

PUBLICATION 125

**SAILING DIRECTIONS
(ENROUTE)
WEST COAST
OF
SOUTH AMERICA**

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(Edited, Not To Be Used For Navigation)

WEST COAST OF SOUTH AMERICA—OFF-LYING ISLANDS AND DANGERS

Plan.—This sector describes the off-lying islands, dangers, and banks that are widely scattered W of the coasts of Colombia, Ecuador, and Chile. The sequence of the description is from N to S.

General Remarks

1.1 The waters W of the coasts of Colombia, Ecuador, and Chile contain a number of off-lying islands, dangers, and banks, most of which are not marked by navigational aids. The islands, volcanic in origin, are in general precipitous and steep, but detached dangers lie close off many of them. Isla de Malpelo, about 200 miles off the Colombian coast, lies closest to the coast. Isla de Pascua, about 2,000 miles off the Chilean coast, is the westernmost of the off-lying islands described herein. The Archipelago de Colon and the Archipelago de Juan Fernandez are the principal island groups; the Archipelago de Colon is the largest group.

[... material omitted ...]

Off-lying Islands, Banks, and Dangers West of Chile

1.19 Numerous off-lying dangers have been reported between longitude 100°W and the coast of Chile. The effect of seismic disturbances on the ocean floor within this area, which is not infrequent, may cause an existing islet or rock to become submerged. On the other hand, earthquakes thrust submerged peaks above, or nearly above, the ocean surface. Through the years, various surveys have failed to locate most of these reported dangers. However, they are retained on the charts as a warning to navigators.

Included in these dangers are Sefton Reef (36°43'S., 83°15'W.), Yosemite Rock (32°04'S., 83°14'W.), Podesta Island (32°14'S., 89°08'W.), Emily Rock (29°38'S., 87°25'W.), a rock and adjacent shoal depths of at least 165m in 25°40'S, 85°00'W, and a depth of 155m which was reported in the position 43°13'S, 97°43'W.

Isla San Ambrosio (26°21'S., 79°52'W.) is high, steep, and about 2 miles long. The island consists of rough, burnt volcanic particles arranged in horizontal strata intersected by vertical veins of basalt, which appear from the offing as streams flowing from the summit. Fishermen frequent the island, and have established several houses on it. Three above-water rocks, the outermost about 0.5 mile offshore, lie E of the island; a conical rock lies close W.

Anchorage for small craft can be taken in a cove (Las Moscas) indenting the middle of the N coast of the island, where shelter from SE winds can be obtained, in a depth of 40.2m, rock. Landing can be effected at the head of the cove.

Isla San Felix (26°17'S., 80°07'W.), about 1.5 miles long, rises to Cerro San Felix (San Felix Hill) at its W end. The W and SW sides of this arid, volcanic island consist of steep, yellow cliffs sloping down to beaches on the NE side. An airfield is located in the central part of the island. Foul ground extends 0.3 mile off the E and NE sides of the island, and depths of 12.8 to 25.6m exist up to 1.5 miles E. A light is shown from the W side of the island.

Islote Gonzalez (Gonzales Island), high and inaccessible, lies 0.3 mile S of the SE end of Isla San Felix and is connected with that island by a submerged reef. Another reef extends NW from the islet almost to the S shore of Isla San Felix.

Roca Catedral de Peterborough (26°16'S., 80°08'W.) is the highest of a group of jagged rocks which lie about 1.3 miles NNW of Cerro San Felix. Depths of 11 to 30m have been obtained up to 1.8 miles N, NNW, and NW of these rocks.

Rada San Felix (San Felix Road), on the bank which connects Isla San Felix and Roca Catedral de Peterborough, affords anchorage, in depths of 20.1 to 36.6m, black sand, about 0.3 to 0.5 mile

offshore. The tidal current sets SW and NE with a velocity of 0.5 knot, but may increase to 3 knots.

The Archipelago de Juan Fernandez

1.20 The Archipelago de Juan Fernandez (33°37'S., 78°50'W.) consists of Isla Robinson Crusoe, Isla Santa Clara, and Isla Alejandro Selkirk. The islands are a base for a fishing fleet.

Isla Robinson Crusoe (33°38'S., 78°50'W.), lying about 360 miles W of Valparaiso, is about 10 miles long and irregular in outline. The E half of this populated island is wooded, with alternate craggy ridges and fertile valleys; the W half is flat, low, and bare. **Cerro El Yunque** (33°39'S., 78°51'W.), shaped like an anvil when seen from NE, is a wooded peak, the highest in a range of mountains and a prominent landmark. Isla Robinson Crusoe has been sighted by radar at 40 miles.

Alexander Selkirk was landed on Isla Robinson Crusoe in 1705 and lived alone for 4 years before being rescued. Daniel Defoe based his classical story Robinson Crusoe on this episode.

Winds—Weather.—The island has a humid but healthful climate. Between October and May, the weather is fair, although rain squalls occur during the evening and at night. Unsettled weather, with rain, calms, or fresh N winds occurs during the rainy season. There are strong N winds in winter. Fog is not frequent.

Tides—Currents.—Local currents off the island are most noticeable at the turn of the tide when they attain a velocity of 3 to 4 knots. The currents follow along the coast, but do not enter Bahia Cumberland.

1.21 Punta Hueso Ballena (33°40'S., 78°46'W.) is the high, cliffy E end of the island. The coast NW of the point, as far as Punta Loberia (33°37'S., 78°49'W.), consists of steep, rugged slopes with no offshore dangers.

Bahia Cumberland (33°37'S., 78°50'W.), entered between Punta Loberia and Punta San Carlos, about 1 mile WNW, is open, deep, and clear of dangers.

Landmarks approaching the bay include the buildings at Fort San Juan Bautista (33°37'S., 78°50'W.) and the caves S of the settlement. Other buildings S of Punta Loberia are conspicuous.

Weather conditions in the bay differ from the weather offshore as the terrain inland is such that wind squalls move off the land and into the bay with considerable velocity. The water in the bay then becomes turbulent and discolored, especially in summer (November-May).

Muelle Fiscal, which is 100m long and can accommodate vessels with a maximum draft of 4m, is situated 0.3 mile S of Punta San Carlos (33°37'S., 78°50'W.).

Anchorage can be taken by vessels over 100m in length about 0.4 mile E of the main light in the settlement, in a depth of 49.4m. Vessels less than 100m long can anchor, in a depth of 20.1m, sand, about 0.5 mile SSE of Punta San Carlos and clear of a sunken wreck lying 0.4 mile SE of the same point. It is advisable to use both bow anchors, with a good spread and a long scope of chain, to take care of sudden squalls and strong shifting winds.

Caution.—When approaching Bahia Cumberland from the W or N, it is easy to mistake Bahia del Oeste (Puerto Ingles) (33°36'S., 78°51'W.), but the hills are less steep and the terrain is lower than at Bahia Cumberland. The coast between Bahia del Oeste and Punta Norte is high and cliffy; Cerro Alto (33°36'S., 78°52'W.) is a prominent feature. The W side of the island is rocky, with no anchorages or safe landing places. Punta O'Higgins, the S extremity of Isla Robinson Crusoe, lies 1 mile SE of Punta Isla (33°41'S., 78°57'W.), the SW extremity.

Bahia Carvajal (33°40'S., 78°56'W.), indenting the S coast directly N of Punta O'Higgins, affords anchorage, in a depth of about 27.4m, sand, with the point bearing 217° and the E entrance point of the bay bearing 042°.

Bahia Tierra Blanca (33°39'S., 78°55'W.) also affords anchorage, in depths of 28 to 30m. The bay is named after the light color of the surrounding hills.

1.22 Isla Santa Clara (33°42'S., 78°56'W.) is separated from the SW end of Isla Robinson Crusoe by a channel almost 0.8 mile wide. The island is barren and on a N approach shows as a single peak. Rocks and islets lie off the W and S coasts.

The sea breaks heavily all around the island making landing dangerous.

Isla Alejandro Selkirk (33°45'S., 80°45'W.), lying about 84 miles W of Isla Robinson Crusoe, is densely wooded and very mountainous. Many deep ravines lead to a steep-to, rugged coast on the E side of the island off which are tremendous depths. The S, W, and N sides of the island have sandy strips of beach which extend 0.1 mile offshore in places.

A very high peak rises at the SW side of Isla Alejandro Selkirk, and at the SW extremity there is a prominent rock with a hole through it. Landing is possible near the center of the E shore at Quebrada Sanchez, and at the foot of Quebrada Las Casas (33°45'S., 80°43'W.), where there is a boat slip and buildings of a former penal colony.

Anchorage can be taken about 0.3 mile ENE of Quebrada Sanchez (33°43'S., 80°44'W.), in depths of 40.2 to 49.4m. The ravine is recognized by a white patch on a hill near it. This anchorage is unsafe with E winds, but affords shelter from SW winds. Anchorage can also be taken, in depths of 31.1 to 50m, sand, off Rada de la Colonia (33°45'S., 80°43'W.).

Isla Sala Y Gomez and Isla de Pascua

1.23 Isla Sala Y Gomez (26°28'S., 105°28'W.) is scarcely more than a heap of stones, less than 0.5 mile long NW-SE and about 0.3 mile wide. During a gale it would be hardly distinguished amidst the spray. The highest point, 30m high and marked by a light, is at the S end of the island. A submerged rock lies about 200m SW of the S point of the island. Anchorage can be taken about 0.3 mile off the N side of the island, in 56m, coral, and also 0.2 mile S of the S end of the W side in 33m, sand and shells.

Bajo Scott (Scott Reef), on which the sea breaks, lies about 1 mile NE of Isla Sala Y Gomez. It is about 91m long with depths of 30 to 35m close around.

With E winds, a W current, with a rate of about 1 knot, is experienced in the vicinity of Bajo Scott.

1.24 Isla de Pascua (Easter Island) (27°05'S., 109°20'W.) is grass-covered and cultivated. The inhabitants of this Chilean-governed island reside mainly at the island's SW side. There are numerous inactive volcanic craters and high, grassy hills. The highest crater, Mount Terevaka, is located near Cabo Norte (North Cape), the NW extremity of Isla de Pascua. Cabo Sur (South Cape), the S extremity of the island, is very high and prominent. The N and S sides of the island are high and steep, and there are only three or four sandy beaches along the entire rocky coast. Three high rocks, lying as far as 1 mile SW of the SW extremity of the island, serve as good radar targets.

Winds—Weather.—The weather is never good for more than a few days at a time at Isla de Pascua. Ships anchoring off the island should be ready to sail on short notice. There are abrupt and violent wind changes, usually in a counterclockwise direction. From October to April, the Southeast Trade Winds blows constantly, except during the summer months when the winds are variable. The trade wind is strongest at the beginning and end of the period and is accompanied by showers.

In winter, W and SW winds are fairly frequent and are often accompanied by rain and heavy seas.

1.25 Rada Hanga-Roa lies on the W side of the island between Punta Cook (27°08'S., 109°26'W.) and Punta Roa, about 1.3 miles SSW. The shores of the bay are rocky, with shoals and foul

ground extending at least 0.2 mile offshore. Landing is not very feasible. A very constricted boat channel leads to a pier in ruins, but local knowledge is required as there are dangers on the range line. Front and rear beacons named Barril and Trianguls, respectively, lead to anchorages in the bay when aligned 144°. Barril Beacon consists of a pyramid of earth and stone with a barrel and spar topmark painted in orange and white bands. Trianguls beacon consists of a triangular-shaped stone wall with a vertical iron column, surmounted by a triangular daymark painted in orange and white bands.

Landmarks include a church, monument, and a radio mast, all situated in the vicinity of Barril Beacon. A flagstaff, with white boards attached, is prominent N of the range beacons. Three notable white-colored crosses stand on the hill of Maunga Tuutapu (27° 08.7'S., 109° 24.1'W.).

Anchorage is available with the range beacons mentioned above in alignment bearing 144°, and the outermost rock off Punta Roa Bearing 206°. The berth offers depths of 25m, sand. In very good weather, anchorage can be had further in on the range line, with the rock bearing 220°, in a depth of 20m over a sand bottom.

Caleta Hanga-Piko is a cove about 0.2 mile S of Punta Roa. Its inner part forms a natural basin and is the landing place for all passengers and cargo for Hanga-Roa. Above and belowwater rocks lie up to 0.2 mile WNW of the W entrance point. Small craft drawing less than 1.5m can enter the basin through a narrow channel between rocks. Local knowledge is absolutely necessary. Cargo is loaded and discharged during the day from a pier 80m long, with a least depth of 0.9m at its head.

This anchorage is recommended for small vessels, with winds from N through E to S, but is open to the W. A vessel moored here must be ready to put to sea at short notice, but may find that her anchor has fouled on the bottom.

Anchorage can be had off the cove, in a depth of 50m, with the red and white radio mast bearing 093°, and the NE of the three high rocks off the island's SW end, in alignment with the cliff-edge below the peak on the island's SW extremity bearing 180°. The bottom is rocky, and badly fissured.

Anchorage in Hanga-Roa is preferable, where the holding ground is better and three 30-ton lighters are available to assist with landing and embarking cargo.

1.26 Anakena (27°04'S., 109°20'W.), a cove on the N side of the island, is approached in depths of 7.3 to 14.6m, and has depths of 3.7 to 9.1m in the preferred E part of the cove. A level sandy beach provides the best landing on the island for small boats. There is very little sea or swell. A monument within the SE shore of the cove is a good landmark. There is a concrete quay.

Anchorage can be taken just within the cove entrance and in the middle of the E part of the bay. With winds from S to W, the cove affords the best anchorage on the N coast, with good holding ground. Anchorage is also available, in 21.9m, good holding ground of sand, about 0.3 mile WNW of Punta Rosalia and with this point aligned with Cabo O'Higgins, bearing 109°.

Bahia La Perouse (27°05'S., 109°18'W.) is an open roadstead entered between Punta Angamos (27°05'S., 109°18'W.) and Punta Rosalia. The terrain in the area is low and landing can be effected W of Punta Angamos and in Rada Benepu, about 1 mile WNW of the same point.

Anchorage can be taken, in a depth of about 21.9m, rock and shells, 0.3 mile NW of Punta Angamos and off Caleta Ovali. East and SE winds raise a heavy sea in the bay, which is also exposed to N and NW winds. The anchorages are tenable with light N winds, and when the trade winds are blowing.

Hutuiti Anchorage (27°07'S., 109°17'W.) affords shelter from N and W winds in about 18.5m, 0.3 mile NE of Punta Yama (27°08'S., 109°17'W.). Several other inlets and coves along the SE

coast of Isla de Pascua afford anchorage to small vessels and shelter from all but S winds, but the sea breaks heavily on this coast.

Rada Vinapu (Benepu) (27°10'S., 109°25'W.) is a cliff-fringed, open roadstead located about 3 miles NE of the island's SW extremity. Five small islets lie off the roadstead's SW entrance point.

Anchorage.—Anchorage, secure in N or W winds, but open to winds of other directions, is available in the E portion of the roadstead, clear of the tanker berth, but requires local knowledge. The holding ground is good, the bottom being sand.

1.27 Vinapu Oil Terminal (27°10'S., 109°25'W.) consists of an offshore oil berth situated at the seaward end of a buoyed submarine pipeline. The berth is able to accept vessels up to 150m in length, with a maximum draft of 8.5m.

Six silver-colored storage tanks stand at the terminal on the shore behind the berth and are prominent.

Pilotage is compulsory.

Directions.—Two range beacons, situated on a point about 0.7 mile NE of the oil tanks, mark the initial approach to the berth. The beacons consist of an orange pedestal, surmounted by a white daymark with a black triangle in its center, point down.

Vessels 120 to 150m in length approach on the alignment of the beacons mentioned above, in line bearing 018°; but vessels under 120m in length should steer for a prominent triangular patch of grass located about 137m NW of the front beacon on a bearing of 016°. Steer on either the beacons or the grass until a second set of beacons, identical to the pair mentioned above, situated about 137m S of the tanks, are in alignment bearing 284°. At this point, the starboard anchor should be let go. Veer about 5 to 6 shots of chain, turning the vessel to starboard. Let go the port anchor when, in large vessels, the ship's head is about 050°, or in smaller vessels when the rear range beacon S of the oil tanks bears 274°, and the front range beacon N of the tanks bears 020°.

With both anchors down, maneuver the vessel to pick up two wire stern lines suspended from a small white buoy; the mooring lines are laid out on the bottom from the shore and are suspended from the buoy by wire messengers. When secured, the vessel should be on a heading of 140°, with about 7 shots of chain out on each anchor, and its stern about 0.1 mile seaward of 10m depths. Smaller vessels should secure with the vessel's head between 127° and 137°. A boat is available to assist in picking up the stern lines and the cargo hose, that is rigged to the vessel's port side.

Caution.—It is normal to allow for a slight W set.