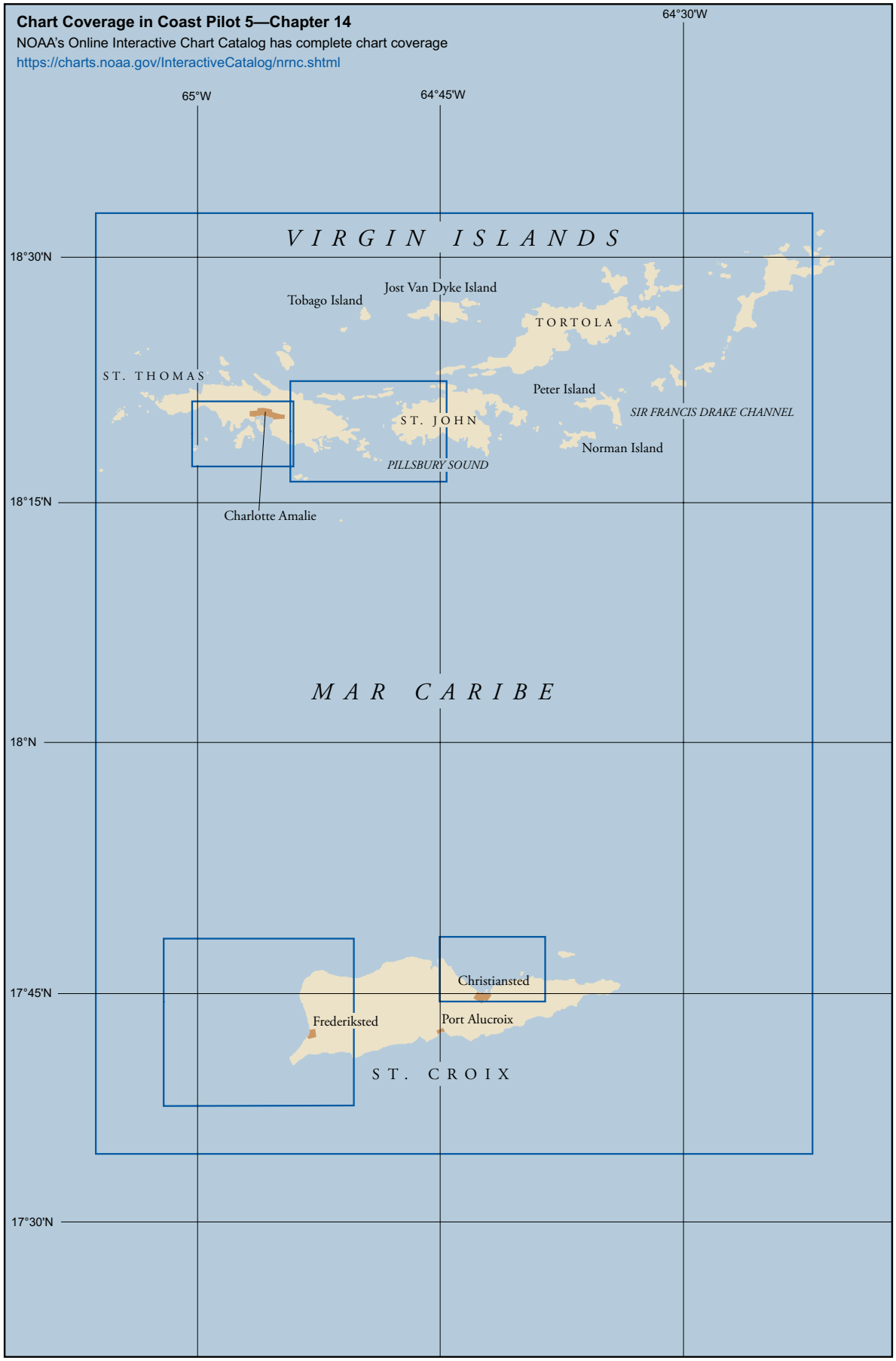
Chart Coverage in Coast Pilot 5—Chapter 14
NOAA's Online Interactive Chart Catalog has complete chart coverage
https://charts.noaa.gov/InteractiveCatalog/nrnc.shtml
64°30'W
65°W
64°45'W
VIRGIN ISLANDS
18°30'N
Jost Van Dyke Island
Tobago Island
TORTOLA
ST. THOMAS
Peter Island
SIR FRANCIS DRAKE CHANNEL
ST. JOHN
Norman Island
PILLSBURY SOUND
18°15'N
Charlotte Amalie
MAR CARIBE
18°N
Christiansted
17°45'N
Frederiksted
Port Alucroix
ST. CROIX
17°30'N

Virgin Islands

(1) This chapter describes the United States **Virgin Islands**, which include the islands of St. Thomas, St. John and St. Croix and about 40 small islets or cays. Information is given on the ports and harbors of the islands including Charlotte Amalie, Christiansted, Port St. Croix, Cruz Bay and Frederiksted. A general description of the British Virgin Islands is also included; more complete information is given in Pub. No. 147, Sailing Directions (Enroute), Caribbean Sea, Vol. I, published by the United States National Geospatial-Intelligence Agency, and West Indies Pilot, Volume II, published by the United Kingdom Ministry of Defense Hydrographic Department.

(2)

Note

(3) In this chapter a chart number marked by an asterisk indicates that the chart is published by National Geospatial-Intelligence Agency.

(4) The **United States Virgin Islands**, separated from the easternmost island of the Puerto Rico group by 8-mile-wide Virgin Passage, were purchased from Denmark in 1917 and United States citizenship conferred upon the islanders in 1927. Under the revised Organic Act of 1954, legislative powers are vested in a Senate, whose members are elected by the islanders for 2-year terms. The Governor, who has certain veto powers, is elected by the people of the U.S. Virgin Islands. The capital is Charlotte Amalie, on the island of St. Thomas.

(5) The **British Virgin Islands** are north and east of the United States group. The United States-United Kingdom boundary extends southeast between Hans Lollik and Little Tobago Islands, thence through the narrows between St. John and Tortola Islands, and thence south through Flanagan Passage between Flanagan and Norman Islands.

(6)

Prominent features

(7) Making the Virgin Islands from the north, Virgin Gorda (British) will be seen on the extreme left, rising in a clear, well-defined peak about 1,400 feet high. Next to Virgin Gorda, Tortola (also British) will appear most conspicuous; the highest mountain appears flattened and elongated from north but rises to an elevation of about 1,800 feet. Immediately west of Tortola will be seen the rugged, pointed peaks of Jost Van Dyke (British), rising to about 1,100 feet, and behind them the irregular small peaks rising from the tableland of St. John (U.S.) to heights of 800 to 1,300 feet.

(8) From about 20 miles north of the islands, a separation will be observed between St. Thomas and St. John, but St. John, Jost Van Dyke, Tortola and Virgin Gorda will appear to be one large island. St. Thomas is less rugged in outline than the other islands, but it may be recognized from its large midisland saddle that has horns nearly 1,600 feet high; the saddle is equally conspicuous from the south.

(9)

COLREGS Demarcation Lines

(10) The lines established for the Virgin Islands are described in **33 CFR 80.738**, chapter 2.

(11)

Vessel traffic management

(12) (See **33 CFR Part 161, Subpart A**, chapter 2, for regulations requiring notifications of arrivals, departures, hazardous conditions and certain dangerous cargoes to the Captain of the Port.)

(13)

Routes

(14) From Charlotte Amalie to the Straits of Florida, proceed through Virgin Passage and thence as direct as safe navigation permits along the north coasts of Puerto Rico and Hispaniola, and then along the north coast of Cuba through Old Bahama and Nicholas Channels to destination. The distance is 1,086 miles.

(15) Bound to Baltimore, New York or Boston, pass west of Sail Rock and, when clear of Virgin Passage, take a great circle course direct to destination. Distances from Charlotte Amalie are 1,418 miles to Baltimore, 1,435 miles to New York and 1,517 miles to Boston.

(16)

Currents

(17) The currents among the Virgin Islands, although of considerable importance to navigators, are not well established by observation. The tidal current is said to set southeast and northwest. In the general vicinity of the islands there is an oceanic current with a velocity of about 0.2 knot that sets in a direction varying from northwest to west. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(18)

Weather

(19) The following description of weather conditions in the Virgin Islands was prepared by the Office of

(24)

METEOROLOGICAL TABLE – COASTAL AREA OFF VIRGIN ISLANDS
Between 17°N to 19°N and 64°W to 66°W

WEATHER ELEMENTS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEARS OF RECORD
Wind > 33 knots [1]	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.0	0.3	0.1	0.1
Wave Height > 9 feet [1]	1.1	0.7	1.0	0.7	0.4	0.5	0.8	0.8	1.0	0.4	1.3	1.6	0.9
Visibility < 2 nautical miles [1]	0.1	0.2	0.2	0.2	0.5	0.2	0.4	0.4	0.4	0.2	0.7	0.3	0.3
Precipitation [1]	2.9	2.3	2.9	2.5	5.3	3.9	3.6	4.4	4.5	3.8	6.6	4.9	3.7
Temperature > 69° F	99.7	99.8	99.6	99.9	99.9	100.0	99.9	100.0	100.0	100.0	100.0	100.0	99.9
Mean Temperature (°F)	78.1	77.9	77.9	79.0	80.5	81.9	82.4	82.7	82.8	82.5	81.2	79.5	80.1
Temperature < 33° F [1]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean RH (%)	77	76	76	77	80	79	79	80	79	80	78	77	78
Overcast or Obscured [1]	3.3	3.1	4.2	4.3	11.3	8.2	7.9	7.9	8.9	7.3	6.3	6.0	6.0
Mean Cloud Cover (8ths)	3.3	3.3	3.3	3.5	4.3	4.1	4.0	3.9	4.1	3.9	3.8	3.7	3.7
Mean SLP (mbs)	1016	1016	1016	1015	1015	1016	1017	1015	1014	1013	1013	1015	1015
Ext. Max. SLP (mbs)	1032	1031	1030	1028	1027	1028	1027	1028	1025	1026	1025	1028	1032
Ext. Min. SLP (mbs)	1001	1001	1002	1001	1002	1003	1005	1001	1001	1000	999	1000	999
Prevailing Wind Direction	E	E	E	E	E	E	E	E	E	E	E	E	E
Thunder and Lightning [1]	0.1	0.1	0.1	0.1	1.5	1.4	1.8	2.3	4.3	4.4	2.3	0.7	1.3

[1] Percentage Frequency

Climatology, Environmental Data and Information Service.

(20)

Wind

(21) One of the outstanding features of the climate in the Virgin Islands is the steadiness of the trade winds. They blow almost without exception from an east direction, or between north-northeast and south-southeast. The highest mean maximum wind speeds usually occur in the winter from late December to the end of January. Superimposed on the trade winds are the land and sea breezes, which are important in most coastal areas. Night winds are lighter than the daytime winds. About daybreak the wind speed begins to pick up, reaching a maximum late in the morning or early afternoon. A return to the lighter nighttime winds begins during the late afternoon, usually about 1600. It must be remembered that these islands are located in the path of occasional tropical storms or hurricanes and extremely high winds may be experienced during such passages. Thirteen tropical systems have passed within 50 miles of Charlotte Amalie since 1950 including Georges in 1998, Marilyn in 1995, Hugo in 1989, and Donna in 1960. Both Hugo and Donna provided winds in excess of 130 knots. (See chapter 3 for information about hurricanes.)

(22)

Precipitation

(23) The time of maximum rainfall expectancy is roughly from May through November or December, with showers providing most of the rain. The heavier rains have usually been associated with tropical cyclones and hurricanes that are most likely to reach the area during the months of August, September and October or with frontal systems or east waves that may reach the area in these or other months. The average annual rainfall at Charlotte Amalie is 41 inches, with a maximum rainfall during September and a minimum in February. The average annual temperature at Charlotte Amalie is 80.4°F, with a average maximum of 85.7°F and an average minimum of 74.7°F. Each month, April through November, has recorded maximum temperatures in excess of 90°F with the all-time maximum, 92°F, occurring in six separate months: May, and July through November, of various years. The extreme minimum temperature recorded at Charlotte Amalie is 63°F, recorded in January 1956.

(25)

Pilotage, U.S. Virgin Islands

(26) Vessels of and above 100 gross registered tons and those vessels carrying explosives and dangerous cargo must engage for the services of an Insular Government pilot in order to enter, leave or shift berths in a U.S. Virgin Islands port. Vessels of less tonnage and vessels of the United States or foreign governments are exempt from pilotage unless a pilot is actually employed. Exempted vessels when requiring the services of a pilot will be charged the regular rate. Pilots will take all classes of vessels in or out, day or night, unless otherwise noted. Arrangements for pilots shall be made 24 hours prior to ship's arrival. St. Thomas Pilots: sttpilots@gmail.com; 340–774–1629; VHF Channel 14. St. Croix Pilots: stxpilots@gmail.com; 340–778–3131; VHF Channel 12. Christiansted and Frederiksted / VHF Channel 14 Krause.

(27)

Quarantine, customs, immigration and agricultural quarantine

(28) National quarantine laws are enforced in the U.S. Virgin Islands by officers of the U.S. Public Health Service. All vessels from foreign ports, vessels with sickness on board and vessels from domestic ports where certain quarantinable diseases prevail are subject to inspection. (See Public Health Service, chapter 1.)

(29) The **customs** collection district of the U.S. Virgin Islands is under the jurisdiction of the U.S. Treasury Department but has its own customs laws. Imports manufactured in the United States enter free of duty. All foreign goods coming into the islands are subject to an import duty of 6 percent, ad valorem, unless specified as free of duty, even if imported from continental United States.

(30) **Agricultural quarantine** laws are enforced by officials at Charlotte Amalie and Christiansted.

(31) The United States immigration laws apply in the U.S. Virgin Islands. Passports and visas are required by persons other than U.S. citizens.

(32)

Wharves

(33) Deep-draft facilities are at Charlotte Amalie, St. Thomas Island, and on St. Croix Island at Frederiksted, and at the private facilities at Port St. Croix and in Limetree Bay. Vessels drawing up to 16 feet can go alongside Gallows Bay Dock at Christiansted, St. Croix Island. At other places only small craft go alongside the wharves.

(34)

Speed limit restrictions

(35) Motorboats shall not exceed a speed in excess of 6 miles per hour in the waters of Cruz Bay, St. John (east of Lind Point to the north and Galge Point to the south), and in the waters of Red Hook Bay (west of Redhook Point in range of the western end of Shark Island), and in the waters of St. Thomas Harbor, there is no set speed restriction. Vessels shall maintain safe speed and are responsible for their own wake.

(36)

Supplies

(37) Bunker fuels, diesel oil and gasoline are available only at Port St. Croix on an emergency basis. Diesel fuel, water and marine supplies are available at Charlotte Amalie. Limited marine supplies can be obtained at Christiansted and Frederiksted. Gasoline, diesel fuel and marine supplies for small craft are available at the marinas around the islands.

(38)

Repairs

(39) There are no facilities at any of the ports for major repairs to deep-draft vessels. Machine shops at Charlotte Amalie, Christiansted and Frederiksted can make minor above-the-waterline repairs.

(40)

Communications

(41) The islands of St. Thomas, St. John and St. Croix have good highways. Regular air service is maintained between St. Thomas Island, St. Croix Island, San Juan, United States, and some foreign ports. Cruise ship lines call at Charlotte Amalie and Frederiksted. Small interisland vessels operate from United States Virgin Island ports to the British Virgin Islands, Puerto Rico and other West Indies ports.

(42) Telephone, radio and cable service facilities are available on the islands of St. Thomas, St. John and St. Croix.

(43)

Currency

(44) The monetary unit is the U.S. dollar.

(45)

Standard time

(46) The U.S. Virgin Islands use Atlantic standard time, which is 4 hours slow of Coordinated Universal Time. The U.S. Virgin Islands do not observe daylight saving time.

(47)

Virgin Bank to Kingfish Banks

(48) Most of the Virgin Islands are situated on the south side of **Virgin Bank**, which extends in an east and east-northeast direction for 86 miles from the east end of Puerto Rico. For about 50 miles the bank trends east, averaging 25 miles in width, and then swings slightly east-northeast, increasing in width to 32 miles. It terminates close beyond the southeast extremity of Anegada Island in a point several miles wide.

(49) The bank is an ocean shelf, with abrupt drops in depths near its edges. On the north side of the island group, west of 64°40'W. and within half a mile of the islands, the general depths range from 18 to 40 fathoms except for the outlying banks. East of this line, the depths gradually decrease until soundings of 6 fathoms are found about 0.8 mile off the west end of Anegada Island. On the south side of the island group, the depths differ considerably from those on the north side. The south side is bold and wall sided and lies from 1 to 7 miles off the islands; general depths of 8 to 33 fathoms are found in this area. Close within the outer edge of the bank is a narrow ledge of coral that extends almost unbroken from Horse Shoe Reef, at Anegada Island, to Isla de Vieques. This ledge, about 200 yards wide, has depths of 11 to 19 fathoms.

(50) **Whale Banks**, about 13 miles north of Tortola Island and 15 miles west of Anegada Island, are two patches with depths of 12 to 20 fathoms on the north bank and a least depth of 10 fathoms on the south bank. **Turtle Head**, a coral reef covered 6 fathoms, is about 10 miles north of Jost Van Dyke Island and 13 miles northwest of Tortola Island. **Barracouta Banks** about 8 miles northwest of Jost Van Dyke, consist of several patches covered by 11 to 20 fathoms. **Kingfish Banks** about 5 miles north-northeast of Jost Van Dyke Island, are two coral patches with 8 fathoms over them.

(51)

Virgin Passage

(52) **Virgin Passage** is 8 miles wide between Savana Island and Isla Culebrita, with depths of from 11 to 17 fathoms in the south part and up to 27 fathoms in the north part. It is clear except for Bajos Grampus on the southwest side and Sail Rock on the southeast side.

(53)

Tidal currents

(54) In the middle of the passage the current velocity is about 0.5 knot and sets south and north. On the east side of the passage near Savana Island the velocity increases to about 2 knots. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(55) **Sail Rock**, on the east side of Virgin Passage about 7.6 miles east-southeast of Isla Culebrita, is so called from its resemblance to a vessel under sail. It rises precipitously from the sea to a height of 125 feet. It is about 100 yards in diameter, quite barren, and light gray in color. It is steep-to on all sides, but a rock awash is about 200 yards west of the islet. A lighted buoy is about 0.5 mile west of the islet.

(56) **St. Thomas Island**, commercially the most important of the U.S. Virgin Islands, is 34 miles east of Puerto Rico. It is 12 miles long and from 1 to 3 miles wide. A lofty ridge extends along its whole length. **Signal Hill**, nearly in the center of the island, is 1,504 feet high, and **Crown Mountain**, 1.7 miles to the west, is 1,550 feet high. Lights are shown from towers on the summit of each.

(57) The west half of St. Thomas presents the appearance of a steep ridge sloping precipitously to the north and the south, with numerous ravines widening at their lower ends into small tracts of level land on the seacoast. Between these level tracts the coast is usually bold with rocky promontories of considerable height. The higher hills are flat topped and plateau like, whereas the lower ones are for the most part dome shaped. The country is almost entirely wooded; the region west of Perseverance Bay is under considerable development.

(58) The east end of St. Thomas has the appearance of two main ridges, separated by a large basin and sloping to the north and south with numerous smaller ridges and spurs making off from them. St. Thomas is almost surrounded by small islands and cays, in general, bold and steep-to, with very few hidden dangers to guard against.

(59) **Savana Island**, 2 miles west-southwest from the west end of St. Thomas, is nearly a mile long and 0.5 mile wide. **Savana Island Light** (18°20'15"N., 65°04'59"W.), 300 feet above the water, is shown from a white tower at the southwest end of the island. The island is covered with a dense growth of vines, small trees, and underbrush. The entire northwest shore is bold and precipitous with rock cliffs rising abruptly from the water's edge to as much as 120 feet. **Din Point** is a bold dark headland, with cliffs 80 to 100 feet high, at the northwest extremity of the island. The southeast shore of the island is generally rocky with short stretches of gravel beach in the bights. Depths of 34 feet and less extend up to 0.5 mile from the east side of the island. Just north of **Virgin Point**, the southwest extremity of the island, the cliffs are of crushed rock and sandstone formation and from offshore appear as red cliffs. Detached rocks extend 200 yards south of Virgin Point. **Domkirk Rock**, a crag with twin steeple-shaped pinnacles that resemble a cathedral, is 100 yards southeast of Virgin Point. Some rocks 8 to 10 feet high and steep-to are on a sunken ledge that extends about 700 yards off the northeast point.

(60) The currents in the vicinity of the northeast point of Savana Island are very strong, and small boats should give the reef a wide berth. Boat landings may be made in smooth weather.

(61) **Kalkun Cay**, in the middle of **Savana Passage**, is a narrow islet, 275 yards long and about 20 to 30 yards wide, which is covered with grass and small underbrush. About 0.5 mile southeast of the cay is **Saltwater Money Rock**, 7 feet high, steep-to, with a clear channel between.

(62) **Little St. Thomas** is a low grass-covered peninsula connected with the west end of the island of St. Thomas by a sandspit. A 50-foot hill is near the northeast point and a 21-foot bluff is at the south end. **Mermaids Chair**, 15 feet high, is a conspicuous rock that has the shape of a chair at the apex of a triangular coral reef projecting from the southwest point of Little St. Thomas. Small boats stay in the small gravel cove south of the peninsula when the sea is too rough to land at Sandy Bay or Botany Bay. A boat passage is between Little St. Thomas and a 42-foot islet 100 yards to the north.

(63) **Big Current Hole** is a passage separating West Cay from Little St. Thomas. There are rocks awash extending east from West Cay; the outer one, **Drum Rock**, 2 feet high, constricts the channel, and the strong currents and heavy tide rips render the passage difficult. Small boats using this passage, when passing through from south, head for Drum Rock and leave it close-to on the port hand.

(64) **West Cay**, 0.2 mile northwest of Little St. Thomas, consists of 2 hills, 121 and 114 feet high, connected by a neck of low land. The small stretch on the east side of the cay is gravel. Landing may be made in the bight on the south side.

(65) **Salt Cay**, 242 feet high and 0.6 mile northwest of Little St. Thomas, is generally rocky and rugged, particularly on the north coast where cliffs rise precipitously to 100 and 150 feet high. Many rocks awash are close-to on the southwest, west and east sides of the cay. The channel between Salt Cay and West Cay is shallow, and breakers extend across it.

(66) **Salt Cay Passage** is about a mile wide, with deep water in the channel, and is free of dangers.

(67) **Dutchcap Cay**, a mile northwest of Salt Cay, rises abruptly from the sea to 278 feet high, with cliffs 100 feet high on the north shore.

(68) **Cockroach Island**, 3.3 miles north-northwest from the west end of St. Thomas Island, is 151 feet high and of irregular shape. The south shore is bold and precipitous with white rocky cliffs rising abruptly from the water's edge to a height of 120 feet. The north shore is rocky with cliffs back from the shore rising to a height of 80 feet and indented by numerous small bights and crevices. **Cricket Rock**, 0.5 mile east-northeast from Cockroach Island, is 46 feet high, bold and steep-to, with sharp pinnacle rocks on top.

(69) **Dutchcap Passage**, just south of these islands, is free of dangers.

(70)

Currents

(71) In navigating the passages between this group of islands, it is necessary to guard against the tidal currents, which in Savana Passage run with a velocity of 3 knots and in the others about 1 knot. Sailing vessels beating up against the northgoing current should stand well to south of Savana Island, so as to avoid the strength of the inshore current.See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(72) The **north coast** of St. Thomas Island is very irregular with rocky cliffs and sandy beaches in the shallow bays. Much of the beach is fringed with coral reef making landing difficult in most places. The bays in the east half of the island are open to the prevailing east trade winds. Islands, rocks and shoals are as much as 3 miles from the shore.

(73) **Sandy Bay** and **Botany Bay** are shallow bights separated by a rocky point at the west end of St. Thomas Island. Small-boat landings can be made during calm weather.

(74) **Santa Maria Bay**, 2.5 miles east of Botany Bay, has depths of 20 feet or more and is a fair shelter, but it is seldom used because of rollers.

(75) **Inner Brass Island** and **Outer Brass Island** are off the north side of St. Thomas about 4 miles from the west end of the island. A 24-foot channel is between St. Thomas and Inner Brass Island; **Brass Channel**, between the two small islands, has a depth of 42 feet.

(76) Inner Brass Island has a generally rocky shore, with reefs extending as much as 300 yards off the east side. There are detached rocks and rocks awash within that area. Occasional large swells are prevalent between the southern tip of the point and the Dorthea Point. The swells are largest during winter months. Northwest of the south tip is a fine sand beach with a fringing coral reef. The reef has several breaks through which small-boat landings can be made. A well-sheltered anchorage for local boats is off the southwest side of the island.

(77) The east shore of Outer Brass Island is bold and precipitous with rocky cliffs rising vertically from the water. The west shore is rocky and slopes up uniformly. **Cave Cove**, in about the middle of the west shore, has a large cave opening into it. **Rough Point**, the north extremity of the island, is sharp and jagged, and, on calm days, landings can be made on its west side. A 15-foot spot is about 330 yards west of Rough Point.

(78) Landings may be made on St. Thomas Island through breaks in the fringing coral reef in **Caret Bay** and **Neltjeberg Bay** southwest and south of Inner Brass Island. **Hull Bay**, southeast of Inner Brass Island, is shoal with a reef and heavy surf along the southwest shore. More reefs lay along the western shoreline, though a small craft channel runs in the middle of the bay. Numerous fishing and recreational boats are moored in Hull Bay; a ramp is available.

(79) **Lizard Rocks**, a group of bare rocks/rocks awash about 13 feet high, are 0.7 mile offshore and 0.8 mile west of Inner Brass Island. **Ornen Rock**, covered 6 feet, is a mile east of Inner Brass Island. Waves do not ordinarily break over Ornen Rock but may during a heavy ground swell.

(80) **Magens Bay** is a prominent bight on the north shore of St. Thomas. It is 1.6 miles long and 0.6 mile wide. Its east side is formed by a long, narrow tongue of land called Peterborg, which terminates to the northwest at **Picara Point**, nearly midway between Hans Lollik and the Brass Islands, and its west side by St. Thomas Island and **Tropaco Point**. Prominent is a 50-foot cliff at the end of Tropaco Point. The bay, safe only for small vessels, is open to the northwest and consequently exposed to rollers. Peterborg and the west side of St. Thomas are being extensively developed. Entering from the north or northwest, avoid Ornen Rock, and from the east, during calm seas, the rocks 30 yards northeast of Picara Point. During heavy ground swells, a confused sea exists in the area of these rocks, and the point should be given a wide berth.

(81) The depth in Magens Bay varies from 5 to 12 fathoms, but the south portion has a bank of 1¼ fathoms, extending 0.3 mile from the shore, surrounded by depths of 2 to 3 fathoms. A fine sand beach is at the head of the bay. **Reseau Bay** and **Lerkenlund Bay**, small bights on the west shore of Magens Bay, are used by fishermen to beach their boats.

(82) **Hans Lollik Island**, 713 feet high, 1.3 miles long and about 0.8 mile wide, is 1.8 miles northeast of Picara Point. The west side of the island is precipitous and rocky, except in a bay on the west side that has a gravel beach. **Coconut Bay**, on the southeast face, is protected by off-lying **White Horseface Reef**. This bay is a protected anchorage for small boats and may be entered through a channel southwest of the reef. **Hansa Rock**, close inshore at the south point, is 19 feet high and south of a small bay that is accessible to small boats in calm seas. **Hans Lollik**

Rock, awash and on which the sea always breaks, is over 0.3 mile east-southeast of the south point of Hans Lollik Island.

(83) **Little Hans Lollik Island** is 0.2 mile north of Hans Lollik Island and connected with it by a coral ledge over which the sea breaks. There is an opening in the reef; extreme caution should be used when navigating through the reef. The shoreline consists mostly of rocky cliffs from 20 to 60 feet high. **Steep Rock**, the only detached rock on the east shore of the island, is 25 feet high.

(84) **Pelican Cay**, 200 yards north of Little Hans Lollik Island, is a 20-foot grassy islet accessible in calm seas. Between the two are several rocks awash, and a reef over which the sea breaks is close northeast of Little Hans Lollik Island. Except for these dangers, the channels on either side of the Hans Lollik group are clear.

(85)

Mandal Bay to Capella Islands

(86) **Mandal Bay**, 3 miles east of Picara Point, is shoal, with a sandy beach at its head. **Mandal Point**, just east of the bay, is 277 feet high, with cliffs 100 to 120 feet high at the water's edge. An unmarked channel, west of the point, has a rock jetty on either side that leads through the reefs and a landcut to a small dredged harbor. The channel has shifting sandbars and can be shallow. On the east side of the bay, a rubble mound breakwater extends 270 feet from shore on the north side of the channel entrance, and a smaller rubble mound jetty extends 70 feet from shore on the south side. A depth of about 10 feet was reported in the channel in 1972. To the southeast of Mandal Bay is **Tutu Bay** with fringing reef on the east side—the bay often experiences heavy waves.

(87) Water generally breaks on a reef close northeast of Mandal Point. A 22-foot spot is 0.3 mile east of the point.

(88) **Coki Point**, 1.9 miles east-southeast of Mandal Point, has a 47-foot high bluff with a sandy beach on the north side and shoreline foul with coral and fringing reef east and west of the beach. It forms the north shore of **Water Bay**. A conspicuous 235-foot cone-shaped hill is just south of Water Bay. **Turtleback Rock**, 2 feet high, is off the entrance to Water Bay 0.3 mile southeast of Coki Point. Midway between Water Bay and Cabes Point is a small sandy beach located at Footer Point. There are several boulders off **Footer Point** placed as a breakwater that are covered by water. **Cabes Point** is a low rocky hook 1 mile southeast of Coki Point. **Shark Island**, 32 feet high, is about 0.3 mile east-southeast of Cabes Point. Foul ground encircles the island with several visible rocks 125 yards off the northeast end.

(89) Just to the west of the Cabes Point is a small cove locally referred to as Lindquist Bay. Shallow reef are prominent on the west and east sides with a sand beach in the center, commonly referred to as Lindquist Beach. An unmarked channel lies in the middle of the cove.

(90) **St. John Bay**, on the southeast side of Cabes Point, has a shallow fringe reef at the west and east ends. A channel lies near the center of the bay and small boats can land ashore. A strong current runs between Shark Island and **Prettyklip Point**, locally referred to as Sapphire Beach.

(91) Just southeast of Prettyklip Point is a spit of land with hotels and condominiums. A marina is located in the alcove west of the spit. Buoys reported mark the channel to the marina.

(92) **Redhook Bay**, at the east end of St. Thomas Island, consists of a south arm called **Muller Bay** and the west arm, **Vessup Bay**. Ferry boats to St. John Island use a small L-shaped pier in the northeast part of Vessup Bay. In 1972, a depth of 9 feet was reported at its face. The channel through Redhook Bay into Vessup Bay is marked by private buoys. A marina is 200 yards west of the L-shaped pier. Berths, gasoline, electricity, water, ice and marine supplies are available. Repairs can be made to gasoline or diesel engines and to some electronic equipment. The National Park Service maintains an L-shaped pier on the south side of Vessup Bay; in 1972, depths of about 6 feet were reported alongside.

(93) **Cabrita Point**, the east end of St. Thomas, rises to a height of 210 feet. A neck of land joins the remainder of St. Thomas. A 23-foot spot lies 0.6 mile east-southeast of Cabrita Point.

(94) **Pillsbury Sound** is the body of water between St. Thomas, St. John and the cays that bound the sound on the north side. This body of water is an excellent roadstead about 2 miles in extent east and west and 1.5 miles north and south. This area is quite secure against rollers and all winds except from the south, which blow only in the hurricane months, but the area can become quite rough. The current attains a velocity of 2 knots.

(95) The depths in the sound are somewhat irregular, varying from 41 to 111 feet. All the main passages leading to it are deeper than the mean depth of the sound itself.

(96) **Thatch Cay**, at the northwest end of Pillsbury Sound, is 1.6 miles long. The island is in the form of a ridge, 482 feet high near the east end.

(97) **Bull Point** and **Mother East Point** are prominent projecting points on the north side. **Lee Point** is the west point and **Grouper Point** the east point of the island. There are mooring buoys reported between Lee Point and Mother East Point on the northwest side of Thatch Cay. **Grass Cay**, 0.5 mile east of Thatch Cay, is 0.8 mile long. The north shore consists of rocky cliffs in places 150 feet high. A narrow rocky ledge, covered 12 feet at its east end, is close to shore near the west end of Grass Cay, and a rock awash is 150 yards west of the same point. There are mooring buoys reported on the south side of Grass Cay for day use.

(98) **Mingo Cay**, east of Grass Cay, is 186 feet high. Between Mingo and Grass Cays is a narrow shoal passage with a bare rock 15 feet high close to the middle. It is only passable by dinghy on very calm days. Several bare rocks are east of this rock. **Lovango Cay** is east of Mingo Cay and separated from it by a shoal passage 300 yards wide; the tidal current is strong in the 13-foot

boat channel. Several houses and two private piers are in the bight along the south shore between **Murder Rock** and the southwest point. **Blunder Rocks**, 250 yards east of Lovango Cay, are 8 feet high. **Congo Cay**, a narrow pointed cay north of Lovango Cay, is separated from it by a channel with depths of 13 feet. **Carval Rock** is 0.3 mile east of Congo Cay. There are several smaller rocks between it and the cay. There are mooring buoys reported for day use between Congo Cay and Lovango Cay and on the south end of Carvel Rock.

(99) **Two Brothers** are two small 14-foot and 16-foot-high barren rocks lying in the middle of Pillsbury Sound; a light 23 feet above the water is shown from the larger rock. A ledge extends off their northeast side, deepening to 30 feet at a distance of 250 yards. Vessels can anchor in depths of 40 to 65 feet about 0.5 mile northeast of Two Brothers on sand and mud bottom.

(100) **Windward Passage** extends between Lovango and Durloe Cays; it is 0.3 mile wide. **Durloe Cays**, within the entrance, cannot be mistaken. On the northwest side of the channel are Carval Rock and Blunder Rocks. Vessels of deep draft may take the passage between Lovango and Durloe Cays. If the wind dies, sailing craft may anchor at any time; the bottom is coral and broken shell in less than 60 feet. With the northeast current running against the wind, this channel has a race that looks like broken water. Through Durloe Cays and between them and Hawksnest Point on St. John Island are deep and clear passages, but these are not recommended.

(101) **Middle Passage**, between Grass and Thatch Cays, is about 0.3 mile wide and presents no difficulties to powered vessels, the only dangers being a small rock awash nearly 150 yards west from the west end of Grass Cay, which is easily seen. Sailing vessels generally use this passage in leaving the sound. It may be entered from the north even on the ebb, provided the trades have not too much of a south slant.

(102) **Leeward Passage**, between Thatch Cay and the north side of St. Thomas, is about 0.4 mile wide, with general depths of 60 feet or more. A privately marked fish haven, covered at least 60 feet and centered in 18°21'12"N., 64°51'21.5"W., is near the east end of Leeward Passage.

(103)

Currents

(104) Tidal currents with velocities up to 4 knots in Middle Passage and Windward Passage, and weaker currents in Leeward Passage, have been reported. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(105) Three islands and several rocks extend southeast for 2 miles from the east end of St. Thomas. The islands are rugged, with cliffs fronting much of the shores. **Dog Rocks**, 9 feet high, are the most east danger of the group close off the east point of **Dog Island**. Current velocities up to 4 knots have been reported in the vicinity of Dog Island. Numerous rocks are as much as 0.35 mile from the shores of the islands.

(106) **Dog Island Cut** is between Dog Island and **Little St. James Island**. A submerged rock with a least depth of 10 feet is near midchannel at the north entrance to the cut. The cut should be used only by small boats with local knowledge. **St. James Cut**, between Little St. James Island and **Great St. James Island**, has a depth of 18 feet, but caution is necessary to avoid **Welk Rocks** in the east approach an **The Stragglers**, on the west side. A rock awash is about 125 yards northwest of the northeast point of Little St. James Island. A reef extends from this point almost to the rock.

(107) **St. James Bay**, between Great St. James Island and the east end of St. Thomas Island, provides secure anchorage in depths of 21 to 50 feet, except in hurricanes. Small craft can anchor securely in Christmas Cove either north or south of the small cay 300 yards offshore. **Cow Rock**, 7 feet high, is the west of a group of rocks in the south approach to the bay. **Calf Rock**, 2 feet high, is the east rock of the group.

(108) **Current Hole**, at the north end of St. James Bay, provides a passage from the south coast of St. Thomas Island to Pillsbury Sound. **Current Rock**, 13 feet high and marked by a light, is in about the center of the passage. A depth of 23 feet can be carried through the 100-yard-wide channel east of the rock. The current velocity reaches a maximum of 3 knots through Current Hole and sets north and south. To stem the current, sailing vessels using the passage should await a north current and a steady breeze.

(109) **Cowpet Bay**, in the north part of St. James Bay, is 0.3 mile wide between **Water Point** and **Deck Point**. The bay has depths of 8 to 21 feet. The St. Thomas Yacht Club has a pier and other private facilities at the head of the bay.

(110) **Jersey Bay**, west of Cowpet Bay, is 1.4 miles wide between Deck Point and the cays east of **Long Point**. The bay has several cays and dangerous rocks scattered throughout the west part. A 12-foot rock is about 0.25 mile east of the east point of Cas Cay. **Benner Bay**, locally known a **The Lagoon**, is a smaller bay in the north part of Jersey Bay. It is one of the most protected small-boat harbors on St. Thomas Island. Several yacht clubs and marinas along the north shore of the bay have complete facilities for small craft. Berths, gasoline, diesel fuel, water and some marine supplies are available. A 50-ton mobile hoist can handle craft up to 65 feet for hull, engine and electronic repairs. To reach the facilities, pass east of the buoy off **Red Point**, the east point of **Cas Cay**, and follow the best charted water toward the whitewashed area on **Rotto Cay**. Pass Rotto Cay keeping it 100 yards on your starboard and proceed past **Grassy Cay** keeping it close by on the starboard. Proceed past Grassy Cay to within 100 yards of **Bovoni Cay** then head in a north direction to the facilities. The channel leading into Benner Bay is privately maintained and marked. In

1981, severe shoaling was reported in the channel; the extent of shoaling is unknown. Mariners should seek local knowledge. Also, it was reported that submerged pilings may exist in the area. The waters between Cas Cay and Patricia Cay are shoal with prominent breakers, and entry in this area could be hazardous.

(111) The **south coast** of St. Thomas is very irregular with projecting rocky cliffs between coves and bays that are obstructed by rocks and shoals. Dangerous rocks extend up to a mile from shore.

(112) **Long Point**, the southeast extremity of St. Thomas Island, is the terminus of a high prominent ridge with rocky cliffs 50 feet high.

(113) **Bolongo Bay**, about 1.2 miles northwest of Long Point, has a barrier reef that often breaks. A small channel is navigable to small craft on the northeast side.

(114) **Packet Rock**, a coral shoal about 100 yards in extent with a depth of about 5 feet, lies 0.7 mile west-southwest of Long Point. The sea breaks over the rock only in heavy weather, and it cannot be seen until close-to. A buoy is 300 yards south-southeast of the rock.

(115) **Capella Islands**, of which the largest and westernmost is **Buck Island**, lie 1.7 miles southwest of Long Point and constitute a prominent landfall for making St. Thomas Harbor. The two small islands, of irregular outline, are partially covered with a scrubby growth and separated by a narrow channel almost closed by numerous uncovering rocks. A light, 139 feet above the water, is shown from a skeleton tower on the highest point of Buck Island, near its east end. A shallow ledge extends 100 yards off the west end, and off the north side the depth is 30 feet. A fish haven, covered 40 feet and marked by private buoys, is on the north side of a bight at the southwest end of Buck Island in about 18°16'42"N., 64°53'55"W.

(116) Between Capella Island and St. Thomas Island the currents are weak.

(117)

Frenchcap Cay to St. John Island

(118) **Frenchcap Cay** is about 3.6 miles southeast of Buck Island, and, like Buck Island, is a useful landfall for making St. Thomas Harbor. It is 350 yards long and 183 feet high and is covered with grass and steep-to. The shoreline for the most part consists of high rocky cliffs.

(119)

St. Thomas Harbor

(120) **St. Thomas Harbor**, in about the middle of the south coast of St. Thomas Island, is the only sheltered harbor in the Virgin Islands that can be entered by large vessels. Although the oval-shaped harbor is small and open to the south, it is well protected by the high hills surrounding the other sides and provides safe anchorage except during a hurricane.

(121) **Charlotte Amalie**, along the north shore of St. Thomas Harbor, is the most important city and capital of the U.S. Virgin Islands. Tourism comprises most of the commerce. Rum and bay rum are manufactured, and handicraft articles are made from raw materials imported from nearby islands.

(122) The port facilities are at the West Indian Dock on the south side of **Long Bay** and at the Ports Authority pier and quay on the north side of **West Gregerie Channel**. West Indian Dock, also known as Havensight Point on the east side of the harbor, has a dock that can berth cruise ships. Cruise ships also dock in Crown Bay at the homeport and Crown Bay docks south of **Little Krum Bay** in West Gregerie Channel. The principal imports include foodstuffs, textiles, clothing, building materials, machinery and petroleum products—exports include rum, perfumes and sundry articles.

(123)

Prominent features

(124) **Muhlenfels Point**, the east entrance point to St. Thomas Harbor, is high and steep at the shoreline. A large hotel on the point is conspicuous.

(125) **Hassel Island**, on the west side of the harbor entrance, is indented by shallow coves and has several high wooded hills. **Cowell Point** is the south end of a ridge sloping up to **Cowell Battery**, the highest point on the island.

(126) **Signal Hill**, about a mile northwest of St. Thomas Harbor, is the second highest peak on the island with a lighted tower on top. From it the main ridge extends east-southeast, passing less than 0.5 mile north of Charlotte Amalie. The town is built around the three spurs that extend south from the ridge. **Frenchman Hill** is the west spur. **Berg Hill**, in the center, has a square white building on its south slope near the top. On **Government Hill**, the east spur, stands **Blackbeard Castle**, a remarkable 47-foot stone tower.

(127) To the east of Government Hill, **Bluebeard Hill** rises abruptly from the shore at **Frederiksberg Point** to a 224-foot summit on which **Bluebeard Castle**, an old 34-foot stone tower, is located.

(128) **Water Island**, southwest of the entrance to St. Thomas Harbor, is indented by several small shallow bays, and the hilly land is covered by small trees and dense underbrush. **Flamingo Point**, the south end, consists of brown rocky 100-foot cliffs. North of Flamingo Point on the west shore is **Flamingo Bay**, which leads to Flamingo Pond and a small boat harbor and marina. A square tower is on 256-foot **Providence Hill**, 0.8 mile north of the point. There is a small pier on Providence Point that is used by the ferry serving Water Island. **Red Point**, a mile northwest of Water Island, is a rugged red cliff on the west side of Lindbergh Bay.

(129)

Channels

(130) The entrance channel, west of Muhlenfels Point and close east of Scorpion Rock, leads close southwest of West Indian Dock. The entrance channel is marked by a lighted range and lighted buoys. Reported depths of 10 to 14 feet can be taken to the waterfront at Charlotte Amalie.

(131) **East Gregerie Channel** is between Hassel Island and Water Island. **Haulover Cut**, between Hassel Island and St. Thomas Island, has a least depth of 12 feet through the center of the narrow passage. At the southwest entrance, a reef that uncovers extends about 80 yards into the cut from Hassel Island. Rocks, submerged and awash, border the northwest side of the channel. East Gregerie Channel is marked by lighted buoys. Caution is advised for all vessels traversing this area since it is an active seaplane landing area.

(132) **West Gregerie Channel** is between Water Island and St. Thomas Island. The channel is marked by lighted buoys. A lighted radio tower at the base of Careen Hill has been reported to be an excellent mark to steer for when entering West Gregerie Channel.

(133) The conventional direction of buoyage changes at Gregerie Junction Channel Lighted Buoy GC. When transiting inbound West Gregerie Channel, the buoy should be taken to starboard. When transiting inbound East Gregerie Channel, the buoy should be taken to port. A channel does not exist between Lighted Buoy GC and Water Island.

(134) **Ruyter Bay**, a shoal bay on the northwest side of Water Island, has a privately owned L-shaped pier, about 100 feet long with a 30-foot length at the outer end; in 1972, depths of about 6 to 10 feet were reported alongside. A depth of about 8 feet can be carried with local knowledge when approaching the pier from the northwest.

(135)

Anchorages

(136) General, small craft and arrival inspection anchorages are in St. Thomas Harbor and off Lindbergh Bay. (See **33 CFR 110.1** and **110.250**, chapter 2, for limits and regulations.)

(137) **Inner Harbor (Alpha)**, north of West Indian Company Dock, is a deep-water anchorage. All classes of vessels may anchor. Caution is advised when anchoring near southern limits of anchorage within 492 feet either side of range. Cruise ships frequent these waters and require this area to maneuver. Occasionally large cruise ships will anchor here (Alpha) in which case commercial and private vessels may be required to relocate. Anchoring south of the 30 feet depth contour is prohibited without written permission from the St. Thomas Pilots; sttpilots@gmail.com. STT phone number: 340–774–1629, VHF Channel 14.

(138) **Outer Harbor (Bravo)**, south of Hassel Island and Water Island, is a deep-water anchorage used for vessels undergoing examination by Quarantine, Customs, Immigration and Coast Guard Authorities. All classes of vessels may anchor.

(139) **(Charlie)**, in Long Bay north of Yacht Haven Grand, is a small-craft anchorage.

(140) **(Echo)**, North of Alpha anchorage along the waterfront, is a small-craft anchorage.

(141) **(Foxtrot)**, South of Lindbergh Bay, is a deep-water anchorage.

(142) **Krum Bay**, northwest of Water Island, has depths of 34 feet in the entrance, shoaling to 8 feet near the head. A power plant maintains a lighted T-head pier and a barge dock on the west side of Krum Bay, about 0.1 mile and 0.4 mile, respectively, north of **Mosquito Point**, on the west side of the entrance. The bay affords excellent anchorage for small vessels during a hurricane.

(143) **Lindbergh Bay**, close west of Krum Bay, is used as an anchorage by small sloops and motorboats. The entrance depths are 29 feet, gradually decreasing to a fine sand beach and small pier at the head of the bay.

(144)

Dangers

(145) **Green Cay**, 1 mile southeast of Muhlenfels Point, is a small 24-foot islet covered with low underbrush. The islet is near the center of a coral reef that extends about 450 yards southwest from shore. Another islet is 50 yards south of Green Cay.

(146) **Triangle** is a group of dangerous rocks between Green Cay and Muhlenfels Point. The north and southwest parts of the group are partly awash. **Barrel of Beef** is the east foul area of the group. A detached coral rock covered 18 feet and marked by a lighted buoy is nearly 0.7 mile south-southeast of Muhlenfels Point.

(147) **Point Knoll**, a coral head with several submerged rocks, extends 50 yards southwest from Muhlenfels Point; a depth of 20 feet is about 90 yards southwest of the coral head. **Rohde Bank**, 0.2 mile northwest of Muhlenfels Point, has a least depth of 19 feet.

(148) **Scorpion Rock**, in the entrance between Muhlenfels Point and Cowell Point, is a small coral rock with a least depth of 28 feet—a lighted buoy marks the rock.

(149) **Rupert Rock**, 0.5 mile north of Muhlenfels Point at the narrowest part of the entrance channel, is 12 feet high and white on top. A drying reef and foul ground with less than 6 feet over it extends 100 yards west from the rock. A lighted buoy and a daybeacon are west of the rock.

(150) Foul ground with depths less than 6 feet surround Hassel Island and Water Island up to 300 yards from shore.

(151) **Porpoise Rocks**, a mile west of the south end of Water Island, consists of three reefs with rocks bare or awash surrounded by depths of 6 to 17 feet—a lighted buoy is on the southwest side.

(152) An unmarked fish haven is off the south side of Porpoise Rocks.

(153) A rocky ledge extends 0.4 mile south of Red Point. A steep-to rock at the outer end has a least depth of 5 feet over it.

(154) The **Cyril E. King Airport** runway extension is on the east side **Brewers Bay**, 0.7 mile northwest of Red Point. The runway extends about 800 yards west from shore and is surrounded by a rock dike. Caution is advised in the area. The waters directly west of the end of the runway are encompassed by a safety zone. (See 33

CFR 165.1 through 165.7, 165.20, 165.23, and 165.793, chapter 2, for limits and regulations.)

(155) **Sandy Point Rock**, an elongated shoal extending 300 yards northwest from the north end of Water Island, has a least depth of 3 feet.

(156) Care should be taken when navigating in the main harbor of Charlotte Amalie, Haulover Cut and East Gregerie and West Gregerie Channels, because of their use as seaplane operating areas. The seaplanes generally take off on a southeast heading from Cay Bay to Rupert Rock, and occasionally from Crown Bay through the East Gregerie Channel, also on a southeast heading. The seaplanes generally land on a northeast heading between the light in West Gregerie Channel and Haulover Cut, then proceed into Cay Bay. The seaplanes, when landing, usually traverse the narrow Haulover Cut area at a high rate of speed. Vessels navigating in these waters should remain alert to the presence of seaplanes when operating in the areas defined above.

(157)

Currents

(158) An equatorial current is reported to run starting in East Gregerie Channel and travel out West Gregerie Channel at a velocity of about 1 to 3 knots. Caution should be exercised to avoid being set onto the piers in the bay, particularly with a strong east wind.

(159)

Routes

(160) From west: pass 1.0 mile or more off the south end of Water Island, then enter the Pilot Boarding area from the south, steer for Muhlenfels Point until on the entrance range and then proceed into the harbor on a heading of **344°**. The prominent white catchment area on the west side of Berg Hill helps in picking up the range in the daytime. From south: pass a mile or more west of Buck Island and enter on the range. From east: set a course to pass about midway between Buck Island and St. Thomas Island and enter on the range.

(161)

Pilotage, St. Thomas

(162) See Pilotage, U.S. Virgin Islands (indexed as such) early this chapter. Pilotage is available from the St. Thomas Pilots, Virgin Island Port Authority. Office address is: P.O. Box 2616, Charlotte Amalie, St. Thomas, U.S.VI 00803; FAX 340–777–9694; Email: sttpilots@gmail.com. Pilots monitor VHF-FM channels 14 and 16 only within one hour of ship's scheduled arrival time.

(163) The pilots boathouse (station) is on the waterfront at St. Thomas Old Marine Terminal.

(164) St. Thomas Pilots serve the main harbors of Charlotte Amalie, St. John, East and West Gregerie Channels, Crown Bay and Southwest Roads.

(165) Pilots board vessels entering St. Thomas Harbors from four points at the entrances. Vessels entering via West Gregerie Channel are boarded about 0.5 mile west of West Gregerie Channel Lighted Buoy 2 or 0.5 mile south of Flamingo Point. For vessels entering through East Gregerie Channel, the pilot will board in the Pilot Boarding Area south of East Gregerie Channel Lighted Buoy WR1. Vessels entering the port through the main harbor entrance channel can pick up the pilot from a position in the channel south of St. Thomas Harbor Entrance Lighted Buoy 2.

(166) The pilot boats have the word PILOT on their superstructures. The pilot boats display the standard pilot signals; "HOTEL" flag by day and a white light over a red light at night (all around lights). The pilot boats and pilot station monitor VHF-FM channels 16 and 14 and work on channel 14. Vessels to be boarded should contact the pilot boat prior to arrival for vessel speed (approximately 6 to 8 knots) and boarding side and rig the pilot ladder about 3 feet above the water.

(167)

Towage

(168) Tugs up to 3,000 hp are available for docking vessels. The tugs monitor VHF-FM channels 16 and 14. Notice of at least 24 hours required for tugs in most circumstances.

(169)

Quarantine, customs, immigration and agricultural quarantine

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

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

(172) Seamen requiring emergency hospital attention are taken to the municipal hospital.

(173) Charlotte Amalie is a **customs port of entry**. Vessels are boarded at anchorage or at their berths. The main Customs office is in the Blyden Marine Termainal along the waterfront in Main Harbor.

(174)

Coast Guard

(175) The Coast Guard has a **Marine Safety Detachment** in Charlotte Amalie under Sector San Juan. The mailing address is 3300 Veterans Drive, St. Thomas, VI 00802.

(176)

Harbor regulations

(177) Local rules and regulations for the Port of St. Thomas are enforced by the Port Authority Dockmasters at Blyden Terminal.

(178)

Wharves

(179) The **West Indian Dock**, along the south side of Long Bay, is the primary cruise ship terminal at Charlotte Amalie. The well-protected 3,025-foot marginal wharf has depths of 35 feet reported alongside except for 31 feet alongside the easternmost 300 feet.

(180) The **waterfront of Charlotte Amalie** is a concrete marginal wharf with reported depths of 4 to 18 feet alongside. It is primarily used by small sailing vessels. The dock is also used for ferry boats, harbor tour boats and a hotel water taxi.

(181) **Kings Wharf**, a 300-foot finger pier extending from the point east of the waterfront, is used by Coast Guard vessels. In 1982, depths of 9 feet were reported along the north side and 13 feet along the south side. A 6-foot depth is about 200 yards east-southeast from the outer end of the pier in 18°20'27"N., 64°55'49"W.

(182) The **waterfront of Crown Bay,** known as Sandfill Dock, is a curved concrete marginal wharf, approximately 1,160 feet long, operated by the Virgin Islands Port Authority. Depths of 13 to 27 feet are reported alongside. The wharf is used primarily for receipt of general cargo.

(183) The **Crown Bay Passenger Facility**, operated by the Virgin Islands Port Authority, is in **Crown Bay** on the north side of West Gregerie Channel. The pier, which extends east from shore, has an 880-foot south face and a 930-foot north face and depths of 31 to 38 feet alongside. Just north are the Cargo Port Docks; Crowley, 958 feet long with 28 to 30 feet alongside and Tropical, north or Crowley, 540 feet long with 28 to 30 feet alongside.

(184)

Supplies

(185) Groceries and some marine supplies are available at Charlotte Amalie. When available, water can be delivered from pipelines at the West Indian Dock, Crown Bay Passenger Facility or at anchorage from a barge.

(186)

Repairs

(187) A 100-foot-long drydock, just south of the Crown Bay Passenger Facility, can handle vessels up to 130 feet long. Machine shops can make minor above-the-waterline repairs. For larger vessels, the nearest facilities are at San Juan and the Panama Canal.

(188)

Small-craft facilities

(189) A marina on the east side of Long Bay has finger piers with 10 to 18 feet alongside. Berths, water, electricity and marine supplies are available. A fuel pier with 28 feet alongside has gasoline and diesel fuel.

(190) A marina on the west side of Cay Bay, north of Hassel Island, has berthing and mooring facilities in about 15 feet of water. Gasoline, electricity, water, ice and marine supplies are available. The approach to the marina is in a seaplane operating area so be alert for aircraft.

(191) A marina, on the north side of Crown Bay Passenger Facility, has finger piers with reported 12 to 15 feet alongside. Gasoline, electricity, water, ice and marine supplies are available.

(192) **Saba Island**, 202 feet high and triangular in shape, is 2.4 miles west of Flamingo Point. The north part of the island is low, but the south part has precipitous red cliffs 150 feet high along the south shore. Two small lagoons surrounded by mangroves are near the north end. A landing can be made on the sand beach along the northwest shore. About 150 yards east of the island is a reef with a bare rock 5 feet high and numerous rocks awash over which the sea always breaks. Another reef awash lies 100 yards south of the west end of the island.

(193) **Turtledove Cay**, 50 feet high, 100 yards north of Saba Island, is connected with Saba Island by a reef bare at low water. About 0.1 mile west of the cay is a cluster of rocks awash. Between these rocks and the cay is a boat channel. **Dry Rock**, about 0.5 mile southwest of Saba Island, comprises a group of rocks bare and awash; the highest rock is 2 feet high. **Flat Cays**, 0.8 mile northeast from Saba Island and 1.3 miles southwest from Red Point, consists of two small islets, 32 and 11 feet high, respectively. About 300 yards east of the south cay is a rock awash, surrounded by a breaking reef.

(194)

Currents

(195) Inshore the current is weak, but between Flat Cays and Saba Island, a tidal current sets east-southeast and west-northwest with velocities up to 1 knot. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(196) **Southwest Road**, between Flat Cays and Perseverance Bay, affords an excellent anchorage with the wind as far south as east-southeast.

(197) Vessels may anchor as convenient after entering through any of the channels between the islands and shoals south. Sailing vessels should enter from the east between Water Island and Porpoise Rocks, favoring Water Island, and pass between Flat Cays and the shoal south of Red Point.

(198) In 1993, a submerged wreck, covered 28 feet, was reported by the NOAA ship MT. MITCHELL in the west approach to Southwest Road in about 18°18'48.1"N., 65°02'29.0"W.

(199) **Range Cay**, an islet 21 feet high, lies close to the shore 0.7 mile northwest of Red Point. **Black Point**, 1.2 miles northwest of Red Point, terminates in rocky cliffs 40 to 50 feet high.

(200) **Perseverance Bay**, between Black Point and **Lucas Point** to the west, has depths of 13 fathoms, about 0.4 mile from the shore. Coral reefs, bare at low water, fringe the beach. Lucas Point rounded and rocky, is marked by 60-foot cliffs.

(201) **Fortuna Bay**, between Lucas Point and **David Point**, consists of two small bays separated by a broad point that is high and faced by precipitous cliffs 200 feet high. The shore is generally rocky with cliffs up to 70 feet high.

(202) **St. John Island**, about 2 miles east of St. Thomas Island, is 8 miles long and up to 4 miles wide. Its east end for 3 miles is formed by a narrow neck of land from 1 mile to less than 0.5 mile across, and from its inner end the coast turns sharply south, forming a deep bight that terminates at Ram Head, the south point of the island. The central and west portions are comprised of irregular hills, the highest of which is **Bordeaux Mountain**, 1,277 feet

high. The hills and mountains are mostly covered with trees, brush and some patches of grass.

(203) Most of the offshore waters surrounding St. John are part of the Virgin Islands National Park and the Virgin Islands Coral Reef National Monument. Anchoring is not permiteed anywhere within the park along the south side of St. John (except for dinghies under 16 feet). Moorings must be used instead. Anchoring is also prohibited in Virgin Islands Coral Reef National Monument. For more information about how and where to secure your boat around St. John see the Marine Use Visitor Information Interactive Map at *nps.gov/viis/index.htm*.

(204) Most of the population of St. John Island is located in two small towns, Cruz Bay at the west end and Coral Bay at the east end. Tourism is the principal commerce; foodstuffs and building material are brought into Cruz Bay by small interisland vessels.

(205) Some groceries, gasoline, diesel fuel and water can be obtained at the town. Small ferryboats carry passengers and mail between St. Thomas Island and St. John Island. Land transportation is mostly by taxi or by small sightseeing buses. Telephone and radiotelephone services are available.

(206) The Government administration is at Cruz Bay.

(207)

Quarantine, customs, immigration and agricultural quarantine

(208) Cruz Bay is a **customs port of entry**.

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

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

(211)

Moravain Point to Fungi Passage

(212) **Moravian Point**, on the end of a peninsula south of Cruz Bay, is the westernmost part of St. John Island. **Mingo Rock**, which is awash and breaks, is 175 yards west-southwest of Moravian Point. A group of rocks awash are just to the west-southwest of Mingo Rock.

(213) **Steven Cay**, 0.4 mile west-northwest of Moravian Point, is 28 feet high and marked by a light off the north end. A 30-foot rock is just south of **May Point**, the south extremity of Steven Cay. **Skipper Jacob Rock** is 0.1 mile east of the south end of Steven Cay.

(214) **Enighed Pond**, east of Moravian Point, is entered through Turner Bay. A car ferry dock with daily service to Red Hook, St. Thomas, is at the head of Enighed Pond.

(215) **Cruz Bay**, on the west side of St. John Island, is a small cove used by small interisland vessels bringing supplies and tourists to the island. The entrance is marked by a light 12 feet above the water, and private buoys mark the channels through the cove. The Government House on the peninsula extending to **Battery Point** is a prominent landmark. A marina of the National Park Service is in the cove east of Battery Point; a depth of 6 feet can be taken to the 80-foot pier and bulkhead. A passenger ferry dock is on the southeast side of Cruz Bay.

(216) **Caneel Bay**, 0.8 mile northeast of Cruz Bay, is the site of the Caneel Bay Plantation resort development. A line of private marker buoys restricts the use of boats in the bay except for the channel leading to a small pier at the head of the bay. Motorboats provide transportation for tourists to St. Thomas from the pier.

(217) **Durloe Cays** are three islets west of Hawksnest Point. **Henley Cay**, the largest, is 70 feet high and about 300 yards wide, and has a small pier on the south side. **Ramgoat Cay**, 310 yards northeast of Henley Cay, is 30 feet high, and **Rata Cay**, the smallest, is 0.2 mile west-northwest of Henley Cay.

(218) **Hawksnest Point**, a projecting point forming the west shore of Hawksnest Bay, is wooded. In the north part is a circular hill 130 feet high. Off the extreme point is **Hawksnest Rock**, bare and 25 feet high. **Hawksnest Bay**, east of the point, is small and of no commercial importance. Off its south shore are numerous rocks.

(219) **Perkins Cay** is an islet close to the east point of Hawksnest Bay. **Trunk Cay**, a grass-covered islet 48 feet high, is about 0.5 mile east of Perkins Cay. **Trunk Bay**, between the two cays, is used extensively by skindivers. An area in the bay in which boats are restricted is marked by private buoys.

(220) **Johnson Reef**, a coral formation 0.4 mile northeast of Perkins Cay, is 500 yards long and over 0.2 mile wide; it breaks except in very smooth weather. A ledge, with a least depth of 20 feet, connects this reef with the mainland to the southeast. The reef is marked by a lighted buoy on its north side and by two private buoys on the south side.

(221) **Cinnamon Cay**, 32 feet high and covered with tall grass and cactus, is about 0.7 mile east of Trunk Cay in **Cinnamon Bay**. **America Point** is 2 miles east of Hawksnest Point; back of America Point rises **America Hill**, 526 feet high, which separates Cinnamon Bay from **Maho Bay**. The head of Maho Bay is shoal and has a fine sand beach. **Maho Point** is the tip of a short peninsula between Maho and Francis Bays, formed by the spur of a 198-foot hill 300 yards east.

(222) **Francis Bay**, south of Mary Point, is somewhat protected to the north by Whistling Cay and affords good anchorage in 50 feet, sandy bottom.

(223) **Whistling Cay**, the 202-foot islet 300 yards west of Mary Point, is covered with trees. Its north shore is precipitous, with cliffs 130 feet high. A gravel beach is along the southeast side. **Fungi Passage**, between the cay and Mary Point, has a least depth of 21 feet, but on account of the baffling winds from the adjacent high land it is difficult for sailing vessels.

(224)

Mary Point to Lameshur Bay

(225) **Mary Point**, a 578 foot-high headland in the form of a ridge, is connected with St. John by a low divide, separating Francis Bay from Mary Creek. The west end

of the peninsula has bluffs 135 feet high; the north shore consists of high weatherbeaten cliffs with large boulders along the waterline.

(226) **The Narrows**, a channel about 0.3 mile wide between the 10-fathom curves, is the west entrance to the passage between the north coast of St. John and the southwest coast of Tortola. This passage leads into Flanagan Passage and Sir Francis Drake Channel. Tidal currents in The Narrows and the passage east attain velocities of 2 to 4 knots.

(227) **Leinster Bay** is a double indentation between **Mary Peninsula** on the west and **Leinster Point** on the east; it is about 0.8 mile in length. **Mary Creek**, the west part of this bight, makes well in behind high land to north. The east part, **Waterman Bay**, is partially protected by **Watermelon Cay**, 30 feet high, 250 yards west of Leinster Point. The cay is bold and is separated from St. John Island by a channel 200 yards wide with 12 feet of water. Mooring buoys are reported in the cay. Vessels may anchor under the cay about 200 yards from shore. **Annaberg Point**, 96 feet high, southwest of Waterlemon Cay, is faced by a conspicuous landslide.

(228) **Threadneedle Point**, 0.5 mile east of Leinster Point, is precipitous, with cliffs up to 70 feet high. From Threadneedle Point the coast trends in a general east-southeast direction for 3.5 miles to **East End Point**, the east extremity of the island. **Haulover Bay**, 3 miles southeast of Leinster Bay, offers the best anchorage of the small bights along the north coast.

(229) **Privateer Point**, the easternmost point of St. John Island, is a projecting point 164 feet high. **Red Point**, a headland west of Privateer Bay, is the south end of a high ridge.

(230) **Flanagan Island**, 127 feet high, lies 0.7 mile southeast of Privateer Point. A rock off the west side is 45 feet high.

(231) **Flanagan Passage**, the westernmost of the passages leading into Sir Francis Drake Channel from the south, consists of a group of channels separating St. John and Norman Islands. The channel between Privateer Point and Flanagan Island is 0.7 mile wide; that between Flanagan Island and the Indians is about 1.2 miles wide; and that between Flanagan and Norman Islands is 1.4 miles wide.

(232) Approaching Flanagan Passage from east, haul close around the west side of Norman Island, inside Santa Monica Rock, which may be done at a distance of 300 yards. From west, line up the Indians and Mount Bellevue, the highest hill on the east end of Tortola, and enter west of Santa Monica Rock on a heading of about **016°**.

(233) **Coral Bay**, the large bay extending north into St. John between Red Point and **Ram Head**, is open to the southeast. The narrowest part of the entrance, between Moor Point and Lagoon Point, is 1.2 miles wide. **Leduck Island**, 85 feet high, lies in the entrance to Coral Bay, midway between Red Point and Ram Head.

(234)

Currents

(235) The current velocity is about 0.7 knot and sets southwest and northeast across the entrance to Coral Bay; between Flanagan Island and Privateer Point its velocity is reported to be 1.5 knots. In the bay there is no current, and the range of tide is about 1 foot.

(236) **Moor Point** is the thin rocky southwest extremity of East End Peninsula. **Turner Point** is the knob at the end of the peninsula separating Round Bay and Hurricane Hole. **Fortberg Hill**, the prominent 425-foot hill west of Hurricane Hole, is nearly circular in shape and covered with trees. **Lagoon Point**, the south entrance point of Coral Harbor, is fringed by a coral reef 200 yards wide and bare at low water. **Sabbat Point**, 0.5 mile south of Lagoon Point, is the end of a long high rock forming the buttress of **Sabbat Hill**, 101 feet high.

(237) **Ram Head**, the south point of St. John, is a bold headland, with two conspicuous hills. The east side of the head has rocky cliffs 100 to 150 feet high. A heavy sea generally runs off the point.

(238) The only danger in the approach to Coral Bay for vessels drawing less than 18 feet is **Eagle Shoal**, about 0.7 mile south of **Leduck Island**. Eagle shoal consists of three round patches of coral with a least known depth of 1½ feet. Coral Bay has no towns; the community is scattered among several points along the shore.

(239) **Round Bay**, the northeast of the three arms of Coral Bay, is 0.9 mile wide at the entrance. The several shoal patches of about 2¼ fathoms should be avoided. **Pelican Rock**, 7 feet high, is in the northeast part of the bay. The best anchorage in Round Bay is off Moor Point.

(240) **Hurricane Hole**, the north arm of Coral Bay, is 0.6 mile wide at the entrance west of Turner Point. The shoreline is indented by several small bays that afford protection from almost any direction for small vessels. A shoal with rocks awash extends out 100 yards on the west side of Hurricane Hole.

(241) **Coral Harbor**, the northwest arm of Coral Bay, is narrow, and the deep part of the bay is restricted to a width of 100 yards or less by encroaching shoals from the side and head of the harbor. The entrance channel into the harbor is marked by private buoys. The anchorage ground, although smooth with ordinary winds, is narrow, and being on a lee shore it is available only for small vessels. A small-boat wharf with 3 feet alongside is at the head of the bay.

(242) The south coast of St. John is very irregular with bold projecting points terminating in cliffs over 100 feet high between the small bays and coves that have fringing reefs and shoals near the shores. The dangers are within 0.5 mile of the coast.

(243) **Lameshur Bay**, 1.5 miles northwest of Ram Head, is divided into three smaller bays by projecting points. The easterly one affords good shelter for small vessels in 7 fathoms about 0.2 mile offshore. The middle bay has a good anchorage generally used by sailboats and a sand beach.

(244) The shore for 0.6 mile west of Lameshur Bay consists of very prominent 150-foot white cliffs.

(245)

Reef Bay to Great Cruz Bay

(246) **Reef Bay**, 2.7 miles west of Ram Head, is a large open bight, but the shores are fringed by coral reefs. A passage leads through the reefs to a protected small-boat harbor in **Genti Bay**.

(247) **Great Cruz Bay**, 5.5 miles west of Ram Head, affords good shelter for small vessels. The depth is 21 feet in the entrance, decreasing to 9 feet in the middle of the bay.

(248)

St. Croix Island

(249) **St. Croix Island**, 32 miles south of St. Thomas and St. John Islands and 50 miles southeast of the mainland of Puerto Rico, is the largest of the U.S. Virgin Islands. The island is 19 miles long and averages about 3.5 miles wide. The north side is somewhat mountainous, particularly in the west part. **Mount Eagle**, 1,165 feet high and about 5 miles from the west end, is the highest point on the island. Southward from the mountains, the land is composed of fertile undulating valleys. The south side is nearly straight and generally low.

(250) Water commerce with St. Croix Island is handled through Christiansted on the north coast, Frederiksted on the west coast and the industrial complexes in Port St. Croix and Limetree Bay along the central south coast. Tourism accounts for a good part of the commerce on the north, east and west coasts; a petroleum refinery is the major commerce on the south coast. St. Croix Senepol cattle are raised and exported to nearby islands and worldwide.

(251)

Currents

(252) There is usually a slight west current between St. Croix Island and St. Thomas Island. A strong westerly or easterly current observed between 1 to 3 knots, depending on weather conditions, has been observed at Christiansted Harbor on the north side of Protestant Cay in Schooner Channel, while a moderate west flow is reported outside the light at Fort Louise Augusta.

(253) National Ocean Service parties have reported that off East Point tidal currents of about 1 knot set northwest and southeast in calm weather. Close to East Point strong currents set north and south. Trade winds increase the northwest flow and decrease the southeast flow. A very strong west current setting around East Point and through Buck Island Channel was noted when the trade wind was blowing. A strong northwest current was noted off Southwest Cape.

(254) In 1982, the NOAA Ship MT. MITCHELL reported a prevailing west current with a drift of 1 to 1½ knots on the south side of St. Croix, with a countercurrent inside the reef along the shore.

(255)

Weather

(256) The weather at St. Croix is wholly influenced by the maritime tropics and the prevalent trade winds. The average temperature at St. Croix is 80.2°F with an average maximum of 86.3°F and an average minimum of 73.6°F. August is the warmest month with an average temperature of 82.5°F and January is the coolest month with an average temperature of 77.2°F, allowing for an annual spread of only 5.3°F. Temperatures in excess of 90°F have occurred in each month except January and February, and the all-time maximum (93°F) has occurred numerous times during the months of April, September, October, and November. The coolest temperature on record is 61°F, recorded in January 1955. The average annual precipitation for St. Croix is 41.24 inches; 25% of this amount falls during the peak hurricane months of August and September. Since 1950, at least 27 tropical cyclones have come within 50 miles of St. Croix. Of these 27 storms, 23 of them affected St. Croix during the two-month period of August and September. Hurricane Georges did considerable damage throughout all the Virgin Islands in September 1998. Hurricane Marilyn caused much damage in the region during September 1995, and hurricane Hugo raked the region with 120-knot winds as the center passed directly over the island in September 1989.

(257) There is no regular land breeze at St. Croix Island, but when the trade wind is light during the day it generally falls calm in the night. From June to September, when the trade wind is usually light, occasionally strong winds from the southwest blow across the island with much rain. The ground swell accompanying northers is especially heavy in the vicinity of White Horse.

(258)

Local regulations

(259) Local rules and regulations for St. Croix are enforced by the U.S. Virgin Islands Port Authority, Gallows Bay, Christiansted, St. Croix, UVI 00820. No radio watch is maintained at the Port Authority, but contact may be made through the marine operator.

(260) **Hams Bluff**, the northwest extremity of St. Croix Island, is a conspicuous 100-foot cliff with the land back of it rising to high hills. **Hams Bluff Light** (17°46'09"N., 64°52'15"W.), 394 feet above the water, is shown from a white cylindrical tower.

(261) From Hams Bluff, the north coast of St. Croix Island has slightly jutting rocky points with sandy beaches between for 5.5 miles to Baron Bluff.

(262) **Baron Bluff** is the sea front of the triple spurs of a 395-foot hill. From Baron Bluff east to **Salt River**, the shore consists of low rocky cliffs.

(263) **Salt River Bay** is 1.5 miles east of Baron Bluff. A narrow passage with depths of 6 feet leads through a reef into the bay. The shores of the bay are mostly mangrove

swamps with several openings leading to boat landings. A marina with berths, electricity, water, ice and a launching ramp is in the bay; minor repairs can be made.

(264) A reported unlighted spar buoy is on the north side at the entrance to Salt River Bay reef. There are two reported dive moorings on the east and west walls off Salt River Canyon.

(265) **White Horse**, 400 yards north of Salt River Point, is a rock over which the sea always breaks. A boat channel with a depth of about 11 feet leads between the rock and the shore.

(266) From Salt River Point, the coast turns abruptly southeast for 3 miles to Christiansted. In this area, the hills near the coast are covered with grass and low bushes, and the low shoreline has a narrow sand beach.

(267)

Christiansted Harbor

(268) **Christiansted Harbor**, on the north coast of St. Croix Island 10 miles east of Hams Bluff and 7.7 miles west of East Point, is a port of call for vessels drawing up to 16 feet. The harbor is protected by a reef and bank that extends clear across the entrance, except for the channel opening. **Gallows Bay** is in the southeast part of the harbor. Most of the harbor is shoal.

(269) **Christiansted**, on the south shore of the harbor, is the largest town on St. Croix Island. The principal imports include foodstuffs, building materials, petroleum products and clothing. Exports include rum and cattle.

(270)

Prominent features

(271) **Fort Louise Augusta**, on the east side of the harbor entrance, is an old battery ruin with a modern house structure on projecting point. Christiansted Harbor Channel Entrance Range Front Light, 45 feet above the water, is shown near the fort.

(272) **Protestant Cay**, an islet in the harbor, is surmounted by an old stone building and a hotel. The ruins of Fort Sofia Frederika are at the north end of the cay.

(273)

Channels

(274) The entrance is north of Fort Louise Augusta through a crooked dredged channel marked by buoys, lights and a **164°** lighted entrance range, thence east and south of Protestant Cay to a turning basin and to Gallows Bay Dock. In 2022, the controlling depth was 14 feet, with 12 to 17 feet in the basin with lesser depths along the northeast, southeast and southwest limits of the basin. Shoaling has occurred close to the edges of the marked channel into Christiansted Harbor; extreme caution is advised in transiting the channel.

(275) Inside the harbor, a privately dredged channel with private aids leads west of the main channel to facilities in the southwest part of the bay. In 2014, a depth of 16 feet was reported in the channel and alongside the berthing facilities.

(276) A channel, with natural depths to 11 feet and marked by private lighted buoys, is east of Round Reef and used by schooners and small boats.

(277) A 15-foot passage over the south portion of Scotch Bank is used by small vessels coming from the east; local knowledge is necessary.

(278)

Anchorages

(279) Vessels anchor east-northeast of Protestant Cay in depths of 9 to 30 feet according to draft. Holding ground in this area is reported to be hard; caution is advised to ensure against dragging. Small boats anchor in Gallows Bay and along the east side of the harbor. A yacht anchorage, supervised by the U.S. Virgin Islands Port Authority, is on the west side of Protestant Cay. During a hurricane or gale vessels anchor in Gallows Bay and small boats sometimes anchor in Salt River Bay.

(280)

Dangers

(281) **Scotch Bank**, a 1.8-mile-long sand shoal extending northeast from Fort Louise Augusta, is on the east side of the harbor entrance. Depths of 2 to 20 feet are on the shoal, which is easily seen except when the sun is ahead.

(282) **Long Reef**, a 2-mile-long strip nearly awash in places, forms the northwest side of the harbor. Shoal water extends east from the reef to the channel marked with buoys.

(283) **Round Reef**, west of Fort Louise Augusta, is circular with a spot bare at low water near its center and several spots with depths of 1 foot.

(284) The harbor is shoal with depths less than 6 feet outside the circuitous channel marked by buoys. Several visible wrecks and submerged obstructions are along the east side of the harbor.

(285)

Routes

(286) Approaching Christiansted Harbor from northeast, give Buck Island a berth of 2 miles or more to avoid the bar north of it. From west, all dangers will be avoided by staying 1 mile or more off the north coast. The entrance is marked by a lighted **164°** range, and buoys, lights and daybeacons mark the entrance channel into the harbor.

(287)

Pilotage, Christiansted

(288) See Pilotage, U.S. Virgin Islands (indexed as such) early in this chapter. Vessels are boarded from a motorboat just outside **Christianstead Harbor Channel Lighted Buoy 1**. Strangers are advised to take a pilot and should not attempt to enter at night without one.

(289)

Quarantine, customs, immigration and agricultural quarantine

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

(291) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See

Public Health Service, chapter 1.) Juan Luis Hospital and Medical Center are located mid-isle just west of Christiansted.

(292) Christiansted is a **customs port of entry**.

(293)

Harbor regulations

(294) Local rules and regulations for Christiansted harbor are enforced by the **harbormaster**, whose office is on the waterfront at Gallows Bay.

(295)

Wharves

(296) Gallows Bay Dock (17°44'57"N., 64°41'57"W.), in the east part of Gallows Bay, has berthing space of 400 feet on the north side and 300 feet on the south side; depths of 16 feet are reported alongside. A roll-on/roll-off ramp with 16 feet alongside is east of the dock. Forklifts, mobile cranes up to 70 tons and covered and uncovered storage are available. General cargo is received and shipped.

(297) Kings Wharf, the west 250-foot section of a 600-foot bulkhead stone quay 300 yards west of Gallows Bay Dock and just north-northwest of the fort, has reported depths of about 8 feet alongside. The wharf is used by tour boats, private vessels and ferries to Protestant Cay. The wharf is administered by the National Park Service and is for day-use only by permit. Permits are obtained from the National Park Service Headquarters at Fort Christiansted; visitor information telephone, 340–773–1460.

(298) A 380-foot-long pier, 0.9 mile west of Gallows Bay Dock, is operated by the Virgin Island Cement Company. Pipelines for handling raw cement and fuel oil are on the pier. A reported depth of 17 feet is alongside.

(299) An L-shaped pier, just west of the long pier, has about 200 feet of berthing space with 17 feet reported alongside and is operated by Masonry Products, Inc. A pipeline for handling raw cement is on the pier.

(300)

Supplies and repairs

(301) Some marine supplies and limited amounts of water are available at Christiansted. Gasoline and diesel fuel are available near the waterfront; bunkers can be trucked in from the south side of the island. Facilities for repairs to oceangoing vessels are limited to minor above-the-waterline repairs.

(302)

Small-boat facilities

(303) St. Croix Marine Inc., northeast of Gallows Bay Dock, has four finger piers; two, 100 feet long, and two, 200 feet long; depths of 11 feet are reported alongside. A marine lift at the facility can can handle craft to 60 tons. Berths, gasoline, diesel fuel, pumpout, dry and wet storage, water, ice and marine supplies are available. Hull, engine and electronic repairs are also available.

(304) Beyond Fort Louise Augusta, the north coast trends east for 7.3 miles to East Point, the east end of the island. The coast is fringed by coral reefs, behind which in several places small vessels may find protection.

(305) **Punnett Point**, 1.4 miles east of Fort Louise Augusta, forms the east side of **Punnett Bay**, a semicircular cove 0.2 mile wide. Northeast of Punnett Point, at a distance of about 0.4 mile, is **Green Cay**, an islet 55 feet high at its south end. South to the beach and between Green Cay and Pull Point, the area has depths of only 6 to 18 feet with numerous coral heads.

(306) A marina is in **Southgate Pond** 0.2 mile east of Punnett Point. The entrance channel is protected on the west side by a breakwater. In 1982, 10 feet was reported in the entrance channel, with 8 to 10 feet available in the basin. Berths, gasoline and diesel fuel are available.

(307) **Pull Point**, 2.3 miles east-northeast of Fort Louise Augusta, is a small projecting point terminating in cliffs 35 feet high. A stone house is visible at the point. **Chenay Bay** is the bight west of the point.

(308) **Buck Island**, 340 feet high, is 4.3 miles east-northeast of Fort Louise Augusta and about 1.5 miles off St. Croix. The island is on the south edge of a coral bank that extends west about 0.8 mile then sweeps around a mile north of the island. This forms **Buck Island Bar**, 1.5 miles long. Shoals extend about 1.8 miles east of Buck Island. The island lies on the route from east to Christiansted Harbor. A light, 339 feet above the water, is shown from a red pyramidal skeleton tower on the summit of the island. Buck Island lies within the Buck Island Reef National Monument, the boundary of which is marked by private buoys.

(309) **Diedrichs Point**, the south extremity of Buck Island, is low. Several spots with 12, 17 and 20 feet lie from 1 mile east of the island to 1.7 miles east-southeast of it. **Buck Island Channel** lies between Buck Island and the adjacent reefs and St. Croix. Moderate-draft vessels may approach it from either north or east. **Channel Rock**, awash, lies 1.8 miles west of East Point.

(310) The north coast of St. Croix from Pull Point to East Point is fringed by a coral reef. Behind this reef are several anchorages for small boats, but local knowledge is necessary to use them. Entrance is made at **Coakley Bay**, a bight 0.8 mile east of Pull Point. The opening in the end of the reef can be entered by steering **180°** with Coakley Mill directly ahead. A light in about 17°46.1'N., 64°38.2'W., marks the east side of the opening and should be kept close aboard when entering. In 1982, a large coral head, covered 7 feet, was reported about 100 to 150 yards west of the light.

(311) **Pow Point**, 1.5 miles east of Pull Point, is rocky with a 130-foot hill 250 yards inland. **Tague Point**, 1.1 miles east of Pow Point, is sharp and rocky with a 155-foot hill 0.2 mile south-southwest. **Tague Bay**, 0.7 mile wide between the bluffs at Tague Point and **Romney Point**, has a curving beach of sand and shingle. The bay provides anchorage for light-draft vessels entering behind the reef through a break northeast of Tague Point. Caution is advised when navigating the area due to strong surge currents. There is a private yacht club along the shore; water and ice are available.

(312) **Cottongarden Point**, a prominent rocky point with a 55-foot knoll, is 1.6 miles east of Tague Point and opposite the east end of the long reef paralleling the coast. **Cramer Point**, a public beach and park operated by the Insular Government, is west of the point.

(313) **East Point**, the east extremity of St. Croix, is a bluff. A 225-foot hill is 100 yards west-northwest, and **Morne Rond**, 380 feet high, is a conspicuous round hill near the point.

(314) **Lang Bank**, an extensive bank 3 to 5 miles wide stretches 9 miles northeast from the east end of St. Croix Island. Along its edge is a wall-sided narrow coral ledge which, commencing about 3 miles east of Buck Island, sweeps around in a convex form for about 14 miles, terminating 2 miles south from East Point. Its north part is from half a mile to 1 mile wide, with depths of 5½ to 10 fathoms. The south portion is about 100 to 600 yards wide, with 7 to 10 fathoms on it. The shoalest part of Lang Bank breaks in heavy weather and should be given a wide berth.

(315) From East Point, the south coast of St. Croix Island trends west-southwest for 20 miles to Southwest Cape. This coast is bordered by a dangerous broken coral reef that extends from East Point to nearly abreast of Long Point, 3.6 miles east of Southwest Cape. Behind this reef are several anchorages suitable for small local boats. Along the coast are many small bights and indentations, but all are shallow and do not afford anchorage except for small craft. Many old mills and the aerolight on the southwest part of the island are prominent.

(316) **Point Cudejarre**, a sharp point with a 25-foot bluff and a 120-foot hill north-northwest, is 0.3 miles southwest of East Point. **Grass Point**, 3 miles west-southwest of East Point, is a long narrow point marked by a 43-foot knob.

(317) **Mount Fancy**, about 4.7 miles west of East Point, is a conspicuous double hill, 245 feet high, which forms the east point of **Great Pond Bay**. Good anchorage for vessels of 10-foot draft, in hard sand bottom, can be had in this bay. An entrance range is the east tangent of Milord Point in line with Sight Mill; when about 100 yards off the point, haul around to **064°**, pass west of a 7-foot shoal 200 yards east of Milord Point, and run for 0.3 mile, anchoring in 13 to 14 feet. **Milord Point**, the west entrance point of the bay, is a promontory of **Fareham Hill**, 192 feet high and prominent.

(318) **Vagthus Point**, sharp and rocky, is 9.5 miles west-southwest of East Point. **Canegarden Bay**, 1.2 miles wide, forms an irregular crescent to the west of Vagthus Point.

(319) **Limetree Bay**, close west of Canegarden Bay, is the site of a private deep draft oil handling facility HOVENSA LLC, a joint venture of Hess Oil and PDVSA of Venezuela. Large tankers call here to deliver crude oil and to load petroleum and petrochemical products.

(320)

Channels

(321) **Limetree Bay Channel**, privately dredged, leads from deep water to a large turning basin with east and west basins. The channel is privately marked by a **334°** lighted range visible 4° on each side of the channel centerline and by an auxiliary **334°** lighted range, close east of the first range, visible 4° on each side of the channel centerline, and by lights and lighted buoys. In 2012, the reported controlling depth in the channel was 60 feet with a draft limit of 55 feet.

(322)

Pilotage, Limetree Bay

(323) See Pilotage, U.S. Virgin Islands (indexed as such) early in this chapter. Pilotage is compulsory. Pilots board vessels about 3 miles south-southeast of Limetree Bay Channel Lighted Buoy 1. Vessels are requested to call HOVENSA or U.S. Coast Guard in advance for clearance on VHF-FM channel 11 for approach procedures and docking instructions. Night entry is limited to vessels not over 100,000 deadweight tons. There are no restrictions on sailings.

(324)

Towage

(325) HOVENSA maintains a large fleet of tugs capable of handling vessels to 300,000 deadweight tons.

(326)

Quarantine, customs, immigration and agricultural quarantine

(327) **Quarantine, customs, immigration** and **agricultural quarantine** matters are handled by representatives from Christiansted who board vessels at their berths. Documents required are the same as at U.S. ports.

(328)

Wharves

(329) A total of ten oil-handling docks are in the bay. A sulfur conveyor and a roll-on/roll-off dry cargo dock is on the north side of the east basin. Reported depths alongside are from 38 to 55 feet at the oil docks and 17 feet at the roll-on/roll-off dock.

(330) A 1,400-foot container wharf and two roll-on/roll-off ramps are 0.3 mile west of the causeway. Depths of 32 feet are reported alongside. Deck heights are 12 feet at the container wharf and 3 feet and 6 feet at the roll-on/roll-off ramps. A 30-ton container crane, 52 acres open storage and 30,000 square feet covered storage are available.

(331)

Supplies

(332) Dry goods and food supplies are handled by local ship chandlers. Bunker fuels and diesel oil are supplied by the refinery. Limited amounts of fresh water are available.

(333) **Krause Lagoon** indents the south shore of St. Croix Island immediately west of Limetree Bay and about 12.3 miles west-southwest of East Point. The coal-fired energy plant and remnants of a bauxite ore and alumina plant

at the head of the channel are apparent. Large vessels previously called here to deliver bauxite ore and coal fuel supplies and load alumina.

(334) Three 215-foot silos marked by strobe lights are prominent at Port St. Croix.

(335)

Channels

(336) Krause Lagoon Channel, a privately maintained dredged 35-foot channel with dikes paralleling it on either side in the north part, leads from deep water through the reefs to a turning basin and two wharves at the head of the channel. The channel is privately marked by lighted buoys, lights and a **349.5°** lighted range. In 1988, the controlling depth was 33 feet.

(337)

Currents

(338) The current in Krause Lagoon is reported to set west and to vary in velocity with the wind. The current does not completely dissipate until inside Port St. Croix.

(339)

Pilotage, Port St. Croix

(340) See Pilotage, U.S. Virgin Islands (indexed as such) early in this chapter. Vessels entering Krause Lagoon Channel are boarded about 2.5 miles south-southwest of Krause Lagoon Channel Entrance Lighted Buoy 1. Vessels entering Limetree Bay are boarded about 3 miles southeast of Limetree Bay Channel Entrance Lighted Buoy 1. The area within a 4-mile radius of Limetree Bay Channel Entrance Lighted Buoy 2 is constantly congested with mostly very large heavy-laden tank vessels entering and leaving Limetree Bay Channel. Maneuverabilities for these vessels are restricted. All vessels are advised to avoid loaded tank vessels and use extreme caution in and near this 4-mile area. The area from 5 to 10 miles south of Krause Lagoon Channel Entrance Lighted Buoy 1 is sometimes congested with vessels waiting to meet a pilot at the designated boarding areas; vessels bound for the Container Terminal or the Gordon Finch Molasses Terminal should contact the Virgin Islands Port Authority Dock Master on VHF-FM channels 14 or 16 or telephone 340-778-3131 to arrange a pilot and receive berthing instructions. All other traffic into Krause Lagoon contact Cape Towing Caribbean on VHF-FM channels 14 or 16 for active operations information or approach procedures and docking instructions.

(341)

Towage

(342) Tugs are supplied by Borinken Towing and Salvage and Hovensa Marine.

(343)

Quarantine, customs, immigration and agricultural quarantine

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

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

(346)

Wharves

(347) The concrete bulkhead wharves on the east and west sides of the terminal each have 1,000 feet of berthing space. The berths on the west side of the terminal are used for discharging molasses and coal, and those on the east side are used for ethanol and other liquid fuels. There is a small pier, open to the public for launching small craft, on the east side of the entrance channel just north of the Gordon Finch Pier.

(348)

Supplies

(349) Emergency supplies of bunker fuels, diesel oil and fresh water are available. The terminal has no ballast disposal facilities.

(350) Dumping of waste oil in the harbor is prohibited. Masters are cautioned that the discharge of any oil, oily waste or other refuse in the harbor can result in serious damage to the shore plant cooling water intakes, and every precaution should be exercised to prevent such an occurrence.

(351)

Long Point to Frederiksted

(352) **Long Point**, 3.6 miles east of Southwest Cape, is a low projecting point covered with grass. West of the point is **Long Point Bay**, which is shoal. **Southwest Shoal**, 1.2 miles south of Long Point, has only 6 feet of water over it, and east to Krause Point the outlying reefs are the most dangerous along the south coast. They generally break, but as several shoal spots are south, the area should be approached with caution.

(353) The area out to the 100-fathom curve between Long Point and Southwest Cape and between Long Point and the entrance to Krause Lagoon Channel and Limetree Bay Channel is used extensively by recreational and commercial trap and line fishermen, both day and night. Most of the trap and line fishing is done in water less than 15 fathoms. Large vessels are requested to exercise caution and to consider these fishing activities when approaching and departing from the industrial complex in Krause Lagoon and Limetree Bay.

(354) A channel, privately marked and entered about 2.2 miles 118° from Southwest Cape, leads in an east direction to mooring buoys about 1.1 miles east of Long Point; channel and mooring buoys are maintained by Texaco Caribbean Inc., St. Croix, Virgin Islands. The channel is primarily for the use of tankers arriving at the mooring buoys.

(355) **Southwest Cape**, the southwest extremity of St. Croix Island, is a low point projecting 1.2 miles in a southwest direction. The point is covered by low bushes and trees. A shoal area, sand and coral, extends south, with a least depth of 9 feet, at a distance of 0.8 mile from

the shore. A buoy marks the southwest extremity of this shoal. The 5-fathom curve is 1.6 miles south of Long Point and nearly a mile south of Southwest Cape, but west of the point it is only 200 yards off. The 100-fathom curve lies nearly 2.5 miles southwest of Southwest Cape. **Southwest Cape Light** (17°40'40"N., 64°53'59"W.), 45 feet above the water, is shown from a gray skeleton tower near the tip of the cape.

(356) Caution is necessary in approaching Southwest Cape. The point, fringed by shoals, is low for some 3 or 4 miles to the high land of the interior. This may cause the mariner to overestimate the distance from the coast, especially at night.

(357) **Sandy Point**, the west extremity of the island, is 0.5 mile north-northwest of Southwest Cape.

(358) The west coast of St. Croix Island trends north-northeast from Southwest Cape for 2.4 miles to Frederiksted, thence northwest for 2 miles, and then curves northeast for 2 miles to Hams Bluff. The coast consists mostly of sand beach with the land back of it sloping gently upward in the south part and the hills gradually working west to the shore in the north part. The slopes are covered by grass and bushes. The beach is steep-to with the 10-fathom curve lying 0.5 mile or less offshore.

(359) **Frederiksted**, on the west coast of St. Croix Island, 2.4 miles north of Southwest Cape and 3.7 miles south of Hams Bluff, is a port of call for cruise ships and government vessels and occasionally for small cargo vessels. Large vessels can dock at the long municipal pier in the 4-mile-wide open roadstead. Imports include building materials and vehicles.

(360)

Prominent features

(361) **Fort Frederik** is a red brick structure 125 yards northeast of the municipal pier.

(362) A radar tracking station (17°43'13"N., 64°51'18"W.), illuminated at night, is on **St. George Hill** about 1.5 miles east of Frederiksted. The station is prominent, especially at night, when it is visible for over 20 miles.

(363)

Anchorages

(364) Small boats anchor near the waterfront. Anchorage between the municipal pier and the warping buoys to the south is prohibited.

(365)

Currents

(366) The Frederiksted harbor pilot reports that a westerly current from 225° to 315°, with a set of not more than 1 knot, and 2 knots in extreme cases, may be experienced when approaching the pier. In addition, the pilot reports that there seems to be an almost ever-present circular current beginning about 0.25 mile off the pier with an initial set to the south and a final set to the north when abeam of the pier's end.

(367) **Restricted areas** have been established off the west coast of St. Croix Island, north and south of Frederiksted Harbor. (See **33 CFR 334.1490**, chapter 2, for limits and regulations.)

(368)

Routes

(369) From the south, the shoals south of Southwest Cape will be avoided by staying a mile or more offshore. At night stay in the white sector of Frederiksted Harbor Light on the approach to the pier.

(370)

Pilotage, Frederiksted

(371) See pilotage, U.S. Virgin Islands (indexed as such) early this chapter. Vessels are boarded 1 mile off the municipal pier.

(372)

Quarantine, customs, immigration and agricultural quarantine

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

(374) **Quarantine** is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.) A municipal hospital is at Frederiksted.

(375)

Harbor regulations

(376) Local rules and regulations for Frederiksted harbor are enforced by a **dockmaster**, whose office is on the shoreward end of the municipal pier. Copies of the regulations may be obtained from the Virgin Islands Port Authority, Gallows Bay, Christianstead, St. Croix, VI 00820.

(377)

Wharves

(378) A 1,895-foot pier, including the mooring, extends from the waterfront at Frederiksted. A 402-foot loading platform (pierhead) is about 203 feet inshore of the outer dolphin. Depths along both sides of the pier decrease from about 59 feet at the outer end to about 35 to 48 feet alongside the loading platform, and thence lesser depths inshore of the east end of the loading platform. In heavy winds, large vessels sometimes drop their outboard anchor to assist in maneuvering alongside.

(379) The pilot advises that with strong winds from the west, and especially from the northwest, the pier is not a safe berth because of the unusual rise and fall of the water at dockside. Under these conditions, a strong wind-driven current with an easterly set can be expected. Mariners should approach the pier at a 45° angle to avoid damage resulting from scraping along the pier.

(380) A roll-on/roll-off facility with landing ramp is close south of the municipal pier. A line of submerged pilings and dolphins extends about 80 yards southwest from the ramp. Depths in the approach and alongside the ramp are about 14 feet.

(381) A landing platform for ships' tenders is on the south side of the east end of municipal pier; depths of about 8 to 10 feet reported alongside.

(382)

Supplies and repairs

(383) Water, bunker fuels, diesel oil and gasoline can be trucked in from nearby. Limited above-the-waterline repairs are available.

(384) Submarine cables extend west-southwest to the 100-fathom contour from **Sprat Hole**, 1.6 miles north of Frederiksted. Mariners are requested not to anchor in this area.

(385)

Little Tobago Island to Frenchman Cay

(386) A general description of the **British Virgin Islands** is in included in this chapter for a convenient reference to both the United States and British groups. Complete information is included in Pub. No. 144, Sailing Directions (Enroute), Caribbean Sea, published by the National Geospatial-Intelligence Agency, and West Indies Pilot, Vol. II, published by the British Ministry of Defense Hydrographic Department.

(387) **Little Tobago Island**, 3.5 miles northeast of Hans Lollik Island, is nearly 0.5 mile long and 279 feet high. It is steep-to except on its southeast side. **Tobago Island**, 1 mile northeast of Little Tobago Island, is 0.8 mile long and about 538 feet high. A small rock, awash and steep-to, is about 100 yards off the north point. The southeast side of the island is fringed with coral, but elsewhere the coastal cliffs are steep-to. A few rocks lie close off the northwest point.

(388) **Watson Rock**, steep-to and 89 feet high, is about 0.3 mile west of the southwest point of Tobago Island. **King Rock**, 0.6 mile south of the southwest point, is awash and steep-to. It is near the south end of a bank, over which are general depths of 6 to 9 fathoms, extending about 0.7 mile south of Tobago Island.

(389) **Mercurius Rock**, 0.8 mile east of the north end of Tobago Island and the only danger between that island and Jost Van Dyke Island, is small and steep-to. It is covered 7 feet. When using the passage between Tobago and Jost Van Dyke Islands, the east side should be favored.

(390) **Jost Van Dyke Island**, about 2 miles east of Tobago, is 3.5 miles long, lofty, rugged and steep-to. Near the middle of the north part a summit rises to 1,070 feet. **Great Harbor** and **Little Harbor**, on the south side of the island, are suitable only for small vessels. Great Harbor is about 0.5 mile in extent, with depths of 4 fathoms to about 0.2 mile from its head, and Little Harbor has depths of about 8 fathoms inside the entrance.

(391) **Little Jost Van Dyke Island**, connected by a shallow ledge to the northeast end of Jost Van Dyke Island, is 308 feet high. **Green Cay**, 108 feet high, is a small islet close east of Little Jost Van Dyke Island. **Sandy Cay**, nearly 1 mile south of Green Cay, is 66 feet high at its east end. It is surrounded by shoal water, and foul ground extends 200 yards from the east and west ends. The channel between it and Jost Van Dyke Island is 0.6 mile wide; the island shore must be favored.

(392) **Tortola**, the largest of the British Virgin Islands, is 10 miles in length and 3.5 miles wide. **The West End**, the west extremity, is about 2 miles northeast of Mary Point, St. John. The highest summit in the Virgin Islands is 1,709-foot **Mount Sage** in the west part of the island; rugged hills rise somewhat abruptly from the shores on all sides.

(393) **Great Thatch Island**, about 0.6 mile north of Mary Point from which it is separated by The Narrows, is 1.7 miles long and near its center rises to a peak 613 feet high. The east point is bold and steep-to. **Thatch Island Cut**, the channel between Great Thatch and The West End, is deep. Sailing vessels should not attempt Thatch Island Cut from the north except with a south current, as the eddies and currents are very strong.

(394) **The Narrows**, between St. John Island and Great Thatch Island, give access to the channel that extends between Tortola and St. John and leads to Sir Francis Drake Channel and Flanagan Passage. Tidal currents in The Narrows and the passage eastward attain velocities of from 2 to 4 knots.

(395) **Little Thatch Island**, 0.4 mile south of The West End, is about 0.5 mile long. **Frenchman Cay**, about 0.3 mile east of Little Thatch Islet, is 400 feet high. **Sopers Hole** is a deep little basin, 1 mile long and about 0.3 mile wide, between Frenchman Cay and Little Thatch Island, on the south, and the west end of Tortola, on the north side. At the east end of Sopers Hole the muddy bottom is the best holding ground. There is a small pier on the north side of Sopers Hole.

(396) In the center of Sopers Hole is a depth of 13 fathoms which gradually decreases to 6 fathoms at 100 yards from the shore; the bottom is sandy. The passage between Little Thatch Island and Frenchman Cay is from 6 to 7 fathoms deep.

(397) Vessels from south may enter Sopers Hole by the passage between Frenchman Cay and Little Thatch Island or by that between the latter island and the west end of Tortola. These passages are not difficult, but the west ends of Tortola and Little Thatch Island must be given a berth of more than 200 yards.

(398) Sailing vessels taking Thatch Island Cut should approach it with a south current, which will shoot a vessel into it. A vessel coming from the east will find the passage east of Little Thatch Island the best, as she will have a leading wind, can luff up closer under the west end of Frenchman Cay, which is steep-to, and shoot into Sopers Hole with either a south or north current. When leaving, pass out to the north through Thatch Island Cut, or, if bound into Sir Francis Drake Channel, round the west end of Little Thatch Island at a distance of somewhat more than 200 yards and haul to the wind. With the east tidal current of 3 or 4 knots on the lee beam, she will have a fair set through the channel between St. John and Tortola. The west tidal current has a similar velocity. There is no danger on either shore. A vessel must be prepared to meet the gusts and baffling winds that rush out from the valleys of Tortola.

(399) On the northwest side of Tortola are numerous small bays or bights, of which Cane Garden Bay, the largest, is the only one on the north side of the island that affords anchorage even for small vessels. Within the entrance are depths of 18 to 24 feet. A 5-fathom shoal lies in the approach to the bay, about 0.4 mile north of the south entrance point.

(400)

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Chart - *25611

(401) **Road Harbor**, on the south side of Tortola 6 miles east of its west end, is the only port of entry in the British Virgin Islands for all vessels. Sopers Hole at the west end of Tortola is a limited port of entry. The harbor is exposed southeast, but the other sides are surrounded by high hills with their spurs reaching the shores.

(402) **Road Town**, on the west shore of Road Harbor, is the capital of the British Virgin Islands. Imports include foodstuffs, building material and general merchandise. Livestock are exported.

(403)

Prominent features

(404) There are four prominent landmarks in Road Town, these being Fort Burt Hotel; a group of four pink buildings situated on the west side of the harbor on Burt Point; the Administration Building (Customhouse), a white flatroofed building standing behind the main wharf; and about midway between these two positions stands the Administration Residence (Commissioner's House), an isolated, white concrete building standing on a low knoll. To the north of the Administration Building, the white belfry of the Anglican church shows above Wickham Cay, a low mangrove-covered islet, in the northwest part of the harbor. The floodlighted oil tanks on Shirley Point on the east side of the harbor north of Scotch Bank are reported to be conspicuous.

(405)

Channels

(406) The principal channel into Road Harbor is between Scotch Bank and Lark Bank, thence on the lighted range to the pier at Road Town. Small vessels also enter the harbor between the lighted buoy marking the outer limits of the coral reef about 400 yards east of Burt Point and Lark Bank. The controlling depth is 36 feet to the anchorage area, but only 7½ feet to the dock.

(407)

Anchorages

(408) Deep-draft vessels anchor in depths of 8 to 12 fathoms inside of Scotch and Lark Banks. Anchorage may also be obtained in the north part of the harbor, north of Harbor Rock, in about 8 fathoms. Vessels proceeding to the deep-draft anchorage should steer **321°** from a point about 1.5 miles 180° from Half Moon Point until the lighted buoy off Burt Point is abeam. Ships desiring to make the north anchorage should proceed as to the deep-draft anchorage until the Commissioner's House is abeam. Ships desiring to anchor south of Harbor Spit should proceed as previously mentioned until the range lights come in line 290°, which will lead to a depth of about 9 fathoms between Burt Point and Harbor Spit. The best berth is just south of the range line.

(409) **Careening Cove**, in the lee of the dry reef off Burt Point, is small but well sheltered, with depths of 4 to 6 feet.

(410)

Dangers

(411) Although depths of 36 to 48 feet can be taken to the anchorage areas in Road Harbor, irregular bottom, and many patches of rock and coral, with depths of 13 to 36 feet, lie within about 1.5 miles of Hog Valley Point (Hog Point) and 2 miles of Slaney Point.

(412) Depths of from 22 to 25 feet will be found over extensive shoals with limits of about 1.1 miles south of Hog Valley Point and 1.1 miles south of Slaney Point. A 17-foot patch is about 0.5 mile southeast of Hog Valley Point, and a 18-foot patch is about 0.75 mile southwest of Slaney Point.

(413) A coral reef about 250 yards wide and partially covered by mangrove extends northeast from Slaney Point to Burt Point; a lighted buoy marks the outer limits of the reef at Burt Point.

(414) **Denmark Banks**, 0.5 mile southeast of Burt Point, has two rocky patches with a least depth of 13 feet. The Bluff, bearing 073° and open south of Nora Hazel Point, leads south of these banks. **Lark Bank**, 0.4 mile east of Burt Point, has a least depth of 15 feet over a coral head. **Scotch Bank**, 0.8 mile east of Burt Point and marked by a buoy at its south edge, has a least depth of 10 feet.

(415) **Harbor Spit**, 0.4 mile north of Burt Point, is an extension of the shoal water in the northwest part of the harbor. Depths on the spit are from 4 to 17 feet; a buoy marks the southeast end of the spit. **Harbor Rock**, 250 yards southeast from the end of the spit, has a least depth of 20 feet.

(416)

Tides

(417) The tides in Road Harbor are chiefly diurnal, and the range is small.

(418)

Pilotage, Road Harbor

(419) No licensed pilots are available, but reliable mariners are available to bring ships into the harbor.

(420)

Wharves

(421) A 180-foot cargo pier at Road Town has depths of 7½ feet at the head and on the sides. A 106-foot passenger pier to the south has depths of 7 feet alongside. Small sloops are used for lighterage when necessary.

(422)

Supplies

(423) Limited amounts of groceries and water are available. Gasoline and diesel fuel can be obtained from offshore pipelines on the northeast side of Road Harbor.

(424)

Repairs

(425) A small marine railway in Careening Cove can handle boats about 40 feet in length and 6 feet in draft. Another marine railway in **Bauger Bay**, on the northeast side of Road Harbor, can handle small boats of 6-foot draft for repairs.

(426)

Communications

(427) Daily passenger launch service is maintained between Road Harbor and St. Thomas. Radiotelephone and radiotelegraph communications are available. There is air service between other islands.

(428)

Guana Island to Round Rock Passage

(429) **Guana Island**, 810 feet high and 1.7 miles long, is about 0.3 mile north of Tortola. The passage between these islands has a depth of about 29 feet in the fairway. On the west headland separating **White Bay** and **Muskmelon Bay** is a large rock shaped like an iguana's head, known locally as **Lizard Head Rock**. A safe anchorage in 7 to 12 fathoms is in the entrance to White Bay.

(430) **Great Camanoe**, a mile east of Guana Island, is about 2.5 miles long. It consists of two parts connected by a low narrow neck of land between **Lee Bay** and **Cam Bay**. **Scrub Island** is close east of Great Camanoe, from which it is separated by a narrow channel with many shoals and rocks.

(431) **Little Camanoe** and **Marina Cay** are southwest and southeast, respectively, of the south end of Great Camanoe. They are all connected to the north side of Beef Island by a shoal bank on which are several rocks and reefs. The channel north of Beef Island is quite open and easily navigated by large yachts. **Shallow Rock** is a 3-foot shoal off the west point of **Trellis Bay** on the north coast of Beef Island. A light is shown from **Bellamy Cay** in the middle of the bay. A small marine railway is in the bay.

(432) A hotel is on Marina Cay; launches, yachts, air compressors for aqualungs and other diving equipment are available.

(433) **Beef Island**, about 2.4 miles long and 660 feet high in its east part, is separated from the east end of Tortola by a narrow shoal channel that should be used only with local knowledge. A bascule bridge with an unknown clearance crosses the channel. **The Bluff**, the south extremity of the island, is a good landmark for vessels bound to Road Harbor. During strong northeast winds excellent anchorage will be found in the lee of Beef Island, about 0.7 mile west of The Bluff. An airfield is on Beef Island. **Buck Island**, 1.1 miles southwest of Beef Island and close off the southeast side of Tortola, is 170 feet high at its southeast end.

(434) **Sir Francis Drake Channel** is a passage bounded on the northwest by Tortola, on the east by Virgin Gorda and on the south and southeast by the chain of islands extending between Virgin Gorda and St. John. The channel can be entered by most vessels through any of the passages in the latter chain of islands from the south or the passages on either side of **Dog Islands** from the northwest.

(435) The depths around Buck Island are irregular, especially in the approach to Road Harbor, and caution is advised. Anchorage can be found anywhere in the channel east of Buck Island, but the bottom is hard, being a thin bed of sand over coral, and therefore requires a good scope of chain.

(436) In Sir Francis Drake Channel there is scarcely any current except close inshore, where small vessels may gain some advantage from it when beating to windward during the northeast flow.

(437) **Flanagan Passage**, the westernmost of the passages leading into Sir Francis Drake Channel from the south, is a group of channels between St. John and Norman Islands. It and connecting passages have been described previously in this chapter.

(438) **Norman Island**, 1.6 miles east of Flanagan Island, is about 2.3 miles long and 427 feet high near its southwest extremity. Foul ground is close off its northeast end and southern expanse. **Ringdove Rock**, covered by 2 fathoms, is about 300 yards west of the northwest point of Norman Island. **Santa Monica Rock**, 0.7 mile southwest of Norman Island, is a small patch 1¾ fathoms deep.

(439) **Pelican Island**, 180 feet high, is about 0.5 mile north of Ringdove Rock. About 200 yards west of it are **The Indians**, four remarkable small pinnacle rocks, 50 feet high. A 6½-fathom shoal lies 0.7 mile north-northwest of Pelican Island.

(440) **The Bight**, a small inlet on the west side of Norman Island, provides excellent anchorage. The shores are steep-to, and Ringdove Rock is the only danger when entering. The wind in the lee of the island, however, is so baffling that sailing vessels may have to anchor at the entrance and warp in. Although the bight is open to northwest, St. John Island prevents any sea from setting in, and holding ground is good. Safe anchorage with the regular trade wind may also be found in **Privateer Bay**, on the west side of Treasure Point.

(441) **Peter Island**, northeast of Norman Island, is in the form of an elbow, 440 feet high at its west part. **Carrot Rock**, 82 feet high, lies about 0.3 mile off the south end of the island, and **Carrot Shoal**, covered 1½ fathoms, is about 0.4 mile southwest of the rock. Some 4¾-fathom patches lie within 0.5 mile of the north side of the island.

(442) **Great Harbor**, a small bight on the north side of Peter Island, is about 0.5 mile in extent. It may be entered easily at any time. Deep water is close to shore, and the holding ground is excellent. **Little Harbor**, a

short distance west of Great Harbor, is smaller and more exposed but has characteristics very similar to the latter.

(443) Owing to the shape of Peter Island, the passage between it and Norman Island is rather crooked but has a least depth of 5¾ fathoms. It is seldom taken by sailing vessels. Carrot Shoal can be avoided by keeping Norman Island abroad.

(444) **Dead Chest**, nearly 0.5 mile off the northeast end of Peter Island, is an islet 200 feet high; a group of rocks extends about 0.2 mile south from its east end. A 4½-fathom patch lies about 0.7 mile northwest of the islet.

(445) **Blonde Rock**, covered 1½ fathoms, is about 0.6 mile east-northeast of Dead Chest. **Salt Island Passage**, 1.5 miles wide between Dead Chest and Salt Island, is generally smooth. Blonde Rock can be avoided by keeping 0.5 mile from the east side of the passage.

(446) **Salt Island**, about 2 miles northeast of Peter Island, rises to a height of 380 feet in its north part. A rock awash lies close off its northeast end. The passage between Salt and Cooper Islands is constricted to a width of about 0.3 mile by the rocks and an islet off the nearest point of Cooper Island. This passage should never be attempted by a sailing vessel. **Cooper Island**, northeast of Salt Island, is 1.7 miles long and 509 feet high at its south end. **Dry Rocks** are 300 yards off the northeast side of Cooper Island, and **Carval Rock**, 110 feet high and steep-to, is 0.8 mile east-northeast of **Markoe Point**, the south point of Cooper Island.

(447) **Ginger Island**, about 1 mile east of Cooper Island, is marked by a light at its northeastern end. The island is steep-to at its northeast and southeast ends, and some rocks lie close off its west end. The passage between Ginger and Cooper Islands may be taken by powered vessels, but sailing vessels may meet trouble.

(448) **Round Rock**, 220 feet high, is the southernmost of a chain of islets and rocks extending south-southwest from the southwest end of Virgin Gorda. **Round Rock Passage**, between Ginger Island and Round Rock, is the easternmost of the passages leading into Sir Francis Drake Channel from the south. It is best for vessels coming from the south. The passage is about 0.7 mile wide and easily located from its position in relation to Fallen Jerusalem, 1.2 miles to the northeast. Sailing vessels will find it advantageous to use this passage as the islets on the weather side offer no obstruction to the prevailing winds. The southeast and northwest tidal currents attain a velocity of about 1 knot.

(449)

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Chart - *25609

(450) **Virgin Gorda** is easily distinguished on making the land, as it rises gradually to the distinct summit of 1,370-foot **Virgin Peak**. The island, extremely irregular in outline, consists of a central portion from which there are peninsulas extending east and south-southwest. The east peninsula consists of irregular rugged hills that terminate at **Pajaros Point** in an astounding pinnacle rock 120 feet high. The southwest peninsula is more regular in outline and 250 to 450 feet high, but it is joined to the central portion by an isthmus only 200 yards wide.

(451) The west side of the southwest peninsula consists of immense granite blocks that lie scattered about on the shore. **Colison Point** is the northwest extremity of the peninsula. The islets and rocks to the south as far as Round Rock, 2 miles distant, are also of granite; the largest, about 140 feet high, nearly 0.5 mile from the south end of the island, is named **Fallen Jerusalem**because of of its resemblance to a town in ruins.

(452) Several islets are in the north part of Sir Francis Drake Channel. **Great Dog**, the southeasternmost, is 270 feet high and steep-to at its west end; rocks fringe its north and south sides. **George Dog**, the northernmost, is 250 feet high and has some detached rocks about 0.2 mile north of it. **Cockroach Rock** lies about 0.2 mile west of it. A rock covered 2 fathoms is about 0.1 mile south of Cockroach Rock. **West Dog**, the westernmost, is 150 feet high, with its west side bold and steep-to. A rock covered 2½ fathoms is about 0.1 mile east of West Dog.

(453) **Tow Rock**, 1.2 miles west-northwest of West Dog, has a depth of 2½ fathoms over it but is steep-to; it may be avoided by passing close to West Dog or Scrub Island.

(454) **Seal Dogs**, 1.3 miles northeast of George Dog and 1 mile west of **Mountain Point**, the northwest extremity of Virgin Gorda, are a cluster of three small islets. The north islet is the smallest and only 6 feet high, the southeasternmost is 74 feet high, and the westernmost and largest is 100 feet high. The passage is clear on either side of the group.

(455) In **Western Roads**, off the west side of Virgin Gorda, are two excellent anchorages for vessels of any draft. The north is situated in the bight between Mountain and Colison Points and is partially protected to the northwest by Dog Islets. It seldom, however, blows hard to the west of north, and the only thing to be prepared for is the ground swell in the winter when it is better to anchor in about 13 fathoms of water, midway between Great Dog and Virgin Gorda. Here, with good ground tackle and a long scope of chain, there will be nothing to fear, as the rollers seldom are accompanied by much wind.

(456) The south anchorage, in 13 fathoms, between Colison Point and Fallen Jerusalem, is the best for sailing vessels because, if necessary, they can weigh and run out to west with more ease than from the north anchorage. The holding ground is good at both places, and the water is usually smooth. A small patch of 4¼ fathoms lies 0.4 mile west of Colison Point, and **Burrow Rock**, with 1½ fathoms, is 1 mile south of Colison Point. The anchorages may be approached from either north or south as the passages are clear except between West Dog and Scrub Island, where Tow Rock lies. On the north side of Virgin Gorda are several small slightly wooded islets and cays.

(457)

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Chart - *25610

(458) **Mosquito Island**, about 0.6 mile long and 290 feet high, the highest of the islets off the north side of Virgin Gorda, is 1 mile east-northeast of Mountain Point. The channel separating it from **Anguilla Point**, on Virgin Gorda, is shoal and only 175 yards wide. The northeast end is fringed by a reef, and a chain of small detached rocks extends 300 yards north-northeast. **Mosquito Rock**, the outermost, is 23 feet high.

(459) **Colquhoun Reef**, which dries in patches, extends nearly 0.6 mile southeast from Mosquito Rock and is steep-to on its northeast side. On the southwest side is a small sandy islet, about 2 feet high and sparsely covered with coarse grass. **Prickly Pear Island**, the largest of the islets off the north side of Virgin Gorda, is about 0.8 mile east of Mosquito Island. It is 1 mile long and 237 feet high. **Asbestos Point**, its east end, is 0.2 mile from the nearest part of a small peninsula of the east arm of Virgin Gorda, and the channel between is shallow and foul. In the middle of it is **Saba Rock**, 15 feet high.

(460) **Cactus Reef**, extending 300 yards west of Cactus Point, the northwest end of Prickly Pear Island, is steep-to on its north side; the sea breaks on it even with a slight swell.

(461) **Gorda Sound** is an excellent and roomy harbor between Virgin Gorda on the south and Mosquito Island, Colquhoun Reef and Prickly Pear Island on the north. It is sheltered from all winds and protected from rollers. As there is no health officer or other Government representative, vessels before visiting it should obtain pratique at Road Harbor, Tortola.

(462) In the approach are uniform depths of 9 to 12 fathoms. The entrance between the 3-fathom curves of Colquhoun and Cactus Reefs is about 250 yards wide with depths of 17 to 42 feet. Deeper water is inside the entrance. Private buoys mark the outer limits of Cactus and Colquhoun Reefs.

(463) The west portion of the sound is foul, with several shoals of 2 to 3 fathoms and some coral patches of less than a fathom. **Gorda Rock**, 0.3 mile southeast of Colquhoun Reef, has a least depth of 30 feet. **Creek Shoal**, off the south side of the entrance to **Gun Creek**, is of coral sand with a least depth of 21 feet.

(464) **Oyster Rock**, about 150 yards off the south shore in the approach to Biras Creek, is a pinnacle rock with only 2 feet of water on it, surrounded by a shallow patch. **Biras Creek** is in the southeast corner of Gorda Sound.

(465) The tide in Gorda Sound is chiefly diurnal. The tidal currents at the entrance are seldom more than 0.5 knots, but the inward current sets toward Prickly Pear Island. Between Mosquito Island and Anguilla Point, the eastgoing current has a velocity of from 1 to 1.5 knots.

(466)

Routes

(467) Powered vessels coming from the east approach Gorda Sound by Necker Island Passage, which lies between Virgin Gorda and Herman Reefs. The approach is dangerous at night. Bring Virgin Peak to bear **261°** and steer for it on that bearing until the north extremity of Necker Island bears 279°, distant 6.8 miles. Then alter course to pass at least 0.5 mile north of Necker Island. When Virgin Peak bears 211°, steer for it until Gnat Point bears 177° and Mosquito Rock bears 255°, then steer for the center of the entrance channel between Cactus and Colquhoun Reefs, which should be entered on a **170°** course; no marks can be given for this narrow channel, but with a favorable light no difficulty should be experienced in passing safely through it.

(468) Coming from north it is better to pass west of Anegada and approach with Virgin Peak on a bearing between 132° and 155°.

(469) Sailing vessels can follow the direction for powered vessels, but if coming from the north and passing east of Anegada, they should not attempt to pass close to windward of Horse Shoe Reef. This has caused many disasters.

(470) **Eustatia Island**, on the shoal bank east of Prickly Pear Island, is 172 feet high and 0.3 mile long. Its north side is foul for 300 yards off, from which a barrier reef extends to Pajaros Point. Outside this foul ground there are two detached patches with depths less than 3 fathoms, one about 0.6 mile east-northeast and the other about 0.5 mile east of the east extremity of Eustatia Island. These patches lie on an extensive bank with depths of from 3 to 5 fathoms.

(471) In the lee of this barrier reef is **Eustatia Sound**, in which small vessels will find safe anchorage. The main entrance is through a small cut in the reef about 0.5 mile east of Eustatia Island; there are also several other small passages through the reefs that can be used, but these should be avoided by strangers because the ground is foul for some distance outside the entrance. Several rocks and shoals are in the sound.

(472) **Virgin Sound**, a channel 0.2 mile wide, extends between the reefs and shoals north of Prickly Pear and Eustatia Islands and those south of Necker Island. It affords good temporary anchorage in 7 to 8 fathoms, but care must be taken to avoid the reefs on either side. The tidal currents set east and west with a velocity of about 0.5 knot.

(473) **Necker Island**, 0.7 mile north of Eustatia Island, is nearly 0.5 mile long and 107 feet high at its north part. The northeast side is fairly bold and steep-to, with depths of 6 to 10 fathoms within 300 yards. The southeast and west sides are foul and dangerous up to 0.5 mile offshore. Foul ground, near which is a reef that dries, extends about 0.3 mile south of Necker Island.

(474) **The Invisibles**, about 0.8 mile east of Necker Island, are three small rocky heads covered 4 to 5 feet. Depths of 5 to 8 fathoms are between the Invisibles and the reefs on

the east side of Necker Island; greater depths are close off the east end. Caution is required when navigating in this area as the rocks do not always break and are hard to see.

(475)

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Chart - *25609

(476) **Anegada**, the northeasternmost island of the Virgin Group, lies with **East Point**, its southeast end, about 12 miles north-northeast of Pajaros Point. Anegada is 9 miles long, about 30 feet high and covered with brushwood except at a few places cleared for cultivation. Numerous saltwater lagoons are in the west interior. The principal settlement is on the south side, 2.5 miles from East Point.

(477) The island is about 1.5 miles within the edge of the Virgin Bank, but the depths decrease so rapidly that sounding is of little help. The island is low, and owing to the strength and irregularity of the tidal currents in the vicinity, it is extremely dangerous to approach at night. See the Tidal Current prediction service at *tidesandcurrents.noaa.gov* for specific information about times, directions, and velocities of the current at numerous locations throughout the area. Links to a user guide for this service can be found in chapter 1 of this book.

(478) Anegada is skirted on its north side by a narrow barrier reef that is about 0.1 mile off at **Soldier Point**, the north point, and 1.5 miles east at East Point. Thence **Horse Shoe Reef**, a most dangerous reef upon which many vessels have been lost, extends southeast for nearly 8 miles. From its southeast end detached coral heads and shoal ledges extend 4.5 miles southwest, where they terminate in Herman Reefs, which break only with a swell or a strong breeze. Horse Shoe Reef breaks in any weather.

(479) **The White Horse**is a heap of white dead coral, 3 feet high, 2 miles west of the elbow of Horse Shoe Reef.

(480) The edge of the bank is 2.5 miles east of the elbow of Horse Shoe Reef. Here are depths of 34 fathoms close within the 100-fathom curve and 10 fathoms about 1 mile farther in. Abreast Herman Reefs, the edge of the bank is little more than a mile distant. The south end lies 5.5 miles east-northeast of Pajaros Point. A detached 5-fathom patch is 0.7 mile south of the reefs.

(481) **Robert Reef**, 3.5 miles west of Herman Reefs, is a small rocky patch with 4½ fathoms on it. Another small rocky head, with 3¾ fathoms, is 1.1 miles north-northeast of this reef. **Hawks Bill Bank**, about 2 miles north-northwest of Robert Reef, is a small rocky ledge with 2¾ to 5½ fathoms.

(482) The reef skirting the north side of Anegada terminates about 300 yards off **West End**, but the south side of the island is foul with detached coral patches lying up to 3.5 miles offshore. A 5-fathom patch is 3.3 miles west of West End.

(483) Good temporary anchorage may be found in 5 to 6 fathoms about 1 mile off West End. During the period of rollers, October to May, however, it is advisable to anchor south of the island. The bank west of Anegada is chiefly fine sand, and in good weather vessels may anchor on it in safety, taking care to avoid the dangers.