

BookletChart™

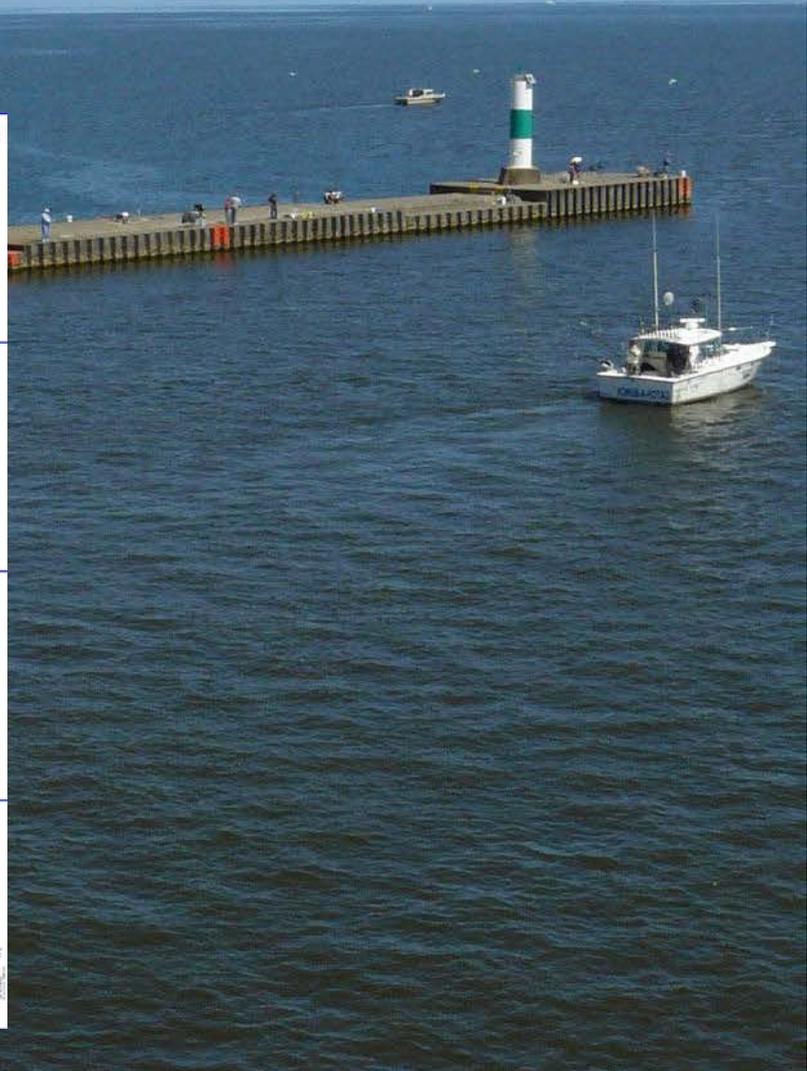
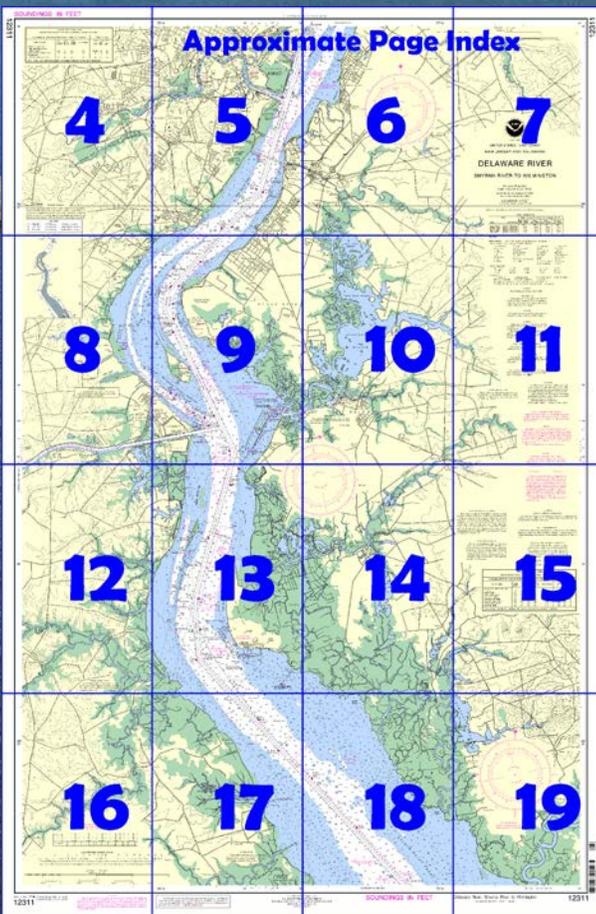


Delaware Bay – Smyrna River to Wilmington NOAA Chart 12311

*A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.*



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA**

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=12311>



(Selected Excerpts from Coast Pilot)

Artificial Island. The domes of the Salem Nuclear Power Plant, at the south end of the island, are prominent. An unmarked channel leads to a basin south of the powerplant; 18 feet was reported in the channel and basin. **Alloway Creek** has a depth of 3 feet to Quinton. The approach is unmarked. The shoals on either side of the mouth must be avoided. Above the mouth, the best water is not always in midstream, and local

knowledge is needed. The current velocity is 2.1 knots 0.2 mile above the entrance and 1.4 knots at New Bridge.

The Mill Street bridge at **Hancocks Bridge** has a clearance of 4 feet. Salem County Bridge at **New Bridge** has a clearance of 3 feet. The State

Route 49 bridge at **Quinton** has a clearance of 3 feet. The bridge is in the closed position.

Salem River is entered through **Salem Cove** across from the Chesapeake and Delaware Canal. The approach channel is marked by a lighted buoy, lights, and a lighted **027.3°** range; the depth was 13.4 feet (15.4 feet at midchannel) to Light 14; 12.2 feet through the landcut with 14 to 16 feet in the basin; 16.0 feet to near the bridge at Salem. Above the bridge the depths were 2 feet or less.

Several marinas and boatyards are along the north bend of Salem River and at Salem; slips, gasoline, and marine supplies are available.

Appoquinimink River is used by pleasure craft. Controlling depth to Odessa is 2 feet. The current velocity in the entrance is 1.1 knots. The bridge 3 miles above the mouth has a clearance of 6 feet. The bridge at **Odessa** has a clearance of 4 feet.

Reedy Island. The pier on the channel side of the island has a depth of 10 feet; the current velocity is about 2.5 knots off the pier. A submerged dike extends 3 miles southward from Reedy Island and parallels the western shore; the dike is marked by lights, and unlighted seasonal warning buoys.

Port Penn. The approach, through the Reedy Island dike south of the island, is 5 feet deep and 150 feet wide, and marked on each side by a daybeacon. Approaches to the village from north of Reedy Island or from south of the dike are over flats with depths of 2 feet. Anchorage depths off Port Penn are 15 feet or more.

Delaware City Branch Channel. A light marks the entrance to Delaware City Branch Channel; the controlling depth was 5 feet in the channel entrance from the Delaware River shoaling rapidly along the sides; thence the controlling depth was 6 feet in the channel. Depths alongside the Delaware City bulkhead were 7½ feet to bare. The entrance channel at the Chesapeake and Delaware Canal end was reported to have a depth of 7 feet. Mariners are cautioned to stay inside the north and south entrance channels.

A highway bridge with a clearance of 6 feet crosses the channel 0.6 mile above the entrance; the bridge is maintained in the closed position. Berths, gasoline, diesel fuel, ice, and marine supplies are available on the west side of Delaware City Branch Channel southwest of the northeast entrance.

Anchorage.—Vessels must not anchor in Christina River channel within the city limits of Wilmington or tieup at any wharf more than two abreast without permission of the harbor commissioners. A general anchorage is off Deepwater Point, south of the river entrance. (See **110.1 and 110.157(a)(7) and (b)**, chapter 2, for limits and regulations, and page 391 for **Wilmington climatological table**.)

Bridges.—There are no bridges or overhead power cables over the deepwater section of Christina River. From Lobdell Canal to just above the bridge at Newport, 6.8 miles above the mouth, the least clearance of drawbridges is 2 feet and fixed bridges, 22 feet. (See **117.1 through 117.59 and 117.237**, chapter 2, for drawbridge regulations.) In May 2008, it was reported that the Christina River swing bridge at mile 5.4 was in ruins; caution is advised.

In 1984, partially submerged concrete structures of a former bridge were reported about 4.9 miles above the mouth of the river near Interstate 95 fixed bridge; caution is advised.

Currents.—The current velocity is about 0.8 knot at Wilmington.

Quarantine, customs, immigration, and agricultural quarantine.—(See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Norfolk Commander
5th CG District (575) 398-6231
Norfolk, VA

Table of Selected Chart Notes

NOTE B
Depths refer to Christina River Dat

OYSTER GROUNDS
Caution: Numerous stakes and obstructions exist within these areas.

HEIGHTS
Heights in feet above Mean High Water.

Mercator Projection
Scale 1:40,000 at Lat. 39°33'
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 0.403' northward and 1.269' eastward to agree with this chart.

APPOQUINIMINK RIVER
The controlling depth at mean lower low water from the entrance to Odessa was 4 feet June 1945-Oct. 1987. Local knowledge is recommended for navigation of this river.

SMYRNA RIVER
The controlling centerline depth at mean lower low water from the entrance bar to Flemings Landing was reported to be 8 feet in May 1971; thence 3 feet to Smyrna Landing in June 1964.

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

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.

Philadelphia, PA	KIH-28	162.475 MHz
Lewes, DE	WXJ-94	162.550 MHz
Sudlersville, MD	WXX-97	162.500 MHz

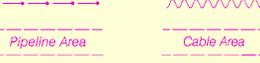
AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

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

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

CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

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
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) ◐ (Approximate location)

PRIVATE CHANNELS
Bulkhead Shoal Channel and the turning basin are projects of the Star Enterprise Co. Aids to navigation are private.

LOCAL MAGNETIC DISTURBANCE
Differences of as much as 2° to 5° from the normal variation have been observed along the channel from Artificial Island, New Jersey to Marcus Hook, Pennsylvania.

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.

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.

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.

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).

TIDAL INFORMATION

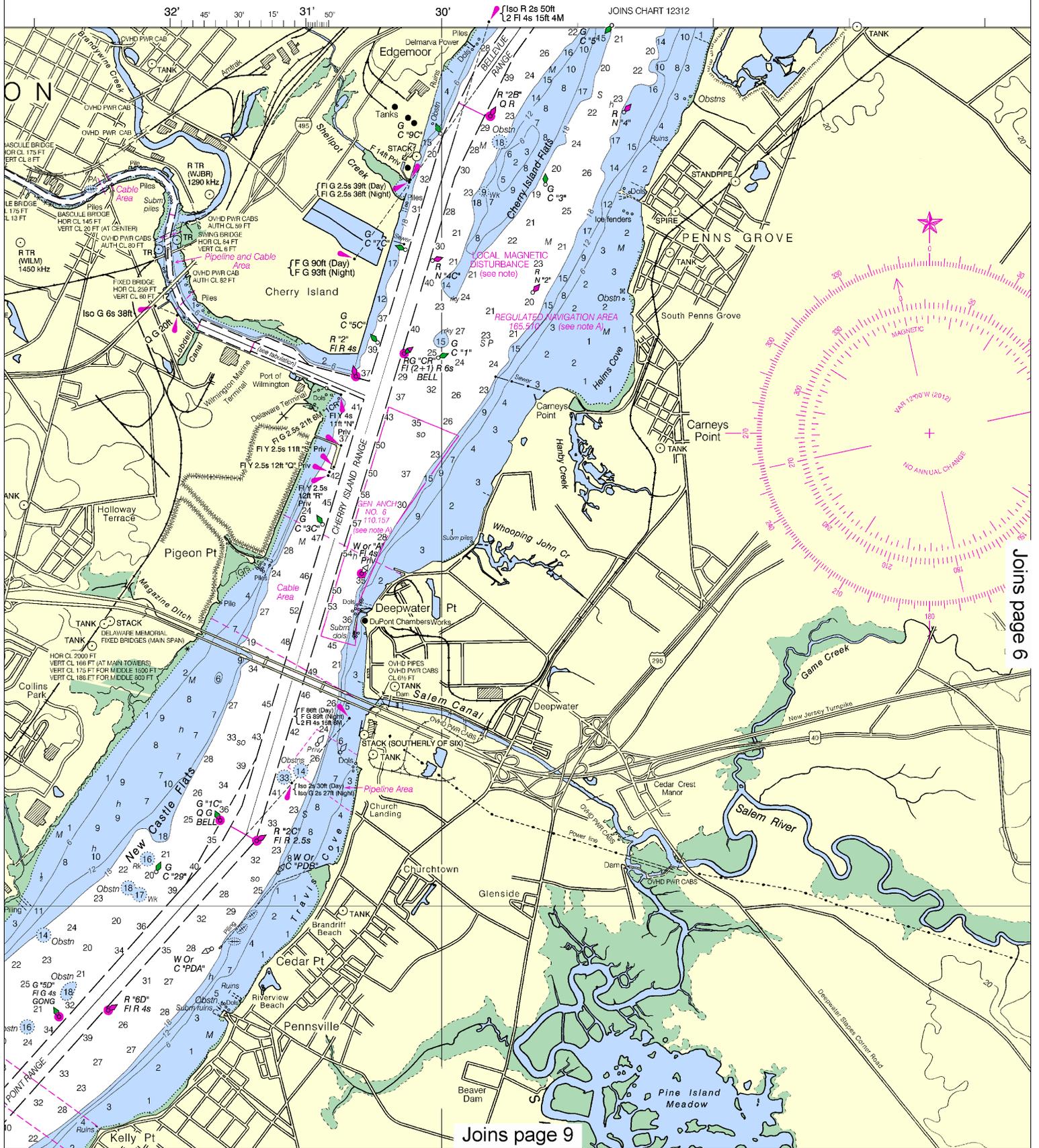
PLACE	Height referred to datum of soundings (MLLW)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Reedy Point	(39°34'N/75°34'W)	5.8	5.5	0.2
New Castle	(39°39'N/75°34'W)	5.8	5.4	0.2
Wilmington	(39°43'N/75°31'W)	5.9	5.5	0.2

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>. (Apr 2012)

SALEM RIVER CHANNEL
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 2012

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)				PROJECT DIMENSIONS			
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH MLLW (FEET)
ELSINBORO POINT TO OAKWOOD BEACH	3.6	10.9	10.4	2-12	150	1.48	16
OAKWOOD BEACH TO SINNICKSON LANDING	7.2	9.2	4.1	2-12	150	1.56	16
SINNICKSON LANDING TO END OF PROJECT	9.3	16.1	13.0	2-12	150	0.71	16
	TURNING BASIN PROJECT WIDTH						
	80%	100%					
TURNING BASIN	10.5	10.1		2-12	320	0.2	16

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION



This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:53333. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

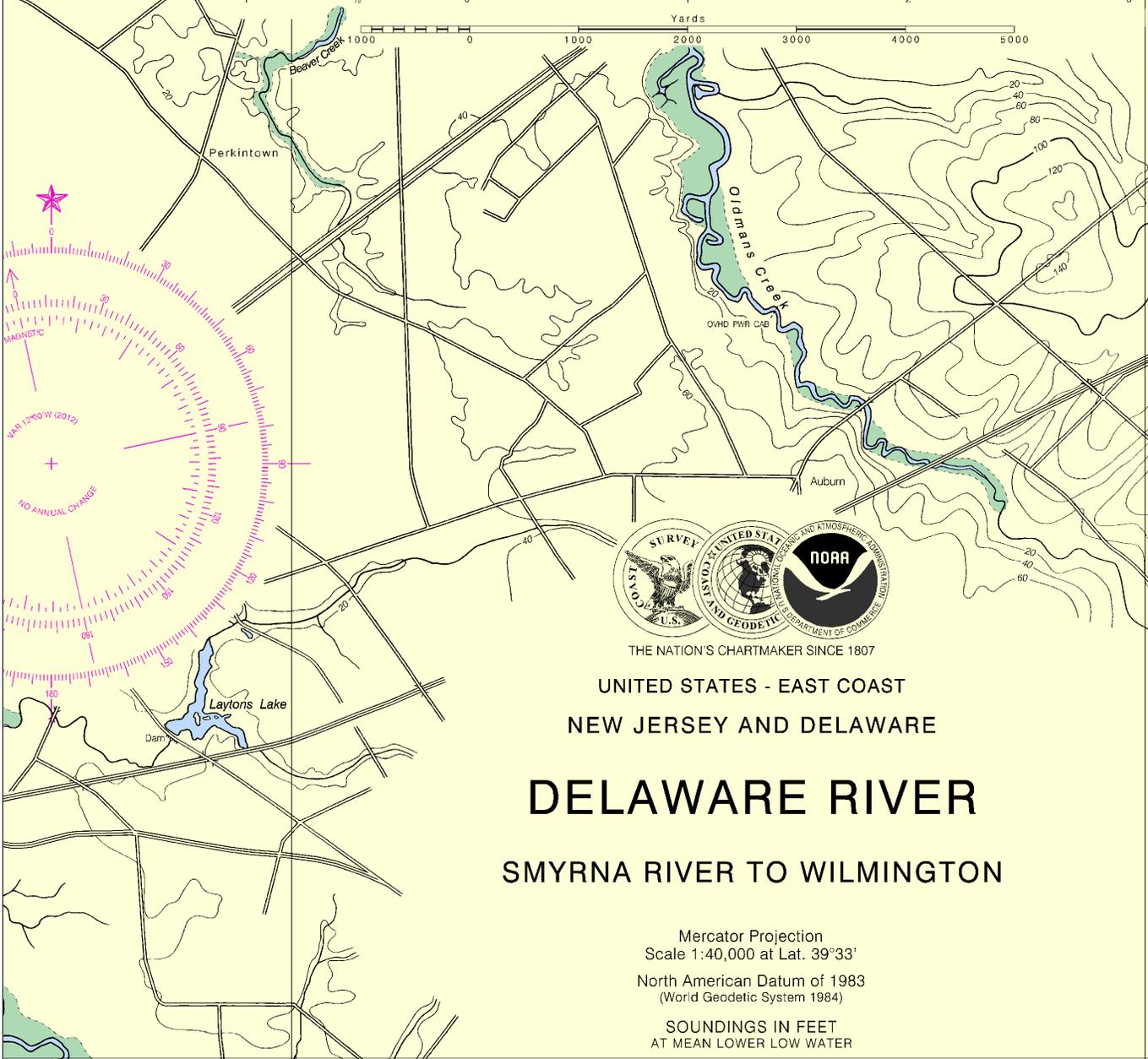


75° 25'

20' 45'

SCALE 1:40,000
Nautical Miles

Yards



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - EAST COAST
NEW JERSEY AND DELAWARE

DELAWARE RIVER

SMYRNA RIVER TO WILMINGTON

Mercator Projection
Scale 1:40,000 at Lat. 39°33'
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

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

TIDAL INFORMATION

NAME	PLACE (LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Reedy Point	(39°34'N/75°34'W)	5.8	5.5	0.2
New Castle	(39°39'N/75°34'W)	5.8	5.4	0.2
Wilmington	(39°43'N/75°31'W)	5.9	5.5	0.2

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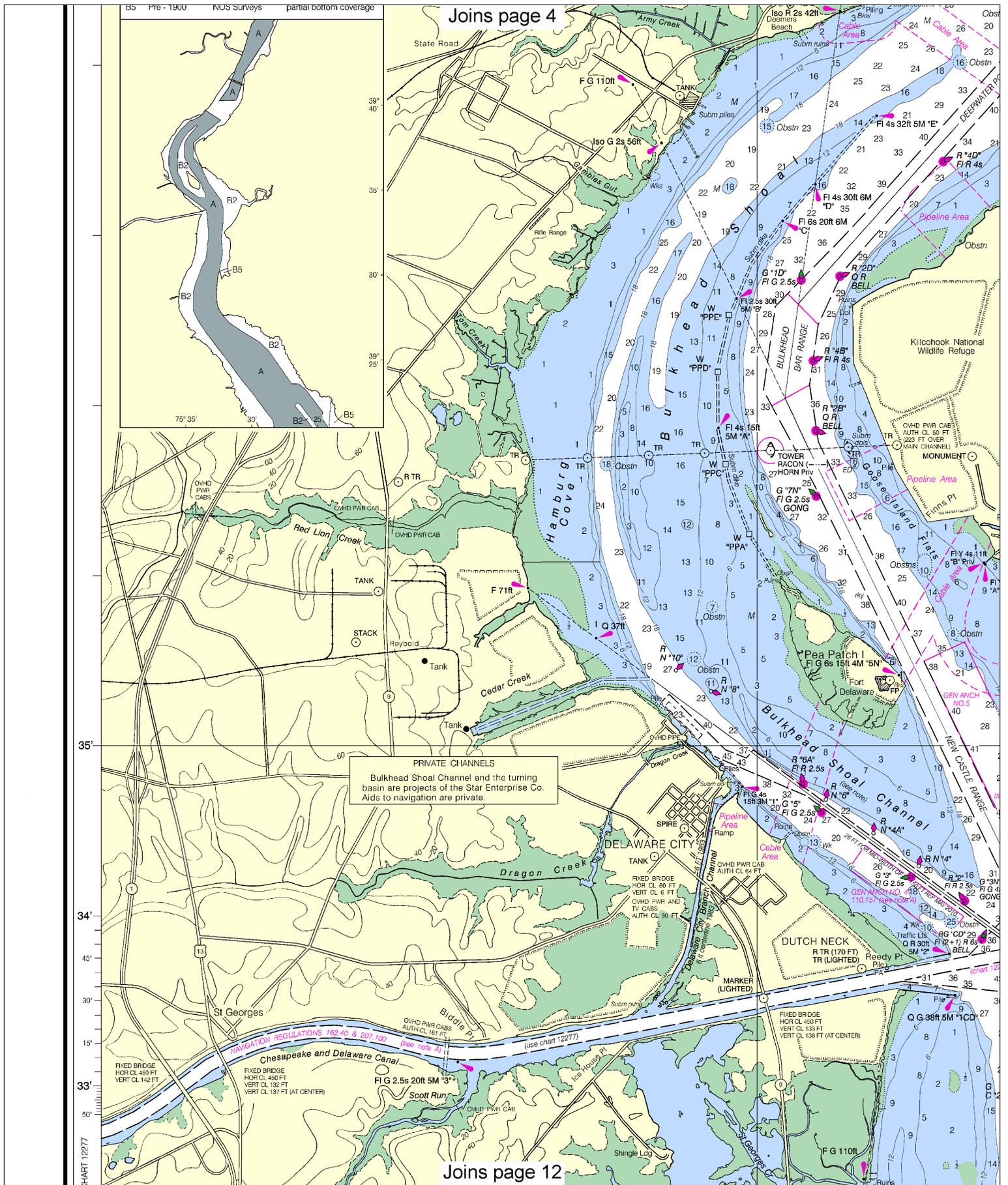
ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

- | | | | |
|-------------------|----------------------|--------------------|------------------|
| AERO aeronautical | G green | Mo morse code | R TR radio tower |
| Al alternating | IQ interrupted quick | N nun | Rot rotating |
| iso isophase | OBSC obscured | s seconds | SEC sector |
| LT HO lighthouse | Oc occulting | St M statute miles | |
| M nautical mile | Or orange | | |

Joins page 11

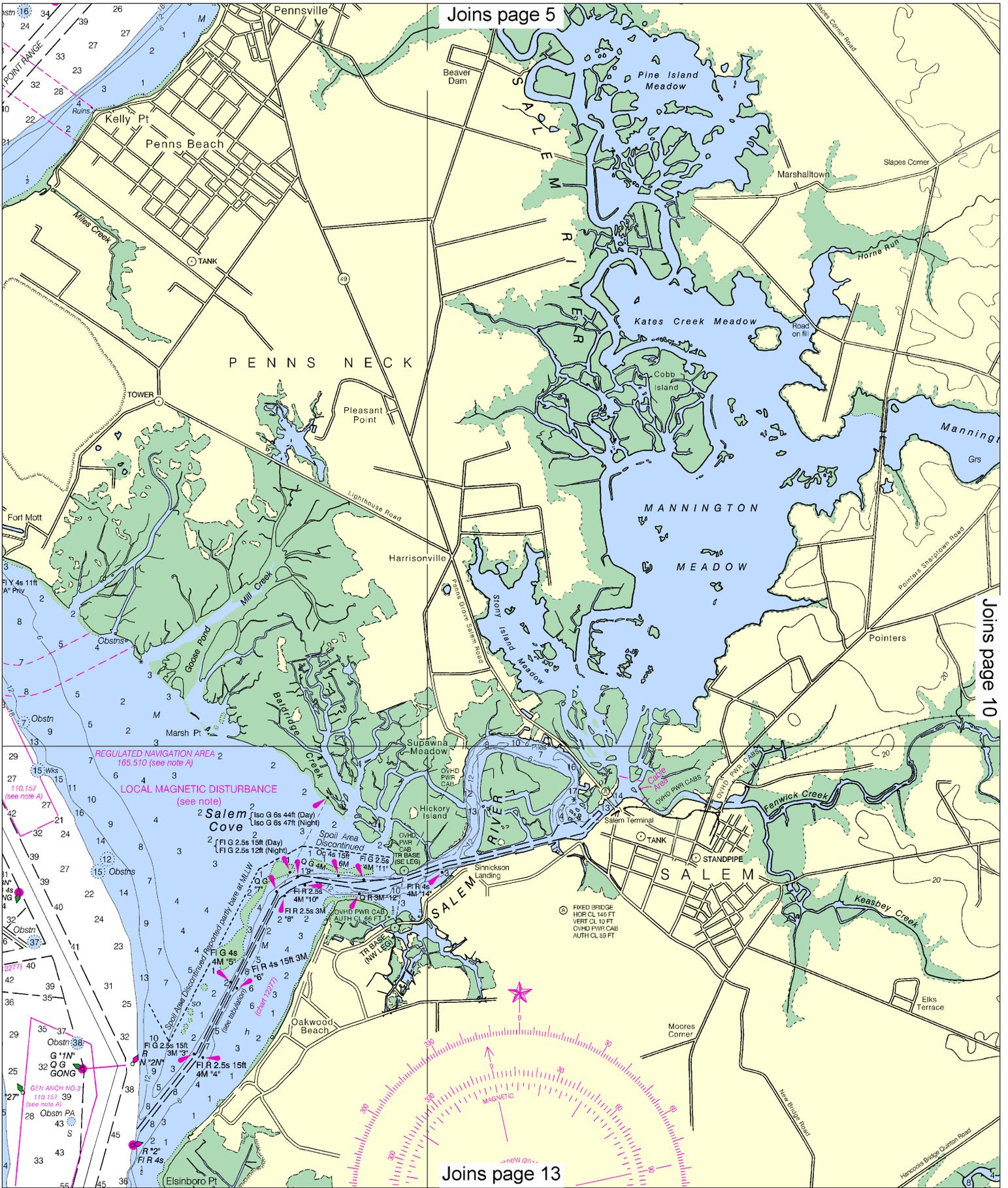
39° 40'



Note: Chart grid lines are aligned with true north.

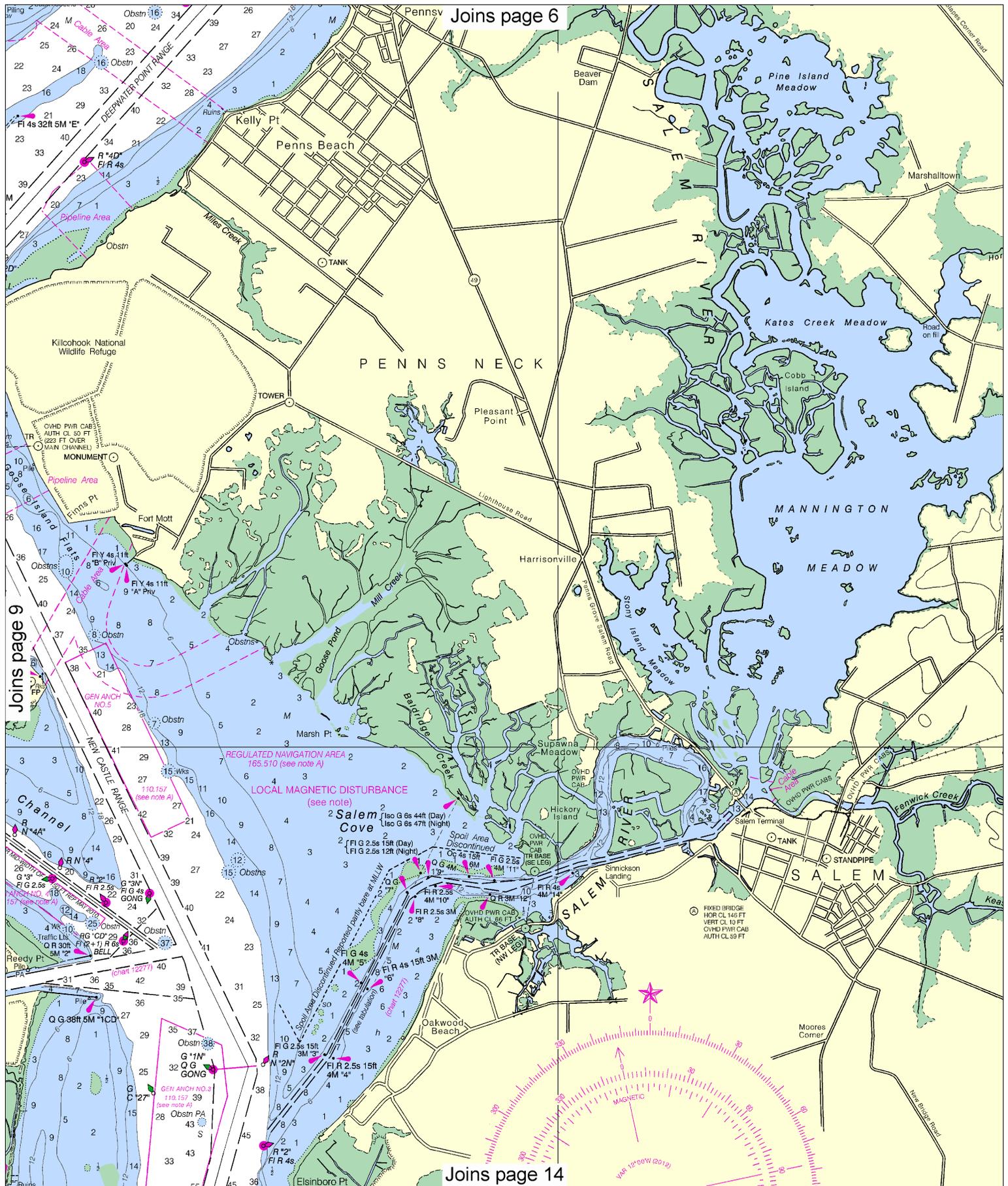


Joins page 5



Joins page 10

Joins page 13



10

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.



ns 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>. (Apr 2012)

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

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical	G green	Mo morse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Iso isophase	OBSC obscured	s seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DIA diaphone	m minutes	Q quick	VQ very quick
F fixed	MICRO TR microwave tower	R red	W white
Fl flashing	Mkr marker	Ra Ref radar reflector	WHS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Bls boulders	Co coral	gy gray	Oys oysters	so soft
bk broken	G gravel	h hard	Rk rock	Sh shells
Cy clay	Grs grass	M mud	S sand	sy sticky

Miscellaneous:

AUTH authorized	Obstn obstruction	PD position doubtful	Subm submerged
ED existence doubtful	PA position approximate	Rep reported	

(1) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
 (2) Rocks that cover and uncover, with heights in feet above datum of soundings.

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.

CAUTION

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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.

CAUTION

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HEIGHTS

Heights in feet above Mean High Water.

AIDS TO NAVIGATION

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SUPPLEMENTAL INFORMATION

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

CAUTION

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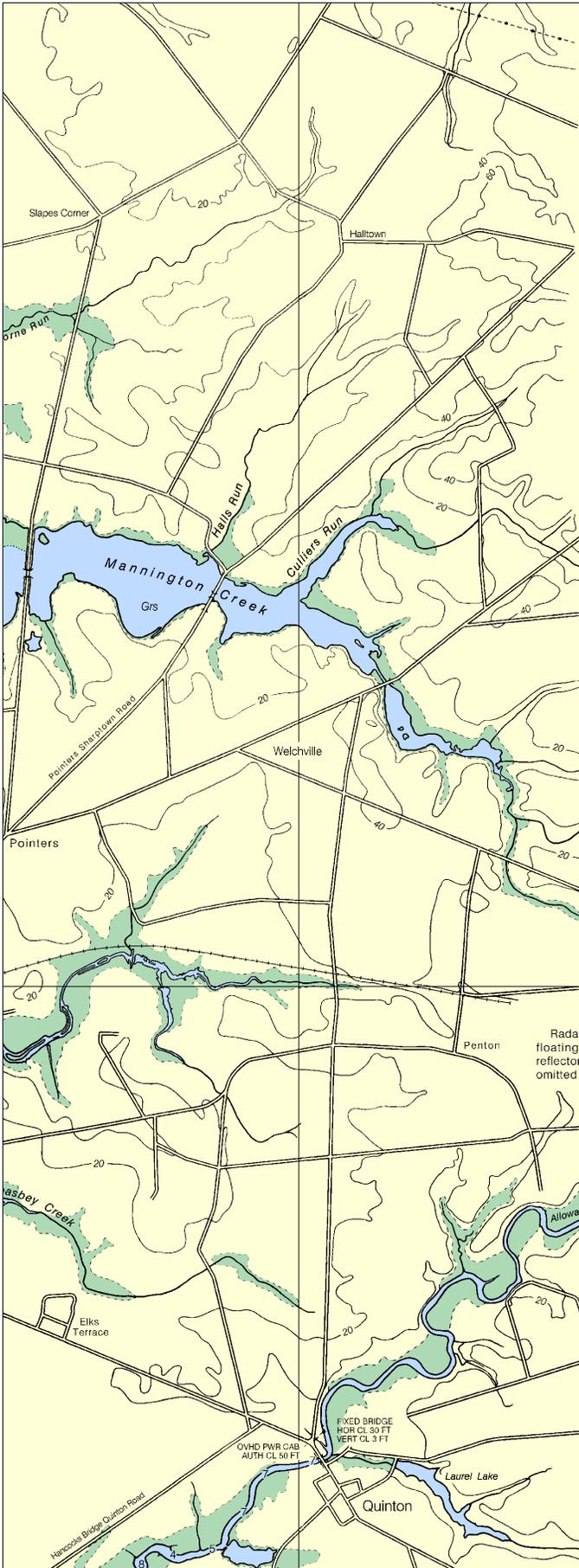
LOCAL MAGNETIC DISTURBANCE

Differences of as much as 2° to 5° from the normal variation have been observed along the channel from Artificial Island, New Jersey to Marcus Hook, Pennsylvania.

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.

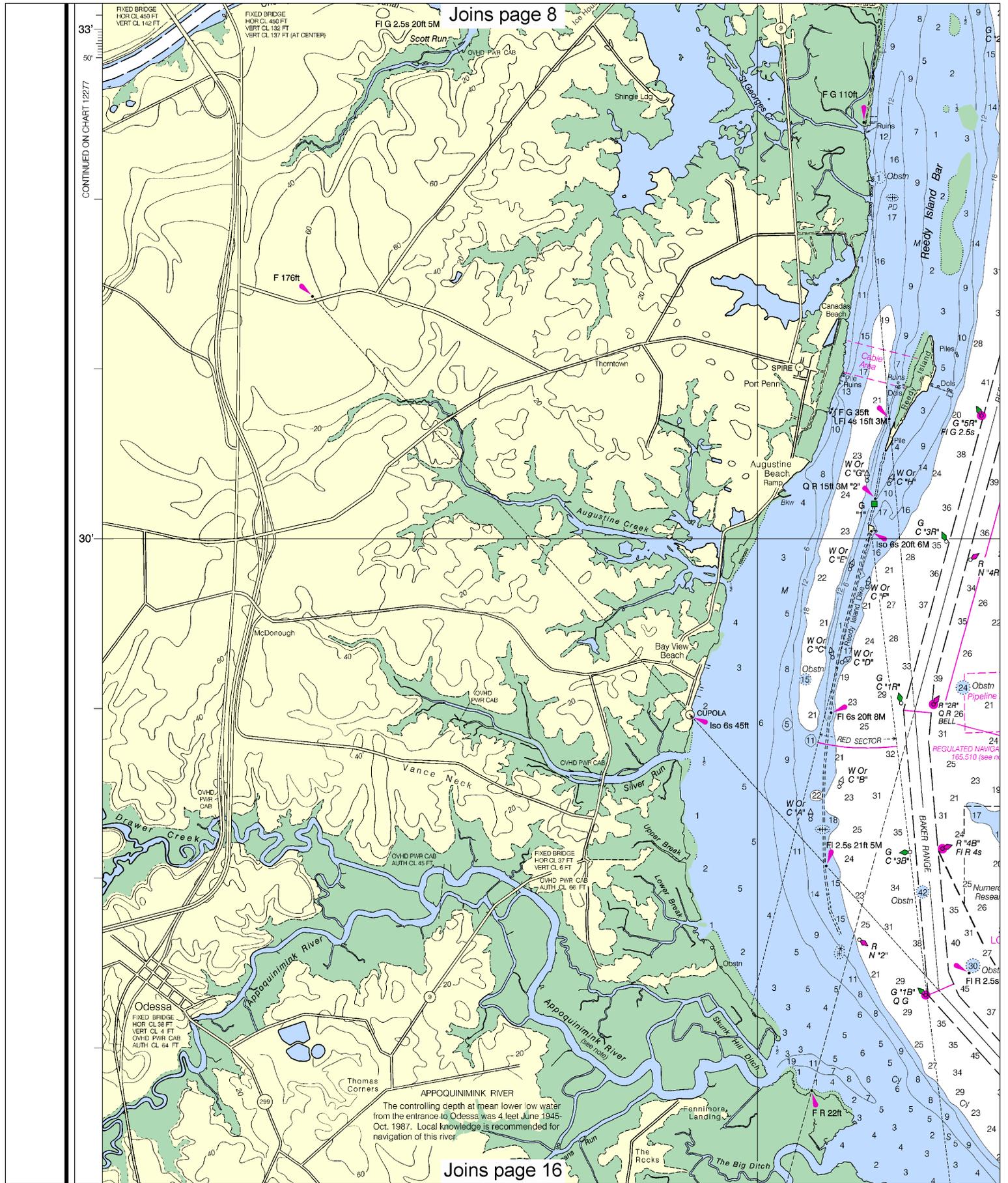
Refer to charted regulation section numbers.



SALEM RIVER CHANNEL
 TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 1912

FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)

LEFT	MIDDLE	RIGHT	PROJECT DIMENSIONS
			DEPTH



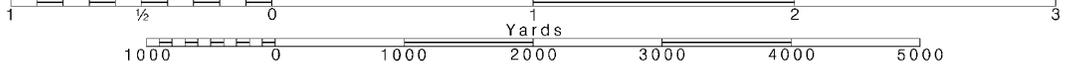
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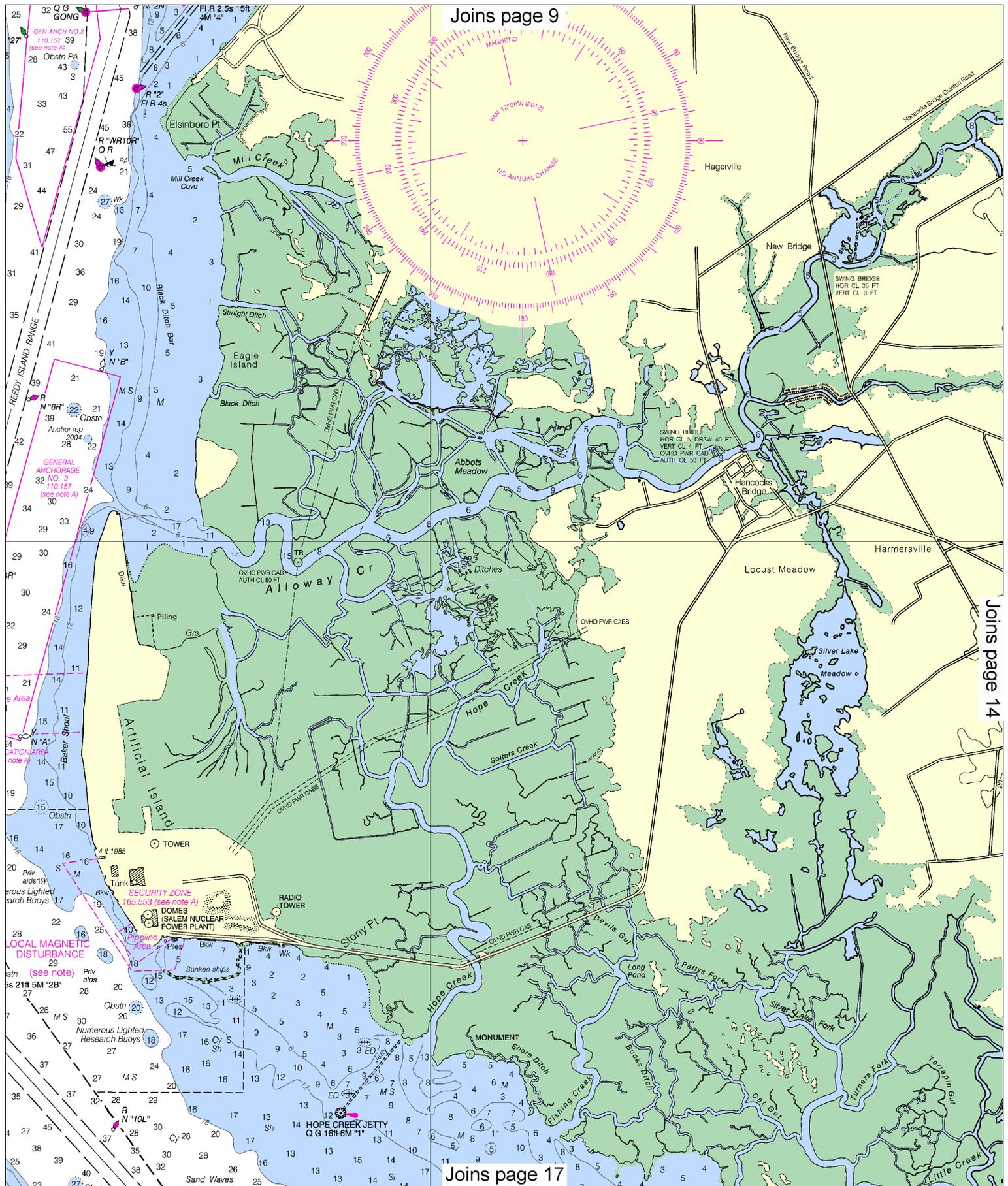
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.

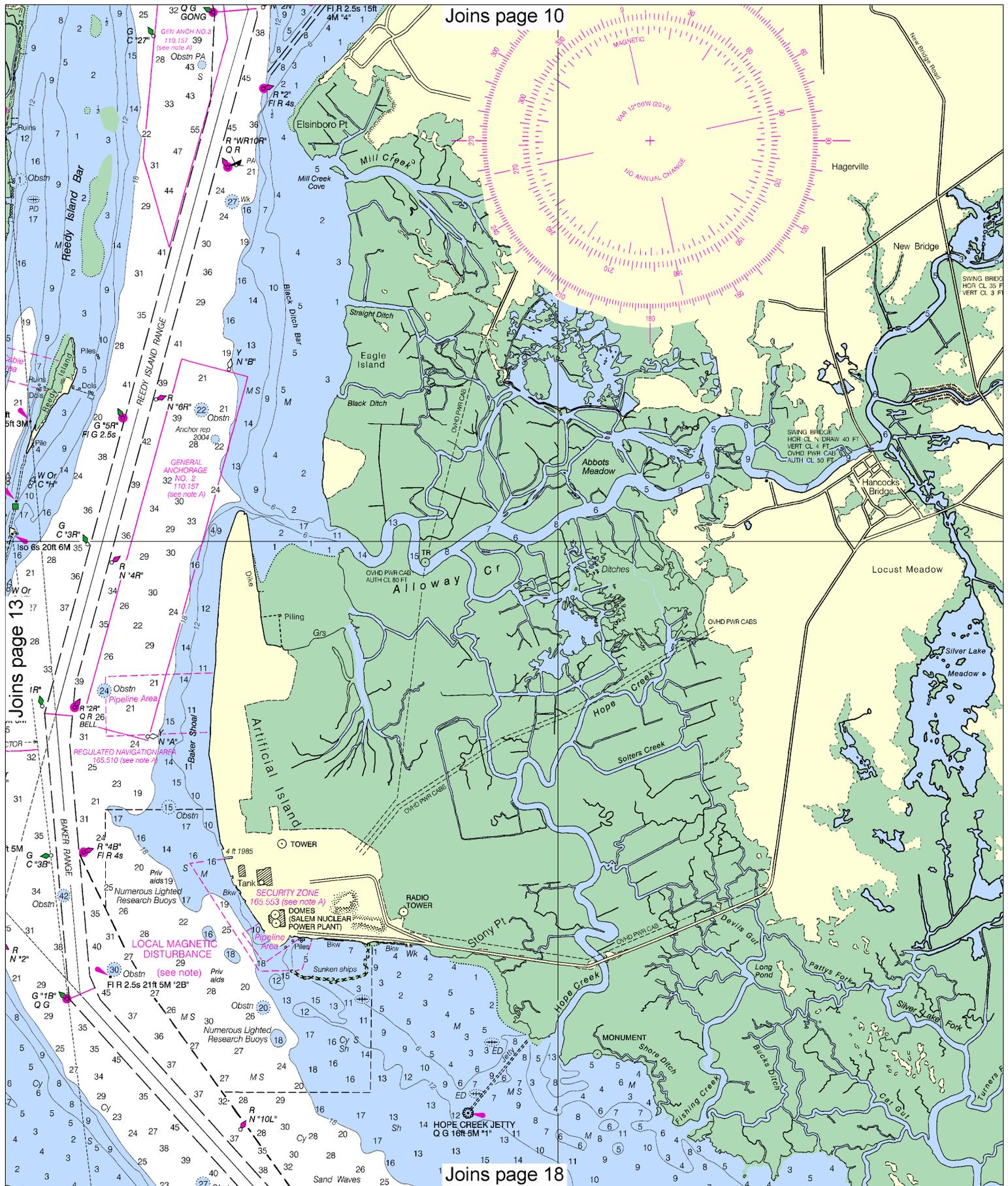




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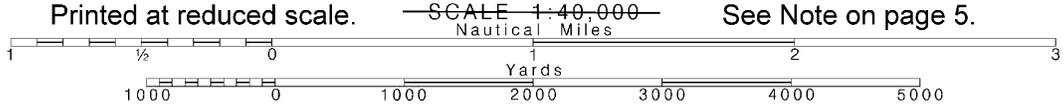
Joins page 14

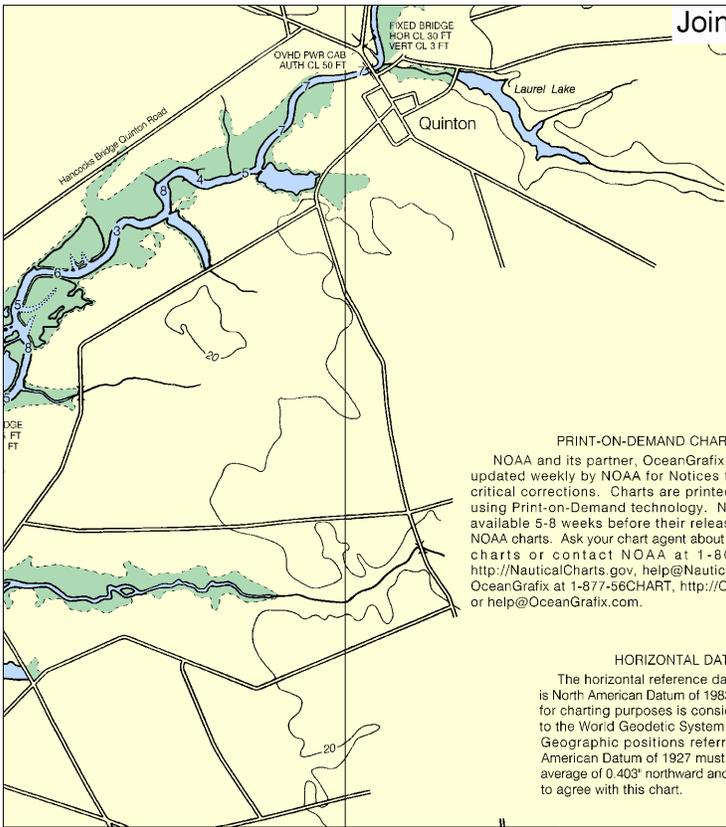
Joins page 17



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Note: Chart grid lines are aligned with true north.





SALEM RIVER CHANNEL							
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF FEB 2012							
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
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TURNING BASIN PROJECT WIDTH							
	80%	100%					
TURNING BASIN	10.5	10.1		2-12	320	0.2	16

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, <http://NauticalCharts.gov>, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, <http://OceanGrafix.com>, or help@OceanGrafix.com.

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.

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).

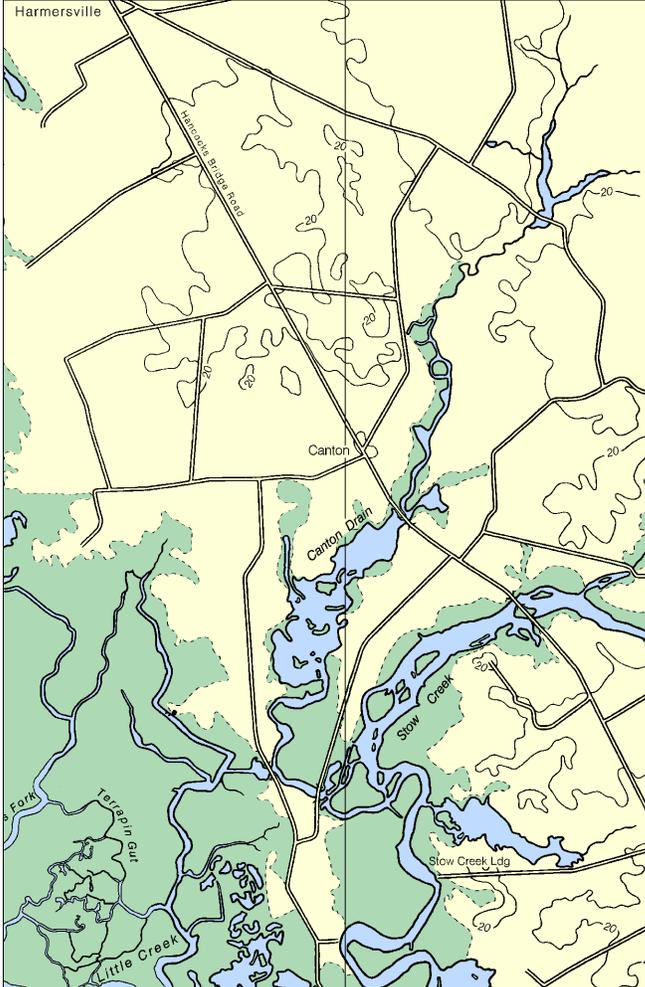
HORIZONTAL DATUM

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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.

Philadelphia, PA	KIH-28	162.475 MHz
Lewes, DE	WXJ-94	162.550 MHz
Sudlersville, MD	WXK-97	162.500 MHz



DELAWARE RIVER CHANNEL DEPTHS								
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2012								
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 (FEET)
LUSTON RANGE (ABOVE SHIP JOHN LIGHT)	41.1	40.8	40.9	39.8	5-12	1000-800	12.42	40
BAKER RANGE	45.5	44.3	42.5	39.6	6-12	800	1.65	40
REEDY ISLAND RANGE	39.7	40.3	41.7	38.7	5-12	800	4.28	40
NEW CASTLE RANGE	39.9	38.2	39.5	39.0	6-12	800	4.34	40
BULKHEAD BAR RANGE	44.5	45.0	45.2	39.7	5-12	1600	0.56	40
DEEPWATER POINT RANGE	38.0	40.1	40.7	37.2	5-12	800	3.76	40
CHERRY ISLAND RANGE	41.7	42.1	42.0	42.1	4-12	800	4.33	40
BELLEVUE RANGE	39.2	40.6	42.2	40.0	4-12	800	3.05	40

A. 38 FOOT OBSTRUCTION LOCATED AT 39°33'15.5"N, 75°32'39.0"W.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

33'
50'
30'

APPOQUINIMINK RIVER
The controlling depth at mean lower low water from the entrance to Odessa was 4 feet June 1945-Oct. 1987. Local knowledge is recommended for navigation of this river.

FR 22ft

FR 134ft

39° 25'

75° 35'

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.

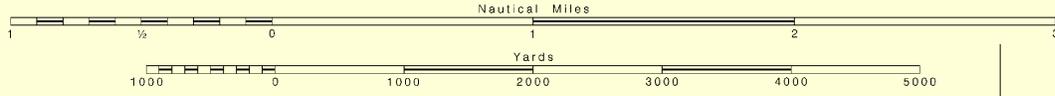
FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

LOGARITHMIC SPEED SCALE



To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

SCALE 1:40,000



46th Ed., May /12 ■ Corrected through NM May 5/12
Corrected through LNM May 1/12

12311

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.

This nautical chart has been designed to promote safe navigation. The U.S. Coast and Geodetic Survey encourages users to submit corrections, adding to the Chief, Marine Chart Division (NCS), U.S. Coast and Geodetic Survey, NOAA, Silver Spring, Maryland 20910-3282.

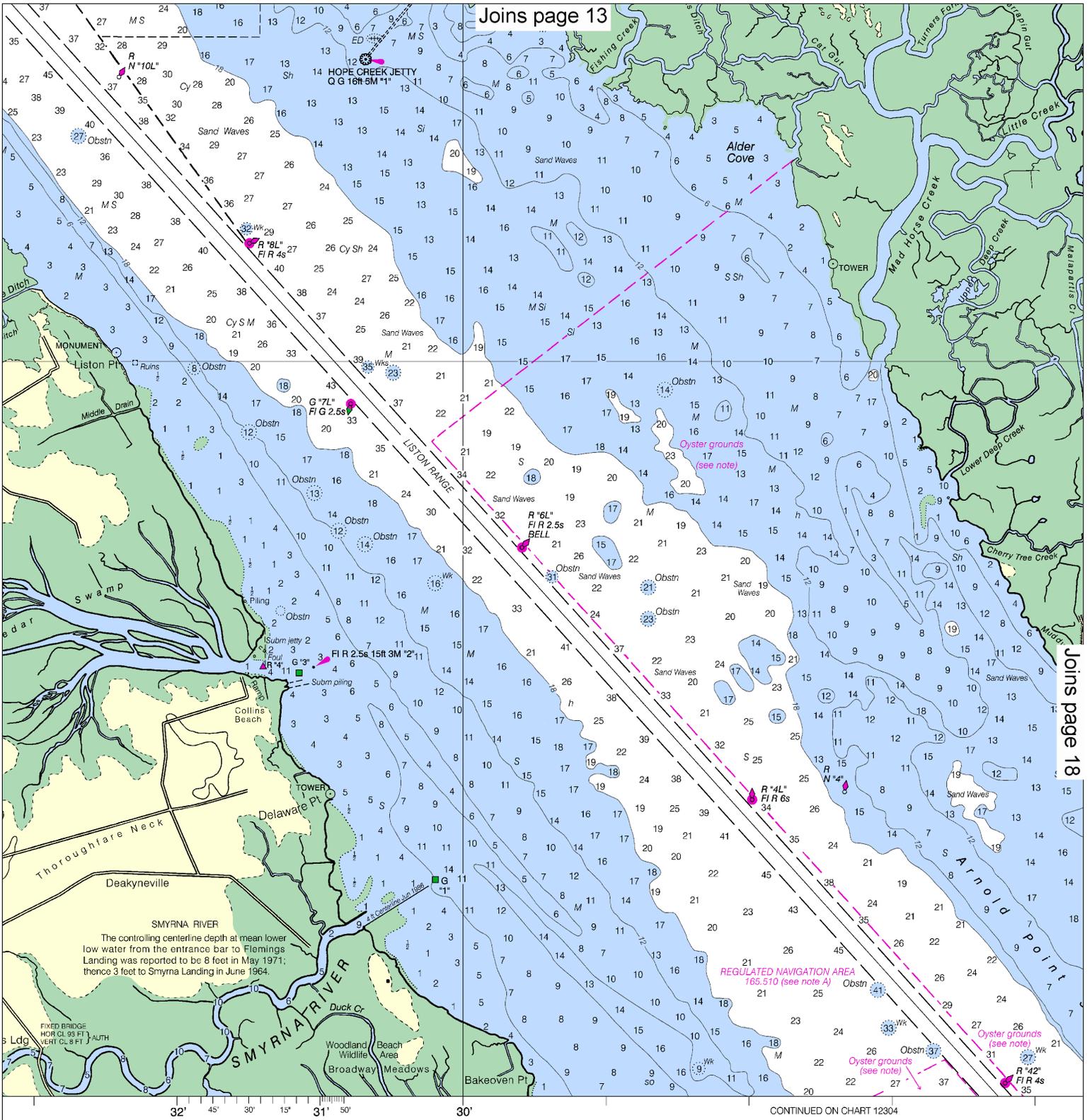
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:40,000
Nautical Miles

See Note on page 5.



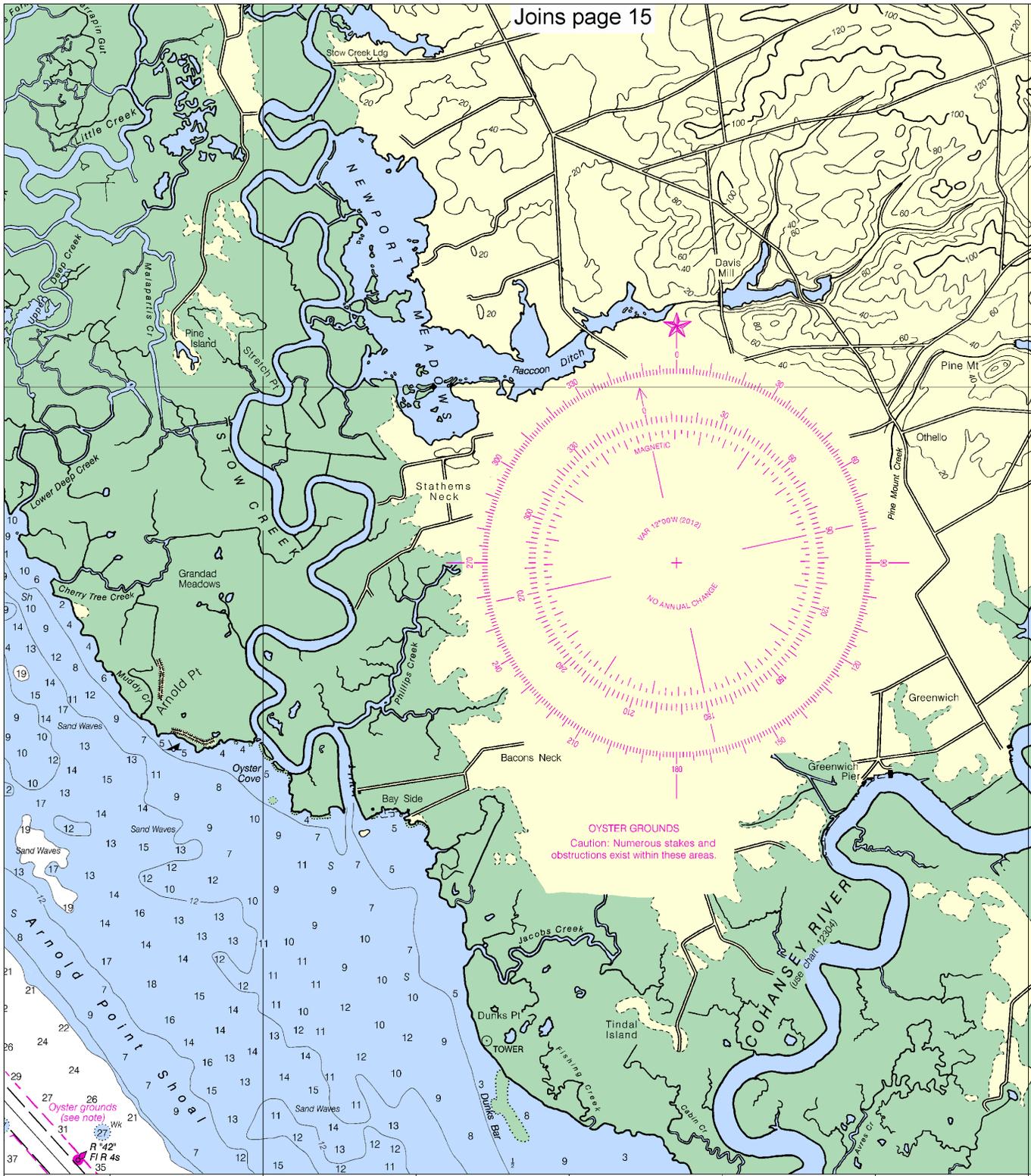


CONTINUED ON CHART 12304

navigation. The National
ditions, or comments for
N/CS2), National Ocean

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

SOUNDINGS I



39° 25'

75° 25'

1110.3 x 716.3 mm 20'

SOUNDINGS IN FEET

Delaware River, Smyrna River to Wilmington
SOUNDINGS IN FEET - SCALE 1:40,000

12311

ED. NO. 46

NSN 7642014010331
NGA REFERENCE NO. 12A-HA12311



EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

- Nautical chart related products and information — <http://www.nauticalcharts.noaa.gov>
- Online chart viewer — <http://www.nauticalcharts.noaa.gov/mcd/NOAChartViewer.html>
- Report a chart discrepancy — <http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx>
- Chart and chart related inquiries and comments — <http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs>
- Chart updates (LNM and NM corrections) — http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
- Coast Pilot online — <http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm>
- Tides and Currents — <http://tidesandcurrents.noaa.gov>
- Marine Forecasts — <http://www.nws.noaa.gov/om/marine/home.htm>
- National Data Buoy Center — <http://www.ndbc.noaa.gov/>
- NowCoast web portal for coastal conditions — <http://www.nowcoast.noaa.gov/>
- National Weather Service — <http://www.weather.gov/>
- National Hurricane Center — <http://www.nhc.noaa.gov/>
- Pacific Tsunami Warning Center — <http://ptwc.weather.gov/>
- Contact Us — <http://www.nauticalcharts.noaa.gov/staff/contact.htm>



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This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

