

Baltimore Harbor

Chart 12281

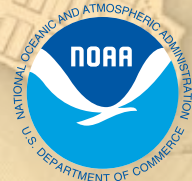
BookletChart

Commemorative Edition – June, 2012

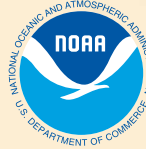
A reduced scale NOAA nautical chart for small boaters.

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
- United States Coast Pilot excerpts
- Compiled by NOAA, the nation's chartmaker



United States – East Coast MARYLAND BALTIMORE HARBOR



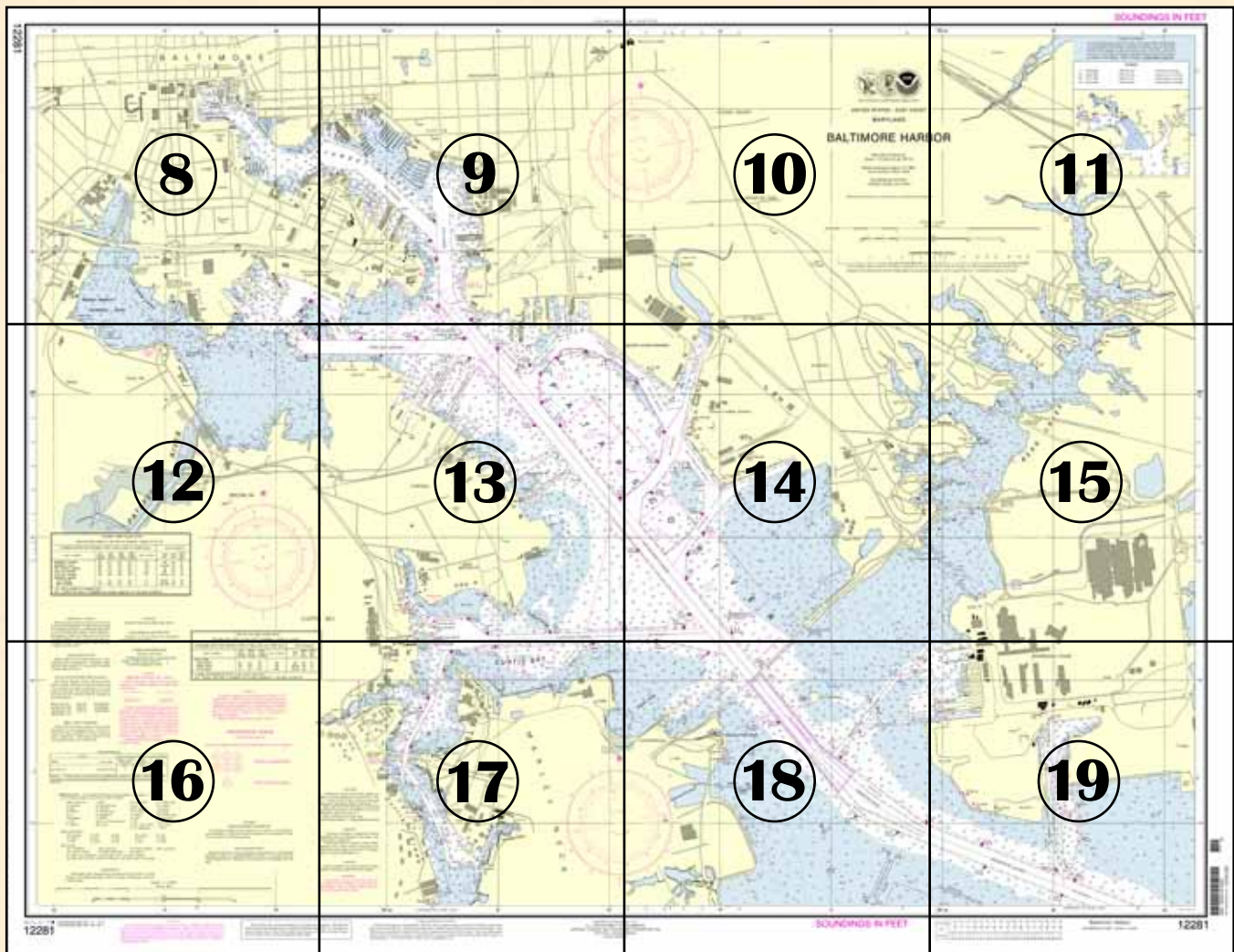
NOAA is proud to join with the nation's ports, the U.S. Navy, and OpSail, to celebrate the bicentennial of the War of 1812, a pivotal time in our nation's history.

This special commemorative BookletChart, which adds event berthing areas, historical background, and images to NOAA's regular BookletChart, can be downloaded for printing on any home printer. 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.

Noted event dates and times may be subject to change.
For the latest information, please check in regularly at nauticalcharts.noaa.gov/WarOf1812.



The chart on the cover is a plan of the city of Baltimore compiled from actual survey. Made under the direction of the commissioners appointed by the legislature of Maryland and by Lewis Brantz, Esqr. under authority of the Mayor and City Council of Baltimore by Fielding Lucas, Jr., Engraved by B.T. Welch & Co.



Baltimore, the U.S. Navy, and the War of 1812

Baltimore contributed to America's fight against the seaborne enemy during the War of 1812 by engaging in privateering, confronting British forces on the Chesapeake Bay, and defending Baltimore itself.

Privateering

With peacetime commerce at an end, a substantial portion of Baltimore's 50,000 inhabitants who depended on overseas commerce for their income relied on privateering instead. Patriotism mingled with profit, as Baltimore stood behind the Madison administration's decision for war. Privateer owners and privateersmen wanted to take revenge for years of British seizures of ships and goods, and their impressment of sailors.

Baltimoreans dispatched 122 privateers and letter-of-marque traders, privately owned armed vessels authorized to capture the enemy's commerce on the high seas. Commissioned vessels – many of them Baltimore schooners remarkable for their speed – took more than 500 British merchant ships, captured 1,600 prisoners, and cost British merchants millions of dollars. Privateers forced the British to deploy naval vessels for the protection of merchant convoys, devote naval assets to blockade the Chesapeake, and assign warships to defend ports and islands.

Confronting the British on the Bay

In 1813, the British blockaded the mouth of the Chesapeake Bay. They led expeditions along the bay shores, pillaging towns, plantations, and warehouses. They burned what they could not carry away. The British met only weak opposition, for, with the bulk of the U.S. Army fighting on the border with Canada, militia units and the U.S. Navy's undermanned gunboat flotillas were inadequate for local defense.

In July 1813, Baltimore's Joshua Barney proposed a new waterborne force to counter the British raiders. As a successful sea captain and privateersman, and former officer in the Continental Navy and the navy of Republican France, Barney persuaded the U.S. Secretary of the Navy to appoint him as commander of a flotilla of barges and row galleys. Of shallow draft and armed with a heavy cannon, these small vessels would operate inshore where the great ships with their deep drafts could not follow, intercepting boats sent by British warships and breaking up their raids.

In May 1814, Barney set out from Baltimore with a fleet of 18 vessels but, on June 1, a superior enemy fleet chased them into the Patuxent River. The American flotilla held the enemy at bay until August 21 when, facing overwhelming odds, Barney was forced to retreat. He landed his men at Pig Point, near Upper Marlboro, and then marched to assist in defending Washington against the approaching British invasion force. He left a small contingent to burn the ships to prevent their capture.



Joshua Barney, commander of the United States Chesapeake Bay Flotilla during the War of 1812. (Navy Art Collection, Naval History & Heritage Command)



A view of the bombardment of Fort McHenry, near Baltimore, by the British fleet taken from the Observatory under the command of Admirals Cochrane & Cockburn. (The Mariners' Museum, Newport News, VA)

The Defense of Baltimore

After the British burned Washington on August 24 and 25, the invasion force moved against Baltimore. In the predawn hours of September 12, 1814, a British army contingent disembarked at North Point, Maryland. Royal Navy warships began bombarding Fort McHenry the next morning. U.S. merchant vessels that were scuttled at the entrance of Baltimore Harbor near Fort McHenry denied the British easy access to the city.

The British army planned to assault the city from the east, while the navy would secure the harbor. The U.S. Army and Navy worked together, and Commodore John Rodgers deployed his naval contingent under orders from Major General Samuel Smith. When Fort McHenry did not capitulate quickly to the bombardment, the British admiral realized his squadron would suffer too many casualties from solid American defenses. He decided that the Royal Navy could not support the army in a two-pronged attack on Baltimore, and ended the expedition.

Baltimore's gallant defense inspired young Francis Scott Key to compose the ode to the Star Spangled Banner that became the United States national anthem.

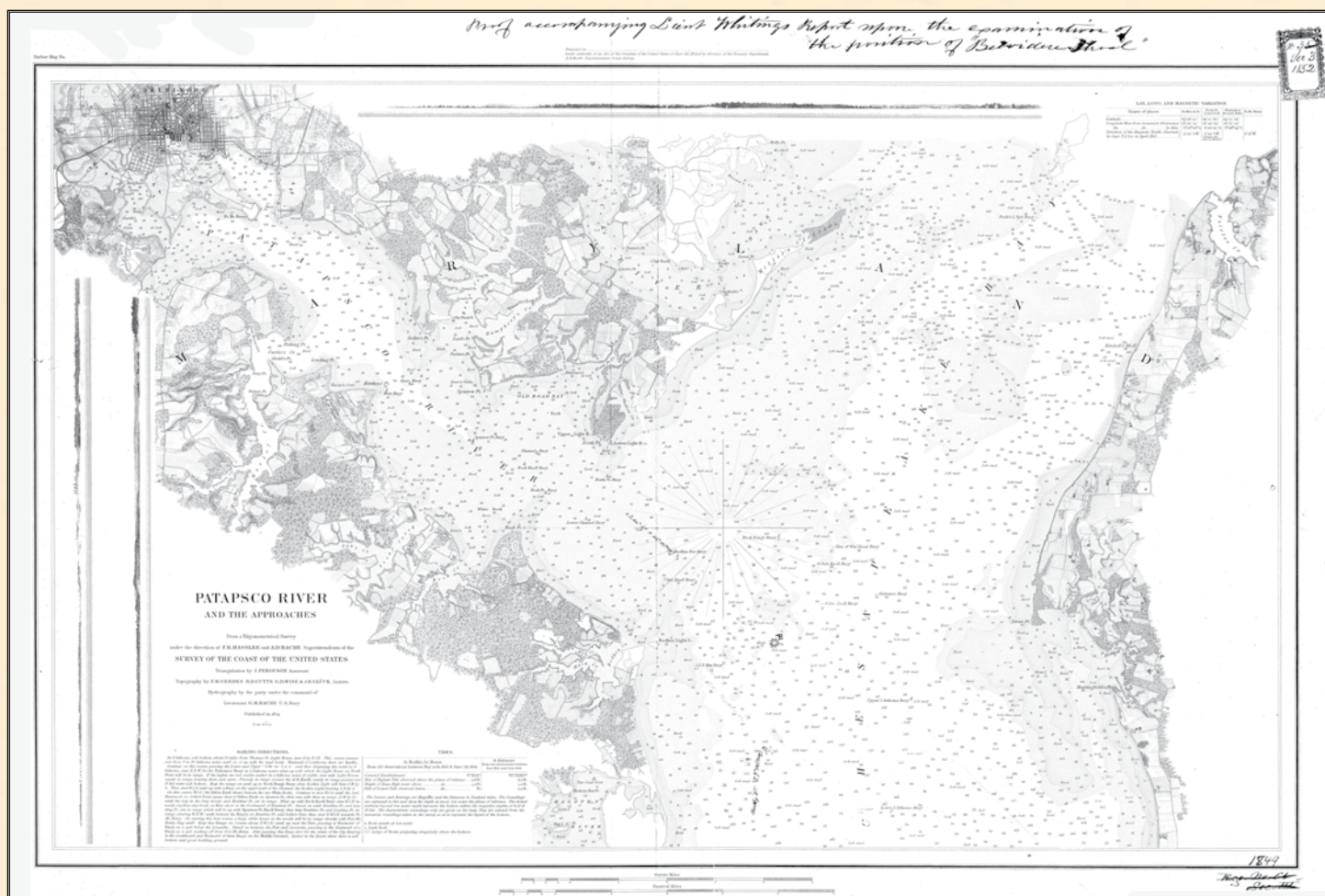
Baltimore and the U.S. Coast Survey

In 1807, losing ships to accidents in U.S. coastal waters was a common occurrence. The young nation needed nautical charts, so President Thomas Jefferson signed a law authorizing the Survey of the Coast. The Survey would measure water depths, establish a spatial reference system from which we determine location, and produce the nation's navigational charts.

At the same time, relations between the United States, England, and France grew contentious, and Jefferson instituted an economic embargo against the countries. The unsettled international climate, with the U.S. recalling American seamen and effectively terminating the American merchant marine and international trade, delayed the Survey of the Coast for the rest of the Jefferson Administration.

Jefferson's successor, James Madison, reinstated the Survey and sent Hassler to Great Britain in late 1811 to procure survey instruments. President Madison declared war on Great Britain eight months after Hassler's arrival in London, and Hassler was unable to return to the U.S. until 1817. When he came back, he brought equipment and some of the best experts in Europe with him.

In 1843, Alexander Bache, a great-grandson of Benjamin Franklin and a great scientific mind in his own right, became the Superintendent of the U.S. Coast Survey and deployed surveyors to various sections of the U.S. coastline. In 1845, Coast Survey had triangulated (established the geospatial measurement baseline) the northern end of the Chesapeake and was completing the hydrographic water depth measurements of the Patapsco. In 1849, Coast Survey issued its first chart for Baltimore Harbor. 'Patapsco River and the Approaches' depicted water depths, characterized the seafloor, gave sailing directions, showed the meandering shorelines of creeks, rivers, and bays, and depicted some of the topography of Baltimore city.



Patapsco River and the Approaches, 1849 (NOAA Office of Coast Survey Historical Chart Collection)

Today, America's coastal waters remain as central to the nation's prosperity as they were 200 years ago. Mariners still rely on NOAA's Coast Survey navigational charts, constantly updated with the accuracy and precision needed to protect life and property. Over 30,000 historical maps and charts are online for your exploration, at nauticalcharts.noaa.gov/history

NOAA's Navigation Services serve American communities coast to coast



President Thomas Jefferson founded the U.S. Coast Survey in 1807 and tasked it with creating charts of the nation's coastal waters so America's young shipping industry could thrive. Today, America's coastal waters remain as central to the nation's prosperity as they were 200 years ago, and NOAA's Coast Survey is still making the nation's charts.

The nation's economy depends on a robust and reliable marine transportation system. From America's agricultural communities – whose farm exports reached a record \$136.3 billion in 2011 – to the 13 million people with jobs that rely on commercial ports, to the 10 million Americans who take a cruise every year, businesses and families everywhere rely on a safe, efficient, and dependable marine transportation system. The ships and ports that are charged with the safe transport of people and products, in turn, rely on the critical informational infrastructure and services provided by NOAA's Navigation Services.



Stay safe with NOAA nautical charts

Recreational boaters, unlike commercial mariners, are not required to carry nautical charts. As coastal waterways grow more crowded, however, smart boaters use the latest nautical charts, updated by NOAA with the precision and accuracy that mariners rely on. Obtaining the latest chart is easier than ever. It can be as easy as clicking a link. www.nauticalcharts.noaa.gov/staff/charts.htm

Plan for fun and safety at the Bicentennial War of 1812 events

Special commemorative charts and posters: www.nauticalcharts.noaa.gov/WarOf1812/

Event calendars and websites: www.ourflagwasstillthere.org/events.html

nowCoast marine observations: nowcoast.noaa.gov

Marine weather forecasts: www.nws.noaa.gov/om/marine/home.htm

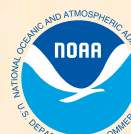
Tides and Currents: <http://www.ourflagwasstillthere.org/events.html>

Buoy observations: www.ndbc.noaa.gov

NOAA's mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources.

Visit us online at www.noaa.gov, or on Facebook at www.facebook.com/usnoaagov.

Follow NOAA's Office of Coast Survey on Twitter @nauticalcharts.



2012-2015
"Our Flag Was Still There"

This BookletChart is published by
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
nauticalcharts.noaa.gov

Q What are nautical charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, and other aids to navigation. The information promotes safe and efficient navigation.

Chart carriage is mandatory on the commercial ships that carry goods to and from America's shores. They are also used on every Navy and Coast Guard ship, fishing boats, and passenger vessels. Smart recreational boaters also carry nautical charts.

Q What is a BookletChart?

The BookletChart helps recreational boaters locate themselves on water. It has been reduced in scale for convenience, but otherwise contains all the information

of the full-scale nautical chart. (This special commemorative edition also contains event and historical information not available on full-scale charts.) The bar scales are reduced, but accurately measure distances. (See the note at the bottom of page X for the reduction in scale applied to this chart. Whenever possible, use the official full-scale NOAA nautical chart for navigation. Check your local marine store, or go to nauticalcharts.noaa.gov for a list of chart agents. This BookletChart does not fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Q 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. NOAA has made additional chart corrections in advance of their publication in a Notice to Mariners. Coast Pilot excerpts are not updated from the time of publication.

Excerpts from U.S. Coast Pilot 3, chapter 15

Baltimore, one of the major ports of the United States, is at the head of tidewater navigation on Patapsco River. The midharbor point, at the intersection of Fort McHenry and Ferry Bar Channels 0.6 mile southeast of Fort McHenry, is 8 miles from the mouth of the river, 150 miles above the Virginia Capes, and 62 miles from Delaware River. Currents in the harbor are 0.8 knot on the flood and ebb. In 1981, strong currents were reported in the vicinity of Fort Carroll and Brewerton Angle on the change of tides.

Bear Creek, on the northeast side of Patapsco River 4 miles above the mouth, has channel depths of 8 feet or more almost to the head, 3.5 miles above the mouth. Rocks, covered 2 feet, are southeast of Sollers Point in about 39°13'10"N., 76°31'01"W. Numerous piles and obstructions are in the entrance to the creek between Coffin Point and Lloyd Point.

Peachorchard Cove, on the west side of Bear Creek about 0.8 mile above the entrance, has depths of 7 feet for 0.4 mile to within 0.1 mile of its head.

A highway bridge 0.5 mile up Bear Creek has a bascule span with a clearance of 25 feet. The railroad bridge 0.9 mile above the fixed bridge has a swing span with a clearance of 8 feet.

Lynch Cove, on the northwest side of Bear Creek 1 mile above the fixed bridge, has general midchannel depths of 8 feet or more for about 0.6 mile, thence shoaling to 1 foot to the head 0.8 mile above the entrance.

There are several small-craft facilities in Lynch Cove.

Schoolhouse Cove, 1.6 miles above the fixed bridge, has depths of 7 feet to near the head. A small boatyard in the cove can haul out boats up to 45 feet for hull and engine repairs. A yacht club is on the east side of Bear Creek just below Schoolhouse Cove.

The highway bridge over Bear Creek just above Schoolhouse Cove, has a bascule span with a clearance of 12 feet.

A 6 m.p.h. **speed limit** is enforced in Bear Creek above Lynch Cove on Saturdays, Sundays, and holidays.

Hawkins Point, on the southwest side of Patapsco River 4.5 miles above the mouth, is at the southeastern limits of Baltimore. There are many obstructions surrounding the point. A privately dredged and marked 33-foot channel leads to a 720-foot-long cargo pier with rail and truck connections 0.4 mile northwestward of the point.

Curtis Creek empties into the head of Curtis Bay from southward between

Sledds Point and Ferry Point. A dredged channel in the creek has a Federal project depth of 35 feet in the lower reach and 22 feet in the middle and upper reaches. (See Notice to Mariners and the latest edition of the charts for controlling depths.) The channel is marked by lighted and unlighted buoys.

Cabin Branch, on the west side of Curtis Creek just south of Ferry Point, has depths of 17 feet or more to within 0.1 mile of a fixed bridge 0.4 mile above the entrance. The industrial wharves on the north side of the branch have reported depths of 12 to 28 feet at their faces.

Arundel Cove is on the east side of Curtis Creek 1.6 miles above the entrance. The Coast Guard yard is on the north side of the cove. A highway bridge 0.4 mile above the entrance to the cove has a 28-foot fixed span with a clearance of 6 feet.

A depth of 13 feet can be carried up Curtis Creek from Arundel Cove to the forks 2.3 miles above the entrance. **Furnace Creek**, the west fork, in 1976, had reported depths of 11 feet or more for 0.8 mile, then shoals gradually to 4 feet at the fixed highway bridge 0.4 mile farther up; the bridge has a clearance of 8 feet. Overhead power cables about 0.1 mile above the bridge have a least clearance of 46 feet. **Marley Creek**, the middle fork, in 1997 had a reported controlling depth of 5 feet for 1.6 miles, thence 3.5 feet to the fixed bridge about 0.4 mile farther up; the bridge has a clearance of 9 feet. Overhead power cables crossing Marley Creek have a least clearance of 28 feet.

Colgate Creek, just north of the Dundalk facility, has a controlling depth of 2 feet. A depth of about 24 feet can be carried to the Western Electric Co. Wharf by using Dundalk West Channel.

The fixed highway bridge 0.3 mile above the entrance has a clearance of 8 feet. The railroad bridge 0.8 mile above the entrance has a swing span with a width of 30 feet and a clearance of 5 feet; the swing span is inoperative and remains in a closed position. Overhead power cables crossing the creek have a least clearance of 28 feet.

Depths of about 5 to 8 feet are at the outer ends of piers at the boatyards northwestward of Ferry Bar. Hull and engine repairs can be made. The largest marine railway can handle boats up to 60 feet; largest mobile lift, 20 tons. Gasoline, diesel fuel, slips, and some marine supplies are available.

Inner Harbor, at the head of Northwest Harbor, has a marina on the south side with depths of 12 feet or more at the slips. Berths, electricity, gasoline, diesel fuel and some marine supplies are available.

A 6-knot **speed limit** is enforced in Inner Harbor.

Table of Selected Chart Notes

Corrected through NM Jul. 9/11
Corrected through LNM Jun. 28/11

HEIGHTS

Heights in feet above Mean High Water.

Mercator Projection
Scale 1:15,000 at Lat. 39°14'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

SUPPLEMENTAL INFORMATION

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

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.

PLANE COORDINATE GRID

(based on NAD 1927)

The Maryland State Grid is indicated on this chart at 10,000 foot intervals thus: $\begin{matrix} - & - & - \\ | & | & | \\ - & - & - \end{matrix}$
The last three digits are omitted.

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.

Baltimore, MD	KEC-83	162.400 MHz
Sudlersville, MD	WXX-97	162.500 MHz
Washington, DC	KHB-36	162.550 MHz
(Manassas, VA)		

SMALL CRAFT WARNINGS

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

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 0.387' northward and 1.128' eastward to agree with 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.

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.

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 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 Baltimore, Maryland.
Refer to charted regulation section numbers.

ANCHORAGE AREAS

110.158 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta



GENERAL ANCHORAGES

DEAD SHIP ANCHORAGE

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

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.

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).

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.

AUTHORITIES

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

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 National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

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	Rt rotating
B black	Is 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	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Blds 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.			

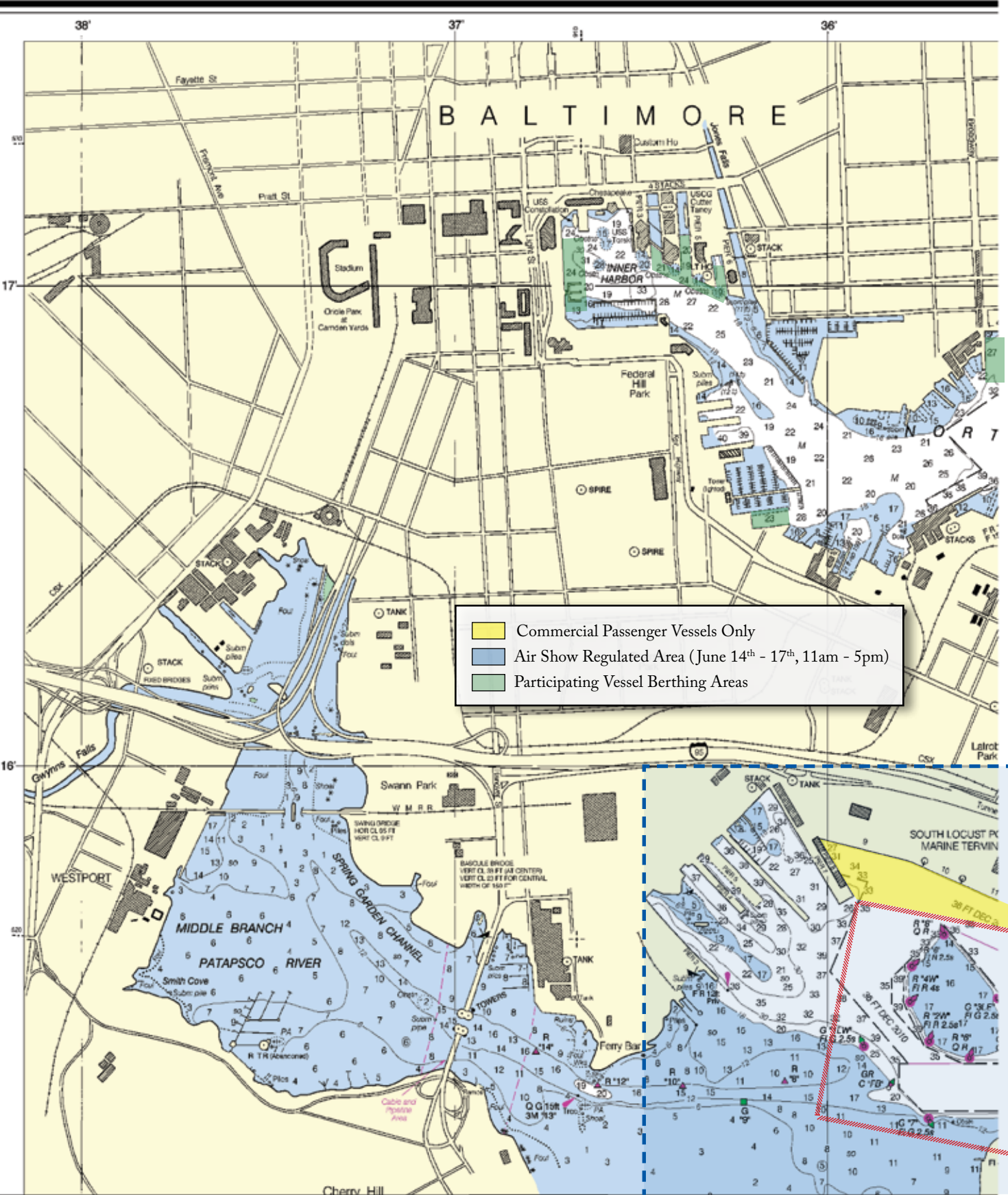
TIDAL INFORMATION

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
Fort McHenry	(39°16'N/76°35'W)	1.7	1.4	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>. (May 2011)

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 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at <http://ocsddata.ned.noaa.gov/idrs/inquiry.aspx>, or OceanGrafix at 1-877-56CHART or <http://www.oceangrafix.com>.



Commercial Passenger Vessels Only
 Air Show Regulated Area (June 14th - 17th, 11am - 5pm)
 Participating Vessel Berthing Areas

Joins Page 12

Printed at reduced scale. SCALE 1:15,000 See Note on Page 9
Nautical Miles



76°35'

34'

33'

50'

PATTERSON PARK

HIGHLANDTOWN

CANTON

WEST HARBOUR

Commercial Passenger Vessels Only
 Air Show Regulated Area (June 14th - 17th, 11am - 5pm)
 Participating Vessel Berthing Areas

Fireworks Safety Zone
 (June 16th 8pm - 10:30pm)

Air Show ////
 (June 14th - 17th, 11am - 5pm)

Joins Page 13

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 10



THE NATION'S CHARTMAKER SINCE 1907

UNITED STATES - EAST COAST
MARYLAND

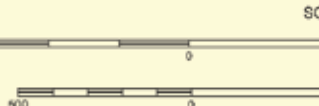
BALTIMORE HARBOR

Mercator Projection
Scale 1:15,000 at Lat. 39°14'

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



To find SPEED, place one point of dividers on distance run (in nautical miles) on the right point on 60 and left point will then indicate speed in units per hour.

Joins Page 14

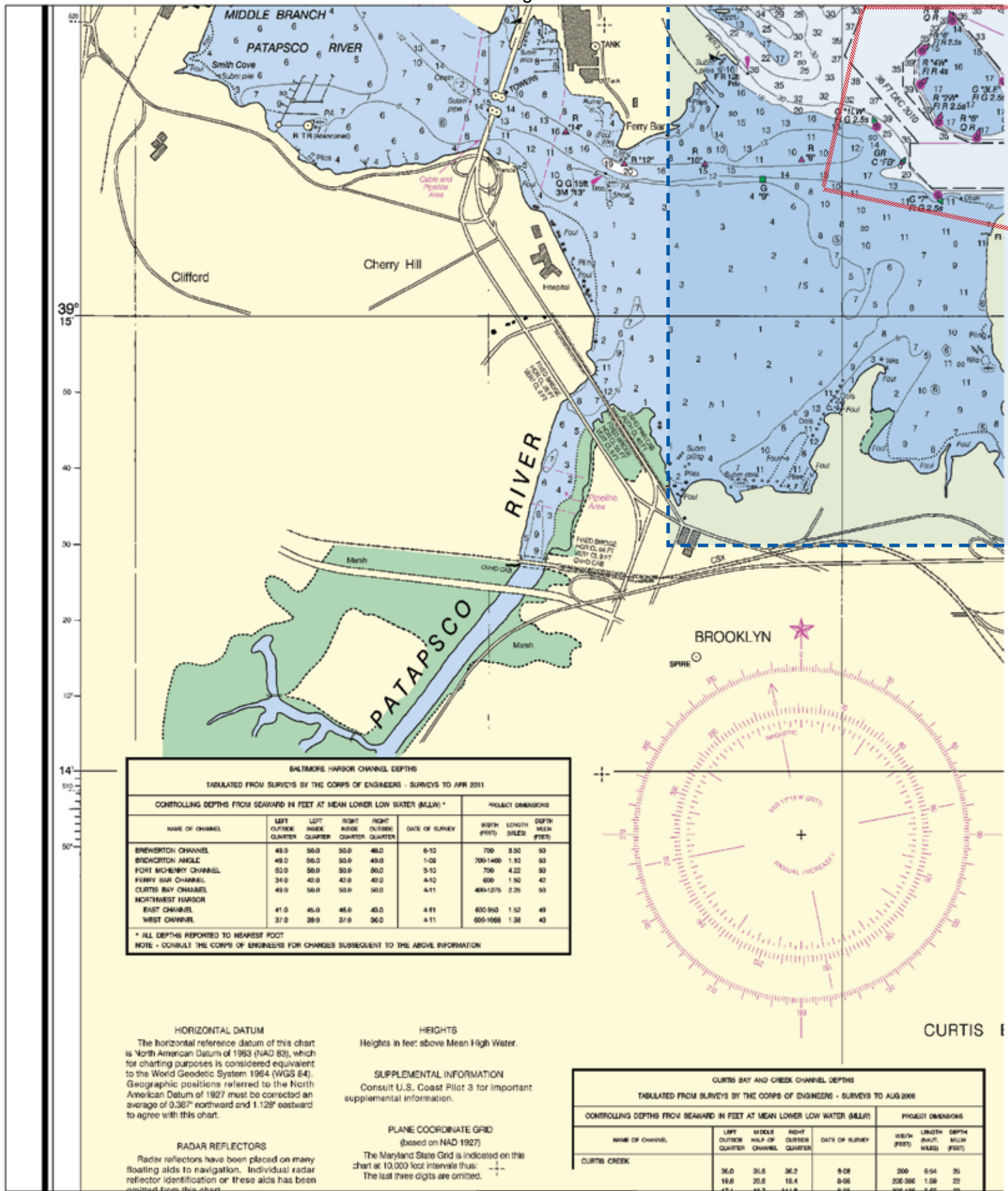
Printed at reduced scale. SCALE 1:15,000 See Note on Page 9
Nautical Miles



10



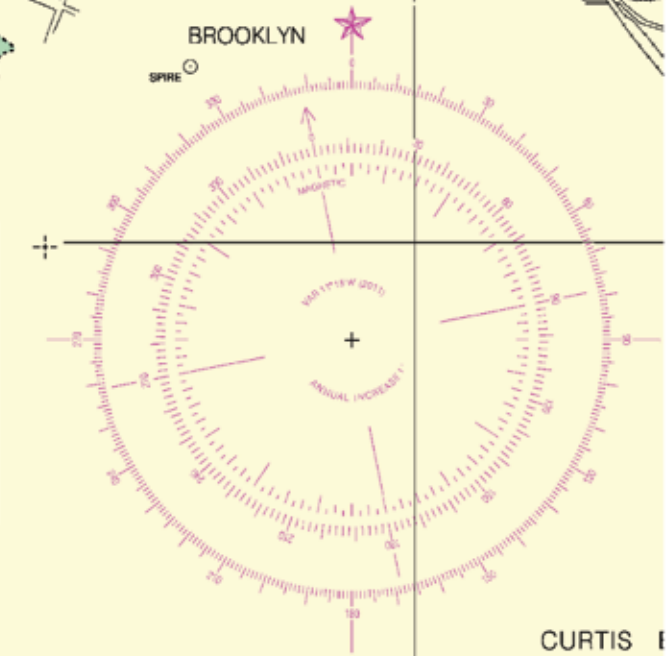
Joins Page 9



BALTIMORE HARBOR CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2011

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 MEAN (FEET)
BREKENTON CHANNEL	49.0	50.0	50.0	48.0	8-72	700	8.50	50
BREKENTON ANGLE	49.0	50.0	50.0	49.0	1-08	700-1400	1.82	50
FORT MCHENRY CHANNEL	52.0	50.0	50.0	50.0	3-72	700	4.22	50
FERRY BAY CHANNEL	34.0	42.0	42.0	42.0	4-52	600	1.92	42
CURTIS BAY CHANNEL	49.0	50.0	50.0	50.0	4-11	400-1275	2.25	50
NORTHWEST HARBOR								
EAST CHANNEL	41.0	45.0	45.0	45.0	4-11	600-960	1.92	49
WEST CHANNEL	37.0	39.0	37.0	36.0	4-11	600-1068	1.98	40

* ALL DEPTHS REPORTED TO NEAREST FOOT
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION



HORIZONTAL DATUM
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HEIGHTS
Heights in feet; above Mean High Water.

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

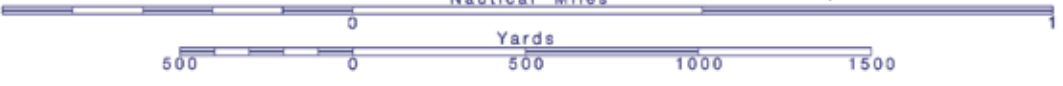
PLANE COORDINATE GRID
(based on NAD 1927)
The Maryland State Grid is indicated on this chart at 10,000 foot intervals thus: - - -
The last three digits are omitted.

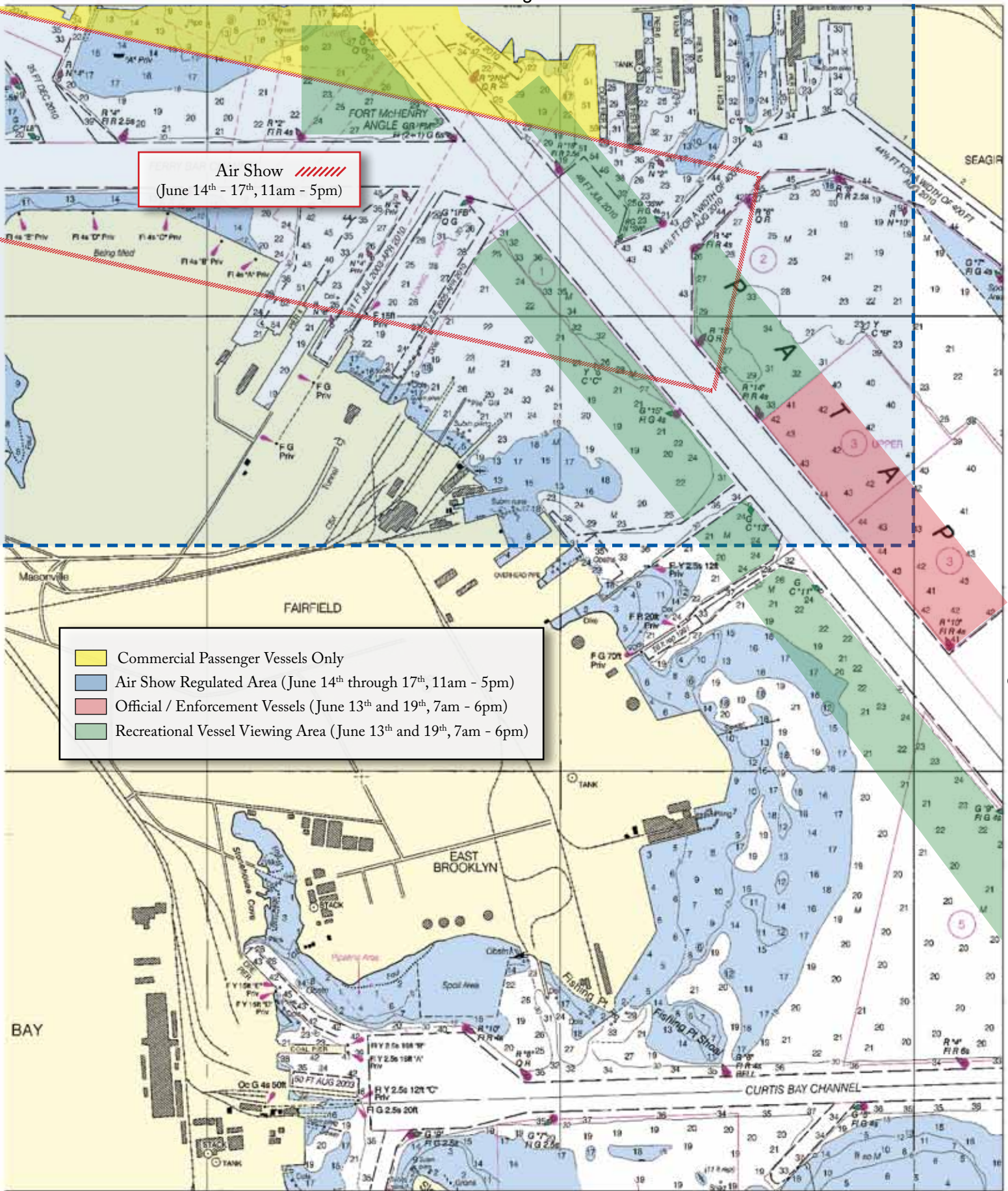
RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification or these aids has been omitted from this chart.

CURTIS BAY AND CREEK CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2006

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 (MILES)	DEPTH (FEET)
CURTIS CREEK	36.0	35.8	36.2	8-08	200	0.54	35
	18.0	20.8	18.4	8-08	200-300	1.00	22
	32.4	44.3	44.8	8-08	400-1200	4.00	35

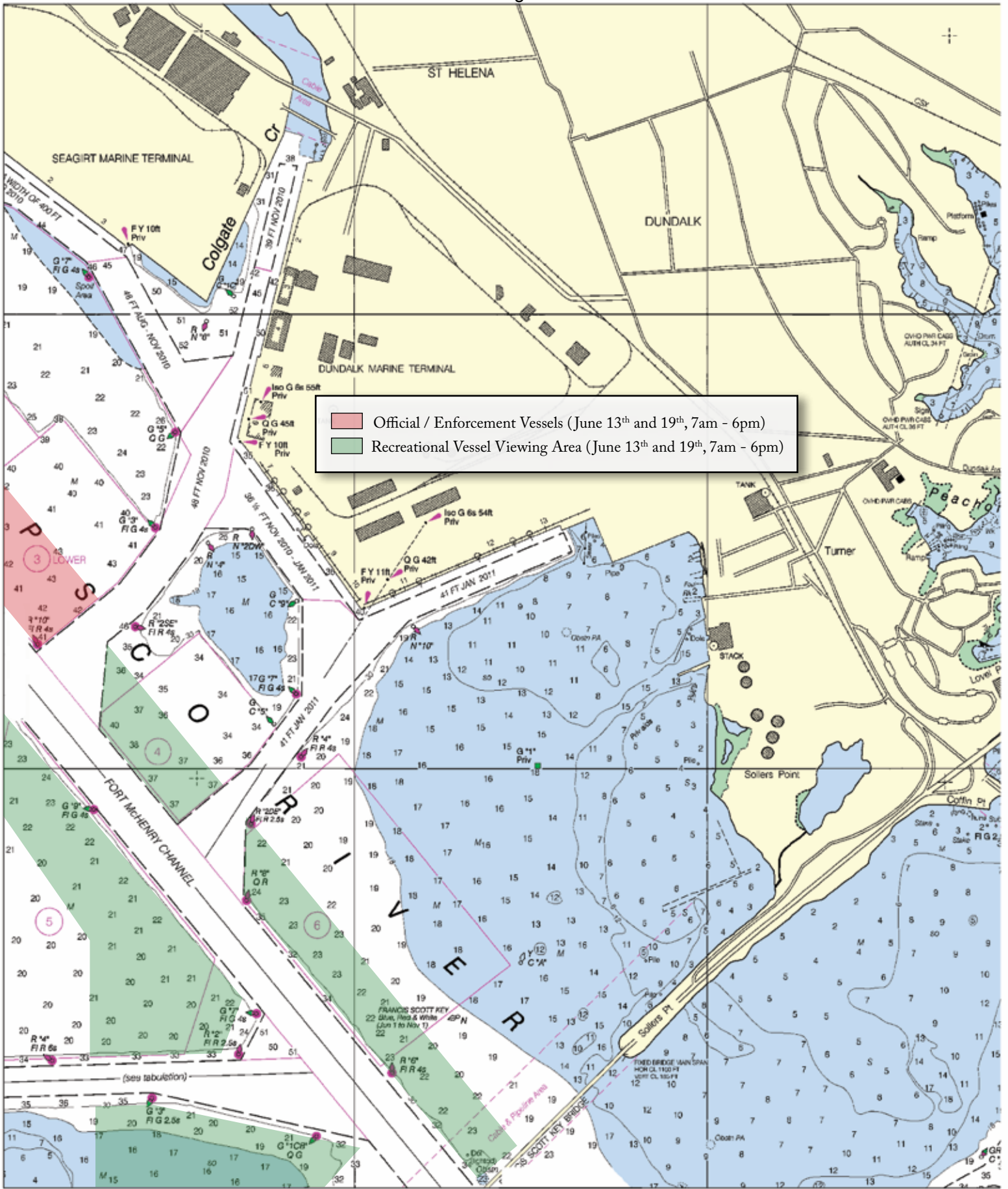
Printed at reduced scale. SCALE 1:15,000 Nautical Miles See Note on Page 9





Air Show (June 14th - 17th, 11am - 5pm)

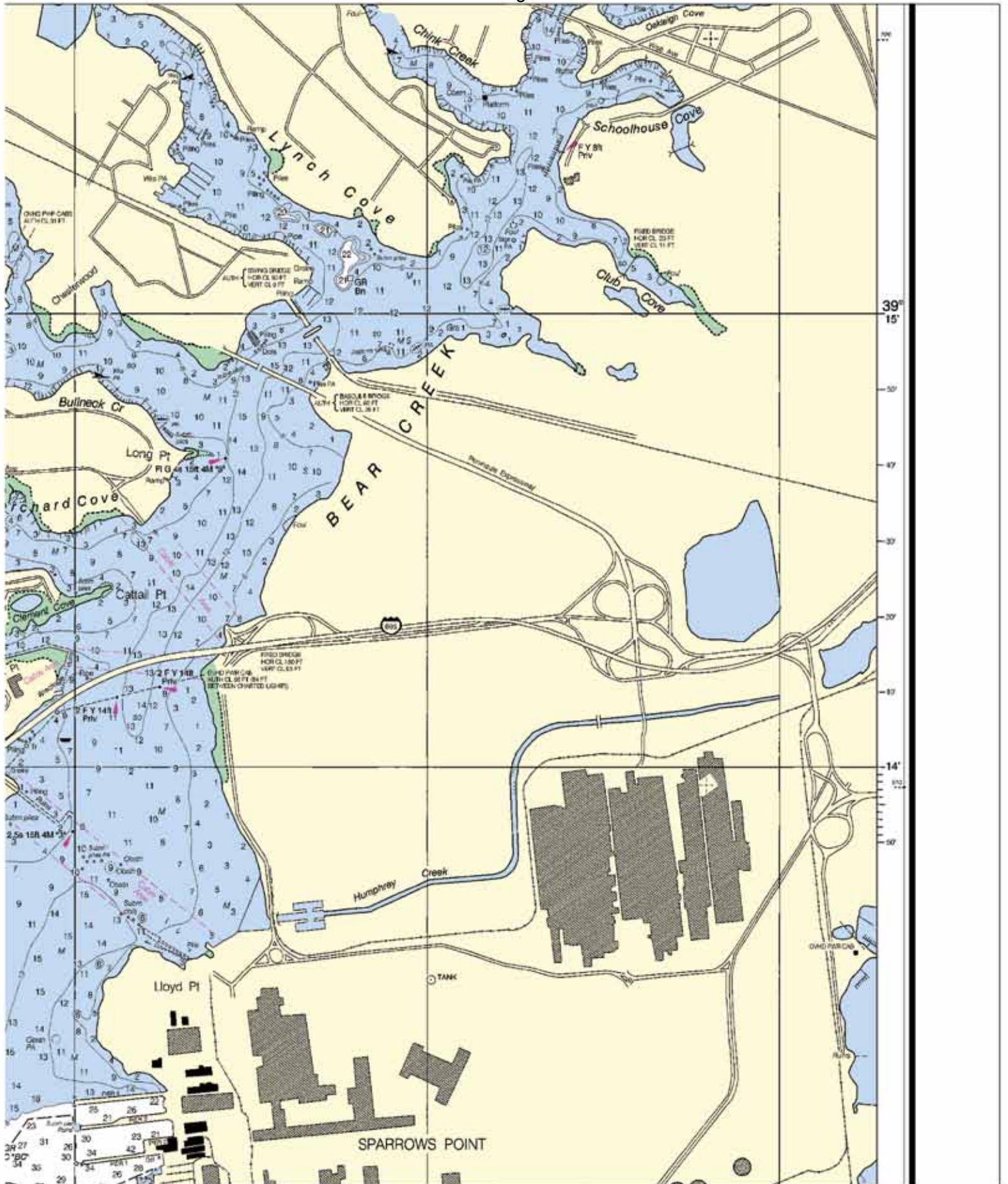
- Commercial Passenger Vessels Only
- Air Show Regulated Area (June 14th through 17th, 11am - 5pm)
- Official / Enforcement Vessels (June 13th and 19th, 7am - 6pm)
- Recreational Vessel Viewing Area (June 13th and 19th, 7am - 6pm)



Joins Page 13

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* ALL DEPTHS REPORTED TO NEAREST FOOT
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT

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 0.387' northward and 1.128' eastward to agree with this chart.

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification or these aids has been omitted from this chart.

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.

Baltimore, MD	KEC-63	162.400 MHz
Sudersville, MD	W0K-97	162.500 MHz
Washington, DC (Marassus, VA)	KHB-36	162.560 MHz

SMALL CRAFT WARNINGS

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

HEIGHTS

Heights in feet: above Mean High Water.

SUPPLEMENTAL INFORMATION

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

PLANE COORDINATE GRID

(based on NAD 1927)
The Maryland State Grid is indicated on this chart at 10,000 foot intervals thus: $\frac{1}{10}$
The last three digits are omitted.

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.

CURTIS BAY AND CREEK CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2006

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)			DATE OF SURVEY	PROJECT DIMENSIONS		
	LEFT OUTER QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTER QUARTER		WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH (FEET)
CURTIS CREEK							
LOWER REACH	36.0	35.8	36.2	8-08	200	0.54	35
MIDDLE REACH	19.8	20.8	18.4	8-08	206-306	1.59	22
UPPER REACH	17.1	16.7	14.8	8-08	206-106	0.55	22

A. EXCEPT FOR SHOALING TO 12.8 FT AT 39° 11' 42.0" N 76° 24' 10.2" W
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

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 Baltimore, Maryland.
Refer to charted regulation section numbers.

ANCHORAGE AREAS

110.158 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta



GENERAL ANCHORAGES

DEAD SHIP ANCHORAGE

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
Fort McHenry	(39°15'N/76°30'W)	1.7 feet	1.4 feet	0.2 feet

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> (May 2011)

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 moose code	R TR radio tower
Ai atomizing	IQ interrupted quick	N nun	Rct rotating
B black	Is isophas	CBSC obscured	S seconds
Bn beacon	LT HO lighthouse	Oc occulting	SEC sector
C can	M nautical mile	Or orange	St M statute miles
DA diaphone	m minutes	Q quick	VO very quick
F fixed	MICRO TR microwave tower	R red	W white
F flashing	Mr marker	Ra RaR radar reflector	WHIS whistle
		R Bn radiobeacon	Y yellow

Bottom characteristics:

Bls borders	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:

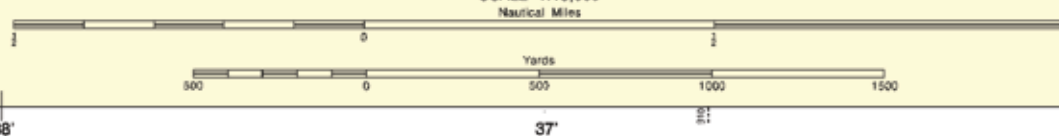
AUTH authorized	Obn obstruction	PD position doubtful	Subn submerged
ED existence doubtful	PA position approximate	Rsp reported	

(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 and U.S. Coast Guard.

SCALE 1:15,000



53rd Ed., Jul. / 11 ■ Corrected through NM Jul. 9/11
Corrected through LNM Jun. 28/11

12281

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 Notices to Mariners published after the dates shown in the lower left hand corner are available at nauccharts.noaa.gov.

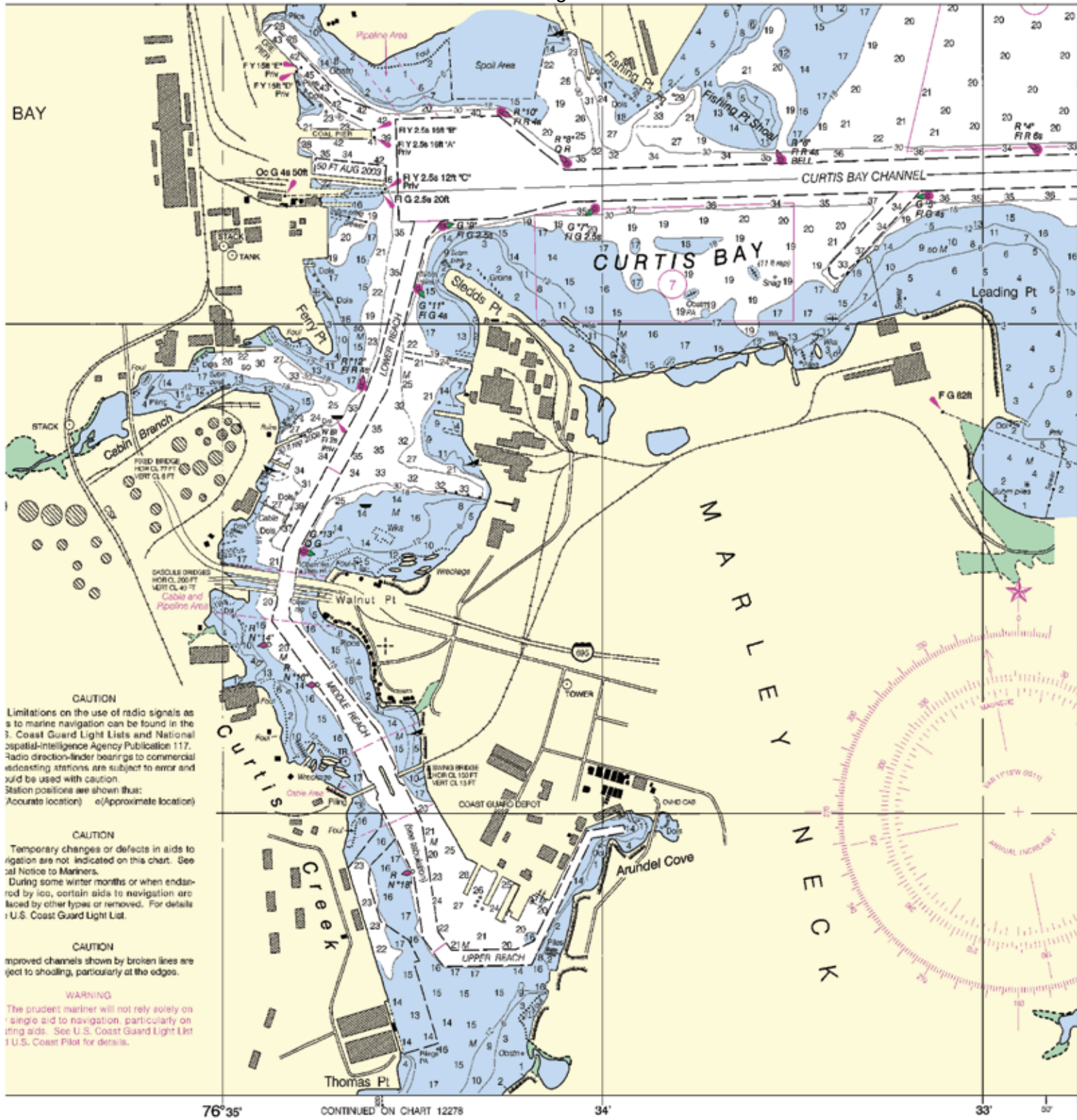
This nautical chart has been designed to promote safe navigation. Ocean Service encourages users to submit corrections, additions, or improvements to the Chief, Marine Chart Division (N/CSD), Service, NOAA, Silver Spring, Maryland 20910-3282.



Printed at reduced scale.

SCALE 1:15,000 Nautical Miles See Note on Page 9





CAUTION
 Limitations on the use of radio signals as aids to marine navigation can be found in the 7. Coast Guard Light Lists and National Spatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial radio stations are subject to error and should be used with caution. Station positions are shown thus: (Accurate location) (Approximate location)

CAUTION
 Temporary changes or defects in aids to navigation are not indicated on this chart. See the 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 the U.S. Coast Guard Light List.

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

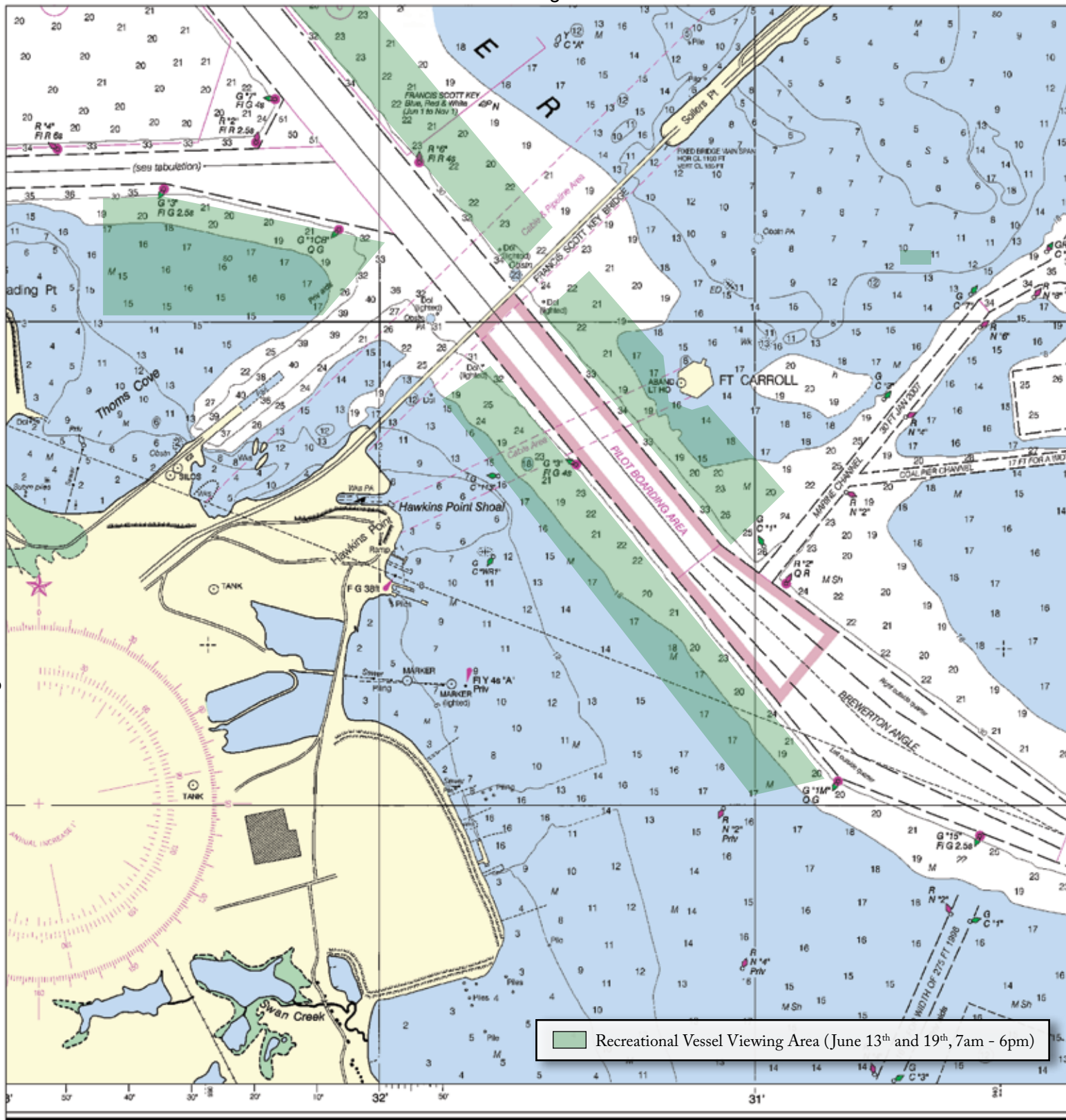
WARNING
 The prudent mariner will not rely solely on a single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

76°35' CONTINUED ON CHART 12278 34' 33' 30'

Publication, The National Oceanic and Atmospheric Administration, National Ocean Service

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 2-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at <http://ocadate.nod.noaa.gov/dra/inquiry.aspx>, or OceanGrafix at 1-877-59CHART or <http://www.oceangrafix.com>.

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 NATIONAL OCEAN SERVICE
 COAST SURVEY



Washington, D.C.
 DEPARTMENT OF COMMERCE
 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 U.S. COAST AND GEODETIC SURVEY

SOUNDINGS IN FEET

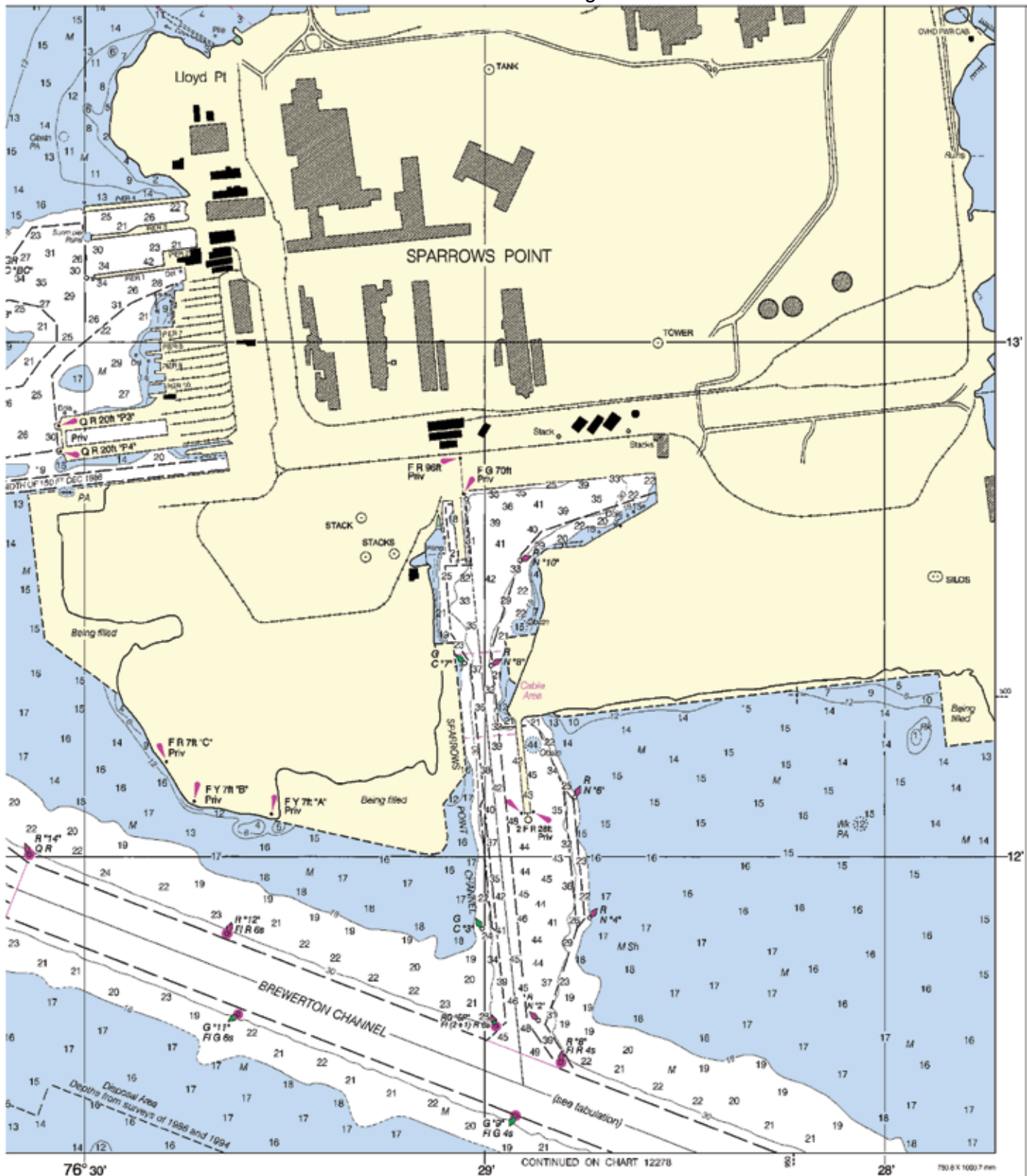
Joins Page 17

Printed at reduced scale. — SCALE 1:15,000 — See Note on Page 9
 Nautical Miles



18





ED. NO. 53

NSN 7642014010326
 NGA REFERENCE NO. 12AHA12281

76° 30' 29' 28' 750 811 1000 7 mm

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

Baltimore Harbor
 SOUNDINGS IN FEET - SCALE 1:15,000

12281

Star-Spangled Sailabration

2012 Boating Safety Message

Boat Responsibly

The upper Chesapeake Bay and its tributaries offer unlimited opportunities for you to enjoy Maryland's beautiful waters. You must invest the necessary time to educate yourself in safe boating practices before you go out on the water. You can do this by being knowledgeable of both federal and state boating laws. Remember, you are responsible for the safety of your vessel and your passengers.

Always Wear Your Life Jacket

Drowning is the number one cause of boating fatalities and the most preventable. The U.S. Coast Guard recommends you always wear a life jacket and require your passengers to do the same.

All recreational vessels must carry one wearable life jacket for each person on board. Any boat 16 feet or longer (except canoes and kayaks) must also carry one throwable (Type IV) device. Life jackets should be worn at all times when the vessel is underway. A life jacket can save your life, but only if you wear it.

Maryland law states that ALL CHILDREN under the age of 13 MUST WEAR a U.S. Coast Guard approved Personal Flotation Device (PFD - Type I, II, III or V) while underway on a recreational vessel under 21 feet in length on Maryland waters. Recreational vessels include motorboats, sailboats, canoes, kayaks, rowboats, and any other device capable of being used for transportation on the water, when the vessel is being used for other than commercial purposes. The life jacket must be the proper size for the child and must be in good and serviceable condition. A child under the age of 4 must wear a U.S. Coast Guard approved PFD which features additional safety precautions, as appropriate for an infant, toddler, or young child.

This requirement does not apply when a vessel is moored, anchored, or when the child is below deck or in an enclosed cabin.

Boating Under the Influence

BUI is just as deadly as drinking and driving! Every boater needs to understand the risks of boating under the influence of alcohol or drugs. It is illegal to operate a boat while under the influence of alcohol or drugs in every state. The Coast Guard also enforces a federal law that prohibits BUI. This law pertains to ALL boats (from canoes and rowboats to the largest ships). Penalties can include fines, suspension or revocation of boat operator privileges, and jail terms. The Coast Guard and Maryland cooperate fully in BUI enforcement to remove impaired boat operators from the waters. Don't let a great day on the water turn into a tragedy of a lifetime—BE RESPONSIBLE!

Create a Float Plan

Why should you take the time to prepare a float plan? The answer is simple—there are just too many facts that need to be accurately remembered and ultimately conveyed in an emergency situation. Without a float plan you are counting on someone else, a friend, neighbor, or family member to remember detailed information that rescue personnel need in order to find you—information that can make a difference in the outcome. A float plan is equally effective for the owner of a 10 foot kayak or flat-bottom skiff as it is for a 48-foot express cruiser, or a 90 foot sport-fishing vessel or luxury yacht. Typically, the Skipper of a vessel is the individual who prepares the float plan. However, any passenger can prepare a Float Plan. Make sure you complete a Float Plan before you go boating and leave it with a reliable person who you can depend upon to contact the Coast Guard, or other rescue organization, should you not return or check-in as planned. If you have a change of plans after leaving, be sure to notify the person holding your Float Plan.



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.

Mobile Phones — Call 911 for water rescue.

Coast Guard Search & Rescue 800-418-7314 / 410-576-2525

Maryland Natural Resources Police 410-260-8888

NOAA Weather Radio (MHz) — 162.400, 162.425, 162.450, 162.475, 162.500, 162.525, 162.550

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

Distress Call Procedures

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

HAVE ALL PERSONS PUT ON LIFE JACKETS!

NOAA CHARTING PUBLICATIONS

Official NOAA Nautical Charts – NOAA surveys and charts the national and territorial waters of the U.S., including the Great Lakes. We produce over 1,000 traditional nautical charts covering 3.4 million square nautical miles. Carriage of official NOAA charts is mandatory on the commercial ships that carry our commerce. They are used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters. NOAA charts are available from official chart agents listed at: www.nauticalcharts.noaa.gov

Official Print-on-Demand Nautical Charts – These full-scale NOAA charts are updated weekly by NOAA for all Notice to Mariner corrections. They have additional information added in the margin to supplement the chart. Print-on-Demand charts meet all federal chart carriage regulations for charts and updating. Produced under a public/private partnership between NOAA and OceanGrafix, LLC, suppliers of these premium charts are listed at www.oceangrafix.com

Official Electronic Navigational Charts (NOAA ENC[®]) – ENCs are digital files of each chart's features and their attributes for use in computer-based navigation systems. ENCs comply with standards of the International Hydrographic Organization. ENCs and their updates are available for free from NOAA at www.nauticalcharts.noaa.gov

Official Raster Navigational Charts (NOAA RNC[™]) – RNCs are geo-references digital pictures of NOAA's charts that are suitable for use in computer-based navigation systems. RNCs comply with standards of the International Hydrographic Organization. RNCs and their updates are available for free from NOAA at www.nauticalcharts.noaa.gov

Official BookletCharts[™] – BookletCharts[™] are reduced scale NOAA charts organized in page-sized pieces. The "Home Edition" can be

downloaded from NOAA for free and printed from www.nauticalcharts.noaa.gov/bookletcharts

Official PocketCharts[™] – PocketCharts[™] are for beginning recreational boaters to use for planning and locating, but not for real navigation. Measuring a convenient 13" by 19", they have a 1/3 scale chart on one side and safety, boating and educational information on the reverse. They can be purchased at retail outlets and on the Internet.

Official U.S. Coast Pilot[®] – The Coast Pilots are nine text volumes containing information important to navigators such as channel descriptions, port facilities, anchorages, bridge and cable clearances, currents, prominent features, weather, dangers, and Federal Regulations. They supplement the charts and are available from NOAA chart agents or may be downloaded for free at www.nauticalcharts.noaa.gov

Official On-Line Chart Viewer – All NOAA nautical charts are viewable here on-line using any Internet browser. Each chart is up-to-date with the most recent Notices to Mariners. Use these on-line charts as a ready reference or planning tool. www.nauticalcharts.noaa.gov/viewer

Official Nautical Chart Catalogs – Large format, regional catalogs are available for free from official chart agents. Page size, state catalogs are posted on the Internet and can be printed at home for free. www.nauticalcharts.noaa.gov/mcd/ccatalogs.htm

Internet Sites

www.nauticalcharts.noaa.gov

www.noaa.gov

www.tidesandcurrents.noaa.gov

www.nos.noaa.gov