

BookletChart™



Raritan Bay and Southern Part of Arthur Kill

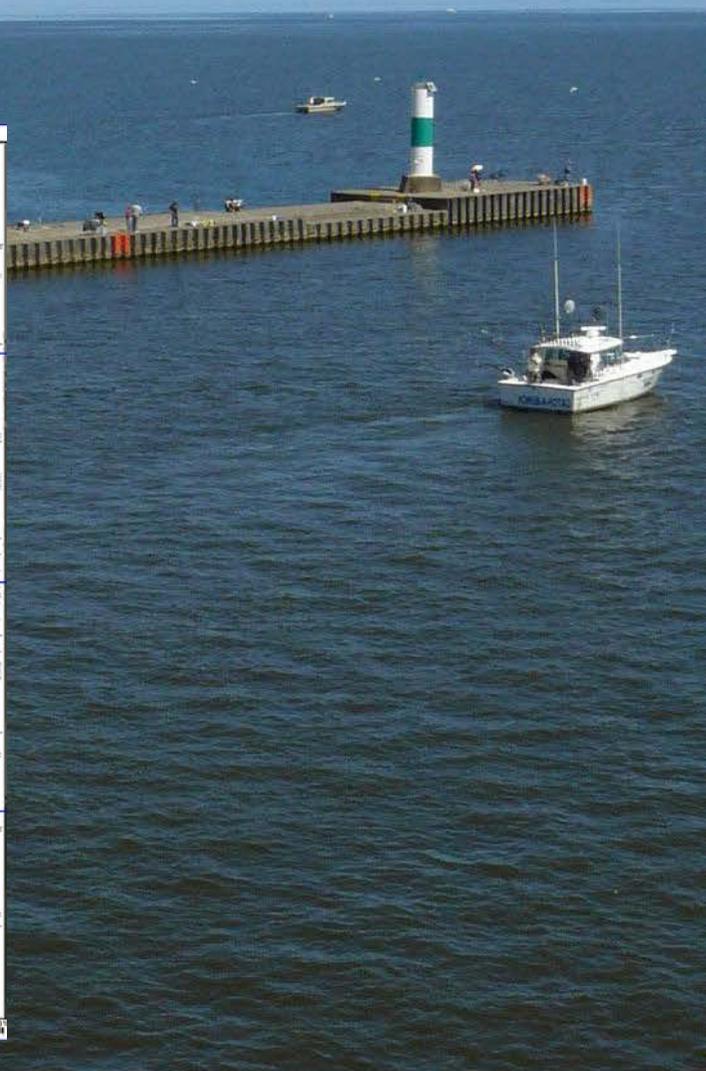
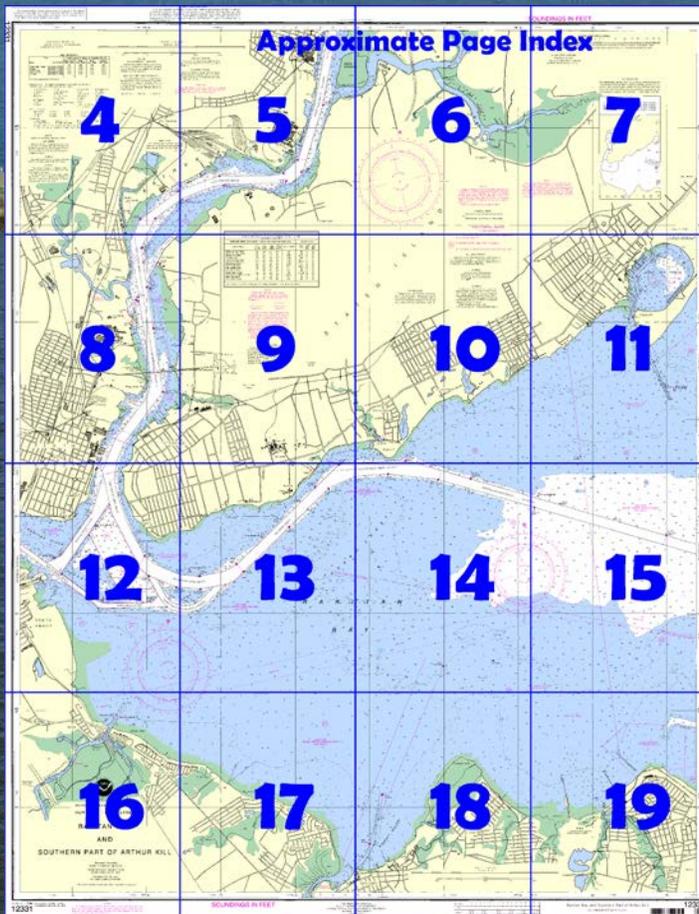
NOAA Chart 12331

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.

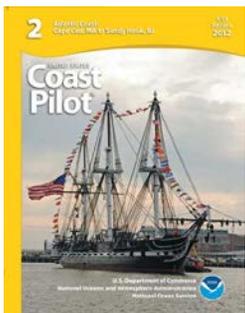
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=12331>



(Selected Excerpts from Coast Pilot)

Raritan Bay is that part of Lower Bay lying westward of Point Comfort and southward of Staten Island. The bay is full of shoals with depths of 7 to 18 feet.

Great Kills Harbor, a shallow bight on the south side of Staten Island northwestward of Old Orchard Shoal Light, is used as an anchorage by small craft. The harbor is entered through a dredged channel that leads from deep water in Lower New York

Bay along the southwesterly side of **Crookes Point**, thence along the westerly side of the harbor to the head. In September 2000, the controlling depths were 4 feet in the left half with shoaling to bare in the right half of the entrance channel to the mouth of the harbor, thence 10

feet in the harbor channel to the head of the project. The channel is marked by buoys and a light. **Great Kills Light** (40°31.3'N., 74°07.9'W.), 35 feet above the water, is shown from a skeleton tower with a red and white diamond-shaped daymark on a red concrete base east of the channel entrance.

Lemon Creek, 0.2 mile westward of Seguine Point, is a narrow shallow stream used only by local boats which enter at high water. The midchannel controlling depth over the bar is about 2 feet with deeper water inside. The abutment of a former bridge is on the south side of the creek just inside the mouth. Overhead power cables crossing the creek at the bridge abutment have a clearance of 47 feet.

A small marina on the creek can haul out craft up to 8 tons for minor engine and hull repairs; berths, electricity, water, ice, and outside storage are available.

Waackaack Creek and Thorns Creek, about 0.6 mile southwest of Point Comfort, have a common entrance protected by floodgates. The gates are lowered, thereby closing the harbor, when tides above 4½ feet are sustained for a period of time. An overhead power cable with a clearance of 32 feet crosses the creek entrance at the floodgates. Small-craft facilities on Thorns Creek provide berths, electricity, ice, water, gasoline, marine supplies, and a 20-ton forklift and a 12-ton mobile hoist for hull and engine repairs. In May 1982, the channels into the creeks were reported dredged to 7 feet.

Keyport Harbor, 3 miles westward of Point Comfort, is a shallow harbor on the south side of Raritan Bay between **Conaskonk Point** and **Matawan Point**. A buoyed approach channel leads southward from the bay to a dredged marked channel that leads through the harbor to the mouth of Matawan Creek.

Matawan Creek, entered at the head of Keyport Harbor, is used mostly by local craft. In May 2002, the controlling depth was 3.6 feet to the first highway bridge, thence 2.3 feet to the Route 35 highway bridge, thence in 1981, 2 feet to shoaling to bare was reported to the railroad bridge about 1.5 miles above the mouth. Greater depths are available with local knowledge.

Keyport is a town on the east side of the entrance to Matawan Creek. There are several small-craft facilities on Matawan Creek and on the southeast side of Keyport Harbor at Keyport. Berths with electricity, gasoline, diesel fuel, water, ice, marine supplies, sewage pump-out, lifts to 30 tons, marine railways to 40 feet, and complete hull and engine repairs are available. Vessels proceed to the small-craft facilities at Keyport at high water.

Physical Oceanographic Real-Time System (P.O.R.T.S.) is an information acquisition and dissemination technology developed by National Ocean Service, NOAA. The Port of New York and New Jersey Physical Oceanographic Real-Time System can be contacted via telephone 866-217-6787 or the Internet at: <http://www.cops.nos.noaa.gov>.

Caution.—Numerous sunken and visible wrecks are adjacent to both sides of the channel in Arthur Kill; caution is advised.

A liquefied petroleum gas (LPG) facility is on the west side of Arthur Kill immediately south of **Morses Creek**. A moving **safety zone** has been established around loaded LPG vessels transiting between Scotland Lighted Whistle Buoy S at the entrance to Sandy Hook Channel and the LPG facility. (See **165.1 through 165.7**, **165.20 through 165.25**, and **165.160**, chapter 2, for limits and regulations.)

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

RCC Boston Commander
1st CG District (617) 223-8555
Boston, MA

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community. They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry.
To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area. These volumes are available online at <http://www.navcen.uscg.gov>

12331

2,110,000

16'

2,115,000 74°15'

2,120,000

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

SCALE 1:15,000
Nautical Miles

TIDAL INFORMATION

PLACE	NAME (LAT/LONG)	Height referred to datum of soundings (MLLW)		
		Mean Higher High Water	Mean High Water	Mean Low Water
Great Kill Harbor	(40°33'N/74°08'W)	feet 5.2	feet 4.9	feet 0.2
Princes Bay	(40°30'N/74°12'W)	5.5	5.1	0.2
Carteret	(40°35'N/74°13'W)	5.7	5.3	0.2
Keyport	(40°26'N/74°12'W)	5.6	5.3	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>. (Oct 2014)

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 mouse code	R TR radio tower
Al alternating	IQ interrupted quick	N nun	Rot rotating
B black	Iso isophase	OBSC obscured	s seconds
Bn beacon	LI LC lighthouse	OC occulting	SEC sector
C can	M nautical mile	Or orange	SI 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	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Bds 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	

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.

HEIGHTS

Heights in feet above Mean High Water.

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.

CAUTION

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

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.

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.

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.

New York, NY KWO-35 162.550 MHz

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List 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.

WARNING

The prudent mariner will not rely solely on any to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

Port Reading

SMITH CREEK

The controlling depth at Mean Lower Low Water from the entrance to a point about 125 yards beyond the first bend was 7 feet. Jan 1984

Joins page 8

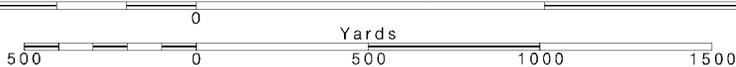
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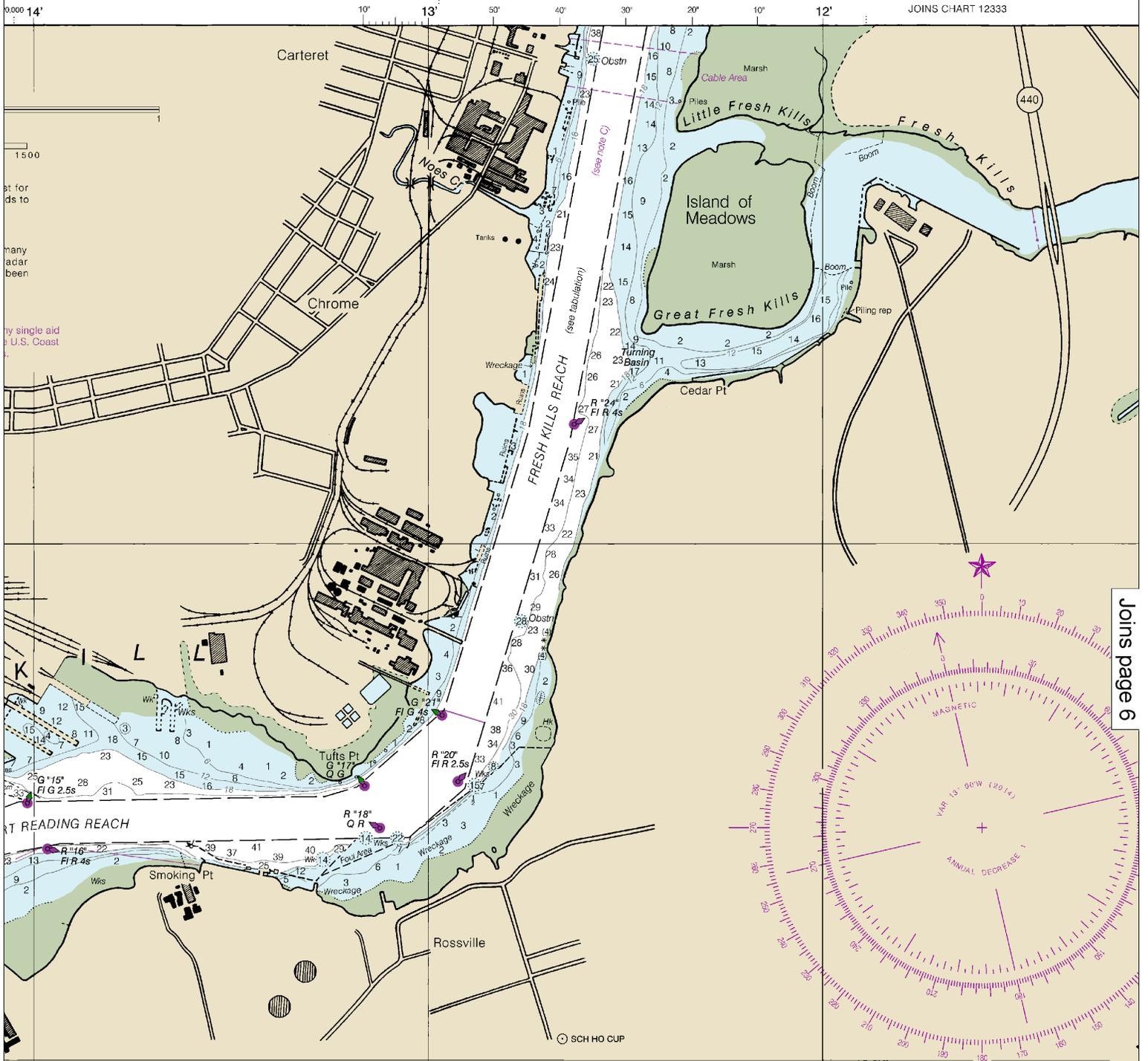
SCALE 1:15,000
Nautical Miles

See Note on page 5.

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Note: Chart grid lines are aligned with true north.





Joins page 6

RARITAN BAY AND ARTHUR KILL CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF AUG 2016
AND SURVEYS TO MAY 2016

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)				DATE OF SURVEY	PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER		WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
RARITAN BAY								
EAST REACH	31.9	38.4	38.2	33.2	5-16	600-800	4.0	35
WEST REACH	31.4	39.8	39.9	30.7	5-16	600	2.4	35
SEQUINE POINT BEND	32.1	40.9	41.2	34.8	5-16	600-1000	1.2	35
RED BANK REACH	33.1	40.5	40.7	34.2	3.4-15	600	1.2	35
WARD POINT BEND (EAST)	28.0	39.3	38.0	28.5	3.4-15	800-800	1.1	35
WARD POINT BEND (WEST)	32.5	34.5	33.2	31.8	3.4-15	600-800	1.3	35
WARD POINT SECONDARY CHANNEL	18.7	18.7	18.6	18.6	4-16	400	0.6	35
ARTIFICAL POWER GUARD (A)	18.2	18.2	18.4	18.3	3-16	600-1200	1.0	35

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 cables are required to be buried, and here originally buried may have laid. Mariners should use extreme

Joins page 9

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:20000. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.





Joins page 5

Joins page 10

NOTE A
 Navigation regulations are published in Chapter 2 of the Coast Pilot 2. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information on the regulations may be obtained at the Office of the Commander, 1st Coast Guard District in Boston, MA or the Office of the District Engineer, Corps of Engineers in New York, N.Y.
 Refer to charted regulation section numbers.

FISH TRAP AREAS
 Boundary lines of fish trap areas are shown thus:
 Submerged piling may exist in these areas

ANCHORAGE AREA
 110.155 (see note A)
 Limits and assigned numbers of anchorages are shown in magenta
44 ANCHORAGE FOR DEEP-DRAFT VESSELS
 ALL OTHER ANCHORAGES ARE FOR GENERAL USE

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 not possible.

PROJECT DIMENSIONS			
SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
16	600-800	4.0	35
16	600	2.4	35
16	600-1000	1.2	35
-15	600	1.2	35
-15	800-800	1.1	35
-15	800-800	1.3	35
16	400	0.8	30
16	500-750	1.6	20

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.



Note: Chart grid lines are aligned with true north.



See Note on page 5.

SOUNDINGS IN FEET

12331

74° 10'

2,140,000

09'

2,145,000

08'

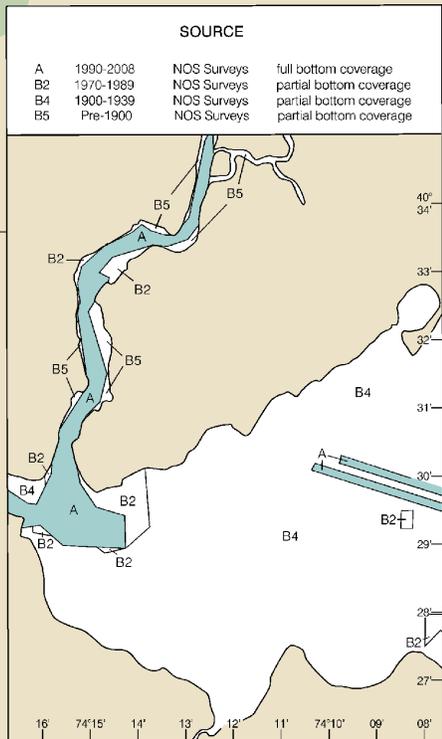
PLANE COORDINATE GRID
(based on NAD 1927)
New Jersey State Grid is indicated
by dotted ticks at 5,000 foot intervals.

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*.

SOURCE

A	1990-2008	NOS Surveys	full bottom coverage
B2	1970-1989	NOS Surveys	partial bottom coverage
B4	1900-1939	NOS Surveys	partial bottom coverage
B5	Pre-1900	NOS Surveys	partial bottom coverage



NOTE C

The U.S. Coast Guard operates a mandatory Vessel Traffic Services (VTS) system in the New York Bay and surrounding areas. Vessel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. The entire area of the chart falls within the Vessel Traffic Services (VTS) system.

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ERAL USE

40°
34'

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33'

Joins page 11

33rd Ed., Dec. 2014. Last Correction: 11/30/2016. Cleared through:
LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016), CHS: 1116 (11/25/2016)

7

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.

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)
RARITAN BAY								
EAST REACH	31.9	38.4	38.2	33.2	5-16	600-800	4.0	35
WEST REACH	31.4	39.8	39.9	30.7	5-16	600	2.4	35
SEGUNE POINT BEND	32.1	40.9	41.2	34.8	5-16	800-1000	1.2	35
RED BANK REACH	33.1	40.5	40.7	34.2	3-4-15	600	1.2	35
WARD POINT BEND (EAST)	28.0	39.3	36.0	26.5	3-4-15	600-800	1.1	35
WARD POINT BEND (WEST)	32.5	34.5	33.2	31.8	3-4-15	600-800	1.3	35
WARD POINT SECONDARY CHANNEL	18.7	18.7	18.6	18.6	4-16	400	0.8	30
RARITAN RIVER CUTOFF (A)	19.2	20.1	19.4	16.3	3-16	600-1740	1.0	20
ARTHUR KILL								
OUTERBRIDGE REACH	34.3	34.8	35.8	32.2	12-15,1,2-16	600-840	1.60	35
PORT SOCONY REACH	32.9	35.0	34.9	32.4	12-15,1,2-16	600-800	0.67	35
PORT HEADING REACH	31.7	34.5	34.0	22.3	12-15,1,2-16	500-850	1.60	35
FRESH KILLS REACH	33.5	35.0	35.0	32.6	12-15,1,2-16	500	1.65	35

A. CONTROLLING DEPTHS ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM RARITAN RIVER.
 NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION.

RARITAN RIVER CHANNEL DEPTHS					PROJECT DIMENSIONS		
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)							
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
GREAT BEDS REACH	13.1	17.2	17.9	12-13,1,2-14	300	0.76	25
SOUTH AMBOY REACH	14.8	17.2	14.6	12-13,1,2-14	300	1.20	25

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

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 0.38" northward and 1.480" eastward to agree with this chart.



CHART OF AUG 2016

SURVEY	PROJECT DIMENSIONS		
	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
16	600-800	4.0	35
16	600	2.4	35
16	800-1000	1.2	35
-15	600	1.2	35
-15	600-800	1.1	35
-15	600-800	1.3	35
16	400	0.8	30
16	600-1740	1.0	20
1,2-16	600-840	1.60	35
1,2-16	600-800	0.87	35
1,2-16	500-850	1.80	35
1,2-16	500	1.65	35

BRITAN RIVER
SEE INFORMATION

CHART OF MAR 2014

SURVEY	PROJECT DIMENSIONS		
	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
4	300	0.76	25
4	300	1.20	25

SEE INFORMATION

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.

Joins page 6

Limits and assigned numbers of anchors are shown in magenta

44 ANCHORAGE FOR DEEP-DRAFT VESSELS

ALL OTHER ANCHORAGES ARE FOR GENERAL ANCHORAGE

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8602 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

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

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

Fixed and floating obstructions, some submerged, may exist within the magenta lined bridge construction area. Mariners are advised to proceed with caution.

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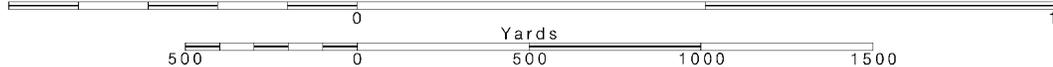
10

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:15,000
Nautical Miles

See Note on page 5.



Storage areas

GENERAL USE

State's Island Rapid Transit

Eltingville

Great Kills

GREAT KILLS HARBOR

SPECIAL ANCHORAGE
110.1, 110.60 (see note A)

NOTE F
GREAT KILLS HARBOR
Great Kills Channel and Harbor are subject to continual change due to shoaling. Buoys may be frequently relocated to mark best water.

NOTE D
Numerous uncharted pilings may exist throughout Great Kills Harbor.

Fl 2.5s 27ft 6M *A

Crookes Pt

Great Kills Park

Madale

Foul
Foul
Foul

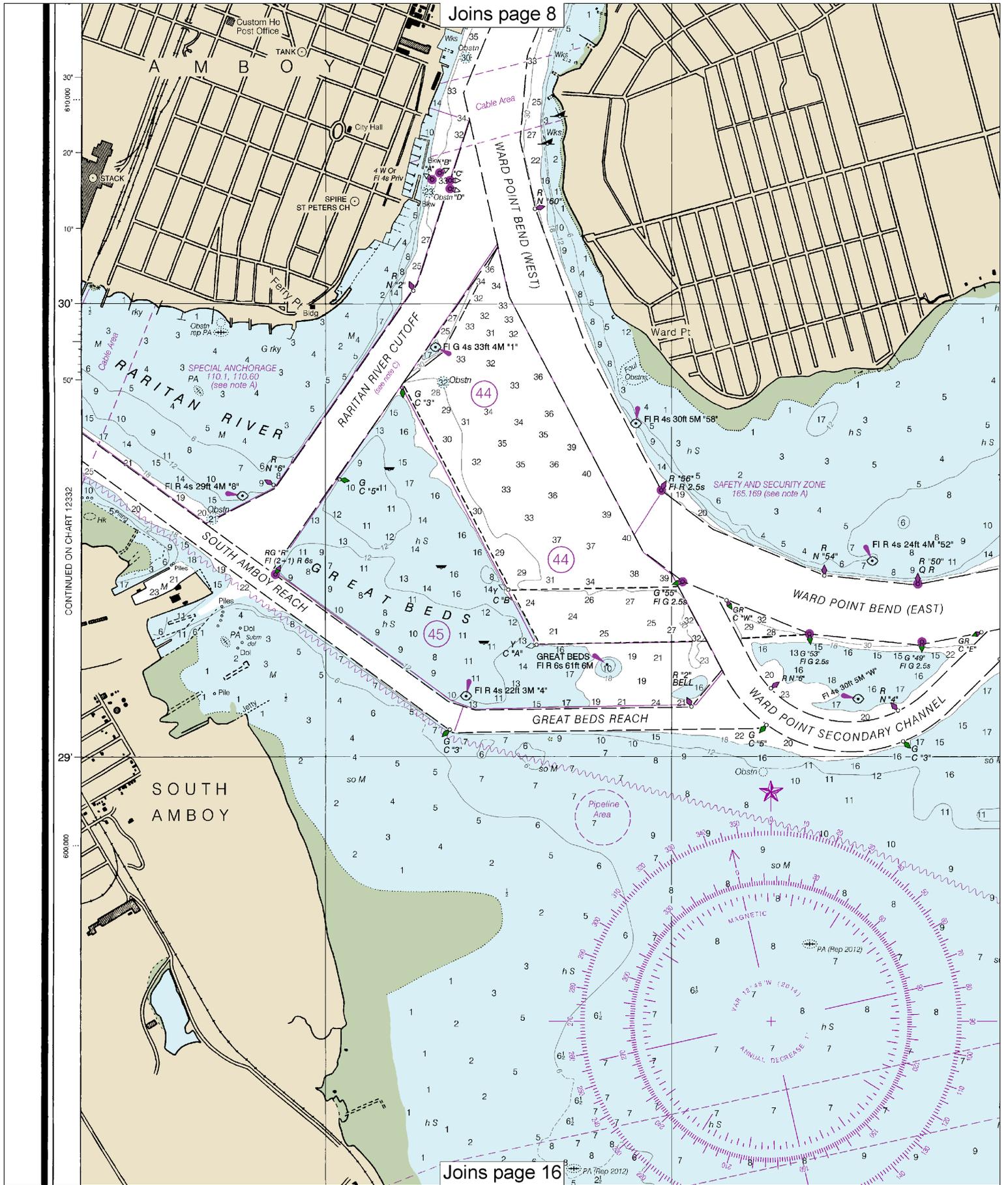
(see note F)

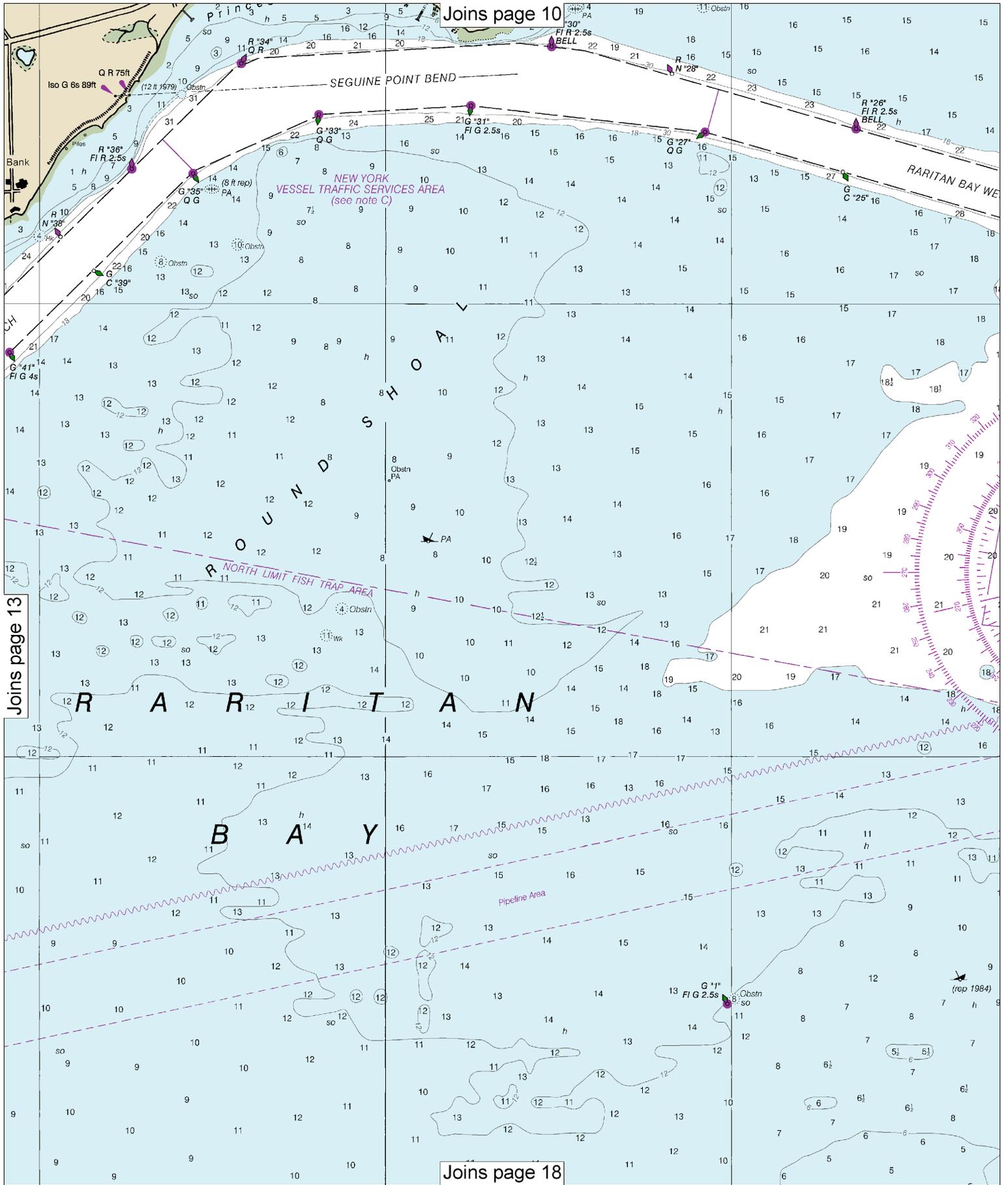
SAFETY AND SECURITY ZONE
165.169 (see note A)

GREAT KILLS
Fl 4s 35ft 6M

R N 20A

JOINS CHART 12402





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Joins page 13

Joins page 18

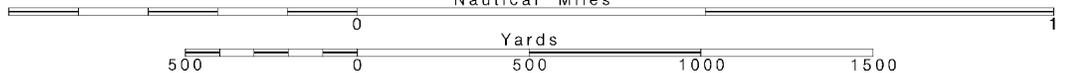
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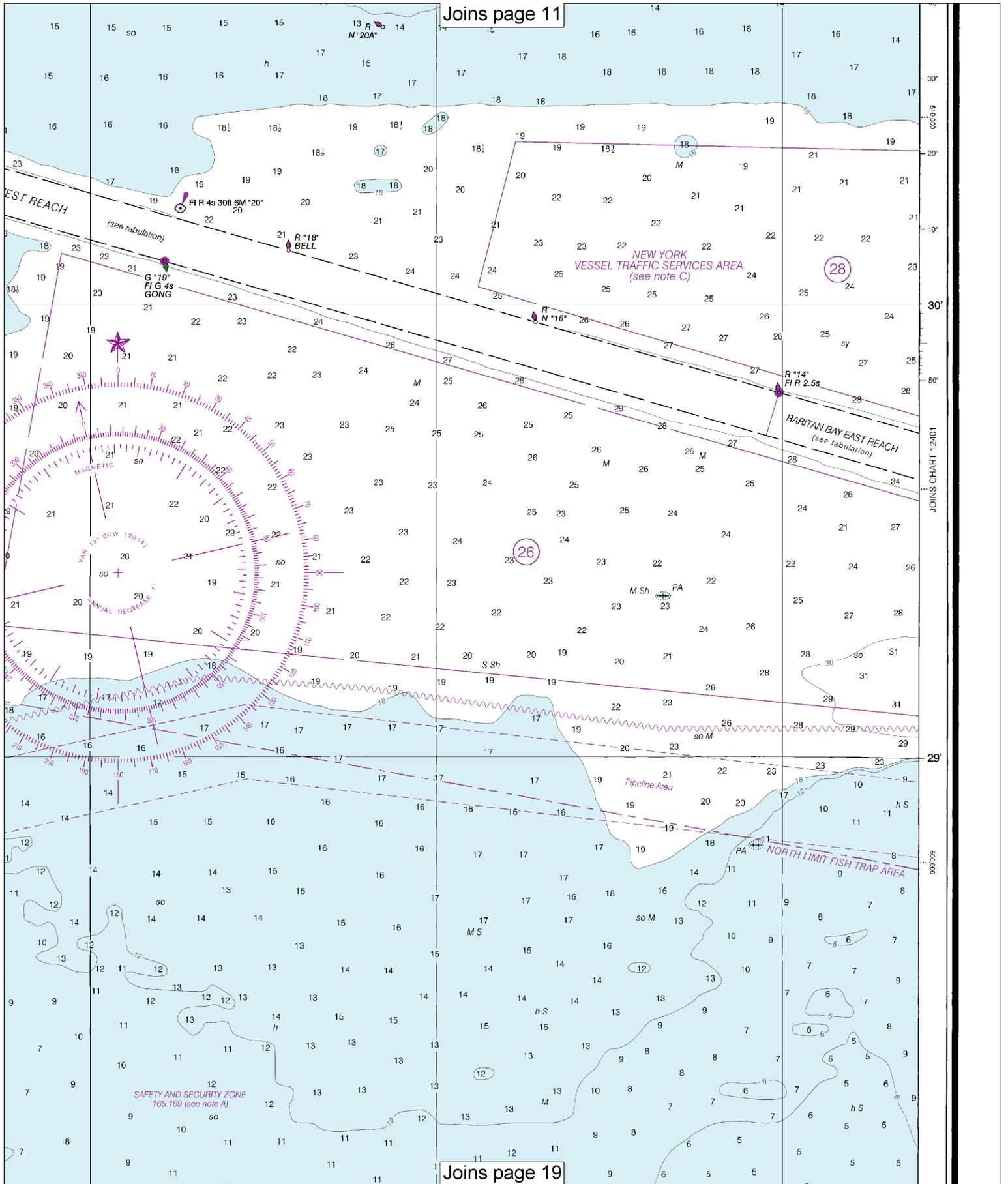
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:15,000
Nautical Miles

See Note on page 5.





Joins page 12

40° 28'

27'



TITLE
CONTROLLING DEPTH
NAME OF CHART
REACH A
REACH B
NOTE - CONSULT THE

12331

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.

33rd Ed., Dec. 2014. Last Correction: 11/30/2016. Cleared through:
 LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016), CHS: 1116 (11/25/2016)

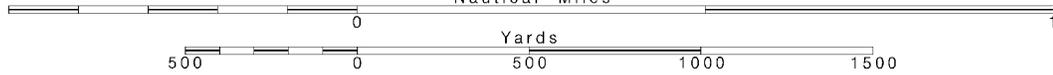
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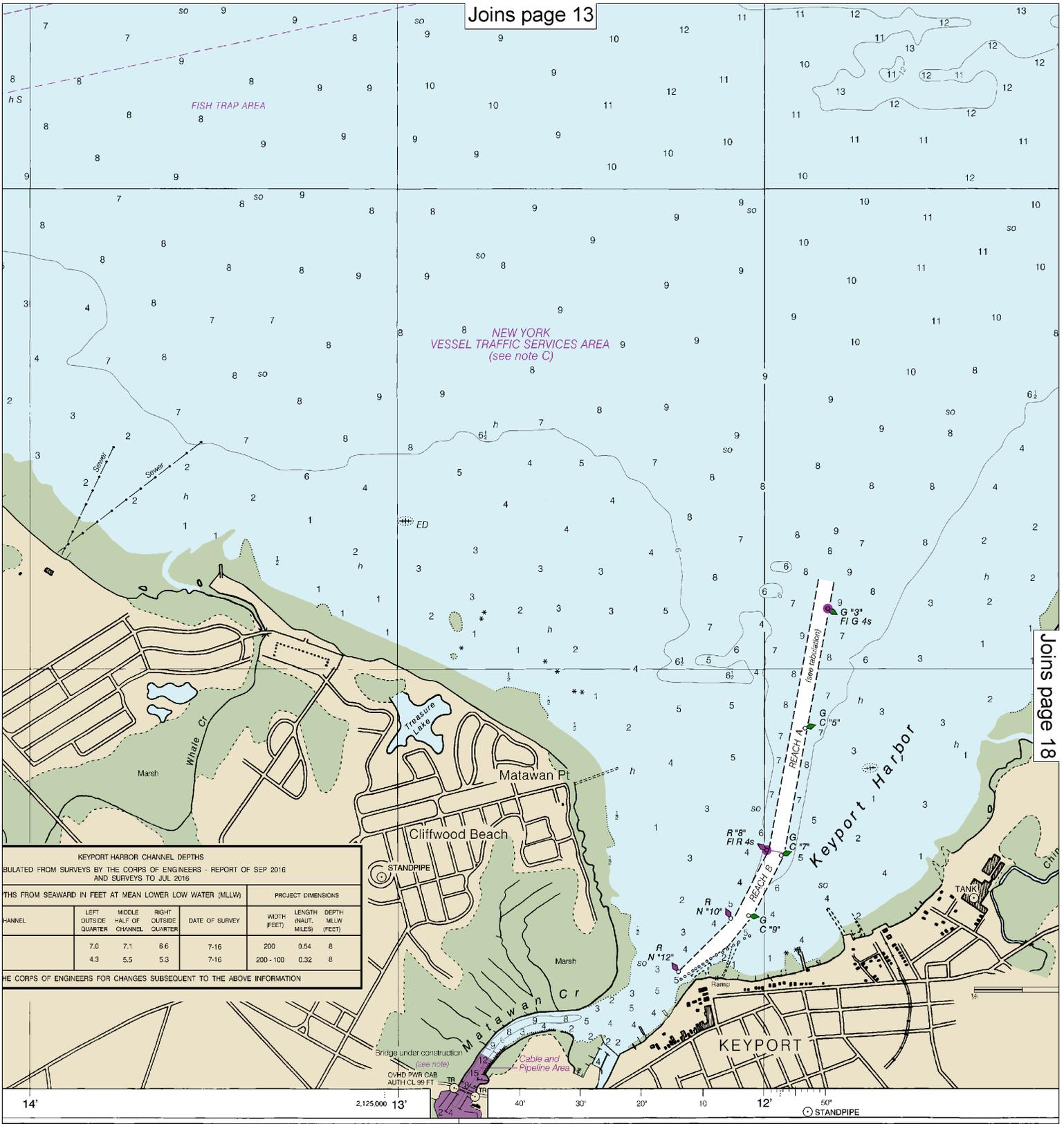
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:15,000
 Nautical Miles

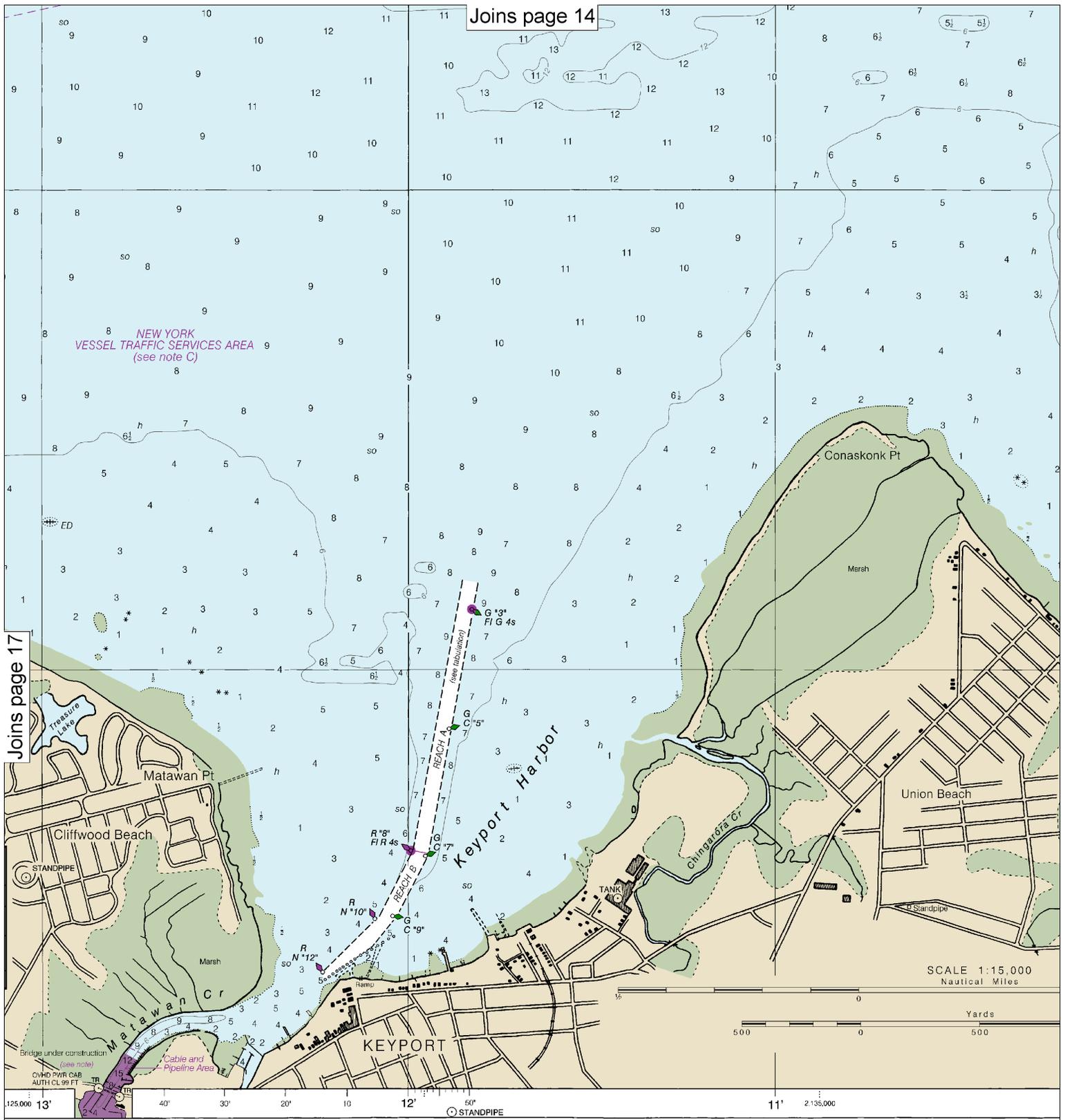
See Note on page 5.





OUNDINGS IN FEET

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



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

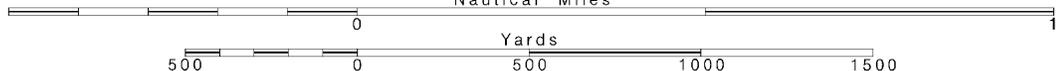
FATHOMS	1	2	3	4	5
FEET	6	12	18	24	30
METERS	1	2	3	4	5

18

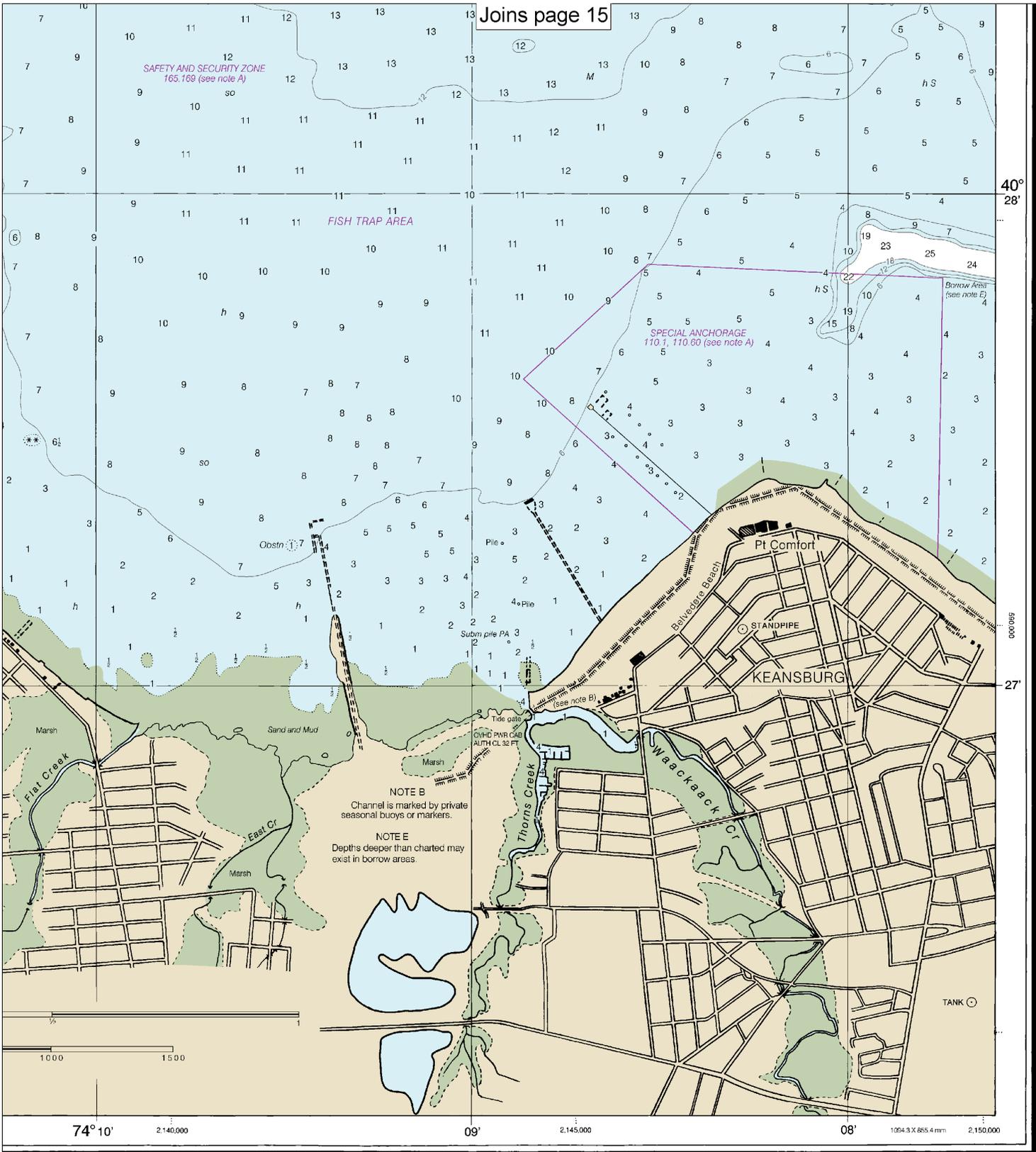
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. SCALE 1:15,000 Nautical Miles

See Note on page 5.



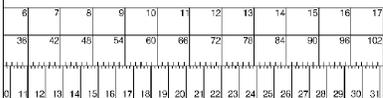
Joins page 15

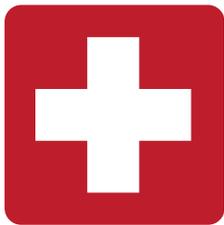


Raritan Bay and Southern Part of Arthur Kill

12331

SOUNDINGS IN FEET-SCALE 1:15,000





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>
- Interactive chart catalog — <http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml>
- 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.