an authorized navigation project and has not been actively maintained since 1981. There are no plans to survey this project in the foreseeable future.
The controlling depth after the jetties was 2 feet to the bascule bridge, thence 2 feet to Milford with shoaling to 1 foot at Milford.
Feb 1981 - Aug 1996

CAUTION
Numerous uncharted duck blinds, stakes, piles, signs and pipes, some submerged, may exist in the area of this chart.

CAUTION
Unexploded ordnance may exist within an area extending 2.5 miles offshore from Kitts Hummock to Little River.

CAUTION
Entrance to channel may be foul with rocks.

JOINS CHART 12214

To ensure that this chart was printed at the proper scale, the line below should measure six inches (152 millimeters).
If the line does not measure six inches (152 millimeters), this copy is not certified safe for navigation.

CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at http://www.nauticalcharts.noaa.gov/staff/contact.htm.

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U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

SOUNDINGS IN FEET

FATHOMS / FEET / METERS

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