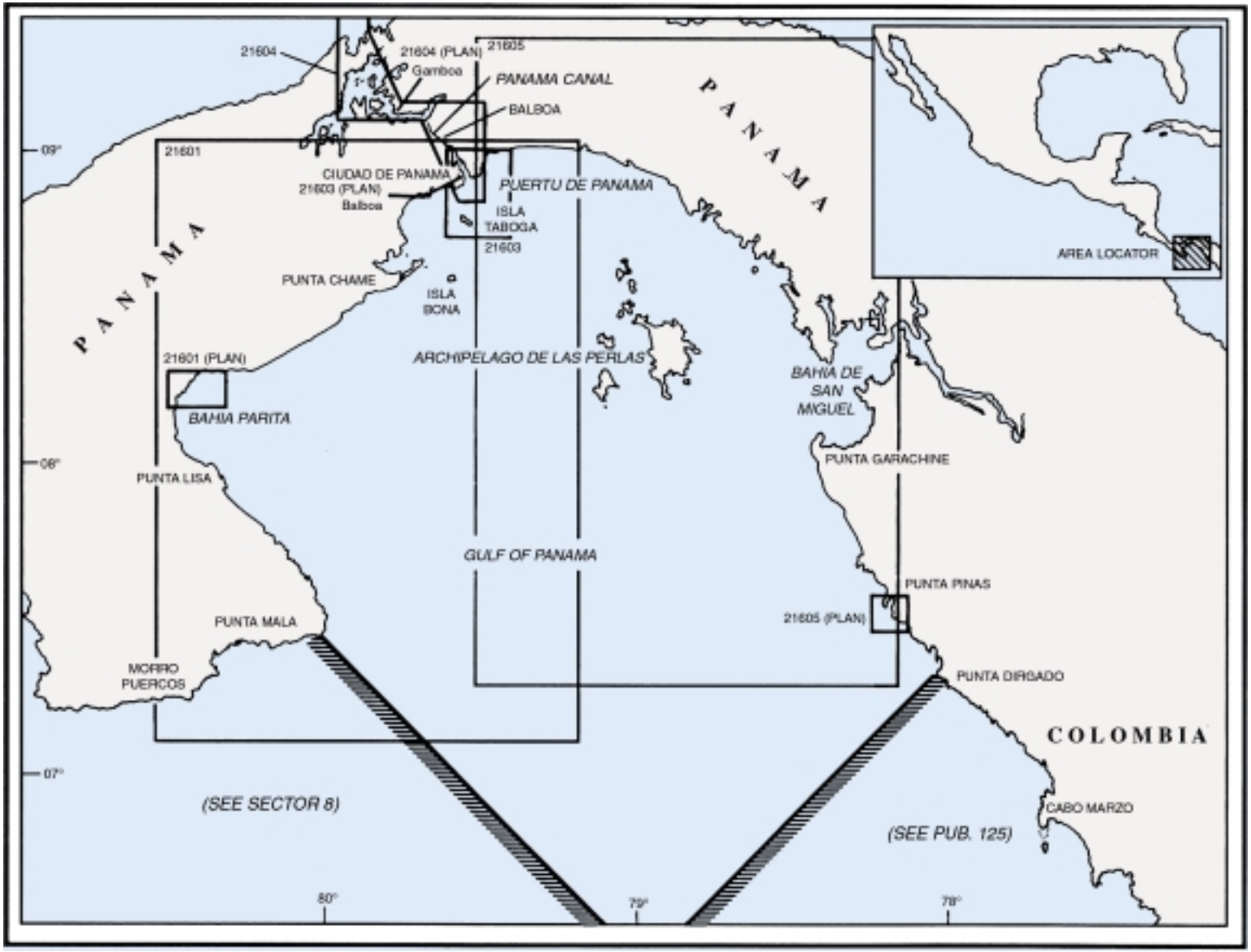

Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR **9** — CHART INFORMATION

Table of Contents

SECTOR 9

GULF OF PANAMA

Plan.—This sector describes the Gulf of Panama between Punta Mala and Bahia Ardita and includes the Archipelago de Las Perlas. The descriptive sequence is N, E, and then SE.

Gulf of Panama

9.1 The Gulf of Panama, a broad expanse of water lying on the Pacific side of the approach to the Isthmus of Panama, may be considered to lie N of a line extending from Punta Mala, on the W, to Bahia Ardita, on the E.

The gulf recedes N of these entrance points to Bahia de Panama, which forms its head, and serves as the S approach to the Panama Canal. The entrance to the canal lies 93 miles NNE of Punta Mala.

Archipelago de Las Perlas (8˚25'N., 79˚00'W.), which consists of many islands, islets, and numerous dangers within its limits, lies in the NE part of the gulf.

Punta Mala to the Panama Canal

9.2 **Punta Mala** (Cabo Mala) (7˚28'N., 80˚00'W.), the W entrance point of the Gulf of Panama, is low, but cliffy and fronted by steep-to rocky ledges. From a considerable distance NW, the land slopes gradually toward the cape, which is not easily distinguished unless the breakers are seen. Several buildings stand on the point. Tide rips were reported to occur 16 miles ENE of the point. Vessels generally experience a strong S set in this area, especially during the dry season. Vessels are advised to remain outside the 200m curve in the vicinity of Punta Mala. Punta Mala has been reported to be radar conspicuous.

The point is marked by a light; a racon is situated at the light.

A wreck, with a depth of 11m, lies 3 miles SW of Punta Mala.

Isla Iguana (7˚37'N., 80˚00'W.), lying 9 miles N of Punta Mala and 2.5 miles offshore, is slightly higher than the adjacent coast and can readily be identified. The island, marked by a light situated on its W extremity, has been reported to be radar conspicuous.

The coast between Punta Mala and Punta Lisa, 39 miles NW, is generally low and intersected by the mouths of several rivers and streams.

Isla Villa (7˚57'N., 80˚18'W.), an islet 12m high and marked by a light, lies l.5 miles offshore, 5.5 miles SE of Punta Lisa.

Bahia Parita (8˚07'N., 80˚20'W.), entered between Punta Lisa and Punta Anton, 18 miles N, recedes inland 10 miles, is low and swampy, and fronted by drying shoals which extend up to 3.5 miles offshore in places.

Boca de Estero Palo Blanco (Estero Aguadulce) (8˚14'N., 80˚28'W.), the channel leading to Puerto Aguadulce at the head of an inlet, is entered between the drying flats which lie 11 miles WSW of Punta Anton and 2 miles offshore.

9.3 **Puerto Aguadulce** (8˚14'N., 80˚30'W.) (World Port Index No. 15425) is situated in Parita Bay and handles bulk sugar and molasses cargoes for export, principally to the United States.

Depths—Limitations.—The channel leading to the port is marked by lighted buoys and beacons. The channel is 7 miles long, has a least navigable width of 75m, and a least depth of 1m at LW.

The port has a 70m long pier with alongside depths of 2.4 to 3.3m used for the export of sugar and molasses. There is a 50m long dolphin berth with an alongside depth of 2.7m on the W bank of the river, farther upstream, also for loading sugar and molasses.

Vessels of less than 2,500 grt, with a maximum length of 100m and a draft not exceeding 6.4m, can be accommodated at HW.

Pilotage.—Pilotage is compulsory. Vessels may request pilotage through the port authority on VHF channel 12 upon arrival.

9.4 The low coast between Punta Anton and Punta Prieta (8˚32'N., 79˚55'W.), 28 miles NE, is intersected by numerous rivers and fronted by a shore bank, which extends up to 2.3 miles offshore. To the SE of Punta Prieta, the bank extends 8.5 miles offshore, but gradually decreases in extent in the vicinity of Punta Chame, 14 miles farther NE.

Isla Bona (8˚35'N., 79˚36'W.), together with the other islands and rocks within 3 miles N of it, lies 8 miles SE of Punta Chame and is the S most group of a chain of islands and rocks which lies within 20 miles S of Flamenco Island. Isla Bona has a single peak which rises to an elevation of 205m and has been reported to be radar conspicuous. A light is shown from a small islet close S of Isla Bona.

Isla Otoque (8˚36'N., 79˚36'W.), the N island, is irregular in shape and rises to two peaks, both slightly lower than the peak on Isla Bona. A village is situated on a bay at the NW side of the island.

Roca Redonda, an above-water rock, and Isla Estiva, a small islet, lie about midway between the above islands on the E and W sides, respectively. From a distance, the islands do not appear as separate islands until viewed from the E or W.

Bahia de Chame (8˚40'N., 79˚41'W.), a shallow bay encumbered by numerous drying flats, is entered between Punta Chame and Punta Juanita, 5 miles NW.

The coast between Punta Juanita and Punta Vacamonte, 10 miles N, is fronted by a shoal bank which extends up to 4.5 miles offshore in places.

9.5 **Bahia Chorrera** (8˚50'N., 79˚42'W.), which lies 3.5 miles SW of Punta Vacamonte, is encumbered by drying flats extending 2.5 miles from the head of the bay. Depths of less than 9m extend up to 4.5 miles offshore. The bay is frequented primarily by small craft.

Puerto Pesquero de Vacamonte (8˚52'N., 79˚40'W.) (World Port Index No. 15415) lies 10 miles SW of the Panama Canal entrance and provides services to domestic and international fishing vessels.Tuna and shrimp are the primary cargoes. The port is situated on Punta Vacamonte. A spit that extends from the shoreline forms the NE end of Chorrera Bay. A breakwater protects the harbor from the open sea conditions.

Depths—Limitations.—The access channel to the port is 1.5 miles long, 140m wide, and has a depth of 5.5m. The average tidal range is 4m and vessels with a draft exceeding 5m can enter the harbor during HW.

A pier extends SW from the shore and has a length of 132m at its head with an alongside depth of 9m.

The port can accommodate vessels of up to 7,000 tons, 240m in length, and 7m draft.

Aspect.—Range lights lead through the entrance channel, which is marked by lighted buoys.

Pilotage.—Pilotage is compulsory for any vessel greater than 150 grt. The pilot can be contacted on VHF channel 15.

9.6 **Cerro Cabra** (8˚55'N., 79˚39'W.), a prominent triple-peaked summit, rises to an elevation of 510m about 3 miles NE of Punta Vacamonte.

The coast between Punta Vacamonte and Punta Bruja, 5.3 miles E, is fronted by a shorebank which extends up to 3 miles offshore. Several small islets and rocks lie within the limits of this bank, seaward of Punta Bruja.

Commission Rock (8˚51'N., 79˚34'W.), the outermost danger, lies on the edge of the shore bank, 3 miles SSE of Punta Bruja. This rock has a least depth of 1.5m.

Isleta Melones, 24m high and flat-topped, together with Roca Melones, a drying rock 0.5 mile N, lie 3.5 miles WSW of Commission Rock.

Punta Guinea (8˚55'N., 79˚34'W.), 2.5 miles NE of Punta Bruja, is backed by a summit, 95m high. A leper colony stands on the shore about midway between the two points. The mouth of the Farfan River lies between Punta Guinea and Farfan Point, 1 mile N.

Panama Canal Approach—South Side

9.7 A chain of islands, rocks, and sunken dangers lies on the S side of the approach to the Panama Canal and extend from Islote Valladolid, 10 miles S of Punta Bruja to Isla Taboguilla, 6 miles SE of the same point.

Islote Valladolid (8˚43'N., 79˚36'W.), the S most danger of the chain, consists of two white-colored rocks lying close together. The highest rock of the two is prominent when the sun shines on it. A light is shown from a metal framework tower situated on the rock.

Isla Chame (8˚44'N., 79˚35'W.), 2 miles N of Islote Valladolid, is 96m high, wooded, and prominent. Roca Perique, 17m high, lies close N of the islet and is marked by a light tower. A lighted buoy marks the dangerous rocks lying close off the S end of Isla Chame.

Isla Taboga (8˚47'N., 79˚33'W.), the largest and highest island of the chain, rises to an elevation of 307m near its center. The village of Taboga stands on the NE side of the island. A conspicuous radio tower, equipped with an aeronautical radiobeacon, and another radar tower are situated midway along the S side of the island. Morro de Taboga, a smaller, high islet, lies on the shorebank which extends 0.5 mile NE from the N part of the island.

Anchorage can be taken off the village of Taboga in a depth of 18m about 0.3 mile offshore.

A fuel and water barge is stationed off Isla Taboga and is often used by vessels transiting the canal. A recommended protected bunkering anchorage lies 1.5 miles E of the church in Taboga in a depth of 31m. A pilot for this anchorage boards at Balboa, or 2 miles NE of Morro de Taboga for vessels entering the canal.

Isla Taboga has been reported to be a radar conspicuous.

9.8 **Isla Urava** (8˚47'N., 79˚32'W.), 177m high, is separated from Isla Taboga by a narrow channel with a least depth of 2.1m. Islote Tarapa, a small islet, lies close S of Isla Urava. A light is shown from the SE shore of Isla Tarapa.

Isla Taboguilla (8˚49'N., 79˚31'W.), l.5 miles NE of Isla Urava, is the N most island of the chain. It is wooded, and rises to a height of 213m. Several small islets lie off its E and SW sides. Two rocky patches lie between 2 and 3 miles WNW of the W side of Isla Taboguilla. A light is shown from a tower on Punta de Cruz, the N point of the island. Another light is shown from the summit of Piedra de Pon, an islet lying close SE of Isla Taboguilla.

Anchorage can be taken about 0.3 mile seaward of the W side of the island.

Isla Farallon (Roca Farallon), a fairly high rock, lies 0.3 mile SSE of the S extremity of Isla Taboguilla. It is white and bare with a well-defined projection on the summit.

Roca Tabu, with a depth of less than 1.8m, and a 5.8m patch close NE, lie 0.6 mile SW of Isla Farallon.

Panama Canal Approach—East Side

9.9 A group of small islands and rocks lies on the E side of the approach to the entrance channel leading to the Panama Canal from SE of Ciudad de Panama.

Roca San Jose (8˚54'N., 79˚31'W.), the SE most danger of the group, is 29m high, of a gray color, and an excellent landmark for approaching vessels to use when anchoring off the canal entrance. Deep water can be found within 0.3 mile of this rock, but care should be taken to avoid a rocky patch, marked by a lighted buoy, with a depth of 9.7m, which lies 1.3 miles ESE.

Flamenco Island (8˚55'N., 79˚31'W.), 0.5 mile NW of Roca San Jose, is the S most island of four which lie close together and are joined by causeways.

Flamenco Island, from a distance, shows a symmetrical, flat-topped outline. A signal mast stands on the summit of the island. A light is shown from the SW side of the island; a racon is situated at the light.

Isla Culebra, Isla Perico, and Isla Naos lie NW of Flamenco Island.

Tides—Currents.—A current of variable strength, but fairly constant in direction, sets W across the head of Bahia de Panama and then S between Isla Taboga and the mainland. This current, when combined with the tidal current on the ebb, has rates of 1 to 2 knots at springs, between and W of Isla

Taboga and Isla Otoque. It effectively reduces the rate of the current on the flood. Between Isla Taboga and Isla Otoque, the currents on both the flood and ebb vary greatly in direction at different stages of the tide and cross currents, setting E or W, are frequently encountered near the shores of the islands and in the vicinity of Islote Valladolid.

Current observations carried out at three stations in Bahia de Panama, between Isla Taboga and Flamenco Island, indicate that the general direction of the current is approximately parallel with the canal axis. Surface currents during the flood were found to be more from the E, especially at the observation point nearest Flamenco Island, indicating that the currents here are affected by winds and the coastal current in Bahia de Panama. The greatest rate observed in this part of the bay is 0.5 knot.

Aspect.—Ancon Hill (Mount Ancon) (8˚57'N., 79˚33'W.), 202m high and the most outstanding landmark to be seen when approaching the entrance of the Panama Canal, is located 3.5 miles NW of Flamenco Island. Four radio masts stand on its summit. The old white stone administration building, with a red roof, on the E slope is easily made out. A masonry reservoir, with white coping, is conspicuous from seaward.

Sosa Hill, 110m high, lies between Ancon Hill and the canal. The city of Balboa stands at the base of the hill.

A conspicuous, white road bridge spans the canal close N of Farfan Point and is described in paragraph 9.10.

Directions.—Vessels entering the Gulf of Panama from S should pass 15 miles E of Punta Mala and those approaching the gulf from N should round the point at a distance of about 5 miles. Upon approach to the entrance of the Panama Canal, a vessel should pass E of Isla Bona and 2 miles E of Isla Taboguilla, bringing the summit of Ancon Hill to bear 328˚. On this heading, the summit will be roughly in range with Flamenco and Perico Islands. This course should then be followed to the anchorage.

As the depths decrease gradually from about 37m to the NE of Isla Bona, to 13 to 16m in the vicinity of the entrance of the canal, soundings are of great assistance when approaching in thick weather. If there is doubt as to position, a vessel should anchor in a depth of 18m, which will be within 2 miles of the canal entrance.

At night, after identifying the canal entrance range lights and lighted channel buoys, it is advisable to keep just N and E of the range and anchor in a depth of not less than 18m.

Panama Canal

9.10 The Panama Canal, a lock type canal, connects the Pacific Ocean with the Atlantic Ocean and is oriented in a general NW direction from Balboa, on the S side, to Cristobal, on the N side. The canal is maintained to a minimum depth of 12.8m at LW over a minimum width of 152m. The most extensive part of the canal lies at the level of Gatun Lake, which has depths of 25 to 26.5m above sea level, varying according to the season of the year. Gatun Lake is reached through three sets of locks, which are arranged in duplicate on either side of the most elevated part of the canal.

It has been reported (1999) that fog conditions between September and December may suspend night transits in the canal.

Local authorities should always be contacted to confirm conditions of all aids to navigation and other conditions in the canal.

Depths—Limitations.—The maximum length overall, including bulbous bow, for commercial or non-commercial vessels acceptable for regular transit is 289.56m; passenger and container vessels may have an overall length of up to 294.13m. The maximum length overall for integrated tug and barge combinations is 274.32m. The maximum aggregate overall length for non-self-propelled vessels, including accompanying tugs, is 259.08m, provided that the tugs lock through with the vessel. The maximum beam for commercial or non-commercial vessels and integrated tug and barge combinations is 32.31m, however, a beam of up to 32.61m may be permitted with prior permission, provided that the deepest point of immersion does not exceed 11.28m TFW (Tropical Fresh Water). The maximum beam for non-self-propelled vessels is 30.48m.

The maximum allowable height for any vessel transiting the canal or entering the port of Balboa at any state of the tide is 57.91m, measured from the waterline to its highest point. With prior permission on a case-by-case basis, the maximum allowable height may be increased to 62.48m.

The maximum permissible draft for canal transit is 12.04m TFW when the level at Gatun Lake is 24.84m or higher, however, maximum draft may be reduced, again, depending on the level of Gatun Lake. Draft limits on vessels are also subject to vessel design criteria (i.e., bilge radius information to determine clearance of rubber fenders on lock walls) and vessel handling criteria.

If there is any doubt concerning a vessel's suitability, this should be clarified directly with the Marine Director, Panama Canal Commission at Balboa.

Pilotage.—Pilotage is compulsory for all vessels in transit or berthing at Balboa.

The Navigation Division of the Panama Canal Commission requires that vessels forward their ETA at least 48 hours in advance. Vessels are further required to report their actual time of passing Punta Mala, or latitude 7˚28'N.

The pilot assigned shall have control of the navigation and movements of such vessel. The master, or his qualified representative, must be on the bridge at all times when the vessel is underway, in order to keep the pilot informed of any peculiarities in shiphandling, so that he may be better able to control its navigation and movement.

The pilot boards at the merchant ship anchorage, as best seen on the chart.

Vessels must report to the signal station at Flamenco Island upon arrival. The port radio station at Flamenco Island may be contacted on VHF channel 12.

The following is a table of minimum drafts required of vessels intending to board a pilot:

Panama Canal—Minimum Drafts for Vessels in Ballast-TSW

Length overall	Draft foward	Draft aft
> 129.54m	2.44m	4.27m
> 144.78m	5.49m	6.10m
> 160.02m	6.10m	6.71m
> 176.78m	6.71m	7.31m

Panama Canal—Minimum Drafts for Vessels in Ballast-TSW

Length overall	Draft foward	Draft aft
> 190.50m	7.31m	7.92m

Note.—Vessels with a length of up to 129.54m must be trimmed so the pilot can see the ranges over the forecastle from the center of the navigation bridge.

Vessels approaching the Panama Canal shall communicate by radio to the Traffic Management not less than 48 hours in advance of arrival at the canal (or earlier if radio communication is practicable at an earlier time), the information required below, unless this information has been previously communicated to the canal authorities by other means. Symbols of the phonetic alphabet shall be used to identify each item. The word "NEGAT" shall be used after the items that can be answered "no," "none," or "not applicable." The following items of information shall be provided:

ALFA—The Panama Canal Identification Number of the vessel.

BRAVO—Estimated date and time of arrival, port of arrival and request for canal transit if desired.

CHARLIE—Estimated draft upon arrival, in feet and inches, fore and aft, in Tropical Fresh Water.

DELTA—Any changes in the vessel's name, country of registry, structure or use of tanks that have occurred since the vessel last called in the Panama Canal.

ECHO—Will the vessel dock at Balboa or Cristobal? What is the reason for docking? If it is for cargo operations, fuel or water, give the tonnage involved in each case. Is there any other reason the vessel will not be ready to transit upon arrival? If so, for what reason?

FOXTROT—The nature and tonnage of any deck cargo.

GOLF—If the vessel is carrying any explosives or dangerous cargoes in bulk, state the correct technical name, quantity (in long tons), United Nations number, and the International Maritime Organization class for each dangerous cargo carried. If the vessel is a tanker in ballast condition and not gas free, state the correct technical name, United Nations number, and International Maritime Organization class of the previously carried cargo. Tankers reporting GOLF NEGAT shall, in addition, state the technical names of non-dangerous cargoes carried.

HOTEL—If the vessel is carrying any packaged dangerous goods, as specified in CFR 35, Title 35, Paragraph 113, Subpart C, other than explosives, state the International Maritime Organization class and division and the total quantity in long tons within each class.

INDIA—Quarantine and immigration information:

1. Is radio pratique desired?
2. State the ports at which the vessel has called within 15 days of preceding its arrival at the canal.
3. State all cases of communicable disease aboard and the nature of the disease or diseases, if known.
4. The number of deaths which have occurred since departure from the last port and the cause of each death, if known.
5. The number of passengers disembarking and their port of disembarkation.
6. The number and ports of origin of any stowaway and a brief description of the identity of each stowaway.
7. The number, kind and country of origin of any animals aboard. Are any animals to be landed?
8. The country of origin of all meat, whether carried as cargo or as ship's stores.
9. Has the vessel called at a port in any country infected with foot-and-mouth disease or rinderpest during its present voyage?
10. Specify whether the vessel has a valid deratting certificate or a deratting exemption certificate issued within 180 days prior to arrival.

Regulations.—All ships should have aboard a copy of the current regulations contained in Subchapters A, B, and C of Chapter 1 of the Code of Federal Regulations, Title 35, Panama Canal. Vessels should consult these regulations prior to transiting. Ships arriving without such regulations aboard shall obtain them through their agent as soon as possible after arrival.

Quarantine.—All vessels are subject to quarantine and until granted free pratique shall fly a yellow flag from the foremast head, and shall observe all other requirements of vessels actually quarantined.

Provisional pratique will be granted those vessels not held in quarantine, but subject to further procedure or observation. The termination of provisional pratique places the vessels in quarantine. Free or provisional pratique may, under special conditions, be withdrawn by the quarantine officer.

Masters of all vessels should familiarize themselves with all the quarantine regulations and requirements for both the Panama Canal and the ports of Colon and Panama in the Republic of Panama.

The quarantine officer-in-charge may grant pratique by radio to a vessel upon the basis of information regarding the vessel, its cargo, and persons aboard, received prior to arrival of the vessel, when in his judgment, and in accordance with instructions, the entry of the vessel will not result in the introduction, transmission, or spread of communicable diseases.

The discharge overboard of waste material, other than potable water is prohibited in the canal operating area.

Priority of Transit.—The Panama Canal authorities may dispatch vessels through the canal in any order and at any time they may see fit. Priority of arrival does not give any vessel the right to pass through the canal ahead of another that may arrive later.

Regular passenger vessels with accommodations for 50 or more passengers and vessels carrying mail or running on fixed published schedules, will to the extent consistent with efficient operation of the canal, as determined by the canal authorities, be given preference over other vessels in transiting.

Warships and naval auxiliaries of all nations receive priority scheduling, thus they are scheduled for same day transit in such a manner as to cause the least disruption in the transit schedule and overall efficiency of the canal. Operationally, this means that a ship scheduled for a priority transit will transit the canal within 24 hours of arrival.

Anchorage.—Vessels planning to transit the canal or berth in Balboa Harbor, and awaiting boarding, must anchor in the

Panama Canal—Pedro Miguel Lock (front), Miraflores Locks (rear), and Thacker Ferry Bridge from NW

anchorage areas SE and S of Flamenco Island, which are best seen on the chart.

Vessels may bunker by barge in the anchorage, subject to draft.

Anchorages, for vessels bunkering by barge, lie 0.7 mile NW of Morro de Taboga, where vessels are advised to take care in avoiding the shoal area having a depth of 8.8m; 1 mile NNW and 0.5 mile SW of the light structure off the SW end of Isla Taboguilla; and 0.5 mile W of Isla Tarapa.

Vessels carrying explosives anchor 2 miles ENE of Isla Tortolita.

Anchorage is prohibited on either side of the dredged entrance channel leading to the canal, SW of Flamenco Island.

Aspect.—The Thatcher Ferry Bridge, also called Bridge of the Americas, crosses the entrance channel about 0.2 mile N of Farfan Point and has an overhead clearance of 59.7m at MHW. The center of the bridge is marked by two lights displayed vertically.

In general, the lighting and buoyage of the Panama Canal include the use of range lights, usually green in the longest reaches, and lighted buoys and beacons along the sides, showing red lights on one side and green on the other. Each long reach has a double range, a front and a back range, so that a vessel going in either direction will have a range ahead.

The range towers are cylindrical concrete structures, set a little to the right of the axis of the canal so that if vessels going in opposite directions keep on their respective front ranges, they will have ample room to pass.

Lighted buoys and beacons are placed along the sides of the canal and across Gatun Lake at intervals of a little less than 1 mile and at all turns. Lights on aids indicating turns are equipped with flashing lights.

In Gaillard Cut, the canal prism is lighted by electric lights spaced 152.4m apart on each bank, suspended from the bank so that the lights are 2m above the water level and mark the edge of the prism of the canal. These lights are fixed green on the E bank and red on the W bank.

The lock at Pedro Miguel is the dividing line between the Atlantic and Pacific buoyage systems; therefore, having passed through the lock, red and green buoys will be found on sides of the channel opposite to those on which they were before reaching the lock.

The aids to navigation are numbered in five sections:

1. From the Atlantic entrance to Gatun Locks.
2. Gatun Lake from Gatun Locks to Gaillard Cut.
3. Gaillard Cut.
4. Miraflores Lake.
5. From the Pacific entrance to Miraflores Locks.

In association with the dredging operations and temporary obstructions, small wooden buoys may be placed from time to time to mark constricted channels.

Descriptions of all aids, courses, and distances through the various reaches of the canal and information on particular currents which may be expected at various places along this route are given in the "Pilot Handbook," issued by the canal authorities to all pilots.

Balboa (8˚57'N., 79˚34'W.)

World Port Index No. 15410

9.11 Balboa is situated on the E side of the bay at the entrance to the Panama Canal, on the Pacific coast. It is the second largest port terminal in Panama, following the Port of Cristobal. Balboa Heights consists principally of administration buildings and it presides as the seat of the Panama Canal Commission. Balboa also provides residences for employees, and other installations used in conjunction with the operation of the canal.

The canal is the only access into the port of Balboa, and the harbor approach is unrestricted with a minimum depth of 11.9m at MLW. The Thatcher Ferry Bridge crosses the entrance channel close S of the port (see paragraph 9.10).

Tides—Currents.—Tides are semidiurnal. The average tidal range at neaps is 4m, and at springs is 4.9m. Occasional northerlies and strong gusts reduce the tidal range, but are not severe enough to interfere with navigation.

Tidal currents of up to 2 knots are reported to set across the pierheads.

Favorable weather conditions usually prevail from December through April, which is the dry season.

Depths—Limitations.—The following table describes the depths and functions of the berths in Balboa:

Berthing Facilities		
Berth No.	Max. draft	Remarks
6	8.3m	Tankers and bunkering
7A	9.2m	Chemicals
7B	9.0m	Chemicals
8	8.3m	Ship repair
14A	9.6m	General, bulk, and containers
14B	9.6m	General, bulk, and containers
15A	10.1m	General, bulk, and containers
15B	9.4m	General, bulk, and containers
15C	9.2m	General, bulk, and containers
16A	9.5m	General, bulk, and containers
16B	9.1m	General, breakbulk, and containers
18A	9.7m	General, breakbulk, and bunkering
18B	8.1m	General, breakbulk, and bunkering
18C	11.1m	General, breakbulk, and bunkering
18D	9.3m	General, breakbulk, and bunkering
18E	7.8m	General, breakbulk, and bunkering

Drafts listed are the maximum allowable drafts at any state of the tide and allow for an underkeel clearance of 0.9m.

Vessels having a draft exceeding 11.7m are not handled from 2 hours 30 minutes before LW until 2 hours after LW.

Rodman Harbor, situated across the bay from Balboa, on the W side of the main channel, has three piers, Nos. 1 through 3. Each pier provides two berths and each has a 214m long frontage.

The harbor has been dredged to a depth of 12.2m, however, caution should be exercised, as the piers are subject to a maximum allowable draft at any stage of the tide, to include an underkeel allowance of 0.9m, as follows:

Berth No. 1 10.8m
Berth No. 2 9.4m
Berth No. 3 6.7m

Any vessel which arrives with a draft in excess of 7.7m or which expects to load to a draft in excess of 7.7m will be required to execute a release form "undertaking to release and indemnify."

Vessels exceeding 7.7m in draft entering or departing Balboa Harbor will proceed at or near HW.

Braswell Shipyard, containing three graving docks for the maintenance and repair of all Panamax size vessels, is situated 400m off the range leading through the port of Balboa. Repairs may also be effected at the anchorage or a riding crew requested.

Panama Canal to the Rio Chiman

9.12 Puerto de Panama (8˚57'N., 79˚32'W.) (World Port Index No. 15390) lies between Punta Paitilla and the SE Bastion of the old fortifications of Ciudad de Panama, 3.3 miles N of Flamenco Rock. The port is shallow with a greatest depth of 2.7m between the entrance points, shoaling to 2.4m and less within the harbor. Depths over the coastal bank fronting the harbor increase gradually to 9.1m about 3 miles SE of the entrance.

Rocas Danaide (8˚56'N., 79˚30'W.), the outermost dangers of many which lie within the limits of the shorebank, have a least depth of 3.3m and lie 2.5 miles ESE of SE Bastion.

The flood current sets NW and the ebb sets S. The rate varies from 0.5 knot to 1.5 knots with the ebb being the stronger current.

Anchorage can be taken in a depth of 4.6m about 1 mile E of NE Bastion or in depths of 9 to 11m NE of Perico Island (8˚55'N., 79˚32'W.).

The piers, which lie around the perimeter of the harbor, all dry at LW and are available only to small craft and lighters.

The coast between Punta Paitilla and Isla Chepillo, 23 miles E, consists of mangrove-covered shore fronted by drying flats which extend up to 1.5 miles offshore in places.

Isla Chepillo (8˚57'N., 79˚08'W.), which lies off the entrance of the Rio Chepo, is low at its N end rising gradually toward its center. Depths are ample to approach within 1 mile of the S end of this island. A light is shown from the summit of the island.

Rio Chepo (8˚59'N., 79˚07'W.), with depths of less than 2.1m, is entered 2.8 miles NNE of Isla Chepillo. Only small craft with local knowledge can enter the river.

The coast between Rio Chepo and Rio Chiman, 32 miles SE, is low and covered with mangroves. It is interrupted by many shallow streams and rivers.

Punta de Manglares (Punta Mangle) (8˚49'N., 78˚51'W.), 19 miles SE of the Rio Chepo, is bordered by drying flats which extend up to 3 miles offshore. The shorebank in this vicinity extends up to 10 miles W and 6 miles S of the point. North and NE of the point, the land rises to considerable elevations. Pico Columna, 1,055m high, rises 12 miles NE of the point and Thumb Peak, 387m high, rises 11 miles NNW of the point. Both peaks are conspicuous from seaward.

Rio Chiman (8˚41'N., 78˚39'W.), which almost dries, is marked by wooded bluffs on either side. A small village stands on the E bank 1 mile within the entrance.

Isla El Pelado (Islote Pelado) (8˚38'N., 78˚42'W.) lies 5 miles SW of the mouth of the Rio Chiman. The island is marked by a light.

Rio Chiman to Golfo de San Miguel

9.13 Punta Brujas (8˚35'N., 78˚32'W.), lying 22 miles SE of Punta de Manglares, is the extremity of a low, rocky projection and forms the SW entrance point of the Rio Trinidad. A small conspicuous rock lies on the edge of the mud flats 3.8 miles NNW of the point. A light is shown from Punta Brujas.

Punta Gorda (8˚28'N., 78˚30'W.), bold and wooded, lies 7.5 miles S of Punta Brujas. The shorebank, which extends up to 2.5 miles SW of the latter point, gradually decreases in width to lie within 0.3 mile offshore, abeam of Punta Gorda.

Punta Pedernales (Otro Lado) (8˚26'N., 78˚29'W.) lies 3 miles SE of Punta Gorda.

Punta Brava (8˚21'N., 78˚25'W.), located 9 miles SSE of Punta Gorda, is the N entrance point of Golfo de San Miguel, and is fringed by foul ground and off-lying rocks on which the sea breaks heavily. The shoal bank, as defined by the 10m curve, extends 9 miles SW from Punta Brava. Banco del Buey, a heavily breaking shoal, with a least depth of 0.9m, lies on the inner half of this shoal.

Golfo de San Miguel (8˚15'N., 78˚23'W.), entered between Punta Brava and Punta Garachine, 14.5 miles S, extends 25 miles NE. The E and W entrance points of the gulf are marked by lights shown from Isla Patinito and Islita Batatilla, respectively. The gulf narrows to a width of 6.5 miles about 6 miles NE of the entrance points and gradually narrows to a width of 2 miles about 12 miles farther NE. The channel then turns sharply SE to the head of the gulf which forms the landlocked harbor of **Puerto Darien** (8˚23'N., 78˚06'W.), at the junction of the Rio Sabana and Rio Tuira.

Rio Tuira is navigable during the rainy season by vessels having a draft of 4.6m or less, as far as El Real, 35 miles SE of Punta Sabana.

The yellow, muddy waters of the gulf are usually marked by swirls due to the discharge from the rivers and the variable currents. During the rainy season, navigation is severely hindered by floating trees.

9.14 Punta Garachine (8˚06'N., 79˚25'W.), the S entrance point of Golfo de San Miguel, is the outer extremity of a high peninsula which projects 2 miles N from the general trend of the coast. The peninsula is steep-to off its NW side. A light is shown l.3 miles S of Punta Garachine.

Vessels can take anchorage, well-protected in the summer, 0.7 mile E of Punta Garachine in depths of 11 to 13m.

Roca Trollope (8˚07'N., 78˚39'W.), with a least depth of 2.7m, lies near the middle of Banco San Jose, 14 miles W of Punta Garachine. Banco San Jose, marked by a lighted buoy, is about 4.5 miles long in a NW and SE direction, and 2 miles wide. Two shallow patches, with depths of 6.5m and 8m, lie in the middle of the entrance channel leading into the gulf, 4.5 miles N of Punta Garachine.

Ensenada de Garachine (8˚10'N., 78˚21'W.), entered between Punta Garachine and Punta Patino, 11 miles NE, is mostly shallow and backed by drying flats which extend up to 3 miles offshore at its head. A breaking shoal, with a least depth of 1m, lies 3 to 7 miles NE of Punta Garachine.

Punta Patino (8˚15'N., 78˚18'W.), a wooded projection, lies 11 miles NE of Punta Garachine.

Punta Barro Colorado (8˚27'N., 78˚17'W.), a bold and rocky point lying 2.5 miles NE of Punta Patino, can be identified by a conspicuous red cliff on its W side. A shoal depth of 9m lies 2.5 miles W of the point.

Ensenada Mogul (8˚19'N., 78˚13'W.), a shallow bay with mangrove-covered shores, lies between Punta Alegre, located 1.5 miles NE of Punta Barro Colorado, and Punta Pinta Jaya (Punta Momosenega), 4.5 miles farther NE.

Isla El Cedro (8˚21'N., 78˚13'W.), small and densely wooded, lies on the outer edge of the shorebank about 1.5 miles W of Punta Pinta Jaya. The NW side of the islet is steep-to.

Punta Isla Maria (8˚24'N., 78˚12'W.) lies 4.5 miles N of Punta Pinta Jaya.

9.15 Isla Corozal (8˚24'N., 78˚11'W.), the NE most islet of a group of several, lies 1 mile S of Punta Isla Maria. East of this islet, the navigable channel narrows to a width of about 1 mile.

Isla San Carlos (Isla Boca Grande) (8˚26'N., 78˚10'W.), together with Isla El Encanto off its NE side, divides the approach to the head of Golfo de San Miguel into two channels. Boca Grande, the preferred channel, passes W and N of Isla San Carlos and E of Isla El Encanto.

Boca Chica, which passes S of Isla San Carlos, although deep, is narrow and intricate.

Isla Cartagena (8˚26'N., 78˚08'W.), together with two small islets lying within 0.5 mile S of it, lies in mid-channel off the E side of Isla El Encanto. Deep water lies in the passages to the E and W of these islets. The preferred fairway passes E of these islets. A bank, with a depth of less than 9m, extends about 1 mile into the fairway from the W side of Punta Sabana, 2.5 miles SE of Isla Cartagena.

The preferred anchorage for vessels not proceeding to Puerto Darien, or those awaiting a more favorable current, lies in the fairway N and NE of Isla El Cedro.

Roca Vaguila (8˚24'N., 78˚06'W.) dries 2.1m and lies about 0.6 mile SSW of Punta Sabana (8˚25'N., 78˚06'W.).

Depths of 11 to 26m lie in the anchorage, over a width of 1.5 miles, up to 3 miles SE of Isla Cartagena. The depths decrease rapidly to the S of this position. The best anchorage, which has depths of 13 to 18m, lies 0.3 mile offshore abeam of La Palma, a small village situated 2 miles WSW of Punta Sabana.

Numerous islets, rocks, and shoals lie within the shorebank on the N side of the channel between Punta Isla Maria and Punta Buena Vista, 3 miles WSW.

Roca Sombrereta (8˚22'N., 78˚14'W.), a prominent grass-covered rock and the SW most danger, lies 1.5 miles SSE of Punta Buena Vista.

Ensenada Pena Hueca (8˚24'N., 78˚19'W.), entered between Punta Buena Vista and Punta San Lorenzo, 9 miles WSW, is mostly shallow and obstructed by drying flats at its head. Several rivers discharge into the bay, but are not generally navigated.

Archipelago de las Perlas

9.16 Archipelago de las Perlas (8˚25'N., 79˚00'W.) consists of a large number of islands, islets, and numerous rocks covering an extensive area in the NE part of the Gulf of Panama. The group extends 30 miles in a NW and SE direction and has a width of about 20 miles. The larger islands are high, heavily wooded, and fairly steep-to.

There are no commercial ports, but well-sheltered anchorage can be taken leeward of some of the islands.

Isla Pacheca (8˚40'N., 79˚03'W.), the N island of the group, although small, rises to an elevation of 61m. A shoal bank extends 0.5 mile NW and 1.5 miles SE from the island. Isla Pachequilla, and Isla Bartolome, similar islets, lie near the outer edges of this bank to the NW and SE, respectively. A light is shown from the NE point of Isla Pachecha.

Isla Saboga (8˚38'N., 79˚04'W.), 1.8 miles S of Isla Pachecha and 68m high, has a large village with a church on its E side. A shoal bank, with several islets and rocks on it, extends 1.5 miles N from the islet. Isla Chitre, a small, high islet, lies on the shoal bank which extends 2 miles S from Isla Saboga. Isla Santa Catalina, awash at extreme HW, lies 1.8 miles S of Isla Chitre.

9.17 Isla Contadora (8˚38'N., 79˚02'W.), high and of irregular shape, lies 0.3 mile E of Isla Saboga.

An anchorage area, centered in position 8˚38'N 79˚03'W, lies in the center of the triangle formed by Islas Saboga and Contadora and the islands and the shoals to the N. The anchorage is about 1.5 miles long and 0.8 mile wide. Good, well-protected anchorage can be taken in depths of 9 to 14m, mud, about 0.5 mile N of the village on the E side of Isla Saboga. A considerable current is usually experienced.

Two preferred entrance channels lead into the anchorage. Canal Pacheca, 0.2 mile wide at its narrowest part with a least mid-channel depth of 10m, is entered S of Isla Pacheca. Canal Contadora (Canal Tolome), 0.3 mile wide, is entered close N of Isla Contadora and has a mid-channel depth of 11m. Tidal currents in this channel are strong.

Canal Saboga, a 0.2 mile wide channel leading into the anchorage from the S, has a least depth of 5.8m, but is not recommended except for small craft with local knowledge.

Directions.—If entering by Canal Pacheca from the N, pass about 0.5 mile W of Isla Pachequilla and head S until the center of Isla Bartolome bears 116˚. Steer on this bearing until the E extremity of Isla Saboga bears 180˚, then alter course to this bearing which will lead to the anchorage.

If entering by Canal Contadora, pass about 1.5 miles E of Isla Bartolome on a S heading until the church spire on the E side of Isla Saboga bears 244˚, then alter course to this heading, which leads to the anchorage. The currents in this channel are strong and must be allowed for.

9.18 Isla Chapera (8˚35'N., 79˚02'W.), 2 miles S of Isla Contadora, lies at the outer end of a shoal bank which extends 4.5 miles NW and then 5.5 miles N from the NW extremity of Isla del Rey. Numerous islands, islets, and rocks lie within the limits of this bank, which has a width of about 5 miles in its central part. The channel between this group of islands and the group previously described to the N should be attempted only by vessels with local knowledge because of the strong currents and the shallow water on both sides.

Anchorage, with good holding ground, mud or sand, can be taken by all classes of vessels in depths of 11 to 18m in the vicinity of Isla Caracoles (8˚30'N., 78˚57'W.). Care should be taken to avoid the shoal patches which lie within 2.5 miles NNW of this islet.

Anchorage, with good holding ground, is also available 3 miles E of Isla Chapera in a depth of 24m.

Isla del Rey (8˚23'N., 78˚54'W.), the largest island in the archipelago, is 15 miles long, 7.5 miles wide, and topped by several high peaks. Cerro del Chiquero, the highest peak, rises to an elevation of 223m in the central part of the island. Numerous islets and shoal patches lie up to 4 miles off the W coast of the island and should be passed at a prudent distance.

Punta Cocos (8˚13'N., 78˚54'W.), the S extremity of the island, is the outer end of a remarkable promontory which extends 4 miles S from the general line of the coast. A small islet lies on the shoal bank which extends about 0.5 mile farther S.

A number of islands lie off the E coast of Isla del Rey, but they are fairly steep-to and can safely be approached to within 0.5 mile in most instances.

Bahia San Telmo (8˚16'N., 78˚53'W.), entered E of Punta Cocos, is 4 miles wide between the entrance points and recedes the same distance to the NW. The dangers in the bay lie within 0.5 mile of the shore with the exception of a detached shoal patch, with a least depth of 1.8m, which lies about 1 mile E of Punta Cocos and an 8.5m patch lying 2 miles NE of the same point. Elsewhere, the bay has depths of 11 to 24m.

Safe anchorage can be taken as convenient anywhere within the bay. Southerly winds raise a heavy swell at times, but the sandy bottom provides good holding ground. A strong current sets across the entrance, but diminishes N of Isla San Telmo, the E entrance point.

9.19 **Isla Galera** (8˚12'N., 78˚47'W.), 42m high, lies on a shoal bank about 1.3 miles in extent, 7.5 miles ESE of Punta Cocos. A sunken rock, which breaks, lies 0.5 mile W of the S extremity of the island.

A reef, with three above-water rocks on its outer part, extends 1 mile SE from the island. A shoal, with a depth of 15.5m, lies 7.8 miles SW of the island and a shoal, with a depth of 16m, lies 7 miles WSW of the same island. Vessels should not transit in depths of less than 20m when passing this islet.

Isla Pedro Gonzalez (8˚24'N., 79˚06'W.), lying 7 miles W of Isla del Rey, is high, irregularly shaped, and separated from the NW side of Isla del Rey by a broad, deep channel. Islas Senora and Senorita, two small islets, lie on a shoal bank 0.8 mile N of the NW part of Isla Pedro Gonzalez.

North Passage, which lies between these islets and the islets to the NE, is deep and clear with no known dangers.

Ensenada Honda (8˚25'N., 79˚06'W.), a small, irregular bay which provides well protected anchorage in depths of 9 to 13m, indents the N coast of Isla Pedro Gonzalez about 1 mile SE of Isla Senora. The outer half of the bay has depths of 9 to 15m. Depths in the S half of the bay shoal rapidly. Currents within the bay are negligible, but a considerable set has been experienced N of the entrance. The flood sets to the N and a strong ebb sets to the S.

West Passage, which is about 3 miles wide between the fringing dangers, lies between Isla Pedro Gonzalez and Isla de San Jose. Bajo del Medio, a rock awash at LW, lies 1.8 miles SSW of the SE point of Isla Pedro Gonzalez. Niagara Rock, with a least depth of 2.7m, lies 2 miles W of Bajo del Medio. The channel S of these dangers is deep and clear, but the N channel should be avoided.

Isla de San Jose (8˚16'N., 79˚07'W.), a large, irregularly-shaped island, is indented by a deep bay on its SE side and a small shallow bay on its W side. Ensenada Playa Grande, the E bay, has ample depths for anchoring, but a violent swell is usually experienced.

The island is steep-to within 0.5 mile of the shore on all except its SE side. Several small islets and rocks, on which the sea breaks heavily, lie up to 1 mile offshore along this part of the coast, which should be avoided. A light is shown from the SW side of the island.

South Passage, leading to Bahia del Rey to the N, passes E of Isla de San Jose. This channel, which is about 3.5 miles wide between the fringing dangers, has depths of 14.5 to 51m in its central part.

Bahia del Rey (8˚21'N., 79˚08'W.), which lies between Isla del Rey on the E side and Islas Pedro Gonzalez and San Jose to the W, provides anchorage for all classes of vessels with good holding ground, mud. A choppy sea develops during S winds, but winds from other quarters have little effect.

Punta Garachine to Bahia Ardita

9.20 The coast between Punta Garachine and Bahia Pina, 36 miles SSE, is bold, high, and wooded.

Punta Escarpada (8˚05'N., 78˚26'W.) lies 2 miles SW of Punta Garachine. Islita Gajuala, a 0.9m high rock, lies on the outer part of a reef which extends 0.6 mile SW from the point.

Cerro Sapo (7˚59'N., 78˚22'W.), a sharp, conical peak, rises to an elevation of 1,409m about 8 miles SE of Punta Escarpado.

Punta Caracoles (7˚41'N., 78˚18'W.), a bold, rocky point lying 25 miles SSE of Punta Escarpado, has a small bay on its N side. Good anchorage is provided for boats over a bottom of mud and sand.

9.21 **Bahia Pina** (7˚33'N., 78˚12'W.) is entered E of Punta Pina, which lies 9 miles SE of Punta Caracoles. The bay extends 2.3 miles N and provides one of the best anchorages to be found in the vicinity. The sides of the bay are high and rocky, although, its head is low and sandy. Depths range from 36m in the entrance to a depth of 9.1m lying 0.3 mile from its head.

Islas Centinelas (7˚34'N., 78˚13'W.), two small islets which are low and tree-covered, lie 1 mile SW and l.3 miles WNW of Punta Pina.

Anchorage can be taken as convenient in any part of the bay over a bottom of sand.

During the wet season, a considerable swell is raised by the heavy squalls. At such times, vessels should anchor more to the W side of the bay in a depth of 22m.

A light is shown from the SW extremity of Punta Pina.

Isla Mono (7˚13'N., 77˚53'W.), 26 miles SE of Bahia Pina, lies 0.5 mile offshore in the vicinity of the boundary between Panama and Colombia.

Bahia Ardita (7˚08'N., 77˚48'W.), 6.5 miles SE of Isla Mono, is a coastal indentation with a village on its N side. The bay can be identified by an islet lying 0.7 mile S of Punta Ardita, its W entrance point.

The intervening coast between Bahia Pina and Bahia Ardita is high, rugged, heavily wooded, and steep-to within 0.5 mile of the shore.

Table of Contents