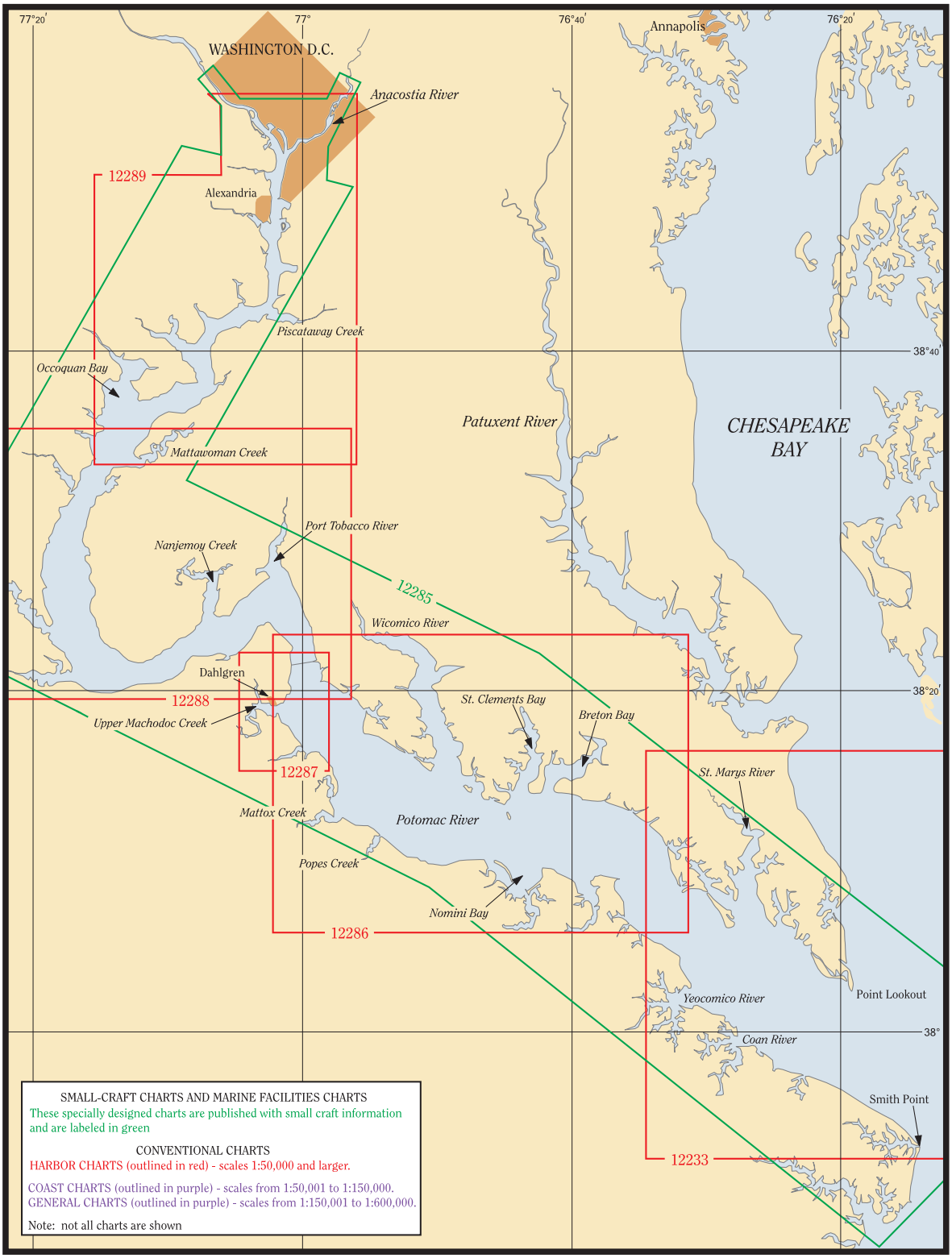
77°20′
77°
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38°
WASHINGTON D.C.
Annapolis
Anacostia River
12289
Alexandria
Piscataway Creek
Occoquan Bay
Patuxent River
CHESAPEAKE BAY
Mattawoman Creek
Port Tobacco River
Nanjemoy Creek
12285
Wicomico River
Dahlgren
12288
Upper Machodoc Creek
St. Clements Bay
Breton Bay
12287
St. Marys River
Mattox Creek
Potomac River
Popes Creek
Nomini Bay
12286
Yeocomico River
Point Lookout
Coan River
Smith Point
12233
SMALL-CRAFT CHARTS AND MARINE FACILITIES CHARTS
These specially designed charts are published with small craft information and are labeled in green
CONVENTIONAL CHARTS
HARBOR CHARTS (outlined in red) - scales 1:50,000 and larger.
COAST CHARTS (outlined in purple) - scales from 1:50,001 to 1:150,000.
GENERAL CHARTS (outlined in purple) - scales from 1:150,001 to 1:600,000.
Note: not all charts are shown

Chesapeake Bay, Potomac River

(1) This chapter describes the Potomac River and the numerous tributaries that empty into it; included are Coan, St. Marys, Yeocomico, Wicomico, and Anacostia Rivers. Also described are the ports of Washington, D.C., and Alexandria, and several smaller ports and landings on these waterways.

COLREGS Demarcation Lines

(2) The lines established for Chesapeake Bay are described in **80.510,** chapter 2.

Charts 12233, 12286, 12288, 12289, 12285

(3) **Potomac River** flows into the west side of Chesapeake Bay 68.4 miles above the Virginia Capes. The west bank of the river, generally, is the boundary between Virginia on the west and Maryland on the east, and at the head of tidewater on the east bank is the city of Washington, D. C., the Nation's Capital.

(4) Hains Point at the junction of Anacostia River and the Washington and Georgetown Channels is 94.6 miles above the mouth of the Potomac. The head of tidewater navigation is at Chain Bridge, Washington, 101 miles above the mouth. The widest point of the river, 6.4 miles, is 11 miles above its mouth (see chart 12233).

(5) **Mileages** on Potomac River in this chapter, such as Mile 13E, Mile 41W, and Mile 51N, are the nautical miles above the midchannel entrance point which is 4.8 miles northwest of Smith Point on a line between Smith Point and Point Lookout; that point is 68.4 miles above the Capes. The letters N, S, E, or W following the mileage numbers denote by compass points the side of the river where each feature is located.

(6) It is to be understood that the mileages given are approximations. The values are not intended to be finite. The intended degree of accuracy is only supposed to be enough to put the user of the chart into the general vicinity of the cited object, for the purpose of him locating the object.

(7) Traffic on the river consists chiefly of petroleum products; sand, gravel, and crushed rock; and some newsprint and fertilizers. Drafts of vessels navigating the river usually do not exceed 20 feet.

Channels

(8) The Federal project depth is 24 feet for Potomac River from the mouth to Hains Point. Channel depths of 38 feet or more are available to Ragged Point, 20 miles above the mouth; thence the controlling depth through the dredged cuts is about 18 feet to Hains Point. The channels are maintained at or near project depths. (See Notice to Mariners and latest editions of the charts for controlling depths.)

Anchorages

(9) Vessels bound up or down the river anchor anywhere near the channel where the bottom is soft; vessels sometimes anchor in Cornfield Harbor or St. Marys River. (See chart 12233.) Above Alexandria, vessels usually go to the wharves; there is little or no anchorage for anything but small craft. Near the mouth of the river, small craft can find secure anchorage in most of the tributaries; Smith Creek (see chart 12233) is said to have best protection from all winds.

(10) **Fishtrap areas** extend upriver from the mouth to St. Clements Island. Limits of the areas are shown on charts 12233 and 12286. Mariners are warned that numerous uncharted duck blinds and fishing structures, some submerged, may exist in the fishtrap areas; such structures are not charted unless known to be permanent.

(11) Numerous markers, established and maintained by the Potomac River Fisheries Commission, mark the Maryland and Virginia jurisdictional fishing boundaries on both sides of the Potomac River from Chesapeake Bay to Mattawoman Creek at Mile 71.5E in Maryland, and Occoquan Bay at Mile 73.8W in Virginia, and at the entrances to many of the bays and rivers.

(12) The markers are pile structures with white square daymarks with orange borders and identifying black letters "PRM", "PRV", and numbers.

Danger zones and restricted area

(13) The Potomac River and its tributaries are used extensively by the military establishments for testing operations and gunnery practice. (Limits and regulations for these areas are given in **334.230, 334.240, and 334.250,** chapter 2.)

Tides

(14) The mean range of tide is about 1.3 feet at the mouth of the river, 1.8 feet in the vicinity of St. Clements Island, 1.1 feet at Maryland Point, 1.8 feet at Indian Head, and 2.9 feet at Washington. Above Washington, the river is tidal as far as Chain Bridge. The tides are influenced by the force and direction of the wind and by freshet conditions, and may at times vary considerably. Daily predictions for Washington, D.C. are given in the Tide Tables.

Currents

(15) The current in Chesapeake Bay off the mouth of Potomac River can be hazardous to smaller vessels and pleasure boats at ebb tide, and when wind and current are opposed, and with northwest winds. These conditions are more pronounced off Smith Point. The currents in the Potomac River follow the general direction of the channel. The velocities vary throughout the river and are influenced by wind and freshets. There may be little or no flood current during freshets.

(16) The current velocity is weak in the lower part of the river between the entrance and Piney Point, averaging less than 1.0 knot. (See Tidal Current Tables for predictions.)

Ice

(17) During severe winters the tributaries of the Potomac are closed by ice and the river is frozen over to Cedar Point; the upper part is then closed to navigation. During ordinary winters the powered vessels plying the river keep the channel open.

(18) When threatened by icing conditions, certain lighted buoys may be replaced by lighted ice buoys with reduced candlepower or by unlighted buoys, and certain unlighted buoys may be discontinued. (See Light List.)

Freshets

(19) **Freshets** occur at irregular intervals, but usually do not interfere with navigation below Alexandria unless accompanied by floating ice.

Pilotage, Potomac River

(20) Pilotage is compulsory on the Potomac River for foreign vessels and U.S. vessels under register in the foreign trade. Pilotage is optional for U.S. vessels in the coastwise trade who have on board a pilot licensed by the Federal Government for these waters.

(21) The Chesapeake and Interstate Pilots Association offers pilot services to U.S. vessels, engaged in the coastwise trade, and public vessels to Piney Point. Arrangements for pilots may be made through ships' agents or the pilot office in Norfolk (telephone, 757-855-2733). Pilots will meet vessels entering from sea at Cape Henry (discussed in chapter 9), and will meet a vessel at its port if it is on the Chesapeake Bay and its tributaries or Delaware Bay and River and provide all pilot services directly to the Potomac River. Pilots may meet vessels off the Patuxent River or off the mouth of the Potomac River with sufficient coordination. Contact the pilot office for information.

(22) The Virginia Pilots Association offers pilotage to any vessel bound for a port in Virginia or Washington, D.C. The Association of Maryland Pilots offers pilotage to any vessel bound for a port in Maryland or Washington, D.C. (See Pilotage, chapters 3 and 9.)

Charts 12233, 12285

(23) **Potomac River** is entered between Smith Point and Point Lookout; the width of the entrance, normal to the channel, is about 5 miles.

(24) The **fishtrap** areas in the lower river are shown on the charts.

Danger zones

(25) **Danger zones** for military testing operations extend from the mouth of the river to about 4 miles above the Potomac River Bridge, Mile 43.4. (Limits and regulations are given in **334.230,** chapter 2.) When military firing operations are in progress in the danger zones, range patrol boats with white hulls and international orange superstructures, and shoreline spotters, are stationed near the firing areas. The range patrol boats display a square red flag during daylight hours and an all-round red light from the mast at night. Surface traffic on the range is controlled by the range patrol boats and the shoreline spotters on VHF-FM channel 16.

(26) **Smith Point**, the southerly entrance point, is low and inconspicuous. A shoal area that extends eastward from the point has depths as little as 8 feet 2 miles from shore; a buoy marks the northeast edge of the shoal.

(27) **Smith Point Light** (37°52'47"N., 76°11'01"W.), 52 feet above the water, is shown from a white square brick tower and octagonal dwelling on a brown cylindrical pier about 2.5 miles east-southeast of the point; a fog signal is at the light. A lighted bell buoy 1.5 miles from the light marks the separation lane of the **Traffic Separation Scheme (Smith Point)** for the bay ship channel. (See chart 12225.) The Scheme discussed in chapter 9.

(28) **Little Wicomico River**, used by local fishermen and pleasure craft, empties into the Potomac River and Chesapeake Bay at Smith Point. A marked dredged channel leads from the Potomac River and Chesapeake

Bay junction through a jettied entrance to a marked natural channel in the river. In July 2006, the controlling depth was 2.5 feet in the entrance channel. A depth of about 6 feet can be carried for 4 miles upriver with local knowledge. The approach to the river is marked by a light. A daybeacon and a light are on the ends of the north and south jetties, respectively, and daybeacons mark the upper reaches of the river to a point about 3 miles above the entrance. The entrance is subject to shoaling due to the strong current between the jetties; mariners are advised to exercise caution.

(29) **Slough Creek**, marked by daybeacons, empties into the south side of Little Wicomico River about 0.6 mile above the entrance. A small-craft facility on the east side of the creek can provide gasoline, diesel fuel, water, ice, berths with electricity, a pump-out station and some marine supplies. The approach depth was reported as 4.5 feet with an alongside depth of 6 feet. Hull and engine repairs are available; lift capacity, 12 tons.

Cable ferry

(30) A cable ferry crosses Little Wicomico River at **Sunnybank,** 1.5 miles above the entrance. The ferry carries passengers and vehicles. The ferry operates between the hours of 0700 and 1900, Monday through Saturday, and 0700 to dark during the winter months. When the ferry is underway, the unmarked cable is suspended about 3 feet above the water surface, and is dropped to the bottom when not underway. **DO NOT ATTEMPT TO PASS A MOVING CABLE FERRY.**

Small-craft facility

(31) A small-craft facility on the north side of the river about 3.6 miles above the entrance can provide water, berths and marine supplies. A marine railway at the facility can handle craft up to 50 feet for hull, electronic and engine repairs; lift capacity, 20 tons.

(32) **Point Lookout**, the northerly entrance point of Potomac River, is low, but well marked by a 195-foot lighted communications tower, and several buildings. The shoal that extends about 1 mile southward from the point is marked by **Point Lookout Light** (38°01'30"N., 76°19'25"W.), 39 feet above the water, shown from a skeleton tower with a black and white diamond-shaped daymark on a pile structure.

(33) **Cornfield Harbor**, just inside Point Lookout, is sheltered from northerly and northeasterly winds; vessels bound up and down the bay frequently use it as an anchorage for the night. The shoaling is gradual, except off **Cornfield Point** and at the south end of the shoal that extends southward from Point Lookout; at these places the hard sand bottom drops off abruptly. An 18-foot spot, and rocks covered 16 and 17 feet, are about 0.7 mile westward from Point Lookout, and a 10-foot spot lies between them and the Point Lookout shore.

(34) **Lake Conoy** is 0.8 mile north-northwest of Point Lookout. The lake is entered from Cornfield Harbor through a private channel marked by a light and daybeacons; in 1976, the reported controlling depths were 8 feet in the entrance and 6 feet in the basin and alongside the piers. The east side of the lake is the site of **Point Lookout State Park.** The State boating facility on the east shore of the lake has gasoline, water, ice, limited marine supplies, and a sewage pump-out station. No overnight berthing is permitted; anchorage in the basin is allowed in an emergency.

(35) **Coan River** (38°00.0'N., 76°27.0'W.), Mile 7.8S, has depths of 13 to 7 feet for 4.5 miles to within 0.5 mile of the head. The river is used mostly by local oyster and fish boats. A 500-yard lane in the approach is kept clear of fishtraps; the initial course through the lane is **230**°. The entrance to Coan River is marked by buoys and lights, and is easy to navigate; the channel inside is marked at the critical points by daybeacons and bush stakes. In November 1984, shoals in the vicinity of Daybeacon 12 had reportedly reduced the channel width to about 30 feet. In 1979, shoaling to an unknown extent was reported in the channel about 200 yards eastward of Daybeacon 10 and about 200 yards eastward of the small point about midway between Daybeacons 14 and 16. The mean range of tide is 1.2 feet at the entrance.

(36) **Kingscote Creek**, on the north side of Coan River 0.6 mile above the mouth, has depths of 8 feet for most of its 1-mile length. A shoal extends halfway across the entrance from the point on the west side. Gasoline, diesel fuel, water, ice, berths, and some marine supplies are available at the small-craft facilities on the east side of the creek at **Lewisetta.** Hull and engine repairs can be made.

(37) **The Glebe**, on the west side of Coan River 0.7 mile above the mouth, has depths of 9 to 13 feet to the forks 1.5 miles above the entrance. The channel in The Glebe is clear except for a shoal that extends well off from the point on the south side 0.6 mile above the entrance.

(38) **Stevens Point** is on the west side of Coan River 1 mile above the mouth. The boatyard on the south side makes hull and engine repairs; lift capacity, 25 tons. Gasoline, diesel fuel, ice, water, berthing with electricity and some supplies are available.

(39) The grain wharf at **Bundick,** on the west side of Coan River 3.4 miles above the mouth, has depths of 9 feet at the outer end. **Coan** wharf, directly across the river from Bundick, is in ruins. The overhead power cable from Coan to Bundick has a clearance of 60 feet.

(40) **Smith Creek**, Mile 8.5N, is used by many small fishing and pleasure boats, and has the best protection along this part of the river from all winds. A depth of about 8 feet is available over the bar to the junction of the two main branches, 1.5 miles above the entrance light. The entrance is well marked. The lane through the fishtraps can be navigated on a course of **355°.**

(41) **Wynne**, on the east side of the entrance to Smith Creek, has fish wharves with depths of 5 to 10 feet at their outer ends. Small-craft facilities on the east side of the creek, just above the entrance, can provide gasoline, diesel fuel, water, ice, berths, and marine supplies. Hull and engine repairs can be made. Largest haul-out capacities; marine railway, 200 feet; lift, 35 tons.

(42) **St. Marys River**, Mile 9.7N, is 2 miles wide at the entrance and about 600 yards wide at St. Marys City, 5.5 miles up. The channel has depths of 20 feet or more to St. Marys City, then shoals gradually to 12 feet at **Martin Point** and to 8 feet at **Tippity Wichity Island,** 8 miles above the mouth. St. Marys River is sometimes used as an anchorage by the deeper draft vessels seeking shelter from heavy gales, but small boats prefer Smith Creek. The river has very little traffic other than local fishing craft. The course through the fishtraps off the entrance is **345°.** The mean range of tide is about 1.5 feet.

(43) **St. George Island**, on the west side of the entrance to St. Marys River, is long, low, and sparsely wooded. The island is thickly settled, mostly by oystermen and fishermen, and is used to some extent as a summer resort. **St. George Bar** extends 1.3 miles southeastward from the island; a lighted buoy is about 1 mile southeastward of the outer end of the bar.

(44) **Island Creek**, on the southeast end of St. George Island, is entered by a marked dredged channel which leads to fishing piers and a turning basin inside. In 1994, the channel had a controlling depth of 2½ feet with 5 feet in the basin.

(45) **St. George Creek**, which joins St. Marys River along the northeast side of St. George Island, has a narrow, crooked channel with depths of about 9 feet for 3.5 miles; the channel is marked for about 2.8 miles. In 1970, shoaling was reported in the creek, about 0.2 mile northwest of Light 7; extent of shoaling not known. The creek is used extensively by oystering and fishing boats, and by pleasure craft.

(46) A marked channel enters St. George Creek at the north end of St. George Island. The fixed bridge over the channel has a width of 35 feet and a clearance of 17 feet. Overhead power cables on both sides of the bridge have a clearance of 29 feet. In June 1983, the channel had a controlling depth of 2 feet.

(47) The town of **Piney Point,** on the west side of St. George Creek 2.5 miles above the mouth, has several private wharves with depths of 5 to 8 feet.

(48) At **Morgan Point,** on the west side of St. George Creek 3.5 miles above the mouth, is a boatyard where hull repairs can be made; marine railway, 40 feet. Gasoline, water, and berths are available.

(49) **Carthagena Creek** enters the west side of St. Marys River about 3 miles above the mouth. The creek, marked by daybeacons and a light, is used chiefly by pleasure craft. A marina at **Dennis Point,** on the east shore of the creek about 1.1 miles above the mouth can provide berthing with electricity, gasoline, diesel fuel, ice, water, a pump-out station and marine supplies. The reported approach depth was 12 feet with an alongside depth of 10 feet. Hull and engine repairs can be made; lift capacity, 25 tons.

(50) **St. Inigoes Creek** enters the east side of St. Marys River about 3.5 miles above the mouth. Depths of 11 feet can be carried to the junction of St. Inigoes Creek and **Church Cove,** 1.3 miles above the mouth. The creek is unmarked.

(51) **Molls Cove** is on the east side of the creek, 0.6 mile above the mouth. **St. Inigoes Coast Guard Station** is on the west side of its entrance.

(52) **St. Marys City**, at **Church Point**, on the east side of St. Marys River 5.5 miles above the mouth, was the original capital of Maryland. Few traces of the original town remain, but the statehouse was reconstructed in 1934 from the ruins of several other buildings nearby. A landing on the south side of the point has a depth of about 9 feet at the outer end.

(53) **Yeocomico River**, Mile 10.2S, has depths of 19 to 12 feet to the forks 1.4 miles above the entrance. Lights mark the channel to the forks and bush stakes mark the edges of the tributary channels. The initial course through the fish stakes off the entrance is **244°.** The mean range of tide is 1.3 feet at the entrance and 1.2 feet at Kinsale.

(54) There are small-craft facilities on the east side of **Shannon Branch**, the north fork of Yeocomico River, and one is on the south side of **White Point Creek**, the westerly arm of Shannon Branch. Gasoline, diesel fuel, water, ice, berthing with electricity and a pump-out station are available. Hull and engine repairs can be made. A 70-foot marine railway and lift to 50 tons are available in White Point Creek.

(55) **West Yeocomico River**, the west fork, has depths of 13 to 7 feet to **Kinsale**, on the southwest side 1.7 miles above the entrance. The fixed highway bridge at Kinsale has a width of 29 feet and a clearance of 8 feet. The bulkhead wharf has depths of 10 feet alongside; the grain elevators on the wharf are prominent. Water, ice,

berthing with electricity and some marine supplies can be obtained at a marina at Kinsale.

(56) **South Yeocomico River**, the south fork, has depths of 13 to 7 feet to **Lodge,** on the west side of **Lodge Creek** 2 miles above the entrance of the south branch. An overhead power cable with a clearance of 50 feet crosses Lodge Creek about 2.4 miles above the entrance. The fish wharf at **Mundy Point,** on the west side of the entrance, has depths of 6 feet at the wharf. Several small landings on the south side of the point have depths of 9 feet at their outer ends.

(57) **Harryhogan Point** is on the west side of South Yeocomico River 1 mile south of the entrance. The marine railways at the settlement can handle vessels up to 80 feet. The north landing at the cannery has depths of 9 feet alongside, and the south landing has depths of 5 feet. The lumber-mill landing 0.2 mile southwestward has depths of 7 feet alongside.

Small-craft facilities

(58) Small-craft facilities are on the south side of Harryhogan Point and on the east side of Lodge Creek. Gasoline, diesel fuel, berths, electricity, water, ice, pump-out station, storage, launching ramp, and marine supplies are available. Hull and engine repairs can be made. The largest marine railway in the area can handle craft up to 80 feet; a 50-ton lift is available.

(59) **Piney Point** (38°08.1'N., 76°31.8'W.) is at Mile 15.9N. An abandoned lighthouse tower and a former Coast Guard station are on the point. The former Coast Guard wharf and the small private landings east of Piney Point have depths of about 5 feet at their outer ends. Gasoline and some supplies are available at a dock about 1 mile northeast of the point.

(60) A prominent T-head pier of an oil company extends 1,000 feet southwestward from Piney Point. The pier, marked by private lights, has depths of about 35 feet along its 684-foot outer face. The pier is owned and operated by L. P. Steuart Co.

(61) **Immigration, quarantine**, and **customs** officials come from Baltimore upon notification by the maritime exchange that tankers are due at Piney Point; vessels are boarded at the pier.

Charts 12286, 12285

(62) Limits of the **fishtrap** areas that extend upriver as far as St. Clements Island are shown on the charts.

Danger zones

(63) **Danger zones** for military testing operations extend upriver to about 4 miles above the Harry W. Nice (Potomac River Bridge) Bridge (U.S. Route 301), Mile 43.4. (See **334.230,** chapter 2, for limits and regulations.)

(64) **Bonum Creek** (38°05.7'N., 76°34.1'W.), Mile 16.0S, is entered from the Potomac River by a dredged channel which leads through jetties to an anchorage basin 0.4 mile inside. In September 1999, the controlling depth was 1.8 feet with 6.9 to 7.9 feet in the basin. A light and daybeacons mark the channel to the basin. The creek is used chiefly by fishing craft.

(65) **Herring Creek**, Mile 18.7E, is entered by a marked dredged channel and is protected on both sides of the entrance by jetties. In July 1991, the controlling depth in the entrance channel was 4½ feet; depths inside are 9 to 1 feet. Lights mark the outer ends of the jetties. A marina, on the south side of the entrance, has gasoline, diesel fuel, berths, electricity, water, ice, launching ramp, storage, and some marine supplies. Hull and engine repairs can be made with a 30-ton lift. A fish pier with 6 feet at the outer end is just east of the marina fuel pier. Another marina is on the south side of the creek 1.2 miles above the entrance; depths of 5 feet are reported alongside the piers. Gasoline, berths, electricity, water, ice, pump-out station, storage, launching ramp, and limited supplies are available. Hull, engine, and electronic repairs can be made with a 25-ton lift.

(66) A shoal extends 0.5 mile offshore from **Ragged Point,** at Mile 19.1S. A light is near the outer edge of the shoal.

(67) **Lower Machodoc Creek**, Mile 21.7S, has depths of 15 to 11 feet for 2 miles, thence the depths decrease to 4 feet at a point 4 miles above the entrance. The critical points are marked as far as the narrows 2.2 miles from the entrance; the shoals are usually bush-staked.

(68) **Branson Cove**, on the east side of Lower Machodoc Creek 1 mile above the entrance, is entered by a marked dredged channel which leads to a boat basin inside. In 1983, the controlling depth was 6 feet to the basin; thence depths ranging from 1½ feet at the edge to 7 feet in the middle were available in the basin. **Coles Point**, the village along the north shore of the cove, has piers with depths of about 6 feet at the outer ends. A large oyster-packing plant is on the north side of the entrance to the cove. Small-craft facilities in the cove can provide gasoline, diesel fuel, water, ice, berths, and marine supplies. Hull and engine repairs can be made.

(69) **Nomini Bay**, Mile 25S, has depths of 20 to 15 feet in the middle, and is the approach to Nomini Creek and Currioman Bay. The shoaling is abrupt on the east side of the bay and gradual on the west side.

(70) **Nomini Creek** is entered through a dredged channel that extends about 1.2 miles above the entrance to Hickory Point. The channel is well marked by lights

and daybeacons. There is a long jetty on the east side of the entrance to the creek. In February 1992, the controlling depths were 7 feet in the east half and 5½ feet in the west half of the channel to about Light 5, thence 8½ feet to the end of the project. Depths of about 5 feet may be carried to the second bridge, 5 miles above the entrance, thence 3 feet for 0.5 mile. The mean range of tide is 1.5 feet. Traffic on the creek consists chiefly of seafood and fertilizer.

(71) Mariners should be alert for unmarked fishtrap structures in Nomini Creek.

(72) The highway bridge at **Nomini**, about 3.5 miles above the entrance, has a 45-foot fixed span with a clearance of 18 feet. The fixed highway bridge at **Prospect Hill**, 5 miles above the entrance, has a 30-foot span with a clearance of 10 feet.

(73) **Currioman Bay** is separated from the west side of Nomini Bay by **Hollis Marsh,** a narrow 2-mile-long spit which is wooded in the middle. Currioman Bay has depths of 7 to 10 feet in the entrance from the head of Nomini Bay and in most of the area back of Hollis Marsh; the entrance from Potomac River at the northwest end of Hollis Marsh has depths of only 2 to 3 feet. The entrance from Nomini Bay is marked by buoys and a daybeacon.

(74) **Breton Bay**, Mile 25.2N, is a favorite anchoring ground for yachts. Commercial traffic consists chiefly of petroleum products. Drafts using the bay are mostly 6 feet or less, but occasionally vessels drawing up to 11 feet come inside.

(75) The bay has depths of 15 to 11 feet for 4.5 miles, thence about 5 feet to Leonardtown, 5 miles above the entrance.

(76) A 1,000-yard lane extends through the fishtraps off the entrance to Breton Bay; the initial course through the lane is **352°.** The shoal that extends eastward from Heron Island Bar to the Breton Bay approach is marked by an obstruction buoy, and another shoal that extends southwestward from **Huggins Point,** on the east side of the entrance, is marked by a light near its outer end. Daybeacons and lights mark the bay channel to within 0.5 mile of Leonardtown. The mean range of tide is 1.7 feet at Leonardtown.

(77) **Combs Creek,** on the north side and 1.6 miles above the mouth of Breton Bay, had a reported controlling depth of 5 feet along the middle of the creek in September 1980. The narrow entrance is between shoal spits marked by daybeacons and stakes. Ice, water, a pump-out station, some marine supplies and berthing with electricity are available. The marine railways on the west side of the creek can handle boats up to 60 feet for hull and engine repairs; lift capacity, 20 tons.

(78) A channel with a controlling depth of 6 feet, marked by piles, leads into the bight just southwestward of the entrance to Combs Creek. Gasoline, berths, and some supplies can be obtained.

(79) **Lovers Point** is on the east side of Breton Bay 3 miles above the mouth. A bar with depths of less than 1 foot extends 500 yards northwestward from the point and is marked at its outer end by a light.

(80) **Buzzard Point** is on the west side of Breton Bay 4.5 miles above the mouth. A light marks the outer end of a bar that extends off the point.

(81) **Leonardtown** is on the north side of Breton Bay 5 miles above the mouth.

(82) **St. Clements Island** is at Mile 27.0N. Near the south end of the thinly wooded island is a prominent cross which commemorates the first Catholic mass by English settlers in America on March 25, 1634. Shoals extend from the island in all directions. The long pier on the northeast side of the island has a depth of about 16 feet at the outer end; supply and fishing boats use the pier.

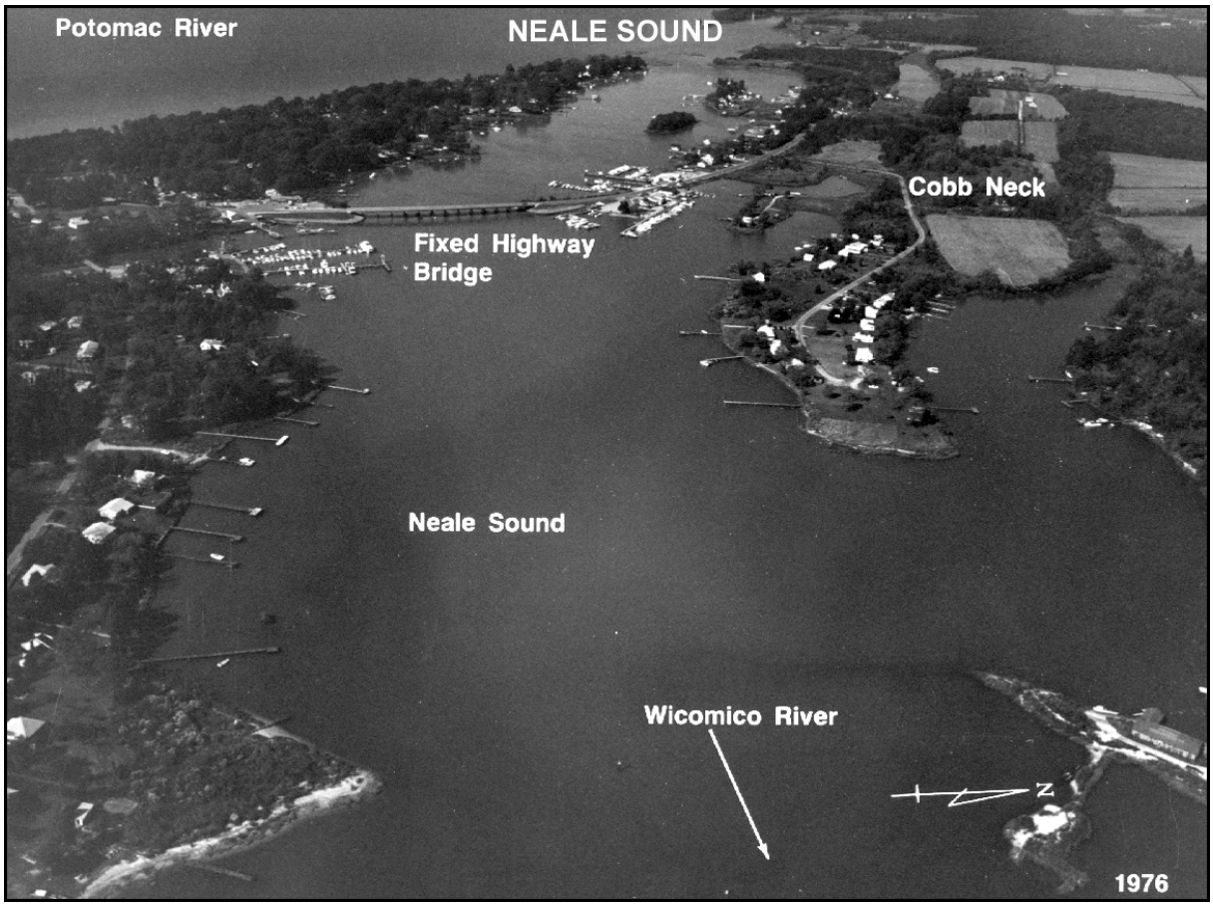
(83) **Heron Island Bar**, about 1 mile eastward of St. Clements Island, is an extensive shoal area mostly covered at low water; the bar is marked at the eastern and western ends by buoys.

(84) **St. Clements Bay**, north-northeastward of St. Clements Island, has three entrances. The eastern entrance, between Heron Island Bar and the mainland, is by the way of the Breton Bay lane through the fishtraps; this entrance has depths of 20 to 16 feet and is easily followed in the daytime. The middle entrance, between Heron Island Bar and St. Clements Island, has depths of 15 feet or more and is approached through a 500-yard lane in the fishtraps on an initial course of **352°;** this entrance is narrow and crooked, but is marked by a light and buoys and is easily followed in the daytime.

(85) **Dukeharts Channel**, the western entrance, leads from the Potomac River to St. Clements Bay between St. Clements Island and the mainland 0.5 mile to the north-northwestward. The controlling depth is 5 feet. In October 1993, depths of 2 to 3 feet were reported 100 yards northeast of Daybeacon 7 in about 38°13'07.3"N., 76°44'46.2"W. **Note: Aids in Dukeharts Channel are placed for a passage from east to west.**

(86) St. Clements Bay has channel depths of 14 feet for 3 miles, then shoals gradually to 8 feet 5 miles above the entrance. The mean range of tide is 1.8 feet.

(87) **St. Patrick Creek**, on the west side of St. Clements Bay 0.5 mile above the mouth, is entered through a marked dredged channel. In August 1994, the midchannel controlling depth in the dredged channel was 4½ feet. The creek is much frequented by fishermen, oystermen, and pleasure craft. There are several small-craft facilities along the creek above **Palmers**, on the south side 0.4 mile above the entrance. (See the



small-craft facilities tabulation on chart 12285 for services and supplies available.) The **speed limit** is 6 miles per hour in the creek.

(88) **Canoe Neck Creek** is on the west side of St. Clements Bay about 1.5 miles above the mouth. The entrance to the creek has a depth of 11 feet, except for a shoal reported encroaching the channel from the north entrance point. The creek shoals gradually from 11 feet at the entrance to 3 feet near the head. The landings at **Morris Point,** on the south side just above the entrance, have depths of 4 to 7 feet at the outer ends. A small-craft facility on Morris Point can provide gasoline.

(89) **St. Catherine Sound**, Mile 29.0N, has depths of 5 to 9 feet behind **St. Catherine Island.** Two marked dredged channels lead into the sound; one at the northwesterly end and the other at the southeasterly end. In October 2006, the reported controlling depth was 1 foot in the northwesterly and southeasterly channel. In May 1983, partially submerged pilings were reported in the sound near the southeasterly channel north and east of St. Catherine Island in about 38°14'12"N., 76°47'20"W. and 38°14'35"N., 76°47'45"W. The wharves along the shore of the sound are privately owned.

(90) **Whites Neck Creek**, on the north side of St. Catherine Sound, has depths of 4 feet in the entrance and 6 to 2 feet inside. A State pier on the west side just inside the entrance has depths of 4 feet at the outer end. The marine railway just upstream can handle boats up to 45 feet for hull and engine repairs.

(91) **Wicomico River** (38°15.0'N., 76°49.6'W.) is at Mile 31.0N. Its commercial traffic consists chiefly of shellfish vessels. Drafts of vessels using the river are mostly 6 feet or less.

(92) The river is characterized by long spits, with little depth and abrupt outer ends, which extend to the edges of the channel in several places. The entrance is 1.3 miles wide between **St. Margaret Island** on the east and **Cobb Island** on the west. **Cobb Point Bar,** which extends 1 mile southeastward from the island, is marked at the outer end by a light; the shoal extending 0.6 mile westward from St. Margaret Island is marked by a daybeacon.

(93) The Wicomico River channel has depths of 40 to 12 feet for 5 miles, thence 6 feet with local knowledge for 3 miles, and then decreasing to 3 feet to the head, 11 miles above the mouth. The channel is marked at the most critical points for about 8 miles. The mean range of tide is 1.9 feet.

(94) An overhead power cable with a clearance of 38 feet crosses the river about 10 miles above the mouth. Three suspension towers in the river support the cable.

(95) **Neale Sound**, on the west side of the entrance to Wicomico River between Cobb Island and the mainland, had a controlling depth of 2.9 feet (3.7 feet at midchannel) in 1994, and affords secure anchorage for small boats. Both entrances are marked by lights, and the critical part of the channel at the northwest end is marked by daybeacons.

(96) In December 1981, the controlling depth into Neale Sound was 6 feet from the Potomac River entrance through the west cut, thence in August 1981, the reported controlling depth was 4 feet from the Wicomico River entrance through the east cut. The highway bridge over Neale Sound has a 34-foot fixed span with a clearance of 18 feet.

(97) Several small-craft facilities are on both sides of Neale Sound at the bridge. (See the small-craft facilities tabulation on chart 12285 for services and supplies available.)

(98) **Bushwood Wharf** is on the east side of Wicomico River 1.5 miles above the mouth. A State pier and a gasoline pier have alongside reported depths of 8 and 4 feet, respectively. Gasoline and some supplies are obtainable.

(99) **Charleston Creek**, on the west side of Wicomico River 3 miles above the mouth, is used by oyster boats as an anchorage.

(100) From Nomini Bay to within 2 miles of Popes Creek (38°11.6'N., 76°54.2'W.) the Virginia shore of Potomac River is backed by high ground. Along this stretch are **Nomini Cliffs, Stratford Cliffs, Horsehead Cliffs,** and the valleys between them.

(101) **Popes Creek**, Mile 33.5S, leads to **Wakefield** and the **George Washington Birthplace National Monument.** The controlling depth is about 1½ feet in the entrance, and a stone jetty 2 feet high extends 200 feet offshore from the point on the north side. Current velocity up to 4.5 knots has been reported in the entrance.

(102) **Mattox Creek**, Mile 36.1S, has depths of 7 to 5 feet in a marked narrow channel for 2 miles to **Fox Point,** then the depths decrease to 3 feet at the fixed concrete highway bridge, 4 miles above the entrance.

(103) **Colonial Beach**, Mile 36.5S, is a summer resort just north of Mattox Creek. The largest of the piers on the river side of the town is the municipal 450-foot T-head pier 1.2 miles above the south end. The pier has reported depths of 6 feet at the outer end.

(104) **Monroe Creek,** back of Colonial Beach, is entered between **Gum Bar Point,** at the south end of the town, and **Sebastian Point,** 150 yards westward. The creek is used extensively as an anchorage. The dredged channel, marked by lights, buoys, and daybeacons, leads from the entrance of the creek to a basin at **Robins Grove Point** at Colonial Beach. In December 1993, the controlling depths were 6 feet in the entrance channel to the basin, except for shoaling to 3.2 feet on the east edge of the channel off **Gum Bar Point**, thence 6 feet in the basin. The entrance is narrow and mariners are requested to transit at low speed to avoid wash damage to vessels moored in the creek.

(105) There are numerous small-craft facilities along the east side of the creek below and above Robins Grove Point, and a yacht club is on the eastern side of the entrance to the creek. (See the small-craft facilities tabulation on chart 12285 for services and supplies available.)

Charts 12287, 12285

(106) **Potomac Beach** is at Mile 38.8W. A private pier is the only usable landing. In July 1982, a reported depth of 2 feet was available to the landing.

(107) **Rosier Creek**, entered just westward of Potomac Beach, has depths of 2 feet in the entrance and 5 to 2 feet for 1 mile upstream. The creek has no wharves and is little used.

(108) **Upper Machodoc Creek** is at Mile 40.2W. The **Naval Surface Weapons Center** is at **Dahlgren,** on the north side of the entrance to the creek, but also occupies land for a considerable distance along the south shore; the center monitors VHF-FM channel 16 (156.80 MHz). (See **334.230,** chapter 2, for the limits and regulations governing the danger zones.) The tanks and radio masts at Dahlgren are prominent.

(109) Two well-marked, Navy-maintained channels lead from Potomac River to the basin and wharves at Dahlgren. In July 1982, the main channel leading from westward, and the cutoff channel leading from southeastward, had reported centerline controlling depths of 8 feet and 7 feet, respectively. A **282°** lighted range marks the main channel. The mean range of tide is 1.6 feet.

(110) Above Dahlgren, Upper Machodoc Creek has reported depths in the middle of about 7 to 3 feet to **Little Ferry Landing**, about 3.5 miles above the entrance, thence 7 to 2 feet for another 2 miles to **Milford Landing**. Only small piers are found along the banks. A fixed highway bridge with a 47-foot span and a clearance of 10 feet crosses the creek 3.7 miles above the entrance.

(111) **Williams Creek**, on the north side of Upper Machodoc Creek 1 mile above the mouth, has depths of 4 to 2 feet to the highway bridge 1.1 miles above the entrance. An overhead power cable 0.6 mile above the entrance has a clearance of 28 feet.

(112) A marina is on the north side of the entrance to Williams Creek. Gasoline, diesel fuel, berthing with electricity, a pump-out station and some marine

supplies are available. Hull and engine repairs can be made; lift capacity, 6 tons.

(113) **Lower Cedar Point** is at Mile 42.1E. A light is shown from a white skeleton tower on piles in depths of 3 feet on the west edge of the main channel 0.7 mile westward of the point.

(114) **Morgantown** is on the south side of Lower Cedar Point. There are strong cross currents south of the point. The landings that remain intact are suitable only for small boats.

Charts 12288, 12285

(115) The **Harry W. Nice (Potomac River) Bridge,** (U.S. Route 301), Mile 43.4, has a fixed channel span with clearances of 135 feet for a width of 480 feet and 105 feet for a width of 700 feet. The centerline of the main span has a fog signal and is marked by a flashing red aviation obstruction light and by a fixed green light surmounted by three fixed white lights vertically 15 feet apart. The bridge is also marked by fixed red lights on the main trusses and approaches.

(116) There is a small-boat basin and marina just above the Harry W. Nice Bridge on the Maryland side. The entrance channel and basin have depths of about 6 feet. Gasoline, diesel fuel, berths, and marine supplies are available. Hull and engine repairs can be made; lift, 20 tons.

Danger zone

(117) A **danger zone** for military testing operations extends 4 miles upriver from the Harry W. Nice Bridge. (See **334.230**, chapter 2, for limits and regulations.)

(118) **Persimmon Point** is at Mile 44.5W. A 3-foot shoal is 0.6 mile southeastward of the point on the west edge of the channel.

(119) **Popes Creek**, Mile 45.4E, is not navigable. The village of **Popes Creek** 0.2 mile northward, has overnight docking available at a crabhouse pier. The former railroad wharf is in ruins.

(120) Between Popes Creek and Upper Cedar Point, 4.5 miles upriver, the Maryland shore of Potomac River bends northward about 2 miles to form **Port Tobacco River Flats,** which have shoal spots of 3 to 5 feet but generally navigable depths of 7 to 10 feet. **Port Tobacco River,** at the head of the bight, has depths of 7 feet for 1.6 miles and thence 5 to 3 feet for another 1.3 miles. A light and daybeacons mark the channel. The mean range of tide is 1.5 feet.

(121) **Chapel Point**, on the east side of Port Tobacco River 1.2 miles above the mouth, is a summer resort. **Port Tobacco,** 4.4 miles above the entrance, is now the head of practical navigation. Marinas at the town have gasoline, berths, and some supplies. Hull and engine repairs can be made; lift, 15 tons.

(122) **Mathias Point** is at Mile 47.7S. A light is shown from a skeleton tower on piles in depths of 3 feet on the south edge of the main channel 0.3 mile northward of the point.

(123) **Upper Cedar Point**, at Mile 50.0N, is marked by a light shown from a skeleton tower on piles in depths of 3 feet on the north edge of the channel 0.5 mile southeastward of the point. Give the light a berth of at least 200 yards.

(124) **Nanjemoy Creek**, Mile 51.0N, has a controlling depth of about 4 feet in a privately marked channel to a small-craft launching ramp about 4 miles above the entrance.

(125) **Metomkin Point** is at Mile 53.1S. A light, shown from a pile structure in depths of 1 foot 0.5 mile off the point, marks the shallowest part of a shoal area along the southeast edge of the channel.

(126) The **Caledon Natural Area** is located on the lower Potomac River about 19 miles E of Fredericksburg. (See **MMA 12-1**, Appendix C, for additional information.)

(127) **Maryland Point Light** (38°20'59"N., 77°11'51"W.), Mile 55.8S, 42 feet above the water, is shown from a skeleton tower with a black and white diamond-shaped daymark on piles in depths of 9 feet on the south edge of the Potomac River channel 0.7 mile southeastward of **Maryland Point.** Other shoals east and west of the light are marked by buoys.

(128) Two white dish-shaped antennas 1.4 miles northwest of Maryland Point are conspicuous.

(129) Gasoline, ice, water, a pump-out station and limited berthing with electricity can be obtained at **Fairview Beach**, Mile 57.4S. Depths to the pier are about 4 feet. Hull and engine repairs can be made; lift capacity, 25 tons.

(130) **Potomac Creek**, Mile 58.5S, is used only by small motorboats. **Bull Bluff,** on the south side of the entrance, is high and wooded. The creek has depths of 7 feet in the entrance, thence 3 feet for 2 miles. The best water favors the south side of the entrance. Gasoline and water are available at small-craft facilities on the south side of the creek 1 mile and 2 miles above the entrance. Hull and engine repairs can be made at the more easterly facility.

(131) **Aquia Creek**, Mile 60.4W, has depths of 4 to 5 feet to the railroad bridge, and thence 2 feet to **Coals Landing,** 5 miles above the mouth. The entrance to the creek is marked by lights and daybeacons. The mean range of tide is 1.3 feet. A fixed railroad bridge, 3 miles above the entrance, has a width of 46 feet and a clearance of 26 feet. An overhead power cable just south of the bridge

has a clearance of 36 feet. Small-craft facilities are on the south side of the creek close above and below the bridge. (See the small-craft facilities tabulation on chart 12285 for services and supplies available.)

(132) **Smith Point**, Mile 61.5E, is marked by a light. **Clifton Beach** is on the point. The broken piling of a former landing 300 yards south of the light is nearly awash at high water.

(133) There is danger of striking submerged hulks in the mile-wide former restricted anchorage area that extended 2.5 miles upriver along the Virginia shore from directly opposite Smith Point.

(134) **Liverpool Point** is at Mile 64.4E. **Mallows Bay**, on the north side of Liverpool Point, is a ship graveyard area; the western danger limit is a line from Liverpool Point to Sandy Point. A buoy marks the inner edge of the river channel off the bay. The southern part of the bay has unobstructed depths of 5 feet to the submerged wreck near the head. On the southern shore is a small bulkhead landing.

(135) An aviation school wharf at Mile 66.2W has depths of about 8 feet at the outer end. The short dredged channel to the wharf has a reported controlling depth of about 6 feet. About 0.2 mile north of the wharf, a diversion canal 5 feet deep connects **Chopawamsic Creek** with the Potomac River; three fixed bridges over the canal have a minimum width and clearance of 10 feet. An overhead power cable between the two uppermost bridges has a clearance of 17 feet.

(136) **Quantico**, Mile 67.7W, is a training site of the **U.S. Marine Corps**. The T-head pier has depths of 25 to 30 feet at the face, and the launch harbor immediately south of the pier has depths of about 10 feet. Except in emergencies, the pier and harbor are restricted to government vessels.

(137) **Quantico Creek**, Mile 68.2W, has depths of 7 feet in a narrow, crooked entrance channel, and about 2 feet for 2 miles upstream. The fixed railroad bridge over the entrance has a 29-foot span with a clearance of 8 feet. In July 1986, a replacement fixed railroad bridge with a 30-foot span and a design clearance of 12 feet was under construction immediately below the existing bridge. An overhead power cable along the west side of the bridge, and another one 1.3 miles above the bridge, have clearances of 8 feet and 41 feet, respectively. A small landing on the south side of the entrance is used by local pleasure boats. The mean range of tide is 1.4 feet.

(138) **Possum Point** is at Mile 68.5W. A private light marks the powerplant wharf 0.2 mile northward of the point. An overhead power cable 0.8 mile above Possum Point has a clearance of 170 feet for a midwidth of 1,440 feet over the main channel, and 124 to 70 feet elsewhere. The six support structures for the cable are marked by lights.

(139) **Chicamuxen Creek**, Mile 69.2E, has depths of 5 feet in the entrance, but shoals rapidly farther up. The creek is little used.

Danger zone

(140) A **danger zone** of a Navy explosion test area includes part of Chicamuxen Creek and extends northeastward in Potomac River up to 0.5 mile off the Maryland shore for about 5 miles to Indian Head. (See **334.240,** chapter 2, for limits and regulations.)

(141) An oil and asphalt terminal is at **Cockpit Point,** Mile 70.3W.

(142) The Government wharf at the north end of **Stump Neck,** Mile 70.6E, has depths of 15 feet at the outer end and is marked by a light. Lights also mark the ends of the breakwater on the north side. Landing is permitted only in case of emergency.

(143) **Mattawoman Creek**, Mile 71.5E, has easily navigated depths of 7 to 5 feet for 1 mile to the marsh that extends southeastward from **Deep Point** to the edge of the channel. The channel is marked by a daybeacon and lights. Above this marsh, the creek channel has greater depths for 3 miles, but meanders back and forth between the flats and is almost impossible to follow without a guide. The mean range of tide is 1.6 feet at the entrance. A pier and launching ramp for a public picnic facility is at **Sweden Point,** 2 miles inside the entrance. In October 1979, depths of about 3 feet were reported available to the dock.

(144) **Powells Creek**, Mile 71.1W, has depths of 4 to 5 feet in the approach and 1 to 2 feet through the railroad bridge and for a short distance upstream. The fixed railroad bridge 0.3 mile above the entrance has a width of 40 feet and a clearance of 26 feet. An overhead power cable at the bridge has a clearance of 45 feet.

Charts 12289, 12285

(145) **Occoquan Bay**, Mile 73.8W, has general depths of 5 to 7 feet. The entrance is 2.5 miles wide between **Freestone Point** on the southwest and **High Point** on the northeast; the channel is 0.3 mile off High Point. A manmade rocky islet, 5 feet high, is near the center of the bay, 1 mile westward of High Point. The bay has little commerce; it and its tributaries are used as an ice harbor when the river channel is closed above.

(146) **Neabsco Creek**, at the southwest side of Occoquan Bay north of Freestone Point, has depths of 4 to 2 feet. The fixed railroad bridge over the mouth has a 30-foot span with clearance of 33 feet. The overhead cables just

west of the bridge have a clearance of 36 feet. Gasoline, diesel fuel, ice, water, a pump-out station, berthing with electricity and marine supplies can be obtained at the small-craft facilities on the south side of the creek above the bridge. Hull, engine and electronic repairs can be made; lifts up to 20 tons.

(147) **Belmont Bay**, the northeastern arm of Occoquan Bay, has general depths of 3 to 4 feet. Belmont Bay is said to be rocky throughout; the rocks are covered at low water except during northwest winds.

(148) **Occoquan River** empties into the head of Occoquan Bay along the west side of Belmont Bay. A marked channel with dredged sections leads through the bay and river to Occoquan. In July 1991, the controlling depth was 2 feet (6 feet at mid-channel) from the entrance in Occoquan Bay to Light 14. The channel is marked through Occoquan Bay to the first bridge over Occoquan River. The mean range of tide is 1.6 feet at the entrance.

(149) Three fixed bridges, the Richmond, Fredericksburg, and Potomac Railroad bridge, and the two U.S. Route 1 highway bridges, with a least clearance of 44 feet cross Occoquan River 3.6 miles above the bay entrance. Piles extend out into the channel on both sides of the first bridge. An obstruction, covered 1 foot, is on the north side of the third bridge, in about the center of the river. The twin I-95 fixed highway bridges, 4 miles above the entrance, have a clearance of 44 feet. The State Route 123 fixed highway bridge, 5 miles above the entrance, has a clearance of 25 feet. In October 2003, a replacement fixed highway bridge was under construction with a design clearance of 44 feet. A rock awash is on the north side of the bridge, in about the center of the river. A power cable just northwestward of the bridge has a clearance of 44 feet.

(150) **Occoquan**, on the southwest side of Occoquan River 5 miles above the bay entrance, is the head of navigation. Channel depths off the Occoquan bulkheads are 7 feet in the east half and 5½ feet in the west half of the channel in July 1991. Small-craft facilities, on the southwest side of the river above the first bridge, can provide gasoline, water, berths, and marine supplies. Hull and engine repairs can be made; lift capacity to 25 tons.

(151) Indian Head, Mile 75.3S, is a high wooded bluff. The town of **Indian Head** is back of the bluff. The lower wharf has depths of 12 feet off its northern face, and the small-boat basin on the lower side has depths of 4 feet. A fog signal is on an intake house just above the wharf. The upper wharf has depths of 12 to 15 feet at the face. Landing is permitted at either wharf only in case of emergency. Mariners are advised to use caution in the vicinity of the upper wharf because divers may be training in the area.

(152) **Craney Island**, Mile 77.3W, is a tiny islet marked by a clump of trees and surrounded by an extensive shoal. Between the islet and the Virginia shore is a narrow unmarked channel with depths of 7 feet.

(153) **Pomonkey Creek**, Mile 78.0E, has depths of 7 to 3 feet in the entrance but little water inside.

(154) **Gunston Cove**, Mile 80.0W, has depths of 3 to 5 feet in the entrance and 5 to 7 feet inside. The peninsula between Gunston Cove and Dogue Creek, 2 miles to the northeastward, is a part of the U. S. Army reservation of **Fort Belvoir.**

(155) The small-boat basin and facilities at **Whitestone Point,** on the north side of the Gunston Cove entrance, are part of Fort Belvoir and are not for public use. A **restricted area** is established off Whitestone Point. (See **334.250,** chapter 2, for limits and regulations.)

(156) **Pohick Bay** and **Accotink Bay,** which joins at the head of Gunston Cove 2 miles from the entrance, have depths of 2 to 3 feet for about 0.5 mile from the junction. Pohick Bay is foul with submerged duckblind and fish stakes. Parts of both bays are within the **danger zone** of a Fort Belvoir target range. (See **334.230,** chapter 2, for limits and regulations.)

(157) **Dogue Creek**, Mile 81.9W, is used by small craft. A privately marked channel leads from the river across the northwest part of the estuary to the mouth of the creek. In February 1980, reported depths in the channel were 3 feet, with 1 to 5 feet in the creek. The extreme north corner of the estuary is foul with grass and submerged duckblind stakes.

(158) **Marshall Hall**, Mile 82.3S, formerly an amusement park, has a wharf with about 10 feet reported alongside. The wharf is in poor condition; landing is not permitted.

(159) **Mount Vernon**, the home of George Washington, is at Mile 83.2N. The custom of tolling the ship's bell while passing Mount Vernon is said to have originated the night of Washington's death, December 14, 1799. The buildings are open to the public daily from 0900 to 1700 during the summer and 0900 to 1600 during the winter. Excursion boats operate between Mount Vernon and the city of Washington, D.C. The buoyed dredged channel leading to Mount Vernon wharf had a controlling depth of 6 feet (7 feet midchannel) to the wharf in August 1991.

(160) **Little Hunting Creek**, Mile 83.9N, has depths of 2 feet in the approach and about 4½ feet in a narrow channel, sometimes marked by private buoys, for about 0.6 mile above the entrance. A stone-arch bridge over the entrance has a clearance of 22 feet for a center width of 25 feet.

(161) **Piscataway Creek**, Mile 85.4S, has depths of 1 to 3 feet. Some marine supplies, gasoline, diesel fuel, berthing with electricity, water, ice and a pump-out station

are available at a marina on the north side of the creek 0.5 mile inside the entrance. Approach and alongside depths were reported at 5.5 feet. Hull and engine repairs can be made; lift capacity, 30 tons.

(162) **Fort Washington**, Mile 85.8E, was built early in the 19th century for the protection of the then new Nation's capital; the fort is now a unit of National Capital Parks. There is a light on shore at the fort.

(163) **Broad Creek**, Mile 88.0E, has depths of 2 to 4 feet. **Indian Queen Bluff** is on the north side of the entrance. The creek is little used.

(164) **Rosier Bluff**, Mile 89.4E, is wooded and prominent. Only piles remain of the wharf just below the bluff. A light is shown from a pile in depths of 6 feet, below the bluff.

(165) **Hunting Creek**, Mile 90.0W, has depths of 1 to 4 feet. Fixed highway bridges cross the creek 0.6 and 0.9 mile above the entrance. The lower bridge is a three-arch structure with a width of 44 feet and a clearance of 9 feet for a width of 20 feet; the upper bridge has a clearance of 3 feet. Piles marking an abandoned channel are in the north part of Hunting Creek entrance. Numerous tree trunks, logs, wrecks, mudflats, and other obstructions are in the entrance to the creek.

(166) On the Maryland side opposite Hunting Creek is an extensive bight dredged for sand and gravel. Depths are 8 to 20 feet in the inner part of the bight but only 1 to 5 feet along the edge of the river channel.

(167) **Jones Point**, Mile 90.5W, is on the north side of the entrance to Hunting Creek and at the lower end of the Alexandria waterfront. **Woodrow Wilson Memorial Bridge,** Mile 90.7, which connects Jones Point with the Maryland shore, has a bascule span with a clearance of 50 feet; a fog signal is at the channel span of the bridge. (See **117.1 through 117.59 and 117.255,** chapter 2, for drawbridge regulations.) In January 2002, a replacement bascule bridge with a design clearance of 70 feet was under construction close south of the existing bascule bridge. Rock awash are on the western edge of the channel just southward of the bridge in 38°47'24"N., 77°02'23"W.

(168) **Alexandria**, Mile 91.4W, has some waterborne traffic. Foreign vessels drawing as much as 23 feet unload newsprint and some general cargo.

(169) **Pilotage** to Alexandria was discussed at the beginning of the chapter.

Towage

(170) Tugs are not normally required for docking and undocking. No tugs are available at Alexandria or Washington, D.C.

Quarantine, customs, immigration, and agricultural quarantine

(171) (See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(172) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(173) Alexandria is a **customs port of entry.**

Harbor regulations

(174) Jurisdiction of the District of Columbia harbormaster extends upriver from Jones Point. Harbor regulations provide a **speed limit** of 10 m.p.h. when passing the wharf area of Alexandria, except in emergencies.

(175) The Alexandria waterfront extends about 1.5 miles north of the Woodrow Wilson Memorial Bridge. Some of the wharves are owned by the Government; several of the privately owned wharves are open to the public by special arrangement. Depths of 20 to 25 feet are at the outer ends of the wharves; in places old piling is a hazard to approaching vessels. Robinson south and north terminals are 0.45 mile and 0.9 mile above the bridge, respectively; each has a 300-foot face with depths of 25 feet alongside. (For information on the latest depths alongside the facilities at Alexandria, contact the individual operators.) Water is available at most of the facilities; cargo is handled by ship's tackle. There are no major repair facilities for oceangoing vessels at Alexandria; the nearest such facilities are at Baltimore, Md., and in the Hampton Roads area.

Small-craft facilities

(176) Small-craft facilities along the Alexandria waterfront can provide gasoline, diesel fuel, water, berths, and marine supplies. Hull and engine repairs can be made; largest marine railway, 35 feet; lift, 16 tons.

(177) **Oxon Creek**, Mile 91.6E, has bare flats in the approaches and general depths of 1 to 3 feet inside. Sand dredges have cut channels through the flats and made holes inside, but local knowledge is needed to find the deeper water. The fixed highway bridge over the creek has a clearance of 19 feet.

(178) **Marbury Point** is at Mile 92.1E. A privately buoyed channel with reported depths of about 12 feet leads to the point. Just northward is the Blue Plains sewage-disposal plant. The Government pier 0.4 mile above Marbury Point extends to deep water; use of the pier is restricted to Government vessels.

(179) **Fourmile Run**, Mile 93.0 W, is used only by very small boats and skiffs at high water. The outer basin is navigable for small boats, using care, local knowledge, and the chart as guides. Airport landing lights extend

0.5 mile into the basin from the north side. The Washington Sailing Marina is in the cove on the south side of the basin just above the entrance. In February 2000, the controlling depths were 5.8 feet (7.3 feet at midchannel) in the marina entrance channel, thence depths of 7.7 feet to 11.1 feet were in the cove, with much lesser depths along the sides.

(180) **Ronald Reagan Washington National Airport** occupies the extensive fill area on **Gravelly Point** at Mile 94.1W. Many domestic airlines use the airport day and night.

(181) **Giesboro Point** is at Mile 94.0E. Submerged pile remains of former wharves extend out about 150 feet from shore in the vicinity of the point.

(182) **Washington, D.C.**, on the east side of Potomac River 96 miles above the mouth, is the **Capital of the United States.** The city, with its impressive memorials and public buildings, is one of the most beautiful in the world and is host to a constant stream of visitors. Prominent from the river are the Capitol Dome, the Washington Monument, and the Lincoln and Jefferson Memorials.

(183) Commercial traffic in Washington Harbor consists chiefly of petroleum products, sand, and gravel.

Tides and currents

(184) The mean range of **tide** is 2.9 feet; daily predictions for Washington are given in the Tide Tables. Currents are variable, but the set is usually in the directions of the channels, and there is little or no flood current during freshets; information for several places in Washington Harbor is given in the Tidal Current Tables.

Ice

(185) **Ice** closes the river at Washington during severe winters, but power vessels keep the channels open during ordinary winters. During the highest freshet in recent years, the river rose about 11.5 feet above mean low water in Washington Channel.

Weather

(186) Washington summers are warm and humid, and winters are mild; generally, pleasant weather prevails in the spring and autumn. The coldest weather occurs in late January and early February. The warmest weather occurs late in July. There are no well-pronounced wet and dry seasons. Thunderstorms, during the summer, often bring sudden and heavy rain showers and may be attended by damaging winds, hail, or lightning.

(187) The average annual temperature in Washington is 58.0°F (14.4°C). The average maximum temperature is 66.7°F (19.3°C) while the average minimum is 48.9°F (9.4°C). The warmest temperature on record at Washington is 105°F (40.6°C) recorded in August 1997 and the coolest temperature on record is -5°F (-20.6°C) recorded in January 1982. Each month, October through April, has recorded temperatures below freezing (0°C) and each month, June through September, has recorded maximums in excess of 100°F (37.8°C). Records of the past 20 years show the average date of the last freezing temperature in the spring to be March 29 and the latest, April 16. The average date of the first freezing temperature in the fall is November 10 and the earliest, October 21.

(188) The average annual precipitation at Washington totals 39.39 inches (1001 mm). Precipitation is evenly distributed with the spread between the wettest month (August) and the driest month (February) being only 1.48 inches (37.6 mm). The greatest 24-hour precipitation total is 6.11 inches (155.2 mm) recorded in June 1972.

(189) Snowfall is moderate and average 17.1 inches (434.3 mm) each year. Snow has fallen in each month, October through April. The greatest 24-hour snowfall occurred in February 1983 when 16.4 inches (416.6 mm) accumulated.

(190) Tropical disturbances occasionally, during their northward passage, influence Washington's weather mainly with high winds and heavy rainfall, but extensive damage from this cause is rare. Six tropical storms have had a direct impact upon Washington since 1950. Perhaps the most noteworthy was hurricane Hazel in 1954. Hazel passed to the west of the District while transitioning from a warm-core to a cold-core system. The storm provided sustained winds of 68 knots with gusts to 85 knots over a three-hour period.

(191) Occasional overflows from the Potomac River result from heavy rain over the basin, at times augmented by melting snow. In a few cases during cold winters, ice forms on the river, and, in spring, flooding is caused by ice gorges when the ice breaks up. The river is in tidewater, and above normal tides associated with hurricane or severe storms along the coast cause flooding at times. Local flooding in the area is also caused by locally heavy rain. Some flooding occurs from one or the other of these causes every year on the average.

(192) In using the Climatological Tables for the area note that recent observations have been taken at the National Airport, which is in a warmer part of the area. Minimum and maximum temperatures in nearby areas may be 8° and 5° lower, respectively, and rain and snowfall amount may be slightly higher away from the airport. (See page 382 for **Washington climatological table.**)

(193) **Pilotage to Washington, D.C.**, was discussed at the beginning of the chapter.

Towage

(194) There are no tugs at Washington, D.C. or Alexandria.

Quarantine, customs, immigration, and agricultural quarantine

(195) (See chapter 3, Vessel Arrival Inspections, and appendix for addresses.)

(196) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

(197) Washington, D.C. is a **customs port of entry.**

Harbor regulations

(198) The District of Columbia Harbormaster, who is the officer commanding the Harbor Precinct of the Metropolitan Police Department, regulates the operation, navigation, mooring, and anchoring of all vessels within the waters of the District of Columbia and enforces all laws and regulations relating thereto. The person in charge of any vessel, 26 feet or more long, entering the harbor, shall, if he intends to remain over 24 hours, report the date and time of arrival without delay and shall also report immediately before finally departing, to the harbormaster at the Harbor Precinct wharf, Maine Avenue and M Street, SW., or to any police officer under his command. Permission to anchor in the District of Columbia must be obtained from the harbormaster. Both the harbormaster and the police boat monitor VHF-FM channel 16; call sign KUF-703.

(199) At Mile 94.2 is the junction of Potomac River with **Anacostia River** to the eastward, Washington Channel to the northward, and Georgetown Channel of the Potomac River to the westward. The lighted junction buoy also marks the outer end of the shoal making southerly from **Hains Point,** 0.4 mile north of the junction. **Washington Harbor** comprises the navigable waters upstream from this junction.

(200) A dredged channel leads from the Potomac River off Hains Point into the Anacostia River to a basin off Washington Navy Yard, through the 11th and 12th street bridges, and to a turning basin about 2.0 miles above the Hains Point Junction Lighted Buoy (38°51.1'N., 77°01.3'W.). In March 2004, the controlling depths were 8.6 feet (10.3 feet at midchannel) to the basin off Washington Navy Yard, thence 13.1 feet in the basin except for lesser depths along the south edge, thence 8.4 feet to the basin and 4.5 to 7.6 feet in the turning basin; thence in March-July 1980, depths of 5 to 8 feet could be carried above the turning basin to Benning Road Bridge, thence in November-December 1992-January 1993, 4 feet were available to the head of the project except for shoaling to 2 feet in the south half of the channel at the bend just below Kenilworth Aquatic Gardens. The channel is well marked to the East Capitol Street Bridge. In 1975, underwater obstructions, depths unknown, were reported about 3.2 and 3.5 miles above the mouth of the Anacostia River in 38°53'00"N., 76°58'10"W., and 38°53'18"N., 76°57'48"W.; caution is advised.

(201) Harbor regulations prescribe a **speed limit** of 6 m.p.h. between the entrance to Anacostia River and the Benning Road Bridge, a distance of 4.4 miles.

(202) Anacostia River is crossed by 10 bridges between the entrance and the head of navigation. The Frederick Douglass Memorial Bridge (South Capitol Street Bridge), 1.4 miles above the entrance, has a swing span with a clearance of 40 feet. In April 1986, it was reported that the bridge is not tended. At least 24 hours notice is required for openings; telephone 202-727-5522. (See **117.1 through 117.59 and 117.253**, chapter 2, for drawbridge regulations.)

(203) The Eleventh Street Bridge, 2.2 miles above the mouth, is a fixed bridge with a clearance of 28 feet. Twelfth Street Bridge has a fixed channel span with a clearance of 28 feet. The remaining fixed bridges have a minimum width of 40 feet and clearance of 12 feet. The CSX Railroad Bridge, 3.3 miles above the mouth, has a vertical-lift span with a width of 33 feet and clearance of 5 feet down and 29 feet up. (See **117.1 through 117.59 and 117.253,** chapter 2, for drawbridge regulations.)

(204) Overhead cables of unknown clearances cross the river on either side of the CSX Railroad Bridge, about 6.5 miles above the mouth.

(205) The waterfront of Anacostia River extends along the north side for about 3 miles above the entrance. The Washington Navy Yard Annex occupies the area just above the first bridge to the second bridge; depths at the easternmost pier (which is normally used for visiting vessels) range from 15 to 17 feet. Most of the other piers and bulkhead wharves are privately owned. Oil terminals are just below the first bridge and just above the third bridge.

Small-craft facilities

(206) There are small-craft facilities on the north side of Anacostia River just above the mouth; between the third and fifth bridges; and at **Bladensburg,** 7 miles above the mouth. (See the small-craft facilities tabulation on chart 12285 for services and supplies available.)

(207) **Washington Channel** extends northward along the east side of Hains Point for 2 miles to the Fourteenth Street causeway. In March 2004, depths of 8.8 feet were

in the east half and 10.6 feet in the west half of the approach to the channel just below Buoys 1 and 2, thence 9.7 feet (12.2 feet at midchannel) to the head of the project. The channel is unmarked above Hains Point. A fixed highway bridge at the upper end of the channel has a clearance of 37 feet.

(208) Harbor regulations prescribe a **speed limit** of 6 m.p.h. upstream from Hains Point.

(209) The waterfront facilities are on the eastern side of Washington Channel. Pier 5, 1 mile above Hains Point, has depths of about 23 feet at the outer end; it is the headquarters of the harbormaster and is used by his patrol boats and Police and Fire Department. Pier 4, just northward, has depths of about 23 feet at the outer end; it is used by excursion boats. The municipal fish and fresh oyster wharves are just below the highway bridge, 1.5 miles above Hains Point.

(210) Slips and minor repair facilities for pleasure craft are at the north end of Washington Channel. Hull and engine repairs can be made: lift capacity, 20 tons. Water, berthing with electricity and marine supplies are available.

(211) **Georgetown Channel** is that part of the Potomac River between Hains Point and just above Chain Bridge. In March 2004, the midchannel controlling depth was 9.8 feet to the George Mason Memorial Bridge, thence in 1974-77, by favoring the west shore 11 feet to about 0.4 mile below Arlington Memorial Bridge, thence 14 feet at midchannel to the Francis Scott Key Bridge at Georgetown. The channel from Key Bridge to Chain Bridge, about 2.7 miles above, has unpredictable currents, and numerous shoals and rocks. This part of the channel is used by small craft with local knowledge; mariners are advised to exercise caution.

(212) Georgetown Channel is crossed by eight bridges between Hains Point and Chain Bridge, Mile 101. All bridges have either fixed spans or drawspans fixed in the closed position. (See **117.255,** chapter 2, for drawbridge regulations.) The minimum width of the bridges is 104 feet and the clearance is 18 feet.

(213) The **Tidal Basin** is on the northeast side of Potomac River 1.6 miles above Hains Point; tide gates obstruct the entrance.

(214) Directly across the river from the Tidal Basin is the **Pentagon Lagoon.** In February 2000, the controlling depth was 7.5 feet in the entrance channel, thence depths of 5 to 8 feet were at the marina on the north side of the lagoon. Depths of about 2 to 7 feet are available in the rest of the lagoon. The fixed bridge over the entrance is a stone arch, 100 feet between the piers, with a clearance of 18 feet over the middle 41 feet. Complete berthing facilities, gasoline and some supplies are available at the marina. Hull and engine repairs can be made; marine railway, 30 feet. **Boundary Channel,** which extends northward from the lagoon between **Columbia Island** and the Virginia shore, is shallow and is crossed by several fixed bridges.

(215) **Arlington Memorial Bridge** is 2.3 miles above Hains Point and 97 miles above the mouth of Potomac River. Harbor regulations prescribe a speed limit of 6 m.p.h. above the bridge.

(216) **Theodore Roosevelt Island**, Mile 97.5W, is a park area. Boats should not attempt to pass between the island and the Virginia shore.

(217) **Francis Scott Key Bridge** is at Mile 98.3. The stone piers of the former Aqueduct Bridge, just above Key Bridge, have been removed to a depth of 10 feet except for the one nearest the Virginia shore, which is 9 feet above water.

(218) The commercial wharves are on the north side of Georgetown Channel at **Georgetown** between Key Bridge and **Rock Creek,** 0.6 mile downriver. The wharves, which are mostly of the bulkhead type, are privately owned. In 1980, only one wharf was active; it receives sand and gravel, and stone is shipped by barge.

(219) **Chain Bridge**, Mile 101, is the head of tidewater navigation on the Potomac River.