Chart Coverage in Coast Pilot 4—Chapter 7
NOAA's Online Interactive Chart Catalog has complete chart coverage
http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml
79°30'W
80°W
80°30'W
81°W
32°30'N
32°N
SOUTH CAROLINA
GEORGIA
ATLANTIC OCEAN
Charleston
CHARLESTON INLET
STONO INLET
NORTH EDISTO RIVER
SOUTH EDISTO RIVER
ST. HELENA SOUND
BROAD RIVER
Beaufort
Hilton Head
TYBEE ROADS
WASSAW SOUND
Savannah

Charleston Harbor to Savannah River

(1)

ENC - US3GA10M
Chart - 11480

(2) This chapter describes the coastline from Charleston Harbor to Savannah River. The coast, low and timbered, trends in a southwesterly direction for 65 miles and is broken by St. Helena, Port Royal and Calibogue Sounds and by numerous inlets from which there is access to the interior by way of the rivers emptying into them. Shoal water extends 3 to 8 miles offshore.

(3) Numerous fish havens, some marked by private buoys, are from 3 to 12 miles off the coasts of South Carolina and Georgia.

(4) This section of the coast, due to its low relief, presents no good radar targets.

(5) Included in this chapter are the deepwater ports of Savannah and Port Royal; the fishing and small-craft port of Beaufort, SC; Stono and North Edisto Rivers; the tributary waters of the various sounds of which South Edisto, Coosaw, Beaufort, Broad and Savannah Rivers are the more important; and several small towns along these waterways.

(6) The section of the Intracoastal Waterway from Charleston to Savannah is described in chapter 12.

(7)

Caution

(8) The areas generally to the east and southeast of Charleston Harbor are used extensively by the U.S. Navy and other military services to conduct various types of surface, subsurface and aircraft training exercises. The Commander, Submarine Group Six, Charleston, SC, has cognizance of the operating areas through the Charleston Operating Area Coordinator (COAC).

(9)

COLREGS Demarcation Lines

(10) The lines established for this part of the coast are described in **33 CFR 80.712** through **80.715**, chapter 2.

(11)

Weather

(12) A major winter storm track extending east-northeastward from the Gulf of Mexico crosses this coastline. Often these extratropical systems are in a developing stage and intensify after crossing the Gulf Stream in the Atlantic. Therefore, gale force winds are infrequent in these coastal waters; they blow 1 to 3 percent of the time from November through March. Maximum winds for most months are in the 40- to 50-knot range generated by extratropical or tropical storms and cold fronts in spring. Steep waves are infrequent, but waves of 8 feet (2.4 m) or more can be expected about 15 to 30 percent of the time from November through March. Maximum heights are in the 18- to 25-foot (5 to 8 m) range.

(13) Tropical cyclones are most likely from June through October with a peak threat during September and October. About one to two cyclones threaten this coast in an average year. Many of these storms have recurved, and some have traveled across the Gulf states and weakened. However heavy rains, storm tides, strong winds, high waves and even tornadoes are a possibility when a tropical cyclone is near.

(14) Coastal fog can plague the mariner, particularly in late winter and spring when warm air moves in over the still cool, coastal waters. Beyond 50 miles (93 km) the warmer waters of the Gulf Stream tend to inhibit sea fog. In those areas, a midwinter cold air outbreak could produce fog. Visibilities are also restricted in rain and showers.

(15)

North Atlantic Right Whales

(16) North Atlantic Right Whales are often within 30 miles of the South Carolina and Georgia coasts including the approaches to Charleston and Savannah harbors from November through April. (See **North Atlantic Right Whales** indexed as such, in chapter 3 for more information on Right Whales and recommended measures to avoid collisions.)

(17) All vessels 65 feet or greater in length overall (LOA) and subject to the jurisdiction of the United States are restricted to speeds of 10 knots or less in a continuous 20-nm Seasonal Management Area between November 1 and April 30. The area is defined as the waters contained by the following points:

(18)

North Atlantic Right Whale Management Area
From Wilmington, NC to beyond Savannah, GA

Point	Latitude	Longitude
A	34°10.5'N.	77°49.2'W.
B	33°56.7'N.	77°31.5'W.
C	33°36.5'N.	77°47.1'W.
D	33°28.4'N.	78°32.5'W.
E	32°59.1'N.	78°50.3'W.
F	31°50.0'N.	80°33.2'W.
G	31°27.0'N.	80°51.6'W., thence due west to the shore.

North Atlantic Right Whale Management Area From Wilmington, NC to beyond Savannah, GA		
Point	**Latitude**	**Longitude**
See **50 CFR 224.105** in chapter 2 for regulations, limitations, and exceptions.		

(19)

Lighthouse Inlet to Steamboat Creek

(20) **Lighthouse Inlet** (32°41.2'N., 79°53.0'W.), between **Morris Island** and **Folly Island**, has no channel across the bar. The inlet is unmarked; entrance should be attempted only with local knowledge on a rising tide with a smooth sea. Small craft pass into Charleston Harbor by way of **Lighthouse Creek** and also into numerous sloughs north of Folly Island.

(21) **Stono Inlet**, 10 miles southwestward of Charleston Harbor entrance, is entered over a shifting bar between Folly Island and **Kiawah Island**. The inlet is subject to continual change and should not be attempted without local knowledge. The entrance buoys are not charted, because they are frequently shifted in position to mark the best water. Local fishermen use the inlet.

(22) A fish haven, marked by a buoy and covered 15 feet, is in about 32°29.0'N., 80°00.3'W., about 5.6 miles southwestward of the drill minefield.

(23) **Stono River**, which joins Stono Inlet from northward, is of little commercial importance except in its upper reach above **Elliott Cut**, where it forms part of the Intracoastal Waterway. In 2005, the reported controlling depth was 8.5 feet from inside the inlet bar for about 13 miles to a junction with the Intracoastal Waterway at Elliott Cut. Vessels usually enter the river by way of the waterway from Charleston. In the summer, numerous pleasure craft use Stono River and Folly River to reach Folly Beach. The highway bridge about a mile below Elliott Cut has a fixed span with an authorized clearance of 65 feet. An overhead power cable about 0.95 mile below the bridge has a clearance of 91 feet at the center of the river.

(24) A marina on the west side of Stono River, just north of the highway bridge, provides berths with electricity, gasoline, diesel fuel, water, ice, marine supplies, pump-out station and wet storage. In 2012, 9 feet was reported alongside.

(25) **Folly River** flows into Stono Inlet from the northeast and **Kiawah River** from the west. Folly River is used by pleasure craft and local fishermen desiring to reach Folly Beach. A channel marked by buoys leads about 2.3 miles upriver from the junction with Stono River at **Bird Key**. The channel is subject to continual change and local knowledge is advised when transiting the area. On the southeast side of the river about 2 miles above the entrance, a seafood plant has diesel fuel, water, ice and marine supplies. State Route 171 highway bridge about 3.1 miles above the entrance is under construction (2012). An overhead power cable close southwest of the bridge has a clearance of 54 feet. **Folly Creek**enters Folly River from the north about 2.7 miles above the mouth. State Route 171 highway bridge about 2.9 miles above the creek mouth is under construction (2012). An overhead power cable at the bridge has a clearance of 48 feet and another overhead power cable 0.4 mile above the bridge also has a clearance of 48 feet.

(26) **North Edisto River**, about 10 miles southwestward of Stono Inlet and 20 miles southwestward of Charleston Harbor entrance, is of little commercial importance and rarely used. Shoals extend offshore from the entrance as much as 3 miles and form a shifting bar. Flats, which bare at low water and are continually changing in character, are on both sides of the entrance; caution is advised. The entrance is marked by a lighted buoy and the channel by a **314°** lighted range and by buoys that are moved, when practicable, to indicate the best water. The entrance is well defined by breakers. A water tank about 1.7 miles northeastward of the entrance is prominent.

(27) Two tributaries of North Edisto River, **Wadmalaw River** from eastward and **Dawho River** from westward, are part of the Intracoastal Waterway. **Bohicket Creek** entrance is about 2.5 miles above the entrance to North Edisto River. **Rockville**, a town about 1.1 miles above the mouth of Bohicket Creek, has several piers and wharves with 5 to 11 feet of water alongside at which fresh water can be obtained. A marina at Rockville has berths with electricity and 16 feet reported alongside; gasoline, diesel fuel, water, ice, marine supplies and a 3-ton lift are available. Hull, engine and radio repairs are available. In 1980, the centerline controlling depth was 9 feet up the creek to Rockville. **Adams Creek**, west of Rockville, has several shrimp-boat piers and wharves with depths of 6 to 9 feet alongside. A boatyard close to the piers has a marine railway that can handle craft to 75 feet for hull and engine repairs. A 60-ton mobile lift can handle craft to 55 feet for hull and engine repairs. A marina, about 3.3 miles above the mouth of Bohicket Creek has various services and a reported centerline controlling depth of 6 feet in 1991. **Steamboat Creek** entrance, 6 miles above North Edisto River entrance, is marked by a light and daybeacons.

(28)

Current

(29) On the bar the direction of the current is generally across the channel. The flood current sets about westward and the ebb eastward; both have considerable velocity. Inside the bar, in the channel between the breakers, the ebb current is to be guarded against, especially when it sets across the north breakers. Predicted currents for the North Edisto River entrance may be obtained from the Tidal Current prediction service at *tidesandcurrents.noaa.gov.* Links to a user guide for this service can be found in chapter 1 of this book.

(30)

St. Helena Sound

(31) The entrance to **St. Helena Sound** is 7 miles wide between **Bay Point**, the southern extremity of

Edisto Island, on the northeast and **Hunting Island** on the southwest. The 132-foot Hunting Island Light (32°22'32"N., 80°26'16"W.) and the elevated tank on the northern part of Hunting Island make good landmarks. There are several channels through the shoals that extend about 6 miles seaward from the sound entrance. In 1983, the buoyed channel had a reported depth of 15 feet; caution is advised. The mean range of tide on the bar and in the entrance to the sound is about 6 feet. In 1973, a survey revealed depths of 1 foot to 14 feet less than those charted across the entrance to St. Helena Sound. Caution is advised in navigating this area. In 1992, a partially submerged wreck was 2.0 miles northeast of South Edisto River Approach Lighted Buoy A in about 32°26.0'N., 80°16.0'W.

(32) Most important of the several navigable rivers emptying into the sound are South Edisto, Ashepoo, Coosaw, Morgan and Harbor Rivers; the first three are links in the route of the Intracoastal Waterway. The **Ashepoo-Combahee-Edisto (ACE) Basin National Estuarine Research Reserve and National Wildlife Refuge** are Marine Protected Areas (MPA) in the central portion of St. Helena Sound.

(33)

COLREGS Demarcation Lines

(34) The lines established for St. Helena Sound are described in **33 CFR 80.712**, chapter 2.

(35) **South Edisto River**, which empties into St. Helena Sound immediately westward of Bay Point, is of little commercial importance. The approach to the river is marked by buoys. The river above its junction with **Dawho River**, about 18 miles above Bay Point, is known as **Edisto River**. **Big Bay Creek**is unmarked and empties into the east side of South Edisto River just above Bay Point. A marina about 0.3 mile above the creek entrance on the south side has transient berths, gasoline, diesel fuel, pump-out, water, ice and supplies. It has been reported that small craft have run aground at night when making Big Bay Creek from the northward by using the street and house lights on **Edisto Beach** as guides; extreme caution is advised.

(36) **Edisto Beach State Park** is about 2 miles northeastward of Bay Point. A marked channel into South Edisto River, about 3 miles southeastward of Bay Point, has depths of 12 to 16 feet over the ocean bar.

(37) An unmarked fish haven is on the northeast side of South Edisto River about 4.5 miles above Bay Point in about 32°32.3'N., 80°23.3'W.

(38) The Intracoastal Waterway leads through South Edisto River from landcuts at **Fenwick Cut** and **Watts Cut**, about 5.3 miles and 11.3 miles above Bay Point, respectively. This section of the river, between Fenwick Cut and Watts Cut, is marked in accordance with Intracoastal Waterway markings. In 1983, the reported depth from Bay Point to the junction with the Intracoastal Waterway at Fenwick Cut was 10 feet, and from Watts Cut to **Willtown Bluff**, about 20 miles above Bay Point, the reported depth was 10 feet.

(39) The river is usually entered from the Intracoastal Waterway; the entrance from the ocean is rarely used.

(40)

Current

(41) Currents at the entrance have a velocity of about 2 knots; predictions may be obtained from the Tidal Current prediction service at *tidesandcurrents.noaa.gov*. Links to a user guide for this service can be found in chapter 1 of this book. A draft of about 3 feet can be taken for about 8 miles above Willtown Bluff to **Jacksonboro**.

(42) **Ashepoo River**, about 4.5 miles westward of Bay Point, flows into St. Helena Sound from northward on the west side of **Otter Islands**. A highway bridge over the river, 13 miles above the mouth, has a fixed span with a clearance of 20 feet. The side piers of a former swing bridge adjacent westward of the fixed bridge are used as fishing piers. An overhead power cable just westward of the bridge has a clearance of 63 feet, and another overhead power cable 4 miles above the bridge has a clearance of 84 feet. Mariners are advised to navigate with caution, because depths vary greatly in the river.

(43) **Coosaw River**, which enters the head of St. Helena Sound from westward, is important only as a link in the Intracoastal Waterway. The river channel is irregular in depth, partly because of the phosphate dredges that once operated here.

(44)

Combahee River to Lucy Point Creek

(45) **Combahee River**, 3 miles above the mouth of the Coosaw River, had a reported controlling depth of 11.4 feet, in 2001, for a distance of about 9 miles above the entrance. The river is navigable for craft drawing up to 5 feet to U.S. Route 17 highway bridge 20 miles above the entrance. The highway bridge has a fixed span with a clearance of 14 feet. The mean range of tide is 6.4 feet at Fields Point, about 5.6 miles above the mouth of the river, and 4.4 feet at the highway bridge.

(46) **New Chehaw River**, on the north side of the entrance to Combahee River, is unimportant and has no traffic. **Old Chehaw River** enters the Combahee River from northward about 2 miles above New Chehaw River. The town of **Wiggins** is about a mile above the junction of Old and New Chehaw Rivers.

(47) **Bull River** enters Coosaw River from the northward about 5 miles above the latter's mouth. Two miles above its mouth, Bull River divides into **Williman Creek** and **Wimbee Creek**, which pass north and south, respectively, of **Williman Islands** and rejoin 4.5 miles above the lower junction. The upper section of Williman Creek where it rejoins Wimbee Creek is known as **Schooner Channel**.

(48) **Chisolm** is a small town on the south bank of Wimbee Creek about 1.5 miles above the lower junction with Williman Creek. In 1983, the reported controlling depth to Chisolm was 8 feet. A section of a former railroad

bridge, now used as a fishing pier, is on the west side of Wimbee Creek, 1 mile above the upper junction with Schooner Channel. An overhead power cable with a clearance of 80 feet crosses the creek at this point. In 1983, the reported controlling depth was 8 feet to the fishing pier by way of Bull River, Williman Creek and Schooner Channel; between Chisolm and the upper junction with Schooner Channel, Wimbee Creek is nearly dry in places at low water.

(49) **Parrot Creek**, which enters Coosaw River on the south side directly opposite Bull River, is a 2-mile link between Coosaw and Morgan Rivers. The reported controlling depth through the creek was 11 feet in 1994–1999. Daybeacons mark the north entrance. In 1999, shoaling to bare was reported just north-northwest of Daybeacon 2 in the north entrance to Parrot Creek.

(50) **Lucy Point Creek**, about 2 miles westward of Parrot Creek, also connects Coosaw and Morgan Rivers. In 1994–1999, the reported controlling depth in the creek was 8 feet, for about 0.3 mile. Currents in the creek are reported to be very changeable and unpredictable. A highway bridge crossing the creek 0.3 mile from the entrance has a fixed span with a clearance of 14 feet. The adjacent power and telephone cables have a clearance of 28 feet. There is a surfaced launching ramp close north of the fixed bridge. A daybeacon marks the entrance.

(51)

Morgan River

(52) **Morgan River** flows into St. Helena Sound from westward. The river is about 8 miles long and at its head connects with Chowan Creek, a tributary of Beaufort River. At the divide, this passage is nearly dry at low water where U.S. Route 21 highway bridge has a 28-foot fixed span with a clearance of 4 feet. The mean range of tide near the head of Morgan River is about 7 feet. A marina on the south side of the river about 4.9 miles above the mouth has gasoline, diesel fuel, a pump-out facility, ice, water supplies and berths with electricity. Hull, engine and electronic repairs can be made. In 2013, the reported approach depth was 15 feet. **Coffin Creek**, on the south side of Morgan River near the mouth, has a shrimp-packing plant 1.7 miles above the creek mouth. **Village Creek**, about 0.8 mile above Coffin Creek, has two shrimp-packing plants where diesel fuel and supplies may be obtained in an emergency only. **Edding Creek** is about 1.5 miles west of Village Creek.

(53) On **Jenkins Creek**, about 2.1 miles westward of Edding Creek, are two shrimp-packing plants on the east side of the creek about 1.5 to 2 miles above the mouth. In 1994–1999, the reported controlling depth was 11 feet to these plants where diesel fuel, water and ice can be obtained in an emergency.

(54) On the south shore of the Morgan River, west of Jenkins Creek, a marina has berths, electricity, gasoline, diesel fuel, water, ice, wet and dry storage, marine supplies, launching ramp and a pump-out station. Hull, engine and electronic repairs can be made; a 50-ton lift is available.

(55)

Johnson Creek to Skull Inlet

(56) **Johnson Creek**, at the northern end of Hunting Island, was reported closed at low water in 1973. Extensive shoals, bare at low water, are eastward and northeastward of the mouth of the creek. The area should be used only at high water by shallow-draft vessels with local knowledge.

(57) **Fripp Inlet**, reported to be marked by private buoys, is south of St. Helena Sound between Hunting Island and **Fripp Island**. Two spherical water tanks on cylindrical supports, on Fripp Island southwestward of the inlet, are prominent. The entrance is well defined by breakers and flats that show at low water. The entrance is subject to continual change; entrance should not be attempted without local knowledge. A highway bridge across the inlet has a fixed span with a clearance of 15 feet. On **Old House Creek**, about 0.3 mile westward of the bridge and on the south side of the inlet, is a marina where gasoline, diesel fuel, water, ice, a launching ramp, some marine supplies and a 2-ton mobile hoist are available. In 1983, the reported controlling depth was 6 feet from the entrance to the marina 1.6 miles above the mouth and 12 feet alongside the float. Just southeastward of the marina is the Fripp Island Sea Rescue Heliport. In cases of emergency, the heliport can be contacted through the marina or Fripp Island security on VHF-FM channel 16; telephone 843–838–2832, 843–838–2334.

(58) **Harbor River**, at the head of the inlet, connects with St. Helena Sound to the eastward. **Story River** connects Fripp Inlet with Trenchards Inlet and Station Creek to the westward. In 1983, the reported controlling depth was 5 feet in Harbor River and 5 feet in Story River. U.S. Route 21 highway bridge over Harbor River, 0.5 mile above the mouth, has a swing span with a clearance of 15 feet—the bridge is under construction (2019). An overhead power cable crossing along the southwest side of the bridge has a clearance of 110-feet. **Wards Creek**, on the north side of Harbor River 0.25 mile above the highway bridge, has a shrimp-packing plant about 1.2 miles above the mouth where emergency supplies may be obtained. In 1983, the reported controlling depth was 4 feet.

(59) **Skull Inlet**, 3 miles southwest of Fripp Inlet, is a narrow passage with little water over the bar.

(60)

Pritcharts Inlet to Beaufort

(61) **Pritchards Inlet** (32°17.0' N., 80°33.0' W.), 5 miles northeast of Port Royal Sound, is a narrow passage from the ocean to **Moon Creek** that connects with the upper part of Trenchards Inlet; there is very little water over the bar.

(62) **Trenchards Inlet**, just northeast of Port Royal Sound, has a bar that extends about 2 miles from shore;

the narrow unmarked channel over the bar had a reported controlling depth of 3 feet in 1983. Local knowledge is advised. This inlet is connected at its head by Station Creek, which joins Port Royal Sound to the westward.

(63) **Port Royal Sound**, one of the largest deepwater harbors on the Atlantic Coast between Cape Henry and Key West, has an entrance about 2 miles wide between **Bay Point** on the northeast and **Hilton Head** on the southwest. It is about 50 miles southwest of Charleston and is the ocean entrance to Port Royal and Beaufort.

(64)

COLREGS demarcation lines

(65) The lines established for Port Royal Sound are described in **33 CFR 80.712**, chapter 2.

(66)

Prominent feature

(67) Three water tanks on Hilton Head Island are the most prominent objects at the entrance to Port Royal Sound. The entrance is between shoals that extend up to 10 miles offshore. The land on both sides of the entrance is low and marshy and fringed by sand beaches and timbered land. The breaking shoals are prominent. Port Royal Sound Lighted Buoy P (32°05'08"N., 80°35'02"W.) marks the entrance.

(68)

Channels

(69) A federal project provides for a dredged channel 27 feet deep across the bar and through the sound to Bay Point, thence 24 feet in Beaufort River to a 27-foot turning basin in Battery Creek at Port Royal. For detailed channel information and minimum depths as reported by the U.S. Army Corps of Engineers (USACE), use NOAA Electronic Navigational Charts. Surveys and channel condition reports are available through a USACE hydrographic survey website listed in Appendix A.

(70) Several unmarked channels, all requiring local knowledge, lead through the breakers. South Channel to the westward of the dredged channel and Southeast Channel, between Martins Industry and St. Michaels Breaker just north of it, are the more important. The dredged channel is well marked by lights, lighted ranges and buoys. The channel in Beaufort River, from the dredged channel northward to Beaufort, is part of the Intracoastal Waterway and had a reported controlling depth of 12 feet in 1983.

(71)

Anchorages

(72) Port Royal Sound has natural depths of from 26 to 50 feet and is sometimes used as a harbor of refuge in winter. The best anchorage is off the mouth of Beaufort River westward of Bay Point northwest of Lighted Buoy 25. The holding ground on the rocky bottom south of Bay Point is poor. There is also good anchorage in 22 to 26 feet to the eastward of the dredged channel off the mouth of Chowan Creek.

(73)

Dangers

(74) The breaking shoals extending almost 10 miles off Bay Point, eastward of the entrance channel, and for about 8 miles off Hilton Head Island, are the principal dangers. In thick weather, vessels should not approach the entrance too closely before picking up the pilot, especially on the flood, when the current sets directly onto the shoals: **Martins Industry**, the outermost shoal; **St. Michaels Breakers**, just north of it; and the **Great North Breakers**, between it and Bay Point. **Gaskin Banks**,**Fishing Bank** and **Joiner Bank** are to the westward of the entrance channel. In 1995, a submerged wreck was about 1.5 miles southwest of Port Royal Sound Lighted Whistle Buoy P, in about 32°04'05"N., 80°36'14"W., and submerged obstructions were about 0.35 mile southward and 1 mile south-southwestward of Lighted Whistle Buoy P., in about 32°04'51"N., 80°34'57"W., and 32°04'18"N., 80°35'31"W., respectively.

(75) **Danger zones** of rifle and pistol ranges are in Broad River, Archers Creek and Ribbon Creek. (See **33 CFR 334.480**, chapter 2, for limits and regulations.)

(76)

Current

(77) The tidal currents on the bar have a velocity of 1.5 knots, off Hilton Head 1.8 knots and at Beaufort River entrance 1.4 knots. Winds greatly influence the velocity of the tidal current, especially on the runout after prolonged easterlies, which on the ebb often reaches 5 knots. The current generally sets fair with the channel, except at the turn from the entrance channel into Bay Point Reach, where a strong current sets diagonally across the channel. Here, on the ebb, vessels should exercise caution lest they be set onto St. Michaels Breakers, eastward of the bar channel. The tidal currents in the sound have a velocity of 2 knots or more at times. The tide rips on Fishing Rip sometimes have the appearance of breakers. Predictions for a number of places in Port Royal Sound and vicinity are available from the Tidal Current prediction service at *tidesandcurrents.noaa.gov*. Links to a user guide for this service can be found in chapter 1 of this book.

(78)

Weather, Beaufort, Port Royal Sound and vicinity

(79) Beaufort and Port Royal Sound have a pleasant climate where summers are warm and humid while winters are mild. Winds are generally from the northeast in fall and winter and southerly in spring and summer; the average wind speed is around 10 knots.

(80) The average high temperature at Beaufort is 76°F (24.4°C) while the average low is 57°F (13.9°C). July is the warmest month with an average high of 91°F (32.8°C) and an average low of 74°F (23.3°C). January is the coolest month with an average high of 58°F (14.4°C) and an average low of 39°F (3.9°C). Each month June, July and August has reported temperatures in excess of 100°F (37.8°C), and the all-time warmest temperature of 106°F (41.1°C) occurred in June 1985 and July 1986. Each

month October through April has recorded minimums of freezing or lower, and the coolest reading on record is 5°F (-15°C), recorded in January 1985. In any given year, 90°F (32.2°C) or warmer temperatures can be expected on 56 days while temperatures below freezing can be expected on 25 days.

(81) Summer is the rainy season (June–August), during which 38 percent of the annual rainfall is accumulated on about 7–9 days per month, mostly in the form of showers and thunderstorms. The annual average precipitation for Beaufort is 50 inches (1,270 mm). August is the wettest month, averaging over 7 inches (178 mm), and November is the driest month, averaging 2.4 inches (61 mm). Snowfall is rare in Beaufort, averaging less than 1 inch (25 mm) each year. Snow has fallen in each month December through March, and nearly 6.5 inches (165.1 mm) fell in one 24-hour period during February 1973.

(82) Since 1842, 66 tropical storms have come within 50 miles (93 km) of Beaufort, South Carolina, 25 of these storms since 1950. The most noteworthy in recent time was in 1959 when Hurricane Gracie made landfall just east of Beaufort near Edisto Island at noon on September 29. The Marine Corps Air Station at Beaufort reported sustained winds of 84 knots with gusts to 120 knots. Wind damage for the Beaufort area was the worst on record and flooding was extensive.

(83) Fog occurs mostly in the winter and may be experienced from October to April or after a very warm day when there is a sharp drop in temperature at night. It usually burns off in the forenoon. Easterly winds bring in the fog and westerly winds clear it away.

(84)

Pilotage, Beaufort/Port Royal

(85) Pilotage is compulsory for all foreign vessels and for U.S. vessels under register in the foreign trade. Pilotage is optional for U.S. vessels that have on board a pilot licensed by the Federal Government. Pilotage is available from the Port Royal Branch Pilots Association, P.O. Box 404, Port Royal, SC 29935; telephone, 843–597–0017. The pilot boards vessels at Port Royal Lighted Buoy P (32°05'08"N., 80°35'02"W.) from a 40-foot pilot boat equipped with VHF-FM channel 16. Pilotage is available 24 hours a day. Arrangements should be made in advance by telephone or through the ship's agent. A 24-hour notice of arrival time is requested.

(86)

Towage

(87) There are no tugs at Port Royal or Beaufort. If required, they may be obtained from Charleston or Savannah by prior arrangements through ships' agents.

(88)

Quarantine, customs, immigration and agricultural quarantine

(89) (See chapter 3, Vessel Arrival Inspections, and Appendix A for addresses.)

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

(91)

Harbor regulations

(92) There are no harbor regulations at Port Royal and Beaufort. The State Ports Authority Terminal at Port Royal is under the jurisdiction of the Director of the South Carolina State Ports Authority.

(93)

Wharves

(94) The **South Carolina State Ports Authority Terminal (Pier 21)**, on the northeast side of the turning basin in Battery Creek at Port Royal, is the only deepwater facility in the area. It is owned by the Authority and operated by Port of Port Royal, Inc. The 500-foot marginal wharf at the terminal had reported depths of 27 feet alongside in June 1983. A transit shed and a warehouse with 60,000 square feet and 8,500 square feet of storage area, respectively, are available at the terminal. The terminal has highway and railroad connections. Lumber and agri-chemicals are shipped from the terminal. The other facilities at Port Royal include several small wharves and piers used by fishing vessels. There are only small-craft facilities at Beaufort; these are described later in this chapter.

(95)

Supplies

(96) Some marine supplies and provisions are available through ship chandlers in Savannah. Bunker C fuel oil and diesel oil are brought in by barge or truck from Savannah. Freshwater is piped to the South Carolina State Ports Authority Terminal.

(97)

Repairs

(98) There are no drydocking or major repair facilities for oceangoing vessels at Port Royal and Beaufort; the nearest such facilities are at Charleston and Savannah.

(99)

Communications

(100) Rail freight and bus connections are available. There are good highways to the outer islands and to Savannah, Charleston, and inland places.

(101) **Beaufort River**, which flows into Port Royal Sound from northward just inside Bay Point, is the approach to the U.S. Marine Corps Recruit Training Depot on Parris Island, Port Royal and Beaufort. The river is a link in the Intracoastal Waterway; above the improved portion depths of 12 feet or more can be taken to the city of Beaufort.

(102) **Station Creek** joins Beaufort River from eastward 1 mile above Bay Point. An inside route used only by local fishermen leads from Port Royal Sound to St. Helena Sound through Station Creek, Story River and Harbor River. In 1983, the reported controlling depths were 5 feet in Story River, and Harbor River and in 1999, the reported controlling depth in Station Creek was 3.5 feet.

(103) **Cowen (Chowan) Creek**, which empties into Beaufort River from northeastward about 5 miles above Bay Point, connects at its head with Morgan River. Passage to Morgan River is restricted about 5 miles above the mouth of Cowen Creek by U.S. Route 21 highway bridge and by the shoals in that vicinity.

(104) **Parris Island**, on the west side of the entrance to Beaufort River, is the site of a U.S. Marine Corps Recruit Training Depot. The dock on Parris Island opposite the mouth of Cowen Creek had a reported least depth of 6 feet alongside in 1983. The remains of an old U.S. Naval graving dock are adjacent to the pier. Several tanks and the many large buildings on the island are prominent.

(105) **Battery Creek** empties into Beaufort River from northwestward 7 miles above Bay Point. Above the turning basin at Port Royal, the creek, in 1999, had a reported depth of 12 feet to State Route 802 highway bridge, and thence in 1983, 7 feet in a narrow winding channel to about a half mile below the railroad bridge. At this point, 4.4 miles above the mouth, overhead power cables crossing the creek have a clearance of 12 feet. The highway bridge has a fixed span with a clearance of 45 feet.

(106) **Archers Creek**, a narrow passage leading westward from the mouth of Battery Creek to Broad River, is shoal at its eastern end. There is exposed piling at its western end. About midway of its length, a highway bridge has a 34-foot fixed span with a clearance of 16 feet. An overhead power cable is close eastward of the bridge; clearance is not known. The creek, along with **Ribbon Creek**, is included in the danger zone of a rifle range. (See **33 CFR 334.480**, chapter 2, for limits and regulations.)

(107) **Port Royal**, a town on the north bank of the entrance to Battery Creek, is one of the oldest settlements on the Atlantic and of marked historical interest. The large modern State Ports Authority Terminal, described earlier, is here. Several plants above and below the terminal process shrimp, crab, oysters and fish for shipment inland. Port Royal is the terminus of a branch of the Seaboard System Railroad.

(108) **Beaufort** (pronounced Bew-fert), on the point of land jutting eastward into Beaufort River 11 miles above Bay Point, is a city of great historical interest. The city can also be reached from the northward via the Intracoastal Waterway. There are motels, banks, a hospital and numerous small businesses. A good portion of the commercial life of the city is dependent on the proximity of a U.S. Naval hospital, the Marine Corps Recruit Training Depot, and the Marine Corps Air Station. It has good highway connections with the mainland and the other islands and beaches. It is served by a Class II railroad. Principal commodities handled are fish, crabs and oysters, which are trucked inland after processing, and truck farming. There is fair anchorage in the stream off the wharf westward of U.S. Route 21 highway bridge.

(109) The hospital at Beaufort maintains a pier with a floating landing stage on the south side of Beaufort, westward approximately 1.5 miles from U.S. Route 21 highway bridge. In 1989, the alongside depth was reported as 12 feet. A phone on the pier connects directly to the emergency room.

(110)

Small-craft facilities

(111) A municipal marina is on the south side of Beaufort, just west of U.S. Route 21 highway bridge. Another marina is on the south side of **Factory Creek**. These facilities can provide gasoline, diesel fuel, transient berths, electricity, water, ice, launching ramps, pump-out station, marine supplies and wet and dry storage.

(112)

Broad River to Skull Creek

(113) **Broad River**, which enters Port Royal Sound on the west side of Parris Island, extends northwestward about 16 miles. The river is not difficult to navigate as far as Whale Branch, about 13 miles above the entrance. A **danger zone** of a pistol range is on the west side of Parris Island. (See **33 CFR 334.480**, chapter 2, for limits and regulations.) State Route 170 highway swing bridge with a clearance of 12 feet crosses Broad River about 7 miles above the entrance. (See **33 CFR 117.1** through **117.59** and **117.921**, chapter 2, for drawbridge regulations.) In 2004, a replacement fixed bridge was under construction with a design clearance of 45 feet. Archers Creek, about 4 miles above the entrance of Broad River, connects Broad River with Beaufort River to the eastward; the creek was described earlier in this chapter.

(114) The railroad bridge, which crosses Broad River about 15 miles above the entrance and 2 miles above the junction with Whale Branch is in ruins. The center swing structure remains and many of the plings from the bridge remain and are deteriorating. The fendering system for the bridge is gone and there are no lights—mariners should use caution transiting through the bridge. **Pocotaligo River**, **Tulifiny River**, and **Coosawhatchie River** are shallow streams that empty into the head of Broad River.

(115) **Whale Branch**, which connects Broad River with Coosaw River to the eastward, had a reported midchannel controlling depth of 4.1 feet to U.S. Route 21 highway bridge in 2001; thence in 2003, 5.4 feet was reported to Coosaw River. Overhead power cables crossing the branch have a minimum clearance of 40 feet; the cable with this least clearance crosses the branch immediately eastward of U.S. Route 21 highway bridge about 5.5 miles above the mouth. The U.S. Route 21 highway bridge, 1.5 miles above the railroad bridge, has a fixed span with a clearance of 20 feet.

(116) **Brickyard Creek**, 5 miles eastward of the highway bridges over Whale Branch, connects Coosaw River with Beaufort River to the southward and is a link in the Intracoastal Waterway.

(117) **Chechessee River** empties into Port Royal Sound from westward. The State Route 170 highway bridge crossing the river 10 miles above the mouth has a fixed

span with a clearance of 20 feet. In 1983, the reported controlling depth was 20 feet from the mouth of the Chechessee River to just above **Copp Landing** on the **Colleton River**, 5 miles above the mouth. These rivers are of no commercial importance.

(118) **Mackay Creek** joins Chechessee River from westward about 1 mile above its mouth. The creek, partially marked by a private light and daybeacons, connects Port Royal Sound with Calibogue Sound. This passage is more difficult, narrow and erratic than the route through Skull Creek. Local knowledge is advised. In 2004, the reported controlling depth in Mackay Creek was 8.3 feet. U.S. Route 278 highway bridge over Mackay Creek from **Buckingham Landing** to **Last End Point** has twin fixed spans with clearances of 25 feet. An overhead power cable crossing the river just north of the bridge has a clearance of 43 feet.

(119) **Skull Creek**, a link in the Intracoastal Waterway, enters Port Royal Sound from southwestward about 4 miles above Hilton Head and is described in chapter 12.

(120) **Pinckney Island National Wildlife Refuge**, is a Marine Protected Area on **Pinckney Island**, between Mackay Creek and Skull Creek.

(121)

Calibogue Sound

(122) **Calibogue Sound** is entered between Hilton Head Island and **Daufuskie Island**, about 5 miles northward of Tybee Light (32°01'20"N., 80°50'44"W.). The entrance over the bar is obstructed by shifting shoals through which are several crooked channels. The best channel extends from Tybee Roads northward between Bloody Point Range Front Light and the northwest end of the submerged breakwater 1.9 miles northeast of Tybee Light. The channel into the sound is marked by a daybeacon, lighted and unlighted buoys. There are ample depths inside the bar.

(123)

COLREGS demarcation lines

(124) The lines established for Calibogue Sound are described in **33 CFR 80.715**, chapter 2.

(125) **Cooper River**, of importance only as a section of the Intracoastal Waterway, empties into Calibogue Sound from westward about 3 miles above the entrance to the sound.

(126)

May River to Broad Creek

(127) **May River**, which empties into Calibogue Sound from westward about 6 miles above the entrance, is the approach to the town of **Bluffton**, 7 miles above the mouth. The reported controlling depth in the river to Bluffton was 6.0 feet in 2004. The river is marked by daybeacons as far as Bluffton. **Brighton Beach**, a small town about 3 miles downriver from Bluffton, has two small-boat launching ramps. The overhead power cable near **Buck Point** has a clearance of 35 feet over the narrow northern channel and 68 feet over the southern channel. The clearances for the power cable west of Bluffton are 53 feet over the northern channel and 48 feet over the southern. Passage is sometimes made from May River to Cooper River by way of unmarked **Bull Creek**. The tides meet in Bull Creek, forming flats. In 1999–2004, the creek had a reported controlling depth of about 6 feet to the junction of **Savage Creek**, thence the reported depth was 1 foot to a junction with May River.

(128) **Broad Creek** flows into Calibogue Sound from eastward, about 1.2 miles above the entrance to the sound, and extends 6 miles into Hilton Head Island. In 2004–2005, the reported controlling depth was 8.1 feet for a distance of 5 miles. The creek is marked by private lights and daybeacons for about 5.3 miles above the mouth.

(129) The fixed highway bridge, 3.3 miles above the mouth to Broad Creek, has a clearance of 65 feet.

(130) There are several marinas along Broad Creek with berths, electricity, gasoline, diesel fuel, pumpout, water, ice and wet storage available. Electronic, engine and hull repairs can also be made.

(131)

Savannah River

(132) **Savannah River**, the boundary between the states of South Carolina and Georgia, is 65 miles southwestward of Charleston Harbor and 105 miles northward of the entrance to St. Johns River. It is navigable for deep-draft vessels to the upper end of Savannah Harbor, 19 miles above the outer ends of the entrance jetties, and for barges to the city of Augusta, 172 miles above the entrance.

(133) **Savannah**, on the south bank of Savannah River about 15 miles above the outer end of the jetties, is the second-largest city and chief port of the State of Georgia. It is a leading southern port and is the main distributing point for the surrounding country. The city has considerable coastwise and foreign trade and is connected with coastal cities to the north and south by the Intracoastal Waterway, which crosses Savannah River several miles below the waterfront terminals. The climate is equable, and high-velocity winds are infrequent. The water-borne commerce is of a widely varied nature. Imports include petroleum products, sugar, lumber, cement, gypsum, fertilizer materials, nonferrous ores, textiles, plywood, molten sulfur, chemicals, agricultural machinery and iron and steel products; exports include petroleum products, kaolin clay, woodpulp, vegetable oil, peanuts, grain, naval stores, paper products, tall oil, oil seeds, scrap iron and agricultural machinery.

(134)

Prominent features

(135) **Tybee Light** (32°01'20"N., 80°50'44"W.), 144 feet above water, is shown from an octagonal brick tower, upper and lower thirds black, with a white center, on the northeast end of Tybee Island.

(136) Prominent from seaward, are the water tank at Tybee Island, the flashing red lights atop the three WBMQ radio towers on **Oatland Island**, the large chemical plant southwestward of **Mackey Point**, and the five 200-foot-high tanks on **Elba Island**, about 9 miles above the entrance.

(137)

COLREGS demarcation lines

(138) The lines established for Savannah River are described in **33 CFR 80.715**, chapter 2.

(139)

Channels

(140) A dredged channel leads northwestward through Tybee Roads, thence westward between submerged jetties into the Savannah River. The dredged channel continues for 16 miles to a turning basin at Kings Island, thence for about 2.5 miles to the head of the project, about 500 yards below the US 17/SR 25 highway bridge. The channel is well marked by lighted ranges, lights, lighted and unlighted buoys. For detailed channel information and minimum depths as reported by the U.S. Army Corps of Engineers (USACE), use NOAA Electronic Navigational Charts. Surveys and channel condition reports are available through a USACE hydrographic survey website listed in Appendix A.

(141) A 2.1-mile-long sediment trap is in Back River on the north side of Hutchinson Island. A tide gate is at the head of the sediment trap.

(142)

Anchorages

(143) Most vessels anchor northward or northeastward of the virtual sea buoy, Tybee V-AIS T (31°57'52"N., 80°43'10"W.), where depths range from 19 to 45 feet with good holding ground. It is recommended that no vessel—regardless of size—anchor within a two mile radius of Tybee V-AIS T. There is no anchorage in Savannah River, except in an emergency. Due to strong currents and heavy river traffic, small vessels should not anchor in the river.

(144)

Dangers

(145) The set of the tidal current in and out of the various sounds and inlets should be carefully considered by vessels approaching Savannah by the inshore route. There are several unmarked obstructions in the approaches. The **danger area** of an Air Force air-to-air and air-to-water gunnery and bombing range is about 15 miles seaward of the light. (See **33 CFR 334.490**, chapter 2, for limits and regulations.)

(146) The entrance to the Savannah River is protected by jetties. The north jetty is unmarked and awash at mean high water and marked about 0.2 mile seaward of its east end by a light. The south jetty is submerged at mean high water and marked at the east end by a light.

(147) Moored vessels on the Savannah River are subject to strong surging. Surging can happen at any time but is aggravated by passing ships. All lines should be sufficient in number for the size of the vessel and adequately tensioned such that no movement is allowed at the dock. These forces are compounded by narrow channels, tidal range, current velocity and low tides. The entire shoreline of the Savannah River is subject to these strong surges. Mooring boats on or near both the Georgia and South Carolina riverbanks, particularly in the areas between the entrance jetties and Savannah City front, puts beachgoers, their boats and any other property potentially in extreme danger from passing large commercial ships. Mariners are strongly advised to always maintain situational awareness in all parts of the river, especially when in the vicinity of large commercial ships.

(148)

Regulated navigation areas

(149) Regulations described below are found in chapter 2. General regulations which preceed the specific regulations are also found in chapter 2 at **33 CFR 165.1** through **165.33**. A **safety zone** has been established in the Savannah River around the Garden City Terminal (near Kings Island Turning Basin) and around cargo ships loaded with military equipment transiting the river—see **33 CFR 165.704**. **Security zones** have been established surrounding escorted vessels transiting the Captain of the Port Zone Savannah—see **33 CFR 165.749**. A **security zone** has been established at the LNG mooring slip on Elba Island—see **33 CFR 165.751**. A **regulated navigation area** is in effect at certain times between Tybee Roads approach channel and Fort Jackson (near the eastern end of Hutchinson Island.)—see **33 CFR 165.756**. **Safety zones** will be established at certain times for heavy weather in the Savannah River—see **33 CFR 165.780**.

(150)

Bridges

(151) An overhead power cable with a clearance of 221 feet crosses the main channel of the Savannah River at Fig Island about 10.3 miles above the mouth. The Eugene Talmadge Memorial Highway bridge near the western edge of the city waterfront, 13 miles above the mouth, has a fixed span with a clearance of 185 feet over the center span width of 500 feet. U.S. Route 17A highway served by this bridge also crosses Back River to the northeastward over a trestle with a 34-foot fixed span that has a clearance of 10 feet. The railroad bridge crosses Back River about 1.2 miles above the Eugene Talmadge Memorial Highway bridge on a trestle with a 30-foot fixed span that has a clearance of 11 feet; an overhead power cable on the south side of this bridge has a clearance of 15 feet. An overhead power cable with a clearance of 208 feet crosses the main channel of the Savannah River at Port Wentworth about 4.3 miles above the Eugene Talmadge Memorial Highway bridge, and another cable with a clearance of 55 feet crosses the mouth of Middle River just to the east of the main channel. The US 17/SR 25 (Houlihan) highway bridge (under construction 2022) crosses the waterway about a mile above Port Wentworth at the head of the federal

project. The highway continues on across Middle River and Little Back River. A bridge across Middle River has a 17-foot fixed span with a clearance of 5 feet, and a bridge across Little Back River has a 40-foot fixed span with a clearance of 8 feet.

(152)

Current

(153) The velocity of the ebb current from the entrance jetties to Savannah is from 2.2 to 3.1 knots. The flood current has a velocity of from 1.6 to 2.4 knots. The current is considerably influenced by winds and freshets. The predicted times of slack water and the times and velocities of strength of flood and ebb at the entrance to Savannah River are available from the Tidal Current prediction service at *tidesandcurrents.noaa.gov.* Links to a user guide for this service can be found in chapter 1 of this book. On the outer reaches, a strong cross current exists. These occur when heavy rain falls upriver or when the water is released from the New Savannah Bluff Lock and Dam.

(154) Currents set in the direction of the channel except at the entrance near Tybee Light, where the flood sets northwestward across the channel. Between the jetties the flood sets 260°. Freshets occasionally occur in the spring but do not endanger shipping at the wharves. Cross currents also exist where tributaries intersect the river.

(155) A tide gate structure crosses Back River about 2.3 miles above its junction with Savannah River. The tide gate allows water to enter Back River above the structure on the tidal flood, and at high water slack the gate is closed and the accumulated water is allowed to flow back into the Savannah River northwestward of Hutchinson Island. The tide gate operates automatically, and the area immediately upstream and downstream has been designated a restricted area and is marked by buoys and signs.

(156)

Weather, Savannah and vicinity

(157) This area features a temperate climate with mild winters and warm, humid summers. The average high temperature at Savannah is 77°F (25°C) and the average low is 56°F (13.3°C). July is the warmest month with an average high of 92°F (33.3°C) and an average low of 72°F (22.2°C). January is the coolest month with an average high of 60°F (15.6°C) and an average low of 39°F (3.8°C). Each month, May through September has recorded temperatures in excess of 100°F (37.8°C) while each month, October through April has recorded temperatures of freezing or lower. The record high temperature at Savannah is 105°F (40.6°C) set in July 1986 and the all-time minimum is 3°F (-16.1°C) recorded in January 1985. The average number of occurrences of maximum temperatures of 90°F (32.2°C) or warmer is 76 days for any one year and the average number days of occurrences of 32°F (0°C) or colder minimum temperature is 24 days (based on the 1981-2010 climate averages). The local climate varies significantly between the coast and the city region. The lessening Atlantic influence upriver results in about twice as many 90°F (32.2°C) days in summer and twice as many freezing nights in winter, as compared to the coast.

(158) Average annual rainfall in the Savannah area is about 48 inches (1219 mm). In general, the city receives about 5 to 6 more inches (127 to 152 mm) of precipitation on 5 to 10 more days, annually, than the coast. Summer tends to be the rainiest season with near 38 percent of annual average precipitation occurring during these months. Precipitation is largely from afternoon thunderstorms, although substantially higher amounts are seen with tropical systems. Rainfall during late fall is at an annual minimum. Precipitation during winter is typically more uniformly distributed than in summertime. Measurable snow and ice storms are a rarity. In fact, it is not uncommon for some years to pass without any frozen precipitation occurring.Average annual rainfall in the Savannah area is about 48 inches (1219 mm). In general, the city receives about 5 to 6 more inches (127 to 152 mm) of precipitation on 5 to 10 more days, annually, than the coast. Summer tends to be the rainiest season with near 38 percent of annual average precipitation occurring during these months. Precipitation is largely from afternoon thunderstorms, although substantially higher amounts are seen with tropical systems. Rainfall during late fall is at an annual minimum. Precipitation during winter is typically more uniformly distributed than in summertime. Measurable snow and ice storms are a rarity. In fact, it is not uncommon for some years to pass without any frozen precipitation occurring.

(159) Winds can exceed 35 knots in strong to severe thunderstorms, which sometimes organize into squall lines either ahead of, or along a cold front. Thunderstorms can be particularly violent during spring when cold and warm air masses collide.

(160) Dense fog at the airport occurs on an average of 4 to 5 days per month from September through January. This is usually a radiation fog so that visibilities are poorest in the early morning hours but improve during the day. Along the coast, this type of fog is less frequent, but a more persistent sea fog may hamper visibility in winter and spring.

(161) The official hurricane season runs from June through November. However, the most likely time for the region to be impacted by tropical systems is from August through October. Since 1842, 85 tropical storms and hurricanes have come within 50 miles (93 km) of Savannah, Georgia, with 37 of these storms hitting since 1950. Due to the geographical location and the indentation of the Georgia coastline, direct landfalls in/near Savannah are rare, especially recently, although historical records show a higher number of hurricane strikes during the mid-late 1800s. Typically, hurricanes approaching from the Atlantic result in the highest storm surge, especially storms that make landfall just south of Savannah. However, storms making landfall along the Gulf Coast can still significantly impact the area with storm surge,

high winds, heavy rain and/or tornadoes. More recently, Hurricanes Matthew (2016) and Irma (2017) resulted in the highest recorded storm tide levels since 1935, with 12.56 (3.8 m) and 12.24 feet (7.3 m) above MLLW at the Ft. Pulaski tide gauge. Hurricane Matthew also produced peak winds of over 90 mph (78 knots) on Tybee Island, near the entrance of the Savannah River channel. Rainfall totals from tropical systems typically reach 10+ inches (500+ mm).

(162) The National Weather Service Office serving the Savannah area is located at the Charleston International Airport, where **barometers** are compared.

(163)

Pilotage, Savannah

(164) Pilotage is compulsory for all foreign vessels over 200 gross tons and U.S. vessels under register in the foreign trade. Pilotage is optional for U.S. vessels in the domestic trade, which have on board a pilot licensed by the Federal Government. Pilotage is available from the Savannah Bar Pilots Association, Inc.,130 Houston Street, Savannah, GA 31412, telephone 912–236–0226, FAX 912–236–6571, or email: Dispatcher@savannahpilots.com. The pilots maintain three pilot boats; the 64-foot GEORGIA, the 56-foot SAVANNAH and the 55-foot CAROLINA. All have blue hulls and white superstructures, fly the code flag H, and are equipped with VHF-FM channels 16, 14 and 13. The boats are in direct communication with the pilot office in Savannah. Communications on channels 16 and 14 are monitored by the pilot's office on a 24-hour basis and by the pilot boats at all hours when working ships. All vessels should contact the Savannah Pilot Office on VHF-FM channel 14 no later than 2 hours prior to arrival for pilot boarding instruction. Pilots will board from the pilot boat in the vicinity of one of the following pilot boarding areas to be determined by the pilots based on vessels draft, height of tide, and vessel traffic. "A" (31°56'04"N., 80°34'38"W.) "B" (31°56'42"N., 80°41'20"W.) Vessels instructed to proceed to Pilot Boarding Area "B" for boarding should plan to approach south of Tybee Range in order not to impede any traffic that may be underway in the channel. Arriving vessels will be contacted by the pilot boat 1 hour prior to boarding for instructions concerning course, speed and pilot ladder arrangements.

(165) Ships are taken in day or night; deeper draft vessels are taken in on a rising tide. Pilots are arranged for in advance by telephone or FAX (above), through the Savannah Pilot Office, through VHF-FM channel 14 or through ships' agents.

(166) The Savannah River Pilots Association participates in the North Atlantic right whale Early Warning System (see North Atlantic right whales, indexed as such, chapter 3.)

(167) Pilotage for enrolled and public vessels is available from Coastal Line Handling and Piloting, P.O. Box 15095, Savannah, GA 31416, telephone 912–344–4996, or 24 hours at 912–657–5772. A six-hour advance notice is requested. Coastal Line Handling and Piloting monitors VHF-FM channels 16 and 18A.

(168)

Towage

(169) Tugs up to 7,000 hp are available at Savannah on a 24-hour basis; services must be arranged for in advance. Vessels usually proceed from the bar to Savannah without assistance. Tugs are available for docking, undocking and when shifting berths. Vessels are met by tugs just below their assigned berths or elsewhere in the harbor as required.

(170)

Quarantine, customs, immigration and agricultural quarantine

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

(172) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.) There are public and private hospitals in the city.

(173)

Coast Guard

(174) A **Marine Safety Unit** is in Savannah. (See Appendix A for address.) **Tybee Coast Guard Station** is on the north side of Cockspur Island at the mouth of the river, and **Savannah Coast Guard Air Station** is at Hunter Army Airfield, south of the city.

(175) Savannah is a **customs port of entry.**

(176)

Harbor regulations

(177) The Savannah Port Authority has jurisdiction over Savannah Harbor and the port district. Port and harbor regulations are enforced within the port and port district by the **harbormaster**, who can be reached at City Hall or through the Savannah Port Authority, and by the county and municipal police forces. Copies of the port and harbor regulations are available from the Savannah Port Authority, 42 E. Bay Street. A **speed limit** of 4 mph, against the current, and 6 mph, with the current, is in force within the harbor limits. The Georgia Ports Authority owns and operates the state docks and warehouses.

(178)

Wharves

(179) There are numerous wharves of all types at Savannah; only the major ones are described. Most of the facilities have highway and railroad connections as well as water and electrical shore power. The smaller facilities at Savannah are used by barges and small vessels and as vessel repair berths; these are not described. Cargo is generally handled by ship's tackle; special cargo handling equipment, if available, is mentioned in the description of the particular facility. The alongside depths given for each facility described are reported depths. (For information on the latest depths, contact the operator.)

(180) **Facilities on the south side of Savannah River below the Eugene Talmadge Memorial Bridge:**

(181) **Southern LNG, Elba Island Wharf** (32°04'55"N., 80°59'20"W.): Two unloading docks located in 40 acre slip perpendicular to Savannah River shipping channel; Slip maintained to 42 feet at MLW; North and South docks each have 1,300 feet of berthing space with dolphins; unloading platform with gangway; deck height 21 feet at MLW; pipeline extends to five storage tanks with total capacity of 3.4 million barrels; import and export of liquefied natural gas; owned and operated by Southern LNG, Inc.

(182) **ST Services, Savannah Terminal, East Tank Farm, Dock No. 1** (32°04'48"N., 81°02'32"W.): 54-foot face, 600 feet of berthing space with dolphins; 24 feet alongside; deck height, 17 feet; storage tanks, 543,850-barrel capacity; receipt of petroleum products; owned and operated by ST Services.

(183) **Phillips 66 Co., Savannah Terminal Wharf** (32°04'46"N., 81°02'38"W.): 87-foot face; 605 feet of berthing space with dolphins; 34 feet alongside; deck height, 15 feet; storage tanks with 150,000-barrel capacity; receipt of petroleum products; owned and operated by 76 Lubricants Co., a division of Tosco Corp.

(184) **GP Gypsum Corp., Savannah Wharf** (32°04'45"N., 81°03'08"W.): 514-foot face; 746 feet of berthing space with dolphins; 39 feet alongside; deck height, 13.9 feet; 3 shipside receiving hoppers, 800-tons per hour unloading rate; open storage, 250,000-ton capacity; railway track connection to CSX Transportation, Inc.; receipt of gypsum rock and limestone by conventional bulk vessels; owned and operated by GP Gypsum Corp.

(185) **Savannah Bulk Terminal, LLC. Wharf, Berth 2** (32°04'45"N., 81°03'54"W.): 80-foot face; 1,100 feet of berthing space with dolphins; 36 feet alongside; deck height, 13 feet; open storage area for 250,000 tons; vessel-loading spout, 1,100 tons per hour loading rate; receipt and shipment of multiple dry bulk commodities, operated by East Coast Terminal Co.

(186) **East Coast Terminal Co. Wharf, Berths 3-7** (32°04'42"N., 81°04'06"W.): 1,800-foot face; 1,800 feet of berthing space; 34 to 36 feet alongside; deck height, 13 feet; four transit sheds, total 304,900 square feet; 28 acres open storage; pipeline extends from wharf to storage tank in rear, 1 million-gallon capacity; receipt and shipment of conventional and containerized general Cargo operated by East Coast Terminal Co. & Stevedoring Savannah, LLC.

(187) **Georgia Ports Authority, Ocean Terminal, Berths 1-2** (32°05'11"N., 81°05'54"W.): 1,178-foot face; 1,250 feet of berthing space with dolphin; 42 feet alongside; deck height, 15 feet; two transit sheds, total 171,950 square feet storage; surfaced open storage at rear; receipt and shipment of conventional and containerized general cargo; owned and operated by Georgia Ports Authority.

(188) **Facilities on the north side of Savannah River at Hutchinson Island below the Eugene Talmadge Memorial Bridge:**

(189) **Crescent Towing, Savannah Wharf** (32°05'03"N., 81°05'22"W.): 375-foot face; 375 feet of berthing space; 15 feet alongside; deck height, 13 feet; mooring company-owned floating equipment; owned by International Paper Realty Corp. of South Carolina, and operated by Crescent Towing.

(190) **Savannah Marine Services Wharf** (32°05'09"N., 81°05'42"W.): 200-foot face; 200 feet of berthing space; 8 to 15 feet alongside; deck height, 13 feet; several diesel crawler cranes up to 65-ton capacity, one 45-ton and one 18-ton mobile cranes; mooring vessels for repair; mooring floating drydock; mooring company-owned floating equipment; owned and operated by Savannah Marine Services, Inc.

(191) **Facilities on the Southwest side of Savannah River above Eugene Talmadge Memorial Bridge:**

(192) **Georgia Ports Authority, Ocean Terminal, Berth 13** (32°05'26"N., 81°06'08"W.): 975-foot face; 975 feet of berthing space; 42 feet alongside; deck height, 15 feet; three transit sheds, total 350,460 square feet storage; about 2 acres surfaced open storage with 83 acres of backup open storage; receipt and shipment of conventional and containerized general cargo.

(193) **Georgia Ports Authority, Ocean Terminal, Berths 14-17** (32°05'25"N., 81°06'18"W.): 1,128-foot face (Berths 14 and 15); 1,041-foot face (Berths 16 and 17); 34 feet alongside; deck height, 15 feet; transit sheds, total 327,700 square feet storage; receipt and shipment of conventional and containerized general cargo; mooring vessels.

(194) **Georgia Ports Authority, Ocean Terminal, Berths 18-20** (32°05'38"N., 81°06'22"W.): 1,666-foot face; 1,666 feet of berthing space; 38 to 42 feet alongside; deck height, 15 feet; transit shed, total 57,000 square feet storage; surfaced open storage area; receipt and shipment of conventional and containerized general cargo; receipt of liquid latex.

(195) **Colonial Terminals, Savannah Plant No. 1, Dock 1** (32°05'47"N., 81°06'32"W.): 60-foot face; 683 feet of berthing space with dolphins; 38 feet alongside; deck height, 12.5 feet; storage tanks to about 1.66-million barrel capacity; receipt and shipment of petroleum products, petrochemicals, and chemicals; loading harbor-bunkering barges with bunker C and marine diesel fuel; owned and operated by Colonial Terminals, Inc.

(196) **Colonial Terminals, Savannah Plant No. 2, Dock 2** (32°06'06"N., 81°06'58"W.): 210-foot face; 750 feet of berthing space with dolphins; 38 feet alongside; deck height, 15 feet; storage tanks to 770,000 barrel capacity; shipment and occasional receipt of dry bulk commodities, including kaolin and fertilizer; shipment of liquid kaolin; owned and operated by Colonial Terminals, Inc.

(197) **IMTT Savannah North Wharf** (32°06'36"N., 81°07'26"W.): 240-foot face; 675 feet of berthing space with dolphins; 38 to 40 feet alongside; deck height, 12 feet; pipelines extend from wharf to storage tanks, total capacity 1.1-million barrels; receipt of crude oil; shipment of petroleum products; shipment and occasional receipt of asphalt; owned and operated by International Matex Tank Terminals, Inc.

(198) **Metro Ports Savannah Wharf** (32°06'46"N., 81°07'48"W.): 350-foot face (Dock B); 750 feet of berthing space with dolphins; 70-foot face (Dock A); 36 feet alongside; deck height, 14 feet; covered storage to 100,000 square feet; 8 acres open storage; receipt and shipment of miscellaneous dry bulk commodities; receipt and shipment of break bulk commodities, including logs, steel, and gypsum board; owned by Metropolitan Stevedoring Company.

(199) **NGC, Inc., dba National Gypsum** (32°06'56"N., 81°07'48"W.): 400-foot face; 650 feet of berthing space with dolphins; 28 feet alongside; deck height, 12.3 feet; open storage for 100,000 tons; one receiving hopper for self-unloading vessels served by electric belt conveyor system; receipt of gypsum rock; owned and operated by NGC, Inc., dba National Gypsum.

(200) **Georgia Ports Authority, Garden City Terminal, Berth 50** (32°07'02"N., 81°07'52"W.): 80-foot face; 620 feet of berthing space with dolphins; deck height, 15 feet; pipelines extend from wharves to storage tanks, 2-million barrel capacity; one 2-ton telescopic boom for handling hose; railway connection to CSX Transportation, Inc., and Norfolk Southern Corp.; receipt and shipment of petroleum products, petrochemicals, and chemicals; receipt of vegetable oil, liquid fertilizer, and liquid latex; owned by Georgia Ports Authority; and operated by Vopak Terminal Savannah, Inc.

(201) **Georgia Ports Authority, Garden City Terminal, Container Berth 6** (32°07'12"N., 81°08'00"W.): 1,690-foot face; 1,690 feet of berthing space; 42 feet alongside; deck height, 15 feet; 395 acres surfaced open storage area; 49,500 square feet covered storage area; container cranes to 50 long tons; gantry cranes to 40 long tons; toplifts to 43 tons; stackers to 7.5 tons; forklifts to 25 tons; railway connection to CSX Transportation, Inc., and Norfolk Southern Corp.; receipt and shipment of containerized and roll-on/roll-off general cargo; owned and operated by Georgia Ports Authority.

(202) **Georgia Ports Authority, Garden City Terminal, Container Berths 1-5** (32°07'36"N., 81°08'12"W.): 2,369-foot face (Berths 4-5); 2,369 feet of berthing space; 2,478-foot face (Berths 1-3); 2,478 feet of berthing space; 42 feet alongside; deck height, 15 feet; container cranes to 50 long tons; gantry cranes to 40 long tons; toplifts to 43 tons; stackers to 7.5 tons; forklifts to 25 tons; railway connection to CSX Transportation, Inc., and Norfolk Southern Corp.; receipt and shipment of containerized and roll-on/roll-off general cargo; owned and operated by Georgia Ports Authority.

(203) **Georgia Ports Authority, Garden City Terminal, Container Berth 62** (32°08'11"N., 81°08'36"W.): 135-foot face; 682 feet of berthing space with dolphins; 36 feet alongside; deck height, 15 feet; pipeline extends from wharf to 17-million gallon storage tanks; one swivel-jointed pipeline loading arm; railway connection to CSX Transportation, Inc., and Norfolk Southern Corp.; receipt of anhydrous ammonia; owned by Georgia Ports Authority, and operated by PCS Phosphate.

(204) **Facilities on the west side of Savannah River (Port Wentworth):**

(205) **Savannah Sugar Refinery Wharf** (32°08'48"N., 81°08'33"W.): 288-foot face; 30 feet alongside; 600 feet of berthing space with dolphin; deck height, 18 feet; pipeline extends from wharf to storage tanks, 3.66-million gallons capacity; 150,000-ton covered storage area; crawler cranes to portable 15-ton receiving hoppers serving electric belt conveyors, extending to refinery in rear; receipt of raw sugar, molasses, and fuel oil for plant consumption, owned and operated by Imperial Sugar Company, Division of Louis Dreyfus Commodities, LLC.

(206) **Atlantic Wood Industries Wharf** (32°08'51"N., 81°08'35"W.): 217-foot face; 26 feet alongside; 400 feet of berthing space with shore moorings; deck height, 12 feet; 35 acres open storage; forklifts to 10-tons; mobile cranes to 50-tons; shipment of timber and timber products; owned and operated by Atlantic Wood Industries, Inc.

(207) **Georgia Steamship Co., Savannah Wharf** (32°09'09"N., 81°09'06"W.): 200-foot face; 36 feet alongside; 800 feet of berthing space with dolphins; deck height, 16 feet; 48 acres open storage; 230,000 square feet covered storage; forklifts to 9 tons; receipt and shipment of conventional general cargo, paper rolls, lumber, plywood, supplies and equipment; owned and operated by Georgia Steamship Co., subsidiary of Georgia-Pacific Corp.

(208)

Supplies

(209) All kinds of marine supplies and provisions are available at Savannah. Large vessels are usually bunkered at berth in the harbor from barges. Fresh water is available at most of the berths.

(210)

Repairs

(211) There are two major marine repair facilities at Savannah that can make all types of hull, engine, electrical, and electronic repairs to oceangoing vessels. Both facilities are on the southwest side of the river, about 200 feet and 0.85 mile above the Eugene Talmadge Memorial Bridge, respectively. A graving dock, 540 feet long, 73 feet wide, and 20 feet over the keel blocks at mean low water, is at the more northerly facility; cranes up to 50 tons are available here. The other facility has a 180-foot marine railway; cranes to 60 tons are available here. Machine, electronic, electrical, sheet metal and welding repair shops are off the waterfront at Savannah. Floating cranes up to 75 tons are available.

(212)

Communications

(213) Savannah has excellent rail, water, highway and air transportation facilities. Two railroads operate out of the city. There is regular scheduled steamship service to all parts of the world and considerable shipping coastwise and along the Intracoastal Waterway. Two major airlines, several bus lines and numerous truck lines serve Savannah.

The city has highway connections with Interstate Routes 16 and 95 and with U.S. Routes 17, 17A and 80.

(214)

Small-craft facilities

(215) Water and electricity are available at the Municipal Dock, the only small-craft facility at Savannah. The dockmaster can be contacted at City Hall. The nearest place where gasoline, diesel fuel and other services can be obtained is on the Intracoastal Waterway south of Savannah at Thunderbolt, or at Isle of Hope. (See chapter 12 for details.)

(216)

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(217) The Savannah River above Savannah is navigable to the city of **Augusta**, 172 miles (198 statute miles) above the mouth. A federal project provides for a 9-foot channel over a width of 90 feet from near U.S. Route 17 highway bridge, 18.8 miles (21.6 statute miles) above the mouth, to Augusta. (For detailed channel information and minimum depths as reported by the U.S. Army Corps of Engineers (USACE), use NOAA Electronic Navigational Charts. Surveys and channel condition reports are available through a USACE hydrographic survey website listed in Appendix A.) Daybeacons mark some of the shoal and critical spots in the river, but the best guide for the mariner is the use of the chart to carry the best water. The river is swift and tortuous; daybeacons are sometimes carried away. Numerous foul areas exist near the shore, and floating debris is a constant danger to navigation. Local knowledge is advised.

(218) The freshet variation above the normal pool level of the **New Savannah Bluff Lock and Dam**, 162.7 miles (187.2 statute miles) above the mouth, is about 13 feet ordinarily, with an extreme of 34 feet. The lock is 360 feet long and 56 feet wide and has a depth over the lower miter sill of 10 feet. The depth over the upper miter sill at normal pool level is 13½ feet; the vertical lift is 15 feet. Anyone desiring lockage must contact the lock operator at least 24 hours in advance at the New Savannah Bluff Lock and Dam Office, 706-798-4644, or the James B. Messerly Wastewater Treatment Plant, 706-793-1691. Calls to either location should be made between 0800 and 1630, Monday through Friday, except on designated holidays for City of Augusta offices. The lock will be operated seven days a week between the hours of 0800 and sunset on appointment. There is no navigation lock in the dam about 4 miles above Augusta.

(219)

Bridges

(220) Between U.S. Route 17 highway bridge and the lock and dam, the limiting clearances of the drawbridges are 7 feet and 27 feet for the fixed bridges. Between the lock and the head of navigation the limiting drawbridge clearances are 12 feet and the fixed bridges 26 feet at normal pool level. The bridgetender of the railroad bridge at Clyo, about 53 miles above the mouth, monitors VHF-FM channel 16 and works on channel 13; call sign, WKB-679. (See **33 CFR 117.1** through **117.59**, **117.371**, and **117.937**, chapter 2, for drawbridge regulations.) Overhead power cables with clearances of 76 feet and 53 feet cross the river 169.7 miles (195.3 statute miles) and 174.8 miles (201.1 statute miles) above the mouth, respectively.

(221) There are numerous landings between Savannah and Augusta without wharves or rail connections. At New Savannah Bluff Lock, fuel, supplies and services can be arranged for by telephone. Fuel, supplies and services are available at Augusta.

(222) A city wharf, a Georgia State barge terminal and an oil terminal are at Augusta.

(223) The barge terminal has a depth of 9 feet alongside and a transit shed with 40,000 square feet of storage space. Modern freight-handling equipment up to 10-ton lifting capacity is available, and the terminal is served by rail and truck connections.

(224) The traffic on the river above Savannah is mainly barges carrying petroleum products.