

BookletChart™

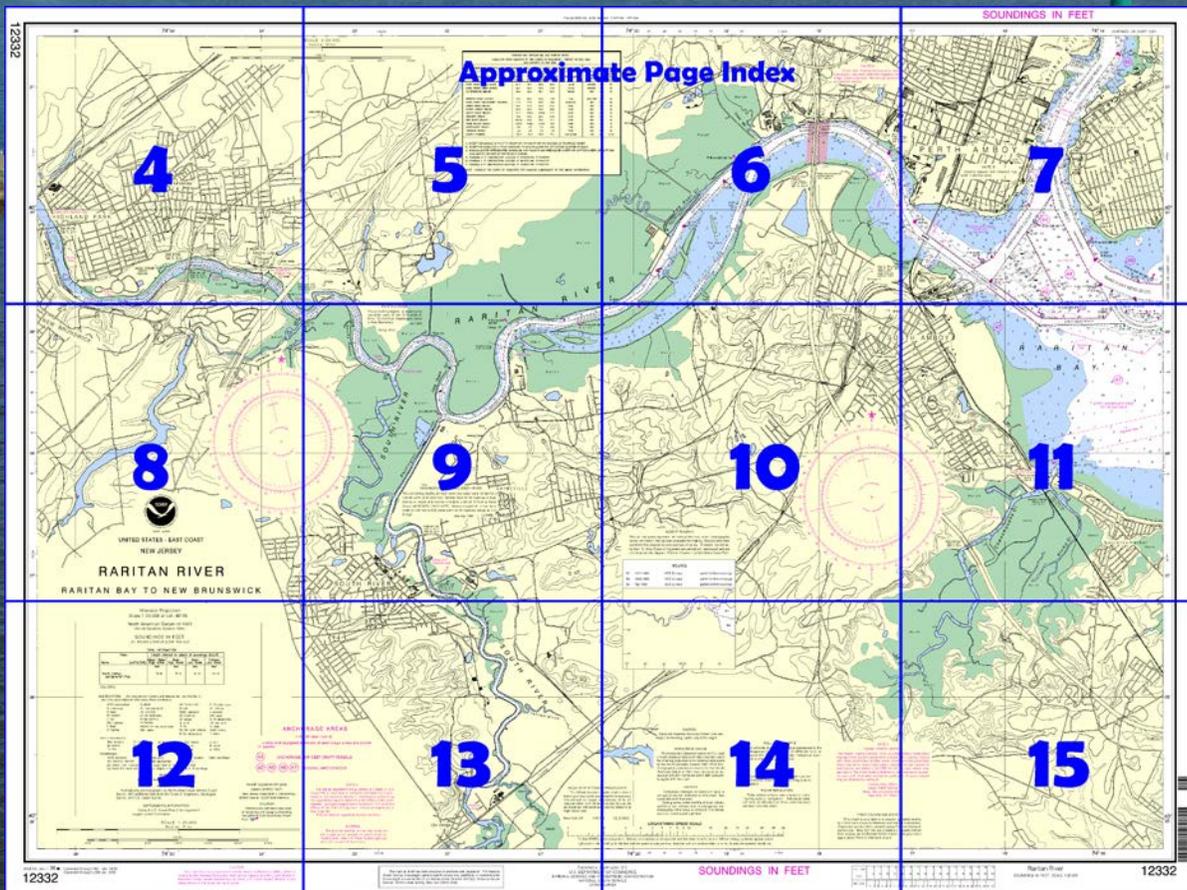


Raritan River – Raritan Bay to New Brunswick NOAA Chart 12332

*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.

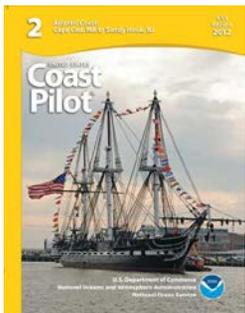
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

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=12332>.



(Selected Excerpts from Coast Pilot)

Raritan River empties into the western end of Raritan Bay between Perth Amboy and South Amboy. The channel from South Amboy to **New Brunswick** is 11 miles long and very crooked, but is well marked with navigational aids. Waterborne commerce on the river is in coal, ore, and petroleum products.

Channels.—Vessels enter Raritan River from the east by way of Great Beds Reach and

from the north by way of Arthur Kill via Raritan River Cutoff Channel. A Federal project provides for a 20-foot channel in Raritan River Cutoff, a 25-foot channel from Great Beds Reach in Raritan Bay to the head of Red Root Reach about 1.9 miles above Garden State Parkway bridge,

and thence a 15-foot channel to the junction with Washington Canal. (See Notice to Mariners and latest editions of the charts for controlling depths.) Above Washington Canal, the controlling depth in Raritan River was about 9 feet at midchannel to New Brunswick in 1962.

A dredged channel in Titanium Reach and South Channel branches south from Raritan River about 0.6 mile above Garden State Parkway bridge. The Federal project depths are 25 feet in Titanium Reach and 15 to 10 feet in South Channel to Crossman Dock. (See Notice to Mariners and latest editions of the charts for controlling depths.) In 1991, the channels were not being maintained near project depth and the project above Crossman Dock was not being maintained.

A dredged channel in **Washington Canal** branches south from Raritan River about 4.3 miles above Garden State Parkway bridge and connects with **South River**. A dredged channel leads south for about 3.4 miles in South River. In 1961, the midchannel controlling depths were 12 feet in Washington Canal, thence 10 feet in South River to the first highway bridge, thence 8 feet for about 1 mile, thence ½ foot to a point 800 yards north of the highway bridge at **Old Bridge**.

Bridges.—Several drawbridges and fixed bridges cross Raritan River and South River. The distances above the mouth of the Raritan River and clearances follow: railroad bridge with center-pier swing span, 0.4 mile, 8 feet, overhead power cable at the bridge has a clearance of 140 feet; Victory Highway Bridge, 1.6 miles, fixed span with a clearance of 110 feet; Thomas Edison Memorial Bridge with two fixed spans, 1.9 miles, 110 feet; Garden State Parkway with fixed span, 2 miles, 134 feet; overhead power cable near Crab Island, 5.2 miles, 128 feet; New Jersey Turnpike with fixed span, 8.7 miles, 45 feet; overhead power cables, 8.9 miles, 114 feet; and U.S. Highway No. 1 Bridge with two fixed spans, 9.6 miles, 90 feet. The highway bridge over South River at the town of South River has a fixed span with a clearance of 25 feet. The railroad bridge, 0.4 mile upstream, has a swing span with a clearance of 4 feet.

(See **117.1 through 117.59, 117.747, and 117.756**, chapter 2, for drawbridge regulations.) In 1987, the fender system of the south draw of the railroad swing bridge sustained significant damage and may be protruding into the channel. Mariners are advised to exercise caution and navigate the north draw only. Mariners are requested to avoid bridge openings of this bridge during peak commuter hours of 0700 to 0815 and 1700 to 1815, Monday through Friday. The bridgetender monitors VHF-FM channel 13; call sign KT-4204.

Currents.—The tidal current has a velocity of about 1.5 knots at the Victory Highway Bridge at Perth Amboy.

South Amboy is a city on the south side of the entrance to Raritan River. Waterborne commerce at the port is in fuel oils, coal, sand, and gravel. Depths alongside the wharves and piers range from 6 to 30 feet. Water, provisions, and marine supplies can be obtained here, and berths with electricity, water, ice, and winter dry storage are available at a boat club.

South River is a town on the west side of South River 7.5 miles above South Amboy. A marina about 200 yards north of the highway bridge at Old Bridge provides berths, water, marine supplies, a 2-ton lift, and engine repairs. In 1981, a reported depth of about 1 foot could be carried to the marina.

The **Delaware and Raritan Canal**, closed to navigation since 1933, had its entrance to the Raritan River at New Brunswick.

Highland Park is across Raritan River opposite New Brunswick. In 1981, a reported depth of about 3½ feet was available from the head of the Federal project to Highland Park, the practical head of navigation.

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

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

Table of Selected Chart Notes

HEIGHTS
Heights in feet above Mean High Water.

52' R 3s RARITAN RIVER
The controlling depths at mean lower low water were 10 feet for a width of 40 to 100 feet from Washington Canal to New Brunswick. Jul 1956

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

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 0.381" northward and 1.469" eastward to agree with this chart.

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

Mercator Projection
Scale 1:20,000 at Lat. 40°28'
North American Datum of 1983
(World Geodetic System 1984)
SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

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.

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.

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).

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.

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.

NOTE A
Navigation regulations are published in Chapter 2, U.S. Coast Pilot 2. 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, 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.

WASHINGTON CANAL AND SOUTH RIVER
The controlling depths at mean lower low water were 10 feet for a middle width of 50 feet from Raritan River to the highway bridge, thence a depth of 8 feet for a middle width of 75 feet to Pond Creek (40°26'38"N - 74°21'41"W), thence a depth of 1/2 foot for a width of 150 feet to 800 yards north of the highway bridge at Old Bridge.
Mar-Apr 1961 

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.

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.

ANCHORAGE AREAS
110.155 (see note A)
Limits and assigned numbers of anchorage areas are shown in purple.
44 ANCHORAGE FOR DEEP-DRAFT VESSELS
42 45 46 47 GENERAL ANCHORAGES

TIDAL INFORMATION				
PLACE	Height referred to datum of soundings (MLLW)	Mean Higher High Water		
		Mean High Water	Mean High Water	Mean Low Water
NAME	(LAT/LONG)	feet	feet	feet
South Amboy	(40°29'N/74°17'W)	5.7	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>. (Nov 2010)

RARITAN RIVER CHANNEL DEPTHS						
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 2011 AND SURVEYS TO AUG 2011						
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 (NAUT. MILES) DEPTH (FEET)
GREAT BEDS REACH	17.4	20.3	19.5	8-11	300	0.76 25
SOUTH AMBOY REACH	17.8	19.8	16.4	8-11	300	1.2 25
SANDY POINT REACH	21.8	19.6	24.3	8-11	300	0.93 25
KEASBEY REACH	6.1	9.9	18.5	8-11	300	1.17 25
RED ROOT REACH	13.1	17.0	14.7	8-11	300	0.48 25
TURNING BASIN	1.2	5.0	14.2	8-11	300-600	0.51 25
GRAB ISLAND REACH	A15.0	A14.5	12.5	9-88	200	1.2 15
NORTHWEST REACH	6.0	7.5	12.2	7-62	200	1.2 15
TITANIUM REACH	5.0	3.1	2.4	8-11	300	0.73 25
SOUTH CHANNEL	B2.0	C4.2	2.1	7-63,3,4-90	150	0.7 15-10

A. SHOALS LOCATED APPROXIMATELY 40°29'01.0"N, 74°21'16.0"W TO 400 YARDS SOUTH; A DEPTH OF 13 FT FOR A WIDTH OF 200 FT WAS AVAILABLE TO THE WEST OF THE PROJECT CHANNEL.
B. POSSIBLE 6 FT OBSTRUCTION LOCATED AT 40°29'35.4"N, 74°19'04.5"W.
C. POSSIBLE 4 FT OBSTRUCTION LOCATED AT 40°29'37.4"N, 74°19'04.0"W.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

RARITAN BAY AND ARTHUR KILL CHANNEL DEPTHS						
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2012 AND SURVEYS TO JUN 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)
RARITAN BAY:						
WARD POINT BEND (EAST)	28.9	38.9	36.1	26.9	4,5-12	600-800 1.13 35
WARD POINT BEND (WEST)	34.3	35.3	32.7	29.0	4,5-12	600-800 1.35 35
WARD POINT SECONDARY CHANNEL	18.5	18.8	18.5	18.3	4,5-12	400 0.83 30
CUTOFF (A)	7.5	16.2	17.7	15.2	6-12	600-1740 1.0 20
ARTHUR KILL:						
OUTERBRIDGE REACH	31.9	35.4	36.0	34.1	4,5-11;4,5-12	600-840 1.60 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

12332

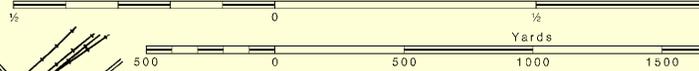
26'

74° 25'

24'

23'

SCALE 1:20,000
Nautical Miles



31'

40° 30'

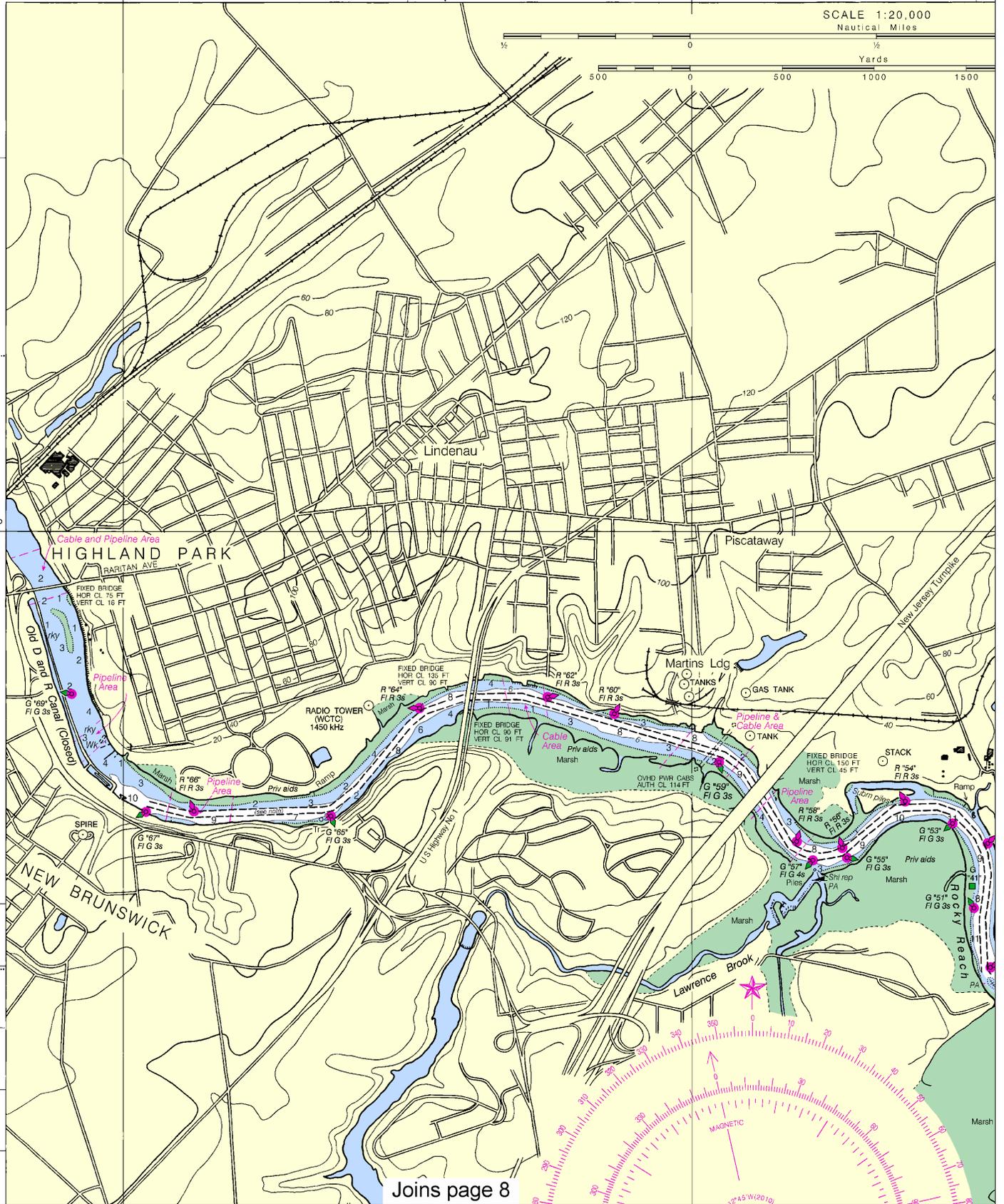
29'

50'

40'

30'

20'



Joins page 8

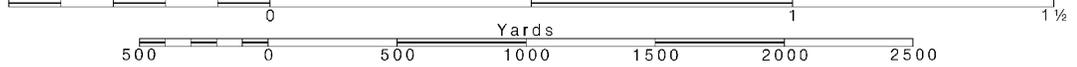
4

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

See Note on page 5.



2,080,000 22' 21' 74° 20' 50' 40' 30' 20' 10'

RARITAN RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 2011
AND SURVEYS TO AUG 2011

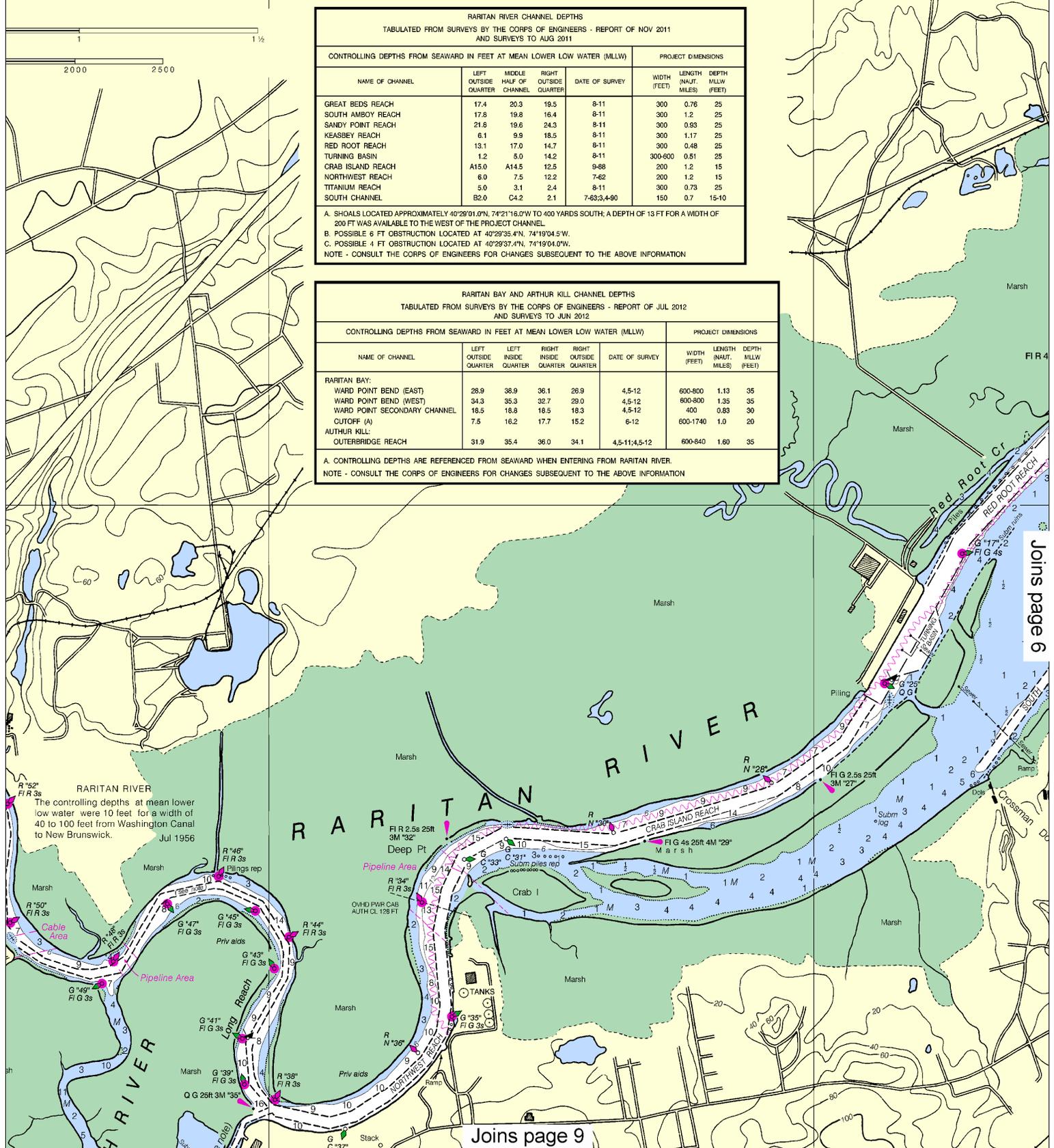
NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)			DATE OF SURVEY	PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER		WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
GREAT BEDS REACH	17.4	20.3	19.5	8-11	300	0.76	25
SOUTH AMBOY REACH	17.8	19.8	16.4	8-11	300	1.2	25
SANDY POINT REACH	21.8	19.6	24.3	8-11	300	0.93	25
KEASBEY REACH	6.1	9.9	18.5	8-11	300	1.17	25
RED ROOT REACH	13.1	17.0	14.7	8-11	300	0.48	25
TURNING BASIN	1.2	5.0	14.2	8-11	300-600	0.51	25
CRAB ISLAND REACH	A15.0	A14.5	12.5	9-88	200	1.2	15
NORTHWEST REACH	6.0	7.5	12.2	7-62	200	1.2	15
TITANIUM REACH	5.0	3.1	2.4	8-11	300	0.73	25
SOUTH CHANNEL	B2.0	C4.2	2.1	7-63,3,4-90	150	0.7	15-10

A. SHOALS LOCATED APPROXIMATELY 40°29'01.0"N, 74°21'16.0"W TO 400 YARDS SOUTH; A DEPTH OF 13 FT FOR A WIDTH OF 200 FT WAS AVAILABLE TO THE WEST OF THE PROJECT CHANNEL.
 B. POSSIBLE 6 FT OBSTRUCTION LOCATED AT 40°29'35.4"N, 74°19'04.5"W.
 C. POSSIBLE 4 FT OBSTRUCTION LOCATED AT 40°29'37.4"N, 74°19'04.0"W.
 NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

RARITAN BAY AND ARTHUR KILL CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2012
AND SURVEYS TO JUN 2012

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 (MILES)	DEPTH (FEET)
RARITAN BAY:								
WARD POINT BEND (EAST)	28.9	36.9	36.1	28.9	4.5-12	600-800	1.13	35
WARD POINT BEND (WEST)	34.3	35.3	32.7	29.0	4.5-12	600-800	1.35	35
WARD POINT SECONDARY CHANNEL	18.5	18.8	16.5	18.3	4.5-12	400	0.83	30
CUTOFF (A)	7.5	16.2	17.7	15.2	6-12	800-1740	1.0	20
ARTHUR KILL:								
OUTERBRIDGE REACH	31.9	35.4	36.0	34.1	4.5-11,4,5-12	600-840	1.60	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



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Joins page 9

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:26667. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.



21'

74° 20'

50'

40'

30'

20'

10'

19'

50'

2,100,000

18'

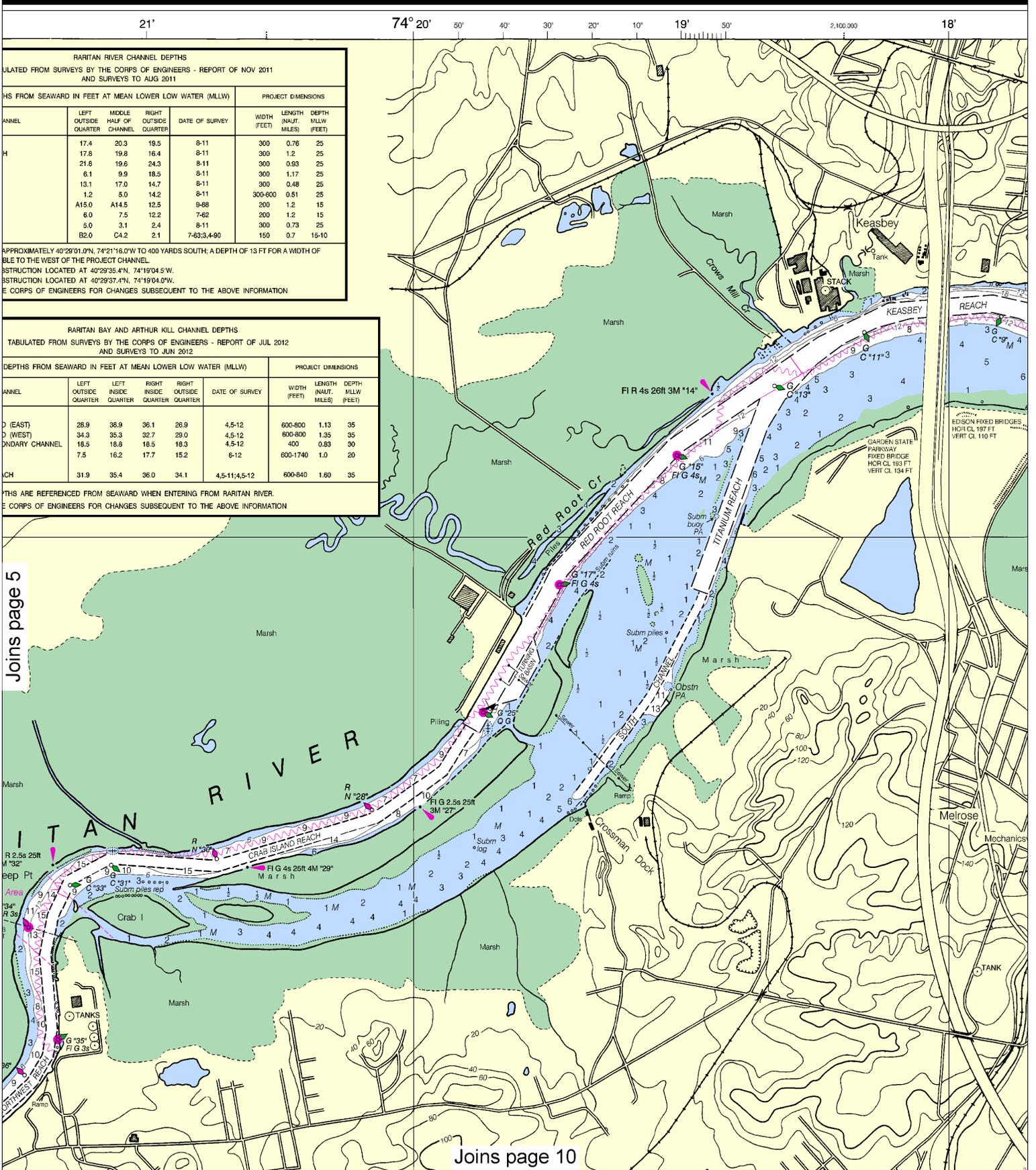
RARITAN RIVER CHANNEL DEPTHS						
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF NOV 2011 AND SURVEYS TO AUG 2011						
DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS	
CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	DEPTH (NAUT. MILES) / MLLW (FEET)
H	17.4	20.3	19.5	8-11	300	0.76 25
	17.8	19.8	16.4	8-11	300	1.2 25
	21.8	19.6	24.3	8-11	300	0.93 25
	6.1	9.9	18.5	8-11	300	1.17 25
	13.1	17.0	14.7	8-11	300	0.48 25
	1.2	5.0	14.2	8-11	300-600	0.51 25
	A15.0	A14.5	12.5	9-88	200	1.2 15
	6.0	7.5	12.2	7-62	200	1.2 15
	5.0	3.1	2.4	8-11	300	0.73 25
	B2.0	C4.2	2.1	7-63,3,4-90	150	0.7 15-10

APPROXIMATELY 40°29'01.0"N, 74°21'16.0"W TO 400 YARDS SOUTH; A DEPTH OF 13 FT FOR A WIDTH OF 600 FEET TO THE WEST OF THE PROJECT CHANNEL.
 OBSTRUCTION LOCATED AT 40°29'35.4"N, 74°19'04.5"W.
 OBSTRUCTION LOCATED AT 40°29'37.4"N, 74°19'04.0"W.
 SEE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

RARITAN BAY AND ARTHUR KILL CHANNEL DEPTHS						
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2012 AND SURVEYS TO JUN 2012						
DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS	
CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET) / LENGTH (NAUT. MILES) / DEPTH (FEET)
D (EAST)	28.9	38.9	36.1	26.9	4,5-12	600-800 1.13 35
D (WEST)	34.3	35.3	32.7	29.0	4,5-12	600-800 1.35 35
E (WEST) CHANNEL	18.5	18.8	18.5	18.3	4,5-12	400 0.83 30
F	7.5	16.2	17.7	15.2	6-12	600-1740 1.0 20
G	31.9	35.4	36.0	34.1	4,5-11,4,5-12	600-840 1.60 35

DEPTHS ARE REFERENCED FROM SEAWARD WHEN ENTERING FROM RARITAN RIVER.
 SEE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

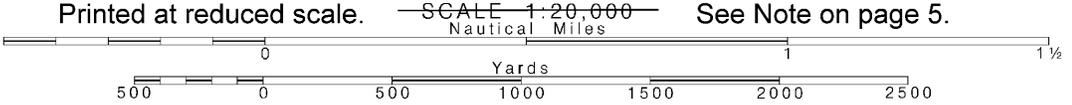
Joins page 5



Joins page 10

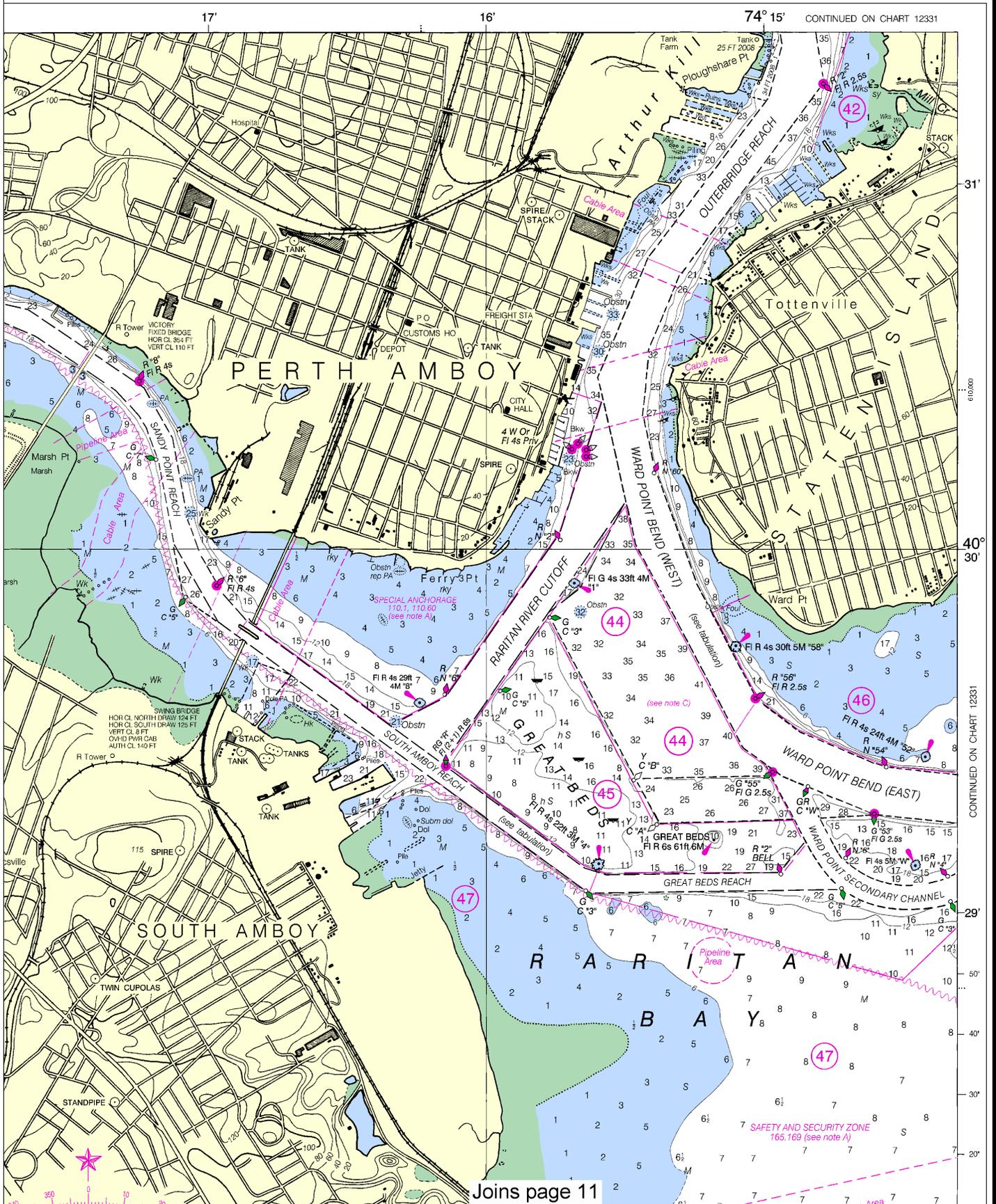


Note: Chart grid lines are aligned with true north.



See Note on page 5.

SOUNDINGS IN FEET



This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 4912 12/4/2012,
NGA Weekly Notice to Mariners: 5012 12/15/2012,
Canadian Coast Guard Notice to Mariners: 1012 10/26/2012.





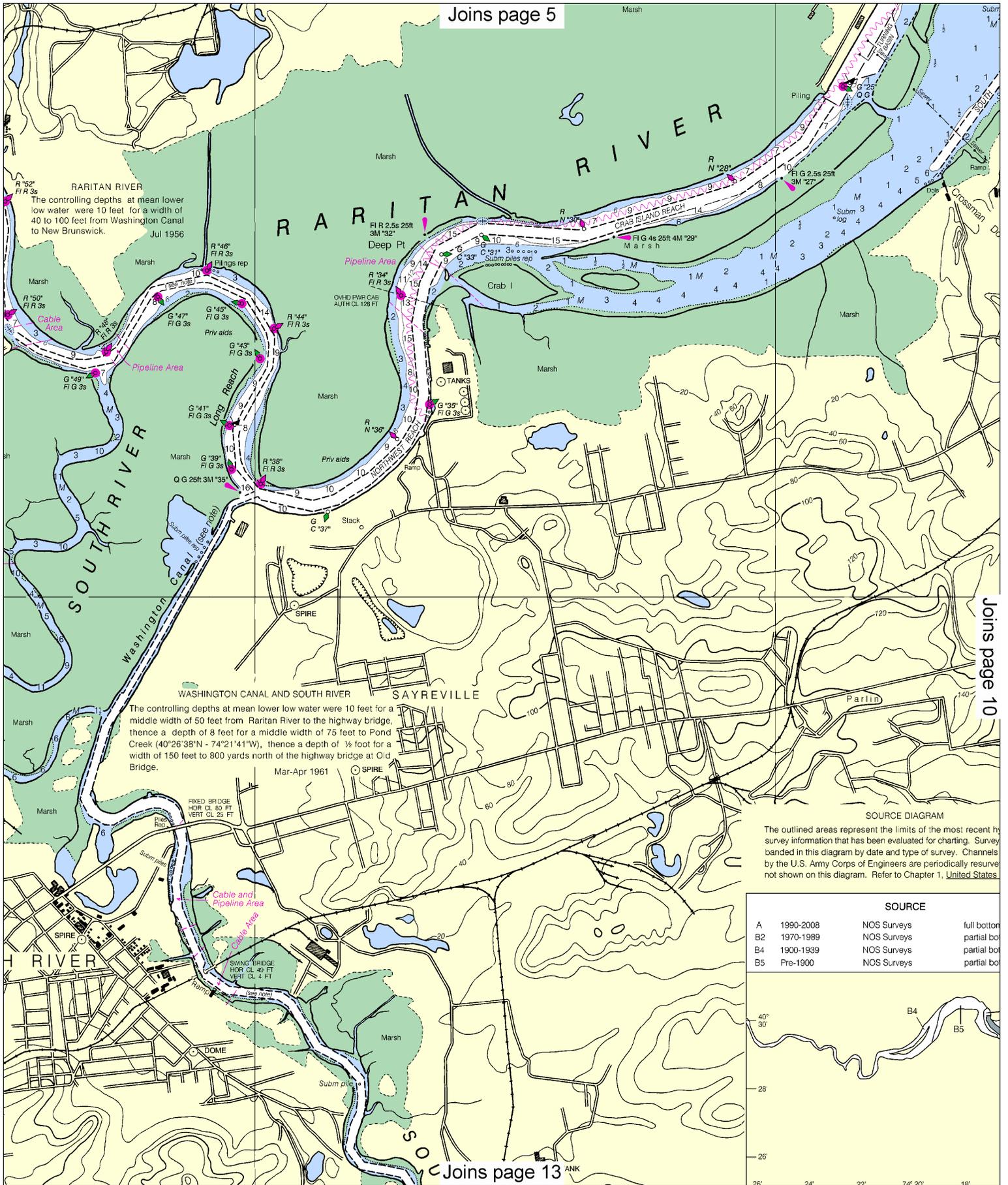
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

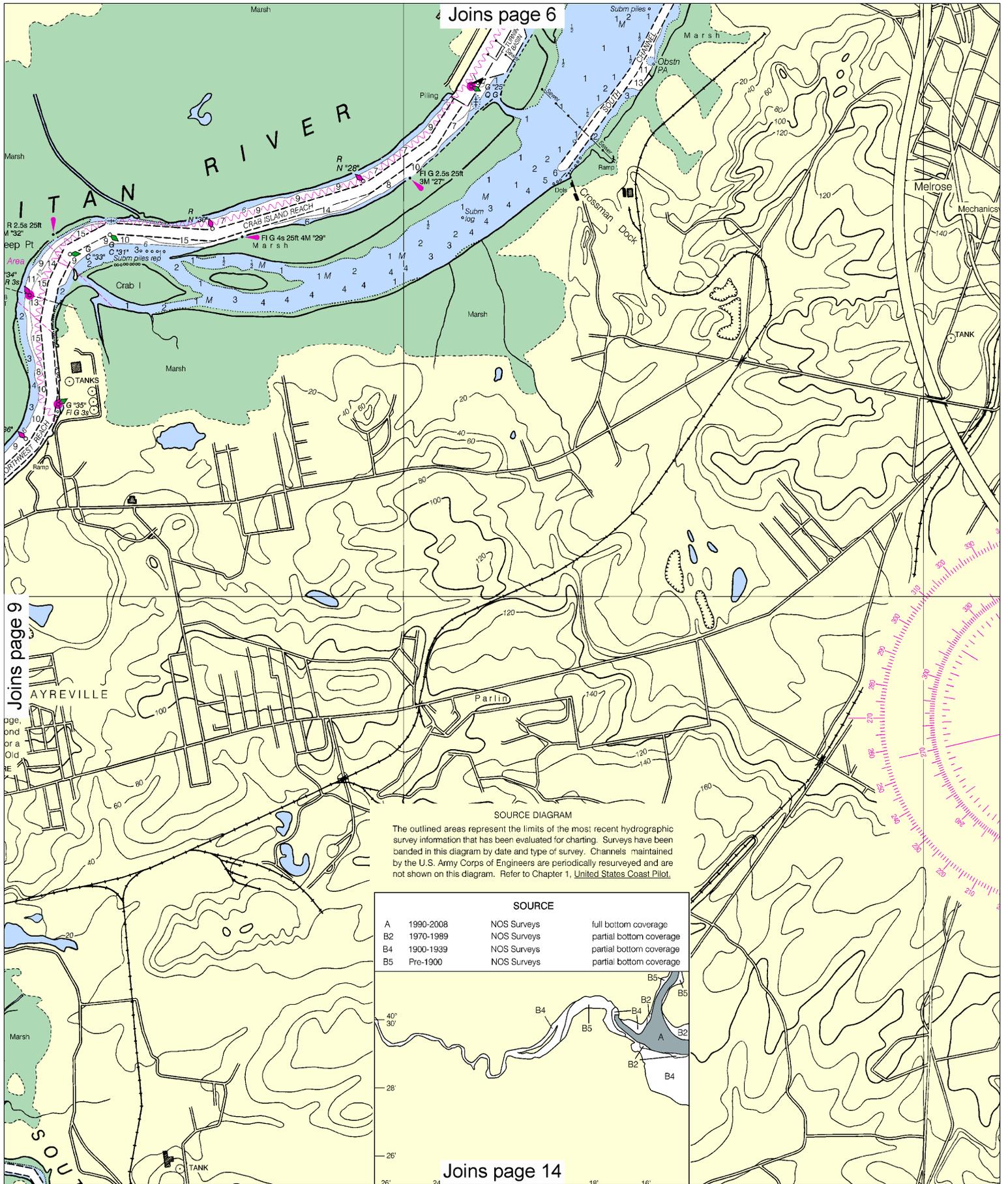
SCALE 1:20,000
Nautical Miles

See Note on page 5.



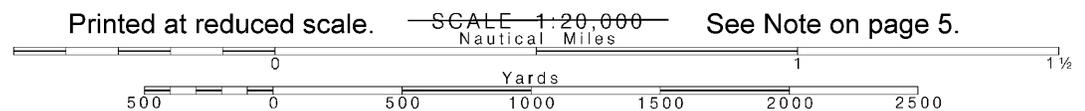


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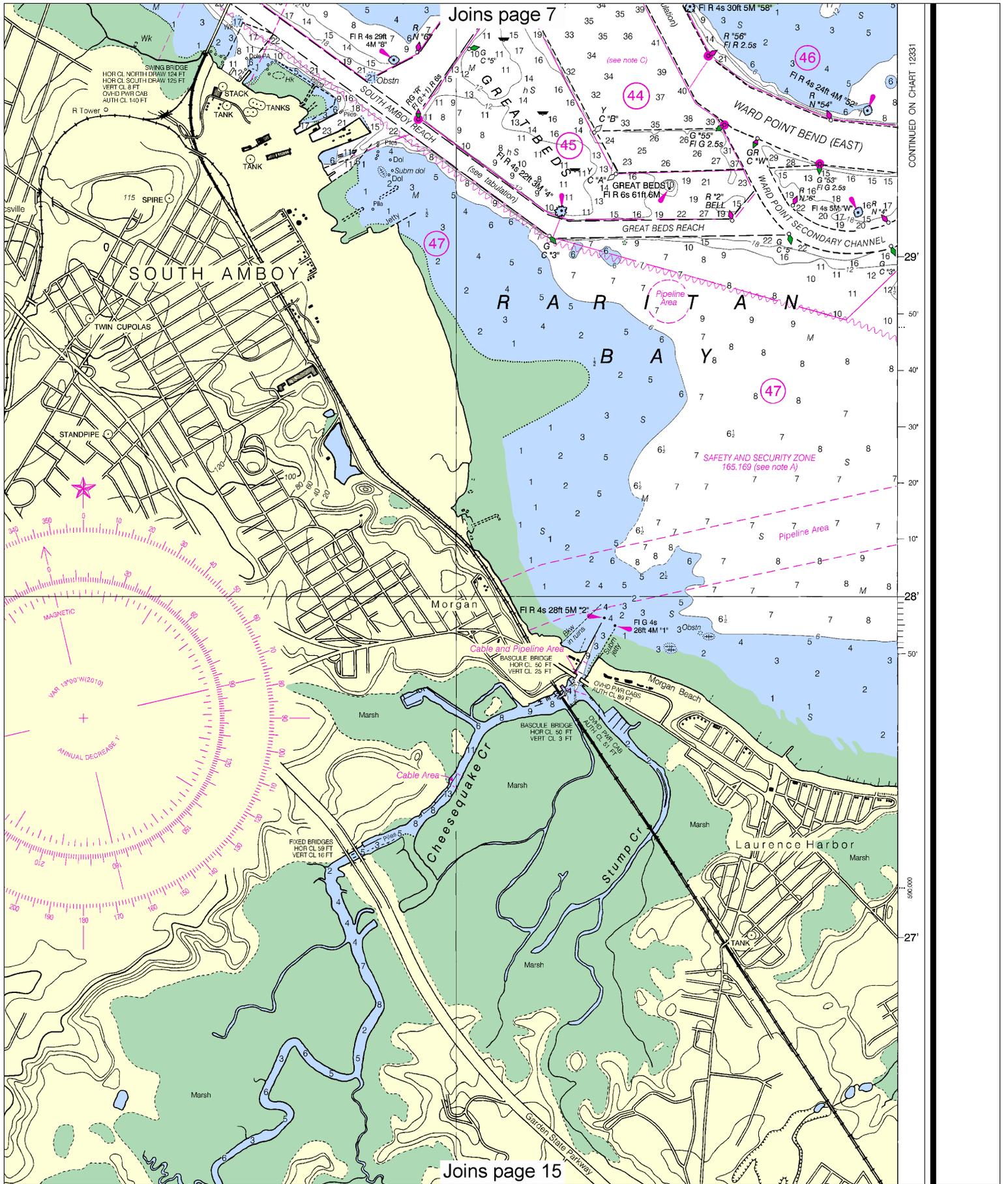


10

Note: Chart grid lines are aligned with true north.



See Note on page 5.



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CONTINUED ON CHART 12331



THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES - EAST COAST
NEW JERSEY

RARITAN RIVER

RARITAN BAY TO NEW BRUNSWICK

Additional information can be obtained at nauticalcharts.noaa.gov

Mercator Projection
Scale 1:20,000 at Lat. 40°28'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

TIDAL INFORMATION

PLACE	Height referred to datum of soundings (MLLW)	Mean Higher High Water		
		Mean Higher High Water	Mean High Water	Mean Low Water
NAME (LAT/LONG)	feet	feet	feet	feet
South Amboy (40°29'N/74°17'W)	5.7	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>. (Nov 2010)

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	Is isophase	OBSC obscured	s seconds
Bn beacon	LT HC 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	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	Gr 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, and U.S. Coast Guard.

SUPPLEMENTAL INFORMATION

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

PLANE COORDINATE GRID

(based on NAD 1927)
New Jersey State Grid is indicated by dotted ticks at 10,000 foot intervals.

CAUTION

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

NOTE A

Navigation regulations are published in Coast Pilot 2. Additions or revisions are published in the Notice to Mariners. The regulations may be obtained at the Office of the District Engineer, New York, NY. Refer to charted regulation section.

WARNING

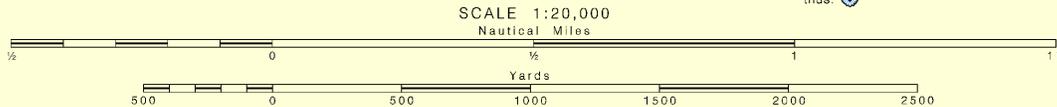
The prudent mariner will use any single aid to navigation with caution. See U.S. Coast Pilot for details.

ANCHORAGE AREAS

110.155 (see note A)

Limits and assigned numbers of anchorage areas are in purple.

- 44 ANCHORAGE FOR DEEP-DRAFT VESSELS
- 42 45 46 47 GENERAL ANCHORAGES



23rd Ed., Nov. / 10 ■ Corrected through NM Nov. 13/10
Corrected through LNM Nov. 2/10

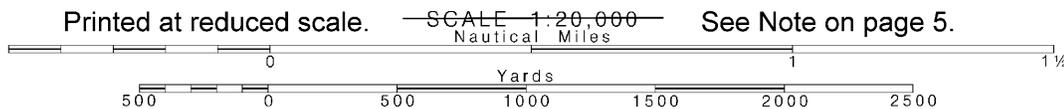
12332

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 Guard encourages users to submit corrections, and improving this chart to the Chief, Marine Chart Division, U.S. Coast Guard, Silver Spring, Maryland 20910-3282.



Note: Chart grid lines are aligned with true north.



Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

See Note on page 5.

WASHINGTON CANAL AND SOUTH RIVER
The controlling depths at mean lower low water were 10 feet for a middle width of 50 feet from Raritan River to the highway bridge, thence a depth of 8 feet for a middle width of 75 feet to Pond Creek (40°26'38"N - 74°21'41"W), thence a depth of ½ foot for a width of 150 feet to 800 yards north of the highway bridge at Old Bridge.

Mar-Apr 1961

SAYREVILLE

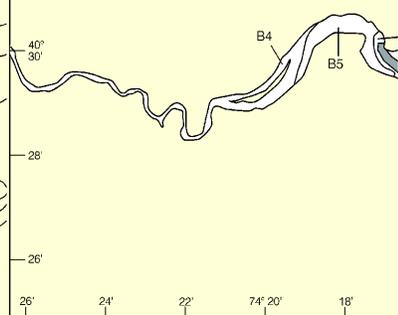
Parlin

SOURCE DIAGRAM

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

SOURCE

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



CAUTION

Improved channels shown by broken line subject to shoaling, particularly at the edge

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) for charting purposes is considered equal to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the American Datum of 1927 must be corrected an average of 0.381" northward and 1.469" eastward to agree with this chart.

CAUTION

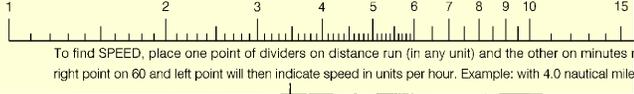
Temporary changes or defects in navigation are not indicated on this chart. Local Notice to Mariners. During some winter months or when covered by ice, certain aids to navigation may be replaced by other types or removed. For details see U.S. Coast Guard Light List.

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

LOGARITHMIC SPEED SCALE



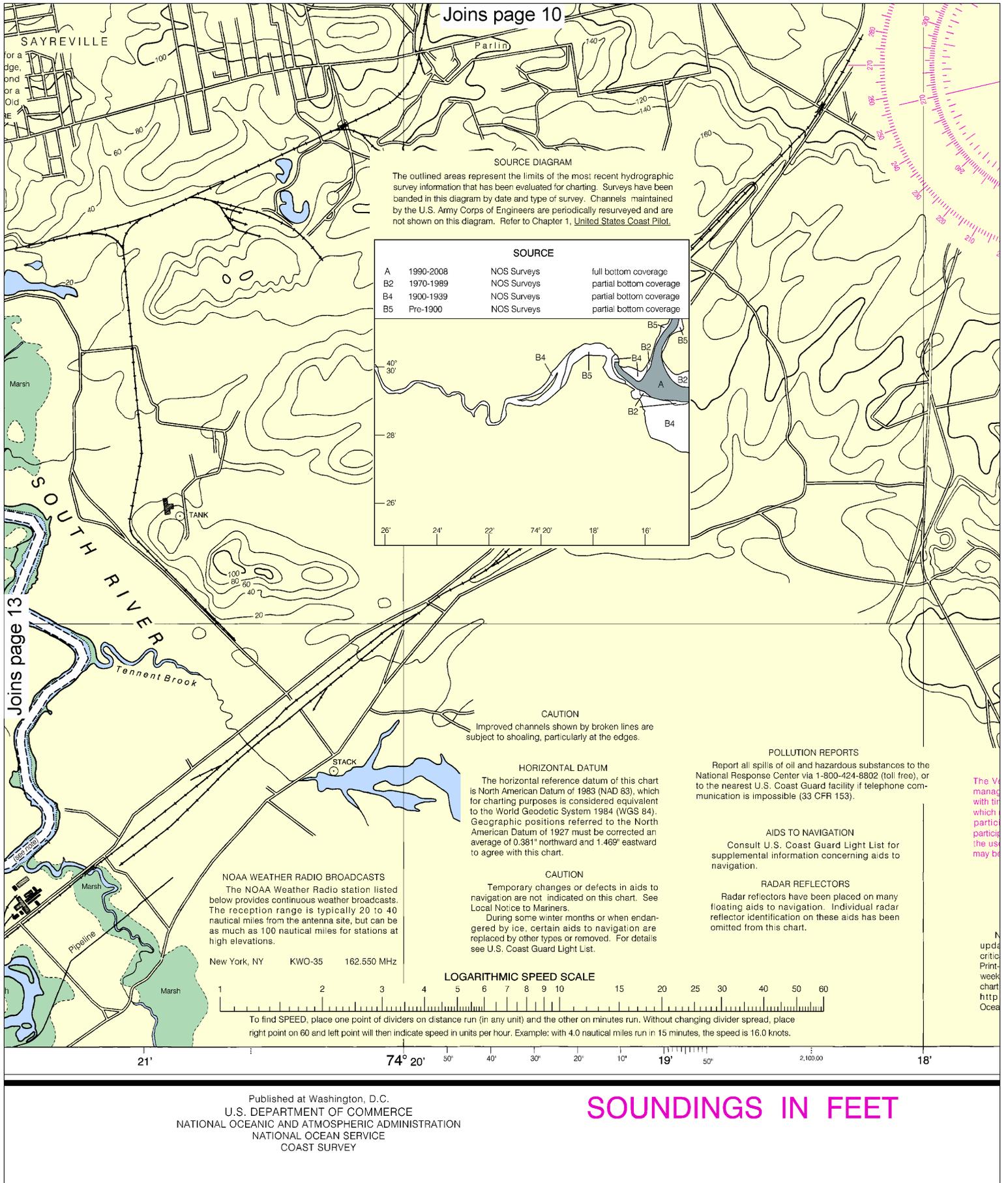
Published in Chapter 2, U.S. Coast and Geodetic Survey. Information concerning this chart is available at the Office of the Chief of Engineers in Boston, MA or at the Office of the Chief of Engineers in New York, NY.

Do not rely solely on this chart for navigation, particularly on aids to navigation. For details see U.S. Coast Guard Light List.

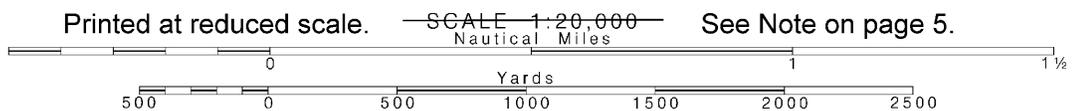
For more information on this chart, contact the National Ocean Service, National Ocean Service, National Ocean Service, National Ocean Service.

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

SO

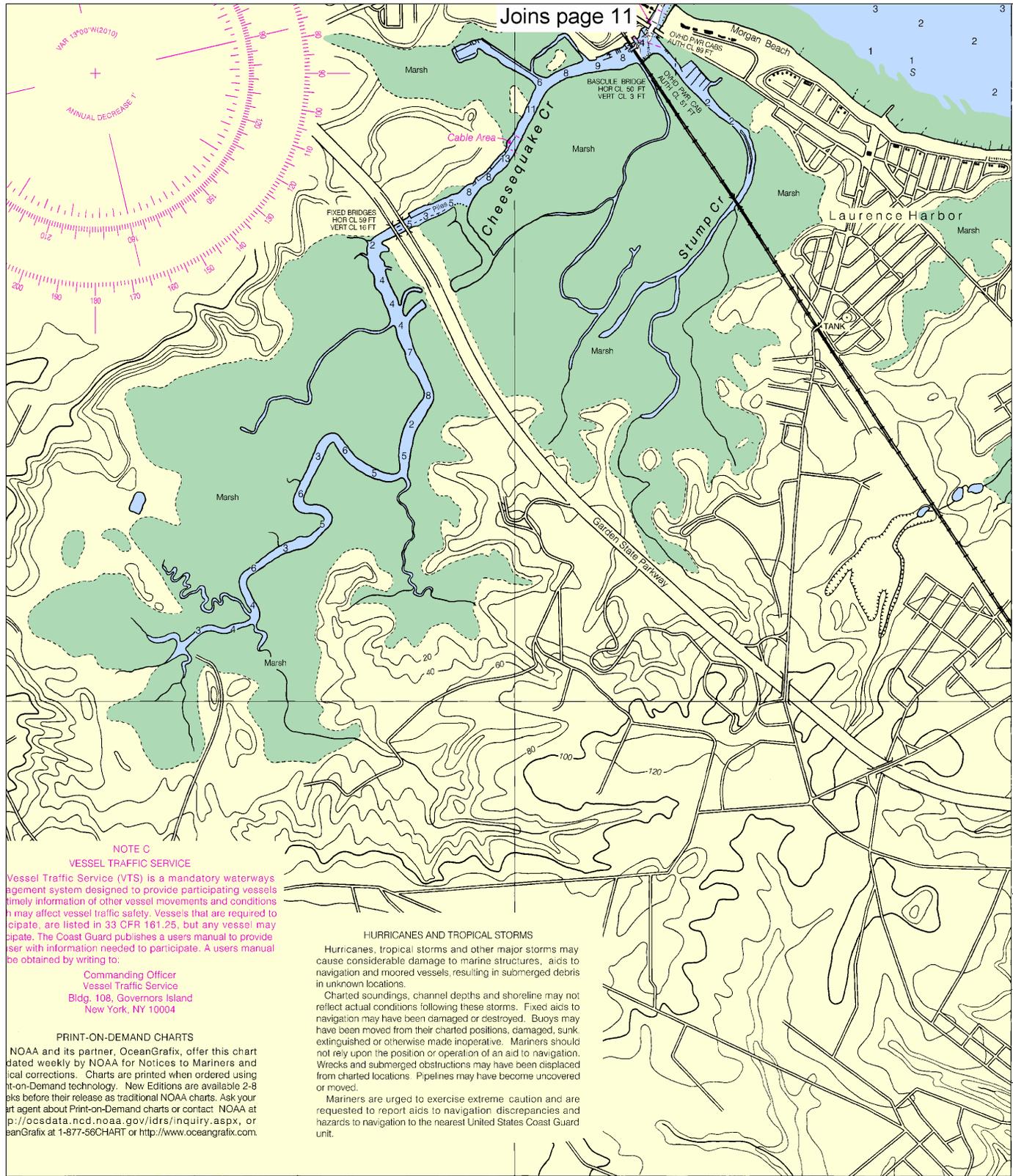


Note: Chart grid lines are aligned with true north.



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**NOTE C
VESSEL TRAFFIC SERVICE**

Vessel Traffic Service (VTS) is a mandatory waterways management system designed to provide participating vessels timely information of other vessel movements and conditions that may affect vessel traffic safety. Vessels that are required to participate, are listed in 33 CFR 161.25, but any vessel may participate. The Coast Guard publishes a users manual to provide user with information needed to participate. A users manual can be obtained by writing to:

Commanding Officer
Vessel Traffic Service
Bldg. 108, Governors Island
New York, NY 10004

PRINT-ON-DEMAND CHARTS

NOAA and its partner, OceanGrafix, offer this chart dated weekly by NOAA for Notices to Mariners and other corrections. Charts are printed when ordered using print-on-demand technology. New Editions are available 2-8 weeks before their release as traditional NOAA charts. Ask your agent about Print-on-Demand charts or contact NOAA at [p://oceansdata.nod.noaa.gov/ids/inquiry.aspx](http://oceansdata.nod.noaa.gov/ids/inquiry.aspx), or OceanGrafix at 1-877-566-CHART or <http://www.oceangrafix.com>.

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.

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

Raritan River
SOUNDINGS IN FEET - SCALE 1:20,000

12332

ED. NO. 23
NSN 7642014010373
NGA REFERENCE NO. 12XHA12332



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.

