



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

**SECTOR 6 — CHART INFORMATION**

## SECTOR 6

### CHILE—CABO QUEDAL TO CABO TRES MONTES, INCLUDING THE WEST COAST OF ISLA DE CHILOE AND THE ARCHIPELAGO DE LOS CHONOS

**Plan.**—This sector describes the coast of Chile from Cabo Quedal S to Punta Cogomo, the SE extremity of Isla de Chiloe. Canal de Chacao, the channel between Isla de Chiloe and the mainland N, and the N, W, and S coasts of that island are also described. Isla Guafo and the dangers in Boca del Guafo, the passage between Isla de Chiloe, and the Archipelago de los Chonos are described. The W side of the Archipelago de los Chonos is described and the inner channels within the archipelago from Isla Guaiteca to Cabo Taitao from the N to S. The inner channels are described from E to W when they connect with Canal de Moraleda. The coast from Cabo Taitao to Cabo Tres Montes is then described from N to S.

#### General Remarks

**6.1** A number of bays and bights indent the coast and numerous rivers empty into it. It is mostly steep-to and rocky, with intermittent sandy beaches. It is generally backed by low ground and occasional hills, except at the central part of Isla de Chiloe, where the hills reach an elevation of almost 823m. In general the coast is steep-to, but above and below-water dangers fringe many parts of the coast.

The Archipelago de los Chonos extends about 120 miles N from Peninsula Taitao and is separated from the mainland eastward by Canal de Moraleda. The islands on the seaward side are generally barren, rugged, and steep. Those to eastward are forested. Some of the peaks attain elevations of more than 1,524m.

The three principal channels, which trend from W to E and connect with Canal de Moraleda, are Canal Pulluche and its continuation E, Canal Darwin, and Canal Ninualac. Canal Darwin provides a safe passage for vessels wishing to pass inside the archipelago via Canal de Moraleda.

Most of the channels within the archipelago have not been thoroughly examined and uncharted dangers may exist. Navigation is often difficult in autumn and winter because of fog.

Most of the vessels which frequent the Archipelago de los Chonos are small in size and possess local knowledge. Information on anchorages described in this sector has been derived from these small vessels, therefore, larger vessels should keep this in mind when evaluating the information herein.

The coast between Cabo Taitao and Cabo Tres Montes is hilly and rugged. Most of the inlets have not been thoroughly examined, although some provide shelter to small vessels.

**Tides—Currents.**—The west wind drift, flowing across the South Pacific Ocean, strikes the coast of Chile within the area covered by this sector. Part of the current turns S and flows along the coast past Cabo Hornos, while another portion turns N and becomes the Peru Current. The Peru Current has a width of 100 to 150 miles, but is generally weak. Offshore, the current has a more W set, but within 10 miles of the shore an E set, towards land, is experienced.

**Caution.**—Between Isla de Chiloe and about latitude 50°S, E sets are encountered, especially near Golfo de Penas. North of 50°S, after storms or strong winds from the N or NW, E and SE sets should be guarded against; with these conditions, rates of more than 1 knot have been observed. Between Isla Guanbin and Isla Guafo, an E current of 2.5 knots has been observed when augmented by wind and tidal currents.

Northward of Islas Guaitecas the tidal currents follow the general trend of the coast, running E on the rising tide and W on the falling tide. Northeast of Islas Guaitecas the tidal current sets SE toward Canal de Moraleda on the flood, and NW on the ebb, with rates of 1 to 3 knots.

In Canal Tuanapu the tidal currents run in a general ESE direction on the flood, and in a WNW direction on the ebb. Maximum rates for the current are usually 1 to 3 knots, but rates of 4 knots have been experienced.

Currents of a local nature are described with the features of which they occur.

#### Cabo Quedal to Canal de Chacao

**6.2 Cabo Quedal** (40°58'S., 73°58'W.) has been [previously described in paragraph 5.51](#).

Punta Capitanes, about 10 miles S of Cabo Quedal, has a small peninsula at its extremity with reddish-yellow cliffs which appear to be an island when seen from the S. Above and below-water rocks extend about 1 mile offshore between Cabo Quedal and Punta Capitanes. Roca Parga, an above-water rock surrounded by below-water rocks, lies about 0.8 mile offshore about 5 miles SSE of Punta Capitanes. From Roca Parga the coast trends about 4.5 miles S to the N entrance point of Ensenada de Llico. This part of the coast is rugged, hilly, and backed by high mountains covered with trees. Ensenada de Llico and Ensenada Estaquillas, close S, are of little importance.

**Punta Estaquillas** (41°21'S., 73°51'W.) is prominent. Numerous above-water rocks and rocks awash extend nearly 1 mile W from Punta Estaquillas. From Punta Estaquillas to Punta Quillagua the coast is rugged, with intermittent sandy beaches in its S part.

**Punta Quillagua** (41°35'S., 73°48'W.), the NE entrance point of Golfo de los Coronados, is low and rocky at its extremity, but rises to a wooded summit. There are several sandy beaches and small rocky points in the vicinity. Two below-water rocks, on which the sea breaks in bad weather, lie about 1.8 miles offshore WNW of Punta Quillagua. The point should not be approached within a distance of 2 miles.

Bahia Maullin recedes about 5 miles E between Punta Quillagua and Punta Chocoi, about 9.5 miles SSE. Small vessels may find shelter within the Rio Maullin, which empties into the head of Bahia Maullin.

The bay has general depths across its entrance of from 11.9 to 36.6m, which decrease gradually toward the shore.

Farallones de Carelmapu, a chain of rocky islets, lie from 3.5 to 5.5 miles NW of Punta Chocoi. Farallon Grande, the outermost and highest islet, is reported to give a good radar return. El Moco, in the middle of the chain, is sharp-pointed and prominent. Farallones de Carelmapu are surrounded by numerous below-water rocks and should not be approached within 0.5 mile.

Banco Alto del Peru, with depths of less than 9.1m, extends about 2.5 miles W from a position about 1 mile offshore, about 1.3 miles NNE of Punta Chocoi, where it has a least depth of 2.7m. The sea breaks on the E side of the shoal with strong winds and a heavy swell, and occasionally breaks when it is calm.

Isla Dona Sebastiana lies with its E extremity about 1.5 miles W of Punta Chocoi. There are two prominent hills on the island separated by a cultivated valley. A wreck lies sunk close off the SE side of a 5m shoal, about 0.3 mile SSW of the SE extremity of the island. Lights are shown from the SE and SW ends of the island.

**6.3 Bajo Aquiles** (41°44'S., 73°51'W.), with depths of less than 9.1m on its outer part and less on its inner part, extends 2 miles WNW from the NW side of the island. A 9.1m patch, over which the sea breaks occasionally, lies about 3 miles WNW of the NW extremity of the island. Bajo Campana, a spit of coarse sand and shells which dries, extends almost 0.7 mile E from the SE extremity of Isla Dona Sebastiana. An isolated shoal, with an unconfirmed depth of 14.1m (position approximate), was reported to lie about 6.5 miles NW of the island.

Paso Chocoi, about 1 mile wide between the E extremity of Bajo Campana and Punta Chocoi, is encumbered in its N approach by Banco Alto del Peru, and is not recommended as the tidal currents in the passage are very strong.

Caleta Godoy recedes about 0.8 mile N, on the N side of Bahia Maullin. From the SE entrance point of Caleta Godoy to the S extremity of Morro Godoy, about 2.5 miles SE, the coast is rocky except for a small sandy beach on the N side of Morro Godoy.

**Anchorage.**—Vessels can take anchorage, in 11m, sand, about 1.8 miles E of Punta Quillagua. Small vessels can take anchorage, in about 8.2m, about 1 mile W of Punta Godoy.

**6.4 Punta Godoy** (41°36'S., 73°41'W.), the N entrance point of the Rio Maullin, is low, rocky, and steep-to. El Mirador, about 58m high, is the largest of a group of rocks which lies close offshore about 0.7 mile NW of the S extremity of Morro Godoy. Javier Igor, a high, yellow, above-water rock, lies about 0.5 mile W of the S extremity of Punta Godoy.

Morro El Amortajado lies about 1.8 miles SSW of Morro Godoy. The promontory has steep-to sides of reddish-yellow color. A reef extends about 0.2 mile N from the N extremity of Morro El Amortajado, and ends at a below-water rock marked by kelp.

From Morro El Amortajado to Punta Lincai, about 1.5 miles S, the coast is steep-to and rocky. Then Playa de la Yagua, a sandy beach, extends about 5.5 miles SSW to Punta Chocoi. The coast about 1 mile inland is low, with sand dunes and swamps.

The Rio Maullin empties into Bahia Maullin between Morro Godoy and Morro Amortajado. The bar at the entrance to the river is reported to have depths of 2m and to be silting up.

The river is one of the most important in Chile, and has its source near the foot of the Andes. Vessels of light draft can reach Puerto Maullin, about 4 miles from the mouth of the river. Numerous dangers encumber the Rio Maullin. The fairway of the river channel is marked by range beacons.

**Maullin** (41°37'S., 73°36'W.) ([World Port Index No. 14320](#)) lies on the S bank of the Rio Maullin, on an extensive plain. There are several piers used by fishing craft and shallow-draft river vessels.

**Tides—Currents.**—The tidal current at the river entrance sometimes has a velocity of from 2 to 4 knots. Caution should be exercised during the E current as a vessel may be set N, and during the W current a vessel may be set toward the S. The tidal current attains a velocity of from 3 to 7 knots off Maullin.

It is not advisable to enter the river without local knowledge.

**Anchorage.**—Anchorage can be taken by small vessels about 0.2 mile N of Maullin, in 5.9m. Anchorage is prohibited within 27m of the submarine cable which extends from Maullin in a NNE direction to the N shore.

## Canal de Chacao

**6.5 Canal de Chacao** separates Isla de Chiloe from the mainland northward, and joins Golfo de los Coronados with Golfo de Ancud. Both shores of the channel are moderately high and regular, either sloping to the shore or terminating in cliffs of up to 49m in elevation.

The canal is entered between Punta Chocoi and Punta Corona, about 5.5 miles WSW. It extends about 13 miles E to its E entrance between Punta Coronel and Punta Tres Cruces, about 2 miles S. The channel is navigable, but caution must be exercised to avoid several dangers.

The least charted depth on the recommended track shown on the chart is 22m, near the W end of the canal.

**Tides—Currents.**—The currents in Canal de Chacao are very dangerous, and have velocities from 2 knots off Punta Huechucui to 9 knots off Roca Remolinos, about 2 miles W of Punta Coronel. In the vicinity of Roca Remolinos the E tidal current begins 5 hours after HW, and the W tidal current begins 1 hour before HW. There is no slack water. After N gales a strong E current may be experienced which attains velocities of more than 5 knots in the channel proper. During spring tides the waters have the appearance of a rapid river, with rips and whirls of great strength; at quarters of the moon the strength decreases considerably. With strong winds contrary to the current, great agitation of the waters, called "rayas," takes place.

**Aspect.**—When approaching the W entrance of the canal, the loom of the lights at Ancud (41°52'S., 73°50'W.) may be seen up to 25 miles seaward.

**Pilotage.**—Pilotage is compulsory in the canal. Pilots board at the Ancud pilot boarding area. The port monitors VHF channels 13 and 16.

**Caution.**—Fog appears in Canal de Chacao, especially in the vicinity of Farallones de Carelmapu, in the form of dense

banks. Fog occurs more frequently during the months of February, March, and April.

In addition to the dangers fringing the shore, there are numerous detached dangers, best seen on the chart, in and near the channel.

Heavy tide rips and breakers occur on Rocas Puguenu (41°48'S., 73°42'W.), which are covered with kelp which shows only at low water. Heavy tide rips also occur about 0.5 mile N and NW of Rocas Puguenu, and should be avoided as they may mark hidden dangers.

Submarine cables lie across the canal in an area shown on the chart near the W end. It was reported (1986) that a risk to anchoring was possible when remaining in a former cable area about 4 miles W of Punta Coronel.

Ferries cross the canal between Pargua and Chacao, and between Carelmapu and Ancud.

Navigational aids marking the fairway in the canal are liable to drift and should not be relied on.

A power cable, with a vertical clearance of 44.8m, crosses the E end of Canal de Chacao.

**6.6 Punta Chocoi** (41°45'S., 73°46'W.), the NW entrance point of Canal de Chacao, is cliffy and of medium height. The point is pierced by a visible opening. A small, but conspicuous, islet lies close off the N tip of the point. From Punta Chocoi the cliffy coast trends about 2.3 miles ESE to Punta Falsa Picuta, and then 0.5 mile E to Punta Picuta de Carelmapu. A wreck, with one mast visible at all stages of the tide, lies about 0.7 mile SSE of Punta Chocoi. Small vessels can take anchorage, in about 11m, almost 0.5 mile offshore, about 1 mile ESE of Punta Chocoi. A quantity of pig iron, dumped about 0.1 mile offshore, may cause difficulty in this anchorage.

Punta Picuta, about 2.8 miles E of Punta Chocoi, is prominent. Its S and E slopes are steep-to and there is a rocky beach at its foot. The principal cross-channel ferry plies between the village of Carelmapu, close N of the point, and Ancud, about 10 miles SW. Bajo Colo-Colo (41°45.4'S., 73°4.0'W.), extending S from Punta Picuta, is marked by a lighted beacon. In the vicinity of Bajo Colo-Colo an extensive rocky shoal area stretches ESE and WNW. Mariners are advised to exercise extreme caution.

Punta Lenqui, about 2 miles E of Punta Picuta, is cliffy and about 19.8m high. A light is shown from the point.

From Punta Lenqui to Punta Astillero, about 3.5 miles E, there are cliffs about 19.8m high. In places these are located from 0.3 to 0.5 mile inland and are fronted by marshy ground. A pyramidal concrete beacon, 9.1m high, is situated about 0.5 mile ESE of Punta Lenqui, but the beacon is reported to be difficult to see. Punta Redonda, a prominent point, is located about 2 miles E of Punta Lenqui.

Punta Astillero, surmounted by a stone monument about 3.5 miles E of Punta Lenqui, is rugged and covered with vegetation. From Punta Astillero to Punta Santa Teresa, about 2.5 miles ESE, the coast is rugged and steep-to.

**Punta Coronel** (41°48'S., 73°29'W.) is the NE entrance point of Canal de Chacao. The yellow cliffs on the point are barren and about 24m high. A light is shown from the point and at Punta Barranco, about 1.3 miles NNW.

**Bahia Guapacho** (41°47'S., 73°58'W.), on the SE side of the W entrance to Canal de Chacao, lies between Punta Huechu-

cuicui and Punta Guapacho, about 4.3 miles E. Punta Barrancas, about 1.5 miles SE of Punta Huechucuicui, is rocky and has a height of about 50m.

Punta Guapacho, about 56m high, is steep-to and of light yellowish color. Its summit is bare and its seaward extremity is rocky. The point is reported to give a good radar return. Two red patches, visible from N, are located on the hillsides 0.5 mile S and 1 mile SSE of the point. Rodal Guapacho, a reef which dries in places, extends about 1.8 miles W from Punta Guapacho. This reef is generally marked by breakers, but it is dangerous at night during calm weather, when it breaks infrequently and the low land behind it cannot be seen. Roca Osorio, with a depth of less than 1.8m, lies about 0.8 mile NW of Punta Guapacho and breaks in moderate weather. Punta Guapacho should be given a berth of at least 1 mile as the tide rips are very strong off Rodal Guapacho and becomes dangerous during strong NW winds. In 1998, shoaling was reported 0.6 mile NNW of Punta Guapacho.

**Anchorage.**—Vessels can take anchorage, in 20.1 to 25.6m, sand, in Bahia Guapacho about 1.3 miles E of Punta Huechucuicui. There are depths of 14.6 to 23.8m, with good holding ground in the SE part of the bay.

**6.7 Punta Corona** (41°47'S., 73°53'W.) is about 58m high. Pale yellow cliffs, with a uniform elevation of from 50 to 61m, lie between Punta Corona and Punta Guapacho.

A main light is shown from a prominent tower standing on the point. A racon is situated at the light tower.

From Punta Corona to Punta Ahui, about 3 miles SSE, the coast recedes about 1.3 miles W to form Puerto Ingles. The N shore of Puerto Ingles is steep-to, while the S shore is rocky and backed by hills of moderate height. A group of three houses stands on the N shore and a church stands at the head of the bight.

**Anchorage.**—Vessels can take anchorage, in 12.8 to 14.6m, gravel and coarse sand, a little over 0.5 mile SSE of Punta Corona. Puerto Ingles is the quarantine anchorage for Ancud. Strong winds from the N, NE, and NW create a heavy sea at this anchorage.

**Punta Ahui** (41°50'S., 73°52'W.) is the W entrance point of Bahia de Ancud. The point is steep-to and about 44m high. Punta Ahui is reported to give a good radar return. A light is shown from the point.

Isla Cochinos, about 2.3 miles ESE of Punta Ahui, is wooded and has a depression in the middle. The coasts of the island are cliffy and rocky, except on its SE side. Roca Cochinos, which dries, lies almost 0.3 mile N of the W end of Isla Cochinos. Depths of less than 5.5m extend up to about 0.3 mile off the NW side of the island, and about 1 mile offshore SE of the SE side of the island.

**Punta Mutrico** (41°51'S., 73°46'W.), about 5 miles ESE of Punta Ahui, has a height of about 53m and is rocky and rugged. A church is situated near the shore about 0.5 mile SSW of Punta Mutrico.

From Punta Mutrico to Punta Pihuio, about 3.3 miles NE, the coast consists of a sandy beach interrupted by small streams and backed by hills. Punta Pihuio is cliffy with a sand and gravel beach at its foot.

**6.8 Punta Puguenu** (41°48'S., 73°40'W.) is low and consists of yellow sand dunes, backed by higher ground. A small church is situated on the point, and another church is situated near the shore about 1 mile SW.

**Punta Quetrelquen** (41°48'S., 73°36'W.), about 21.3m high, is a small cliffy peninsula. The point is reported to give a good radar return. About 0.3 mile S of the point the land rises to an elevation of about 46m and is wooded.

Punta San Gallan, about 2.3 miles E of Punta Quetrelquen, is cliffy and about 46m high. There is a prominent clump of trees on its summit. A whitish rock stands on the beach at the foot of the cliff. Punta San Gallan is one of the most prominent points in Canal de Chacao. A light is shown from the point.

Roca Remolinos lies about 0.8 mile E of Punta San Gallan; a lighted beacon stands on the rock. Roca Seluian lies 0.5 mile SE of Roca Remolinos. Tidal currents run strongly over and past these rocks, causing tide rips.

Punta Remolinos, almost 1 mile SE of Punta San Gallan, is of even height, cliffy, and has deep water close-to. Punta Soledad, about 1 mile SSE of Punta Remolinos, has a dark, barren aspect.

**Punta Tres Cruces** (41°50'S., 73°29'W.), the SE entrance point of the canal, lies 2.5 miles SE of Punta Remolinos. The point is steep and wooded. A main light is shown from a prominent tower, 8m high, standing on the point.

**6.9 Chacao** (41°50'N., 73°32'W.) ([World Port Index No. 14290](#)) is situated at the head of Bahia Chacao, which recedes about 0.8 mile between Punta Soledad and El Morro, about 1 mile further ESE. A small church, school, post office, and telegraph office are visible from seaward.

There is a pier about 100m long which is used by passenger and automobile ferries. A pier, 78m long, is used by small craft. A mooring buoy is situated off the ferry pier.

**Anchorage.**—Temporary anchorage can be taken in Bahia Chacao, in 10.1 to 11.9m, coarse sand and gravel, about 0.5 mile SE of Punta Soledad. The holding ground is not good.

**Pilotage.**—Pilotage is compulsory for all foreign vessels. The pilot is the same for directing vessels through the canal. The port can be contacted by VHF.

**Caution.**—A countercurrent, with a velocity of from 1 to 3 knots, exists within Bahia Chacao. The dividing line between the currents and the countercurrents extends from Punta Tres Cruces to Punta Remolinos and is marked by strong tide rips.

**6.10 Bahia de Ancud** (41°52'S., 73°52'W.) recedes about 3 miles SW between Punta Ahui and Punta San Antonio, about 2 miles SE. The W extension of the bay, Golfo de Quetalmahue, recedes about 5 miles W. Bahia de Ancud is encumbered with numerous dangers which reduce the navigable area to a width of about 0.8 mile.

**Ancud** (41°52'S., 73°50'W.) ([World Port Index No. 14300](#)) is situated in a small valley surrounded by wooded hills on the E shore of Bahia de Ancud. The town is divided into two sections, the higher part standing 19.8 to 24m above sea level and containing the main plaza, the cathedral, and government buildings. The lower part contains the shops, warehouses, and customhouse. A small pier, 63m long, extends from the town.

**Tides—Currents.**—A vessel entering the bay should beware of crosscurrents.

**Aspect.**—Conspicuous landmarks include an isolated house and a monument standing 0.1 mile SE and 0.1 mile SSW, respectively, of Punta San Antonio; a tank with a radio mast, 20m high, standing close NW, situated about 0.8 mile SSE of Punta San Antonio; a radio mast, 45m high, standing on a hill about 2 miles SSE of Punta San Antonio; a statue standing on the slope of a hill about 1.8 miles SW of Punta San Antonio; and an isolated tree standing about 1.5 miles SW of Punta Ahui.

Aeronautical lights are reported to be shown from two radio masts standing 0.2 mile apart about 2 miles SW of Punta San Antonio. These lights are reported to be visible from a distance of up to 35 miles seaward.

**Pilotage.**—Pilotage is compulsory. The pilot boards vessels in a position about 1.5 miles NNE of Punta Ahui and can be contacted on VHF channels 13 and 16. Pilots for Canal de Chacao and channels farther S are also embarked and disembarked here.

**Anchorage.**—Vessels can take anchorage, in 7.8 to 9.1m, sand, about 0.5 mile offshore SSE of Punta Ahui. This anchorage is partially protected from SE winds and sea and is particularly convenient for vessels awaiting a pilot or favorable conditions in Canal de Chacao. Vessels may also anchor about 0.3 mile offshore E of Punta Balcacura, in 10.1 to 12.8m, sand and mud.

Anchorage can be taken in about 12.8m, sand and mud, about 1 mile ESE of Punta Arenas (41°52'S., 73°54'W.). This anchorage is sheltered from NW winds. Temporary anchorage may be taken, in about 10.1m, a little over 0.8 mile N of Punta San Antonio.

Anchorage can be taken off the entrance of Golfo de Quetalmahue, about 0.5 mile SE of Punta Arenas, and is inconvenient only because of the currents. West winds, when contrary to the current, may interfere with the working of cargo. Anchorage can also be taken, in about 7.3m, within the gulf about 0.3 mile offshore about 1 mile W of Punta Arena, and, in 11m, about 0.3 mile offshore, about 1 mile WSW of Punta Arenas.

**Caution.**—Numerous changes in depths have occurred in Bahia de Ancud. Ships should proceed with caution.

Rollers are encountered in the bay after strong gales which are common May through September.

The buoys marking shoals in Bahia de Ancud and the approaches to Canal de Chacao are liable to drift and should not be relied on.

## Isla de Chiloe—West Coast

**6.11** The W coast of Isla de Chiloe is irregular, generally high, and rugged, with short stretches of whitish sandy beach. It is characterized by its thick forests and the even outline of its high land, in marked contrast with the islands along the W coast of Patagonia to S and the mainland to E, the mountain ranges of which are higher and very steep-to and rugged.

A lowland, in which lie Lago Cucao and Lago Huillinco, nearly divides the island into two parts. North of the lowland the land rises to Alturas de Cucao, prominent heights which attain elevations of from 610 to 914m; the range continues N with lesser elevations, except for Tetas de Metalqui, about 30 miles S of Punta Huechucuicui and 3 miles inland.

About 15 miles N of Tetas de Metalqui the range is interrupted by a valley through which the Rio Chepu flows. From a distance the heights of Cocotue to the N of this valley and the heights of Metalqui to the S appear as islands. Cerro Huy Manao, conical in form and about 320m high with a cap resembling a helmet, lies at the S end of the heights of Cocotue and is an excellent landmark from the W.

**Caution.**—Caution must be exercised because of the lack of sufficient soundings and the possibility of uncharted dangers. In addition, the charts have been reported not to conform with the actual coastal configurations in a number of places.

**6.12 Punta Huechucui** (41°46'S., 74°00'W.), the NW extremity of Isla de Chiloe, is cliffy and rises to a height of about 244m about 1 mile S of the point. The lower part of the point is bare, but there is dark vegetation near its summit. A dangerous submerged rock lies about 1 mile NE of the point in position 41°45.8'S, 73°58.6'W. Additionally, a depth of 13.1m has been reported about 5.8 miles NE of Punta Huechucui in position 41°43.2'S, 73°53.6'W.

Punta Guabun, about 3 miles SW of Punta Huechucui, is about 128m high and has the appearance of a steep wall. Punta Cauaguapi, about 2 miles S of Punta Guabun, is high, cliffy, and fringed by high ground.

Tetas de Teguaco, prominent summits covered with vegetation, lie about 3.3 miles E of Punta Almanao (41°56'S., 74°04'W.). Punta Choros, the S entrance point of the Rio Chepu, lies about 7.5 miles S of Punta Almanao and is of moderate height. Islote Tromacho, a dark conical rock with red patches on it, lies about 0.8 mile NNW of Punta Choros. Rodal Aulen, below-water rocks with depths of less than 1.8m on which the sea always breaks heavily, lies about 1 mile N of Islote Tromacho.

**6.13 Islote Ahuenco** (42°07'S., 74°05'W.), a dark above-water rock with vegetation on its summit, lies close offshore. Punta Refugio, about 4 miles SW of Islote Ahuenco, is rugged with a wooded summit.

Morro Metalqui, about 3 miles SW of Punta Refugio, is steep and bare, with a beach at its foot formed by rocks which have fallen from it. Cabo Metalqui lies about 4.5 miles SSW of Morro Metalqui. Islote Corcovado, which is conical and yellow, lies close off it.

**Caleta Quiutil** (42°31'S., 74°14'W.) recedes about 0.5 mile between Punta Cuevas and Punta Huentemo, about 0.5 mile S. The cove is encumbered by islets and rocks, and is suitable only for small vessels, which take anchorage, in a depth of 14.6m, fine sand and stones, with Punta Cuevas bearing 006° and Farallones de Quiutil bearing 290°. This anchorage should be vacated at the first sign of bad weather. Farallones de Quiutil, a group of above and below-water rocks, lie in the approach to the cove about 0.5 mile NW of Punta Huentemo.

Punta Huentemo, the S entrance point of Caleta Quiutil, is shaped like a sugar loaf and is about 55m high. It appears to be an island when seen from the N or S.

**Bahia Cucao** (42°37'S., 74°13'W.) lies between Punta Huentemo and Punta Pirulil, about 13 miles S. The shores of the bay are composed of a sandy beach on which there is always a heavy surf. Villorio de Rahue, which can be seen from seaward, lies about 2 miles NE of Punta Pirulil.

**6.14 Punta Pirulil** (42°43'S., 74°13'W.) rises about 1 mile E to Morro Pirulil, which has steep-to cliffs of a yellowish or reddish color and with two whitish rocky islets close offshore, and is very conspicuous. From Punta Pirulil to Punta Tablaruca, about 12 miles SSW, there are several unimportant sandy bays.

Punta Tablaruca, about 47m high, is covered with dense vegetation and is steep-to on its N side. A large unimportant bay, with a sandy beach about 3 miles long at its head, lies between Punta Tablaruca and Punta Chaiguaco, about 4 miles SSW.

Punta Chaiguaco, a small and cliffy peninsula of dark color, can be identified by some large rocks which lie up to almost 0.3 mile off it.

Ensenada Huenocoihue lies between Punta Chaiguaco and Punta Huenocoihue, about 2.5 miles S. There is a sandy beach about 1.8 miles long at the head of this bay.

**Caleta Zorra** (43°08'S., 74°19'W.) lies between Punta Barranco and Punta Zorra, about 1 mile S. It is used as a shelter by local fishermen in fair weather. There is a sandy beach about 1.8 miles long at its head. Caleta Zorra provides moderate shelter to small craft.

Punta Pabellon, about 5.5 miles SSW of Punta Zorra, is conical. The Rio Pabellon flows into the head of a cove about 1.3 miles ENE of the point. From Punta Pabellon to Cabo Quilan, about 2 miles S, the coast is cliffy and fringed with numerous above and below-water rocks lying up to 0.8 mile offshore.

**Cabo Quilan** (43°16'S., 74°24'W.) is about 79m high and of yellowish color. From SW or NW, it appears to be a series of terraces. The beach at the foot of the cape is very narrow and strewn with large rocks. The sea is always very rough and breaks violently against the cape and for about 1 mile off. Cerro Quilan, with an elevation of about 488m, is located about 6 miles E of Cabo Quilan.

## Isla Guafo

**6.15 Isla Guafo** (43°35'S., 74°42'W.), centered about 25 miles SW of Cabo Quilan, is densely wooded and reaches an elevation of about 240m near Punta Weather, its NW extremity. There is a noticeable depression near the middle of the island and the E part, which is not as high as the W part, descends gradually to Punta Caleta, its E extremity. It was reported that an earthquake 34 years ago had caused changes in the vicinity of the island and that the island had risen about 3m.

**Caution.**—Fog occurs on the average of 11 to 12 days per month in December and January, and on 4 to 8 days per month, on the average, in the vicinity of the island.

Isla Guafo should not normally be approached within 2 miles. Small vessels navigating within this distance should exercise extreme caution.

**6.16 Punta Norte** (43°31'S., 74°45'W.) is the N extremity of the island. A small bay indents the NW coast of the island between the point and Punta Weather, the NW extremity about 5 miles SW. Above and below-water rocks extend about 0.8 mile N from Punta Norte. The shores of this bay are fringed with rocks and the sea breaks up to 0.8 mile offshore.

**Punta Weather** (43°34'S., 74°50'W.) consists of a small peninsula, from 61 to 70m high, which is joined by a low isthmus to a steep-to bluff over 122m high. Rocas Salientes, above and below-water rocks, extend about 1.5 miles offshore NW from the point. A main light is shown from a prominent tower, 8m high, with a dwelling alongside, standing on Punta Weather. A racon is situated at the light tower.

Caleta Rico lies on the E side of Punta Weather and affords some shelter during S winds. The best anchorage is in 20.1m, sand, about 0.2 mile NE of Punta Weather.

From Punta Weather to Punta Sur, about 6.5 miles SSE, the W coast consists of high and almost continuous cliffs, fringed by islets and rocks up to about 1 mile offshore.

Caleta Toro is located about 0.8 mile S of Punta Weather. The cove indents the coast about 0.3 mile and is about 0.1 mile wide. Entrance into the cove is difficult with a W swell, because of a rock, awash, in the middle of the channel.

The S coast of Isla Guafo is unapproachable due to rocks and breakers which lie up to about 0.7 mile offshore. An islet, surrounded by breakers, lies about 0.5 mile S of Punta Caleta and should be given a wide berth.

Caleta Sheep recedes about 0.5 mile W between a position almost 0.5 mile NW of Punta Caleta and a point about 1 mile farther NW. Caleta Sheep is sheltered from S winds, but should not be used during strong N winds, which cause a heavy sea.

**Anchorage.**—Anchorage can be taken in 18.3m, rock, almost 0.5 mile SSE of the N entrance point of the cove.

Caleta Samuel recedes about 0.5 mile W between Punta Toro, about 2.3 miles NW of Punta Caleta, and Punta Yanez, almost 0.3 mile further NNW.

The cove affords shelter to small vessels during NE to SE winds, but the latter winds may at times raise a moderately heavy sea. The shores of the cove are cliffy. A building and a pier of the former whaling station, both in ruins, are situated near the head of the cove. A chimney is situated 0.3 mile SW of Punta Yanez. Below-water dangers, marked by kelp, extend about 0.1 mile off the N shore.

**Anchorage.**—Anchorage can be taken in an emergency, in 12.8m, sand, about 0.2 mile NW of Punta Toro. This anchorage should be abandoned upon indications of S winds, which form strong currents and heavy breakers.

## Isla de Chiloe—South Coast

**6.17** Punta Cogomo, the SE point of Isla de Chiloe, lies about 28 miles ESE of Cabo Quilan. The point is 24m high and easily identified. The coast between is generally steep-to with intermittent sandy beaches. Numerous above and below-water rocks and islets fringe the coast up to about 8 miles offshore. In general, the land backing the coast is high. There are no ports or important villages along this coast.

Isla Quilan, centered about 10 miles SE of Cabo Quilan, is the largest of Islas Guapi Quilan and has the appearance of two walls, one at each end. The remainder of the island consists of smooth hillocks, thickly covered with small trees.

Grupo Esmeralda, consisting of several small islands and islets surrounded by dangerous ground and rocks, is centered about 3 miles SE of the S extremity of Isla Quilan.

Punta Roble lies about 3 miles SE of Cabo Quilan. The coast between is a continuous cliff about 40m high. It is fronted by a beach composed of sandstone blocks and fossiliferous conglomerates.

Cabo Doce de Febrero, about 3.5 miles ESE of Punta del Roble, is a steep-to promontory about 61m high. Between Cabo Doce de Febrero and Punta del Roble, the coast recedes to form a bay with a whitish sandy beach. From Cabo Doce de Febrero to Punta Tiques, about 4 miles ESE, the coast is fronted by foul ground which extends up to 0.5 mile offshore. The W part of this coast is steep-to and bold, and the E part is low. Isla Redondo, about 0.5 mile S of Punta Tiques, is steep-to and about 19.8m high.

Bahia Nayahue indents the coast about 1 mile N between Punta Tiques and Punta Inio, a cliffy point about 3.3 miles ESE. The shore of the bay is composed of a sandy beach. A group of above-water rocks extends about 0.8 mile S from Punta Inio.

**6.18 Canal Quilan** (43°20'S., 74°14'W.) lies between the S shore of Isla de Chiloe, from Cabo Doce de Febrero to Isla Redondo, and the N extremities of Isla Quilan and Grupo Esmeralda. The channel is 2.5 miles wide. It is foul, dangerous, and affords passage only to small vessels with local knowledge or a pilot.

**Isla Yencouma** (43°24'S., 74°05'W.) is about 19.8m high, cliffy, and wooded. Punta Chacua, about 4 miles ENE of the island, is about 30m high, cliffy, and wooded. Two groups of above-water rocks lie about 1 mile and 2.5 miles S of Punta Chacua.

Bahia Asasao recedes about 1.3 miles N between Punta Chacua and Punta Locos, a cliffy point about 3.5 miles E. The Rio Asasao empties into the NW part of the bay. The shore is rocky to the W of the mouth of the river and sandy to the E.

Punta Olleta, about 2.5 miles SE of Punta Locos and 3.5 miles WSW of Punta Cogomo, terminates in a cliff about 19.8m high. Above and below-water rocks lies on foul ground which extends up to about 7 miles SE of Punta Olleta.

Boca del Guafo is the deep channel extending for about 40 miles E from the E side of Isla Guafo to its connection with the N end of Canal Moraleda and the S end of Golfo Corcovado. It is about 20 miles wide between the S coast of Isla de Chiloe on the N side and de los Chonos on the S side.

**Caution.**—A submarine exercise area, the limits of which are shown on the chart, lies in the E end of Boca del Guafo.

## The Archipelago de los Chonos

**6.19** The Archipelago de los Chonos extends S for about 130 miles from Islas Guitecas, on the S side of Boca del Guafo, to Cabo Taitao (45°52'S., 75°04'W.), the NW extremity of Peninsula Skyring. Canal Moraleda lies on the E side of the archipelago and leads to Golfo Corcovado in the N and numerous small channels and inlets in the S. The archipelago consists of over 1,000 islands of various sizes. The islands closer to the ocean and consequently exposed to the prevailing W winds are barren. The islands in the inner part are covered by vegetation which extends from the water to the summits of hills, some of which attain elevations of about 1,500m. Most of the islands are not permanently inhabited, but are visited in

summer by lumbermen, hunters, and fishermen. The only commercial settlement is at Puerto Melinka. The principal channels leading through are Boca Wickham, Canal Darwin, and Canal Ninualac.

**Pilotage.**—Pilotage is compulsory for all foreign vessels navigating in the channels. Pilots should be requested in advance by the vessel's agent.

**Caution.**—Navigation through the channels is frequently made difficult by fog. It occurs slightly more often in summer.

The inner channels have not been completely surveyed and many uncharted dangers may exist. The main dangers are rocks marked by kelp; caution is advised due to the strong tidal streams frequently drawing the kelp under water.

Off the W side, vessels have experienced a set toward land. In general, the tidal currents set E through the archipelago on the rising tide and varies within the channels.

**6.20 Isla Gran Guaiteca** (43°52'S., 74°00'W.) is the most important and extensive of the Islas Guaitecas, and attains an elevation of about 370m, 9 miles ESE of the W extremity. The island has two good places for shelter, Bahia Low on the N coast and Puerto Barrientos on the S coast.

**Punta Chayalime** (43°46'S., 73°52'W.), the N extremity of Isla Guaiteca, is the NW point of a peninsula which rises gradually to Monte Trau, 148m high. Rips occur off the point.

**Bahia Low** (43°48'S., 73°58'W.) recedes about 4 miles S between Punta Chayalime and Isote Urano, about 6 miles W. The bay has depths of from 14.6 to 37m and offers good shelter from all winds except from the N, which blow with great force. It is one of the best and most spacious harbors on this coast.

Islotes Gaviotas and its surrounding reefs lie about 1 mile offshore from about 1 to 2 miles W of Punta Chayalime. Two islets lie close offshore in a bight between Punta Chayalime and Punta Selanec, about 2.5 miles SW. Only small craft can use this part of the bay.

Isote Blanco lies near the center of the bay, about 1.5 miles SW of Punta Selanec, and is connected by foul ground with a rocky point on the S shore about 1.5 miles farther S. Isote Sargento, fringed by above and below-water rocks, lies on this bank. The coast E of Isote Sargento, in the SE part of the bay, is very low, flat, and swampy, and is backed by low hills. The coast W of Isote Sargento is backed by low hills, and the beaches are generally composed of sand and pebbles.

**6.21 Puerto Low** (43°49'S., 74°00'W.) occupies the W part of the head of the bay and is sheltered from the W by Isla Guacanec and Isla Marta.

**Anchorage.**—Anchorage can be taken in the W part of Puerto Low, in 12.8 to 22m, sand and stones, but care should be taken to avoid above and below-water dangers which lie up to 0.3 mile offshore S of Isla Guacanec and Isla Marta. The best anchorage for large vessels is in 14.6 to 37m, sand and mud, midway between Isla Guacanec and Isote Sargento.

Isla Guacanec, about 142m high, is larger and more prominent than Isla Marta and is easily recognized. The N and S extremities of the island are low and rocky. A chain of islets extends about 0.8 mile N from Isla Guacanec, the N of which is Isote Urano. Another chain of islets extends about 2.5 miles WSW from Isote Urano and borders the coast at about 0.8

mile offshore to a position about 0.8 mile N of Punta Patgui, the NW extremity of Isla Guaiteca.

The W coast of Isla Guaiteca, from Punta Patgui to Isla Murta, about 4 miles SSW, is fronted by rocks and reefs on which the sea breaks heavily. These dangers extend up to 2 miles offshore, and with strong currents in the vicinity, render the N approach to Canal Tuamapu dangerous.

Isla Maria and Isla Murta, two small islands, lie within about 0.7 mile offshore SW of the SW extremity of Isla Guaiteca, and form the NW entrance point of Canal Tuamapu.

**6.22 Canal Tuamapu** (43°59'S., 74°07'W.) separates Islas Guaitecas from the other islands of the Archipelago de los Chonos. At its E end it joins Canal Leucayec, which leads N to Bahia Melinca, and Canal Perez Norte, which trends S through the archipelago. Numerous dangers lie in the channel.

Tidal currents in Canal Tuamapu flow ESE on the rising tide and WNW on the falling tide, with rates of 2 to 3 knots.

**Islas Bajas** (43°57'S., 74°08'W.), consisting of numerous islets and rocks, lie at the middle of the W entrance of Canal Tuamapu. The islets are low and wooded. Isla Larenas, the E islet, attains an elevation of 79m. There is no suitable anchorage for ships among the islets. The islets are closely fringed with above and below-water dangers and should not be approached within 1 mile.

The S coast of Isla Guaiteca, from its SW extremity to the W entrance point of Puerto Barrientos, about 6 miles ESE, is generally steep-to and fringed by above and below-water dangers to a distance of about 0.2 mile.

**6.23 Puerto Barrientos** (43°55'S., 74°01'W.) recedes about 1.5 miles N between its W entrance point, mentioned above, and a point about 0.8 mile SE. The W entrance point is low and rocky, with foul ground that extends about 0.3 mile offshore S of it. At the middle of the entrance there is a 9.1m patch which can be passed on either side. A rock, awash and marked by kelp, lies about 0.2 mile NE of the W entrance point of the inlet, and about 0.1 mile offshore.

**Anchorage.**—Anchorage can be taken near the head of the bay, in 20.1m, sand and mud, or farther off the head, in 16.5 to 17.8m, sand and stones. Although open to the SW and S, a vessel will be well-protected when anchored near the head of the bay.

Islita Cae lies almost 0.8 mile SSE of the E entrance point of Puerto Barrientos; a reef marked by rocks and breakers extends 0.3 mile SW from the islet. A small islet lies almost 0.5 mile SSE of Islita Cae, and a reef extends about 0.1 mile S from this islet.

From Puerto Barrientos, the N shore of Canal Tuamapu trends about 10 miles SE to the W entrance point of Canal Leucayec. Canal Cuervo, about 4 miles SW of Puerto Barrientos, separates Isla Guaiteca from Isla Betecoi, but its S entrance is obstructed by rocks and is accessible only to boats. Isla Cuervo lies close off Isla Betecoi, about 1.5 miles SW of the S entrance of Canal Cuervo, and a rock lies close S of the islet. Another islet, with a rock close S, lies close offshore about 3.3 miles SE of Canal Cuervo; several islets lie about 0.3 mile offshore about 0.5 mile farther SE.

**6.24 Islas Gemelos** (44°02'S., 73°53'W.) lies midway between the SE end of Isla Betecoi and the N extremity of Isla Sierra, about 6.5 miles WSW. Above and below-water rocks extend almost 0.3 mile N from Islas Gemelos and should not be approached within 0.5 mile. A rock, with a depth of less than 1.8m, lies about 0.9 mile SW of the W end of Islas Gemelos.

Ships should not attempt passage between Isla Sierra and Isla Amita, about 1.5 miles SE.

Islotes Pochas, two low islets, lie about 1 and 1.3 miles NE of Islas Gemelos. Below-water rocks extend up to 0.2 mile off each islet.

A rock, position approximate, with a depth of less than 1.8m, lies about 0.8 mile E of the islets.

The S side of Canal Tuamapu lies about 7 miles S of the S coast of Isla Guaiteca. The SW entrance point of the passage is the NW extremity of Isla Tuamapu and lies about 7 miles SSW of the SW extremity of Isla Guaiteca, which is the NW entrance point of Canal Tuamapu. A rock, with a depth of less than 1.8m, lies about 0.5 mile offshore and about 1 mile ENE of the N end of Isla Tuamapu.

**Islas Rhone** (44°01'S., 74°08'W.), fringed by above and below-water dangers, lie about 1.3 miles ESE of the E extremity of Isla Tuamapu. Isla Requelme, about 1 mile S of Islas Rhone, is a little lower than Islas Rhone and is also surrounded by reefs.

**6.25 Puerto Rhone** (44°02'S., 74°08'W.) lies between the E extremity of the eastern Islas Rhone and an islet located close off the NE end of Isla Requelme, about 1 mile S. Isla Hulaud, about 1 mile SW of the W extremity of the western Islas Rhone, lies in the approach to Puerto Rhone together with numerous islets and rocks.

Roca Petun, an above-water rock, lies about 2 miles ENE of the S entrance point of the port. Vessels should pass N of Roca Petun. Bajo Hederra, with a least depth of 3.1m, lies about 0.5 mile S of Roca Petun and is marked by kelp. Bajo Diaz, with a least depth of 4.9m, lies about 0.5 mile W of Roca Petun and is marked by kelp. Bajo Lopez, two rocks with depths of less than 1.8m, lie about 0.5 mile ENE of the S end of the port.

Vessels can take anchorage, in 20.1 to 33m, rock covered with a thin layer of sand and stones, almost 0.5 mile SSW of the E extremity of the western Islas Rhone. This anchorage is not recommended and is exposed to E winds and to tidal currents. The chain of rocks and keys on the W side of the harbor do not offer sufficient protection.

Tidal currents at the anchorage flow E on the rising tide and W on the falling tide at rates from 1 to 3 knots.

Isla Llanos lies about 1.5 miles S of Roca Petun, and Isla Morel lies about 0.5 mile farther E. Isla Concoto, about 3.5 miles E of Isla Morel, lies at the junction of Canal Tuamapu and Canal Perez Norte.

**Canal Leucayec** (43°59'S., 73°45'W.) trends NNE from its junction with Canal Tuamapu and separates Isla Betecoi from Isla Leucayec. The channel is about 7 miles long and has a least width of a little over 0.5 mile between Grupo Anitas, about 3.5 miles NE of the SE extremity of Isla Betecoi, and Isla Emma, about 1 mile farther E. The channel leads to Bahía Melinca and is deep and free of dangers in the fairway, except

for an islet on the E side of the channel about 0.5 mile off Isla Leucayec about 1.5 miles S of Isla Anita.

Caleta Betecoi, a small cove, lies at the E end of Isla Betecoi and is suitable as a temporary anchorage, in 20.1m, stones.

**Tides—Currents.**—The current on the rising tide sets NE between Isla Betecoi and Isla Leucayec at a velocity of up to 4 knots. Between Isla Mercedes, about 4.5 miles NE of the SE extremity of Isla Betecoi, and Isla Gunther, about 1.5 miles farther E, it attains velocities of from 1 to 3 knots. On the falling tide the current is reversed at the same velocities. There are tide rips off the W side of Isla Leucayec. A 4.4m shoal exists about 0.3 mile S of the S coast of Isla Leucayec.

**6.26 Puerto Melinca** (43°54'S., 73°45'W.) ([World Port Index No. 14198](#)), at the SE end of Isla Ascension and the confluence of Canal Lagreze, Canal Carhunco, and Canal Leucayec, is the commercial center of Grupo Guaitecas and the Archipelago de los Chonos.

The harbor is a fishing and shellfish cultivation center.

**Winds—Weather.**—North winds are the most frequent throughout the year. Mist or fog is reported to occur on only 10 days a year on an average.

**Aspect.**—The harbor is formed by the S coast of Isla Ascension, the NE coast of Isla Clotilde, and the islets and rocks in the entrance to Canal Lagreze. The town of Melinca is situated along the shore W of Punta Melinca. The islands which form the bay are of low elevation with rocky coasts and are covered with vegetation.

Punta Melinca, the SE extremity of Isla Ascension, is low and rocky. A hill, about 69m high, lies about 0.3 mile NW of Punta Melinca, and another hill about 171m high lies a little over 0.7 mile farther NW. These hills shelter the bay from N and NW.

Punta Valiza lies about 0.3 mile W of Punta Melinca. A chain of rocks extends about 0.1 mile S from Punta Valiza. Roca Melinca, the outermost, is marked by a lighted beacon, and is surrounded by rocks awash.

Isla Westhoff lies with its S extremity a little over 0.5 mile E of Punta Melinca. Above and below-water rocks lie up to 0.1 mile off its N extremity.

Isla Mercedes lies with its N end about 1 mile SSW of Isla Westhoff. A reef extends about 0.2 mile N of Isla Mercedes. An islet, connected with Isla Mercedes at low tide, lies on this reef and extends about 0.1 mile NNE. A rock lies awash at the N end of the reef.

A detached group of below-water rocks lies about 0.2 mile W of the above-mentioned islet, in the N entrance of Canal Carhunco.

Isla Anita, which lies with its S extremity about 3.3 miles S of Punta Melinca, is the largest and S of a chain of islets and rocks which extend about 1.8 miles NNE to Islote Toro.

Foul ground extends about 0.2 mile offshore S of the coast between the E entrance to Estero Alvarez and Punta Melinca, about 0.5 mile ESE. Above and below-water rocks closely fringe the coast between Punta Melinca and Isla Falsa Melinca, about 1.3 miles NNE, and depths of less than 9.1m extend up to 0.2 mile offshore along this part of the coast.

**Anchorage.**—The bottom is mostly rock and does not afford holding ground. Vessels can take anchorage, in 40m, stone, shells, and sand, with Roca Melinca bearing 348°, about 0.3

mile distant. This anchorage is open to the NE and a vessel may drag slightly during a fresh gale from the NW. It has been reported that a better anchorage is in about 44m off the entrance to Estero Alvarez, with Roca Melinca bearing 079°, 0.3 mile distant.

Small vessels can obtain shelter from winds between the W and N in depths of about 18m, sand, good holding ground, with Roca Melinca Light bearing 121°, 0.2 mile distant.

**6.27** The coast of Isla Ascension, from Isla Falsa Melinca, trends about 4 miles NNW to Punta Puquitin, the E entrance point of Canal Puquitin. Isla Canelo, fringed with rocks, lies about 0.5 mile offshore, about 1.3 miles N of Isla Falsa Melinca.

**Canal Puquitin** (43°51'S., 73°50'W.) separates the N shore of Isla Ascension from Isla Guaiteca. The channel is impassable due to rocks at its E entrance. From Canal Puquitin, the NE shore of Isla Guaiteca trends about 4.3 miles NW to Punta Chayalime and is backed by low hills.

Caleta Trau, about 2.5 miles NW of Punta Puquitin, recedes about 1 mile SW from its entrance. There are numerous above and below-water rocks in the entrance to the cove and vessels are advised not to enter without a pilot.

**Isla Leucayec** (44°00'S., 73°40'W.) lies with its N extremity about 2.8 miles SE of Punta Melinca, the SE extremity of Isla Ascension. Isla Leucayec has a lesser elevation than Isla Guaiteca, but attains an elevation of 410m at Cerro Mantán, about 5 miles SE of its N extremity.

Isla Elvira, close E of Isla Leucayec, is very irregular, and is fringed with above and below-water rocks. Foul ground extends W from Isla Elvira to Isla Leucayec. Islote Riquelme, about 2.3 miles offshore E of Isla Elvira, is fringed with foul ground. An above-water rock lies about 1.3 miles WNW of Islote Riquelme.

Islote Pato lies about 1.7 miles off the NE coast of Isla Leucayec. There are three islets fringed with sargasso within about 0.3 mile off the N side of Islote Pato.

**6.28 Isla Mulchey** (44°08'S., 73°30'W.) is roughly triangular in shape with sides measuring about 4.5 miles in length. A dangerous sunken rock lies off the S end of Isla Sanchez, which lies close W of Isla Mulchey. Punta Alta, the NE extremity of the island, has been reported to lie about 0.5 mile farther E than charted.

Canal Perez Norte and Canal Perez Sur, connected by Canal Baeza, lead S through the E part of de los Chonos from the E end of Canal Tuamapu. The passage joins Canal Moraleda at the E entrance of Canal Ninualac, about 60 miles S.

The N entrance of Canal Perez Norte lies about midway between Islote Sin Nombre and Isla Laurel. Islote El Amortajado and Islita Yack lie about 1.8 miles S and 3.3 miles SSE, respectively, of the E extremity of Islote Sin Nombre, on the W and E sides of the channel. Two pyramidal-shaped islets lie close off the SW side of Islote El Amortajado. A 3.4m patch lies 1 mile E of Islote El Amortajado. Islita Yack is hemispherical in shape and easily identified. An islet lies close off the NW extremity of Islita Yack. Islote Peinado lies on the W side of the fairway, about 1.5 miles W of the N extremity of Islita Yack, and a rock, awash, lies a little less than 0.3 mile offshore NE of Islote Peinado.

Roca Negra lies on the E side of the fairway, nearly 1 mile SE of Islita Yack, and is marked on its S side by kelp. The rock is also marked by a light. Islita Ceres and Islita Bobe lie on the E side of the fairway, about 0.5 mile W and about 0.8 mile SSE, respectively, of Roca Negra. Rocks extend nearly 0.5 mile SSE from Islita Bobe.

From a position about 0.3 mile W of Isla Yack, the passage continues S and passes between the islets and rocks off the E coast of Isla Concoto and the W coast of Isla Verdugo. Isla Concoto lies with its NE extremity about 3.3 miles SW of Isla Ceres, and Isla Verdugo lies with its NW extremity about 4.3 miles SSE of Isla Ceres.

**6.29 Grupo Roa** (44°10'S., 73°47'W.), an extensive detached patch of above-water rocks and foul ground, lies on the E side of the channel from 1 to 2 miles W of Isla Verdugo. Isla Chipana lies on the E side of the channel, about 1.8 miles S of Grupo Roa. An 11m shoal lies close W of Grupo Roa. Isla Aguayo, about 1.5 miles in extent, lies about 1 mile S of Isla Chipana on the E side of the channel, and some islets and rocks lie about 0.5 mile offshore off its NW coast.

From a position about 0.5 mile W of Isla Aguayo, the passage continues S between Isla Garcia and Isla Valverde. Isla Garcia lies about 2.8 miles S of Isla Verdugo, and Isla Valverde lies about 1.5 miles farther W. Isla Garrao Chico lies on the E side of the channel, about 0.5 mile SW of the S end of Isla Garcia.

Islets and rocks lie up to 0.5 mile offshore N and S of Isla Garrao Chico. Grupo Mustafa and Islote Guia lie on the E side of the channel about 1 and 1.5 miles S, respectively, of Isla Garrao Chico. Islote Guia is shaped like a helmet and has two white patches at its base which make it very prominent.

From a position a little over 1 mile SW of Islote Guia, Canal Perez Norte trends about 2 miles SW between Isla Valverde and Isla Garrao (44°24'S., 73°43'W.). Punta Garrao, the W extremity of Isla Garrao, lies about 1 mile S of the S extremity of Isla Valverde and is prominent. Foul ground extends almost 0.3 mile offshore W of Punta Garrao.

From Punta Garrao the channel trends SE about 6 miles between Isla Garrao and Isla Jechica to its junction with Canal Baeza. Islote Direccion, helmet-shaped and prominent, lies close off the E side of Isla Jechica about 2 miles SE of Punta Garrao. Islote Peligroso, about 2.8 miles SE of Islote Direccion, lies a little over 0.5 mile E of the SE end of Isla Jechica.

From a position about 1 mile SSE of Islote Peligroso, the channel trends in a W direction for about 8.3 miles passing S of Isla Jechica and N of Isla Matilde, Isla Marta, and Isla Mercedes. The channel then rounds the NW coast of the latter island and trends S for about 9 miles, passing W of Ilot Blanco (44°35'S., 73°53'W.).

**Isla Soria** (44°47'S., 73°46'W.), about 1.8 miles in extent, lies on the E side of the fairway about 0.8 mile offshore W of Isla Transito. Isla Florencia, about the same size, lies about 0.3 mile S of Isla Soria. An islet lies close off the NW end of Isla Florencia, and a group of islets lies within about 1.5 miles E and S of Isla Florencia.

Isla Canal, about 2.8 miles in extent, lies on the NE side of the fairway about 0.7 mile SW of the SW end of Isla Transito. Above and below-water rocks fringe the S coast of Isla Canal. Islote Cervantes, marked by a light, lies about 0.3 mile S of the

S end of Isla Canal. Several islands and above-water rocks lie close off the NE end of Isla Canal. Isla Lalanca, about 1.7 miles in extent, lies on the N side of the fairway about 0.5 mile SE of Isla Canal.

The W side of de los Chonos, from Isla Tuamapu to Isla Ipun, about 40 miles SSW, is formed by the W sides of Isla Llenihueno, Isla Arthur, Isla Mellersh, Isla Midhurst, Isla May, Isla Forsyth, Islas Broken, and Isla Level.

Numerous detached rocks and islets lie up to 4 miles W of the W ends of the above-mentioned islands. Bajo Doble, the outermost danger, lies about 8.8 miles NNW of Isla Ipun.

The channels between the islands, from Canal Tuamapu to Canal Ninualac at the head of Bahia Adventure, have not been surveyed and vessels should not attempt to proceed through them.

**6.30 Isla Guamblin** (44°50'S., 75°05'W.), 217m high, is comparatively level, and thickly wooded. The coasts of the island are generally sloping, but in places there are cliffs which are conspicuous against the darker woodland. The island has been reported to lie 2.3 miles W of its charted position.

Punta Norte, the N extremity of the island, is bold and a conical rock lies at its extremity. The coastal bank, having depths of 11.9 to 12.8m, extends about 1.5 miles N from Punta Norte. Punta Searle, the NW extremity of the island, lies about 3 miles SW of Punta Norte and is high and steep, with a conical rock at its summit. A wreck, with masts showing, lies in a small bight about 0.8 mile S of Punta Searle. Punta Bories, the SW extremity of Isla Guamblin, is high and rounded with steep sides, and should not be approached within 0.5 mile.

Punta Edwards, the SE extremity of the island, lies about 4.5 miles ENE of Punta Bories. The S coast of the island is very steep-to and the sea breaks in 5.5 to 8.2m along it in ordinary weather, and in 18.3m in heavy weather.

Punta Arenas, about 3.5 miles N of Punta Edwards, is sandy. The coast between the two points is low. Punta Piedras, about 2.5 miles NW of Punta Arenas, is fringed by foul ground. Punta Baja, about 2 miles NW of Punta Piedras, is low and flat as is the coast NW of it. The point should not be approached within 1 mile.

**Anchorage.**—Anchorage can be taken off the E coast of Isla Guamblin in several places. The best anchorage is in depths of 14.6 to 27.4m, mud, sand, and stones, about 1.5 miles ESE of Punta Arenas. Anchorage can also be taken, in 14.6m, mud, about 1.5 miles E of Punta Piedras. This anchorage affords shelter from SW winds and should not be used during winds between the W and N.

**6.31 Bahia Adventure** (44°50'S., 74°45'W.) lies between the S extremity of Isla Ipun and the N islet of Grupo Vallenar, about 34 miles S. Islets and rocks extend up to 2.5 miles into the bay from the islands forming the E side of the bay. The entrance to all of the channels between the islands are encumbered with dangers in their approaches, except for Canal Ninualac. Isla Paz and Isla Liebre lie about 7 miles offshore in the middle of the bay, and are conspicuous because of their conical form. The islands which form the bay are high and generally barren.

**Isla Ipun** (44°37'S., 74°47'W.), about 101m high, is comparatively low, flat, and fertile, while the other islands of the

group are generally high, rugged, and bare on their seaward sides. Isla Ipun can usually be approached, as the rocks and reefs which lie in the vicinity of the salient points are marked by breakers and can be avoided without difficulty. However, Roca Tacna, which lies about 5 miles NE from Cabo Lort, the NW point of the island, is visible only during strong W winds. These winds form breakers over Roca Tacna. Bajo Doble lies about 8.8 miles N of Cabo Lort and is about 1 mile long N to S, and has surrounding depths of 31.1m. Breakers form over Bajo Doble only during strong W winds.

A detached reef, on which there is an above-water rock, lies about 3.5 miles E of the NE extremity of Isla Ipun.

**Anchorage.**—Puerto Scotchwell, in the SE part of Isla Ipun, affords excellent anchorage to vessels with local knowledge, in 5.5 to 16.5m, with 18.3 to 31.1m in the entrance between the reefs. This anchorage should be approached by the N passage. Although no hidden dangers are known to lie in the S passage, it is narrow and may contain uncharted dangers.

**6.32 Canal Ninualac** is one of the principal channels between the Pacific and Canal de Moraleda. The entrance is at the head of Bahia Adventure, between Isla James on the N and Isla Kent on the S. The passage presents no great difficulties. Numerous rocks, shoals, and reefs lie within 2.5 miles W of the W entrance and are dangerous during fog. The channel is from 1 to 1.5 miles wide, but there are several islets and rocks, described below, within the entrance. The tidal currents in Canal Ninualac attain velocities of from 3 to 4 knots at springs.

A local magnetic anomaly, which caused a deflection of the compass needle of more than 8°, was reported to exist in Canal Ninualac.

**Puerto Concha** (45°01'S., 74°20'W.), with a depth of about 14.6m, provides anchorage for small vessels about 3 miles within the W entrance on the N side of the channel. It lies between the SW end of Isla James and a small island close offshore.

Isla Kent lies on the S side of the W entrance to Canal Ninualac, about 0.5 mile S of the SW extremity of Isla James. The shape of Isla Kent is very irregular and the W coast of the island is fringed by above and below-water rocks which extend from 0.5 to 1.5 miles offshore. The E coast of Isla Kent is broken and indented and a small harbor lies in its NE part.

**Puerto Maria Isabel** (45°05'S., 74°17'W.), on the E side of Isla Kent, provides anchorage, in 51m, less than 2 miles from the center of Canal Ninualac. Isla Puren, at the entrance to the port, forms two channels into the harbor. The S channel is preferred as it is deep and clear, although only 366m wide.

The S shore of the harbor is formed by Isla Renan. A white patch a little above the water on Punta Manchon, the S entrance point of Puerto Maria Isabel and the NE extremity of Isla Renan, provides a good landmark.

**Anchorage.**—Anchorage can be taken near the center of the port, in 51m, sand and mud. The anchorage is sheltered and the holding ground is good.

**Caution.**—A rock, awash, not marked by kelp, lies in the SW corner of the inlet, 0.1 mile offshore.

**6.33 Islote Leuconton** (45°01'S., 74°10'W.) lies near the middle of Canal Ninualac, about 8.5 miles E of the N extremity of Isla Kent, and should be passed to the N. Islote Leuconton

should not be approached closely, although depths of 92m lie within 274m offshore, as a shorebank with depths of 3.7 to 5.5m fringes the islet. A rock, with a depth of less than 1.8m, lies about 366m W of this islet. Roca Engano, marked by a beacon, lies in mid-channel about 3.5 miles E of the above-mentioned rock. A white mark is situated N of the rock on the N side of the channel. Vessels may pass close off either side of this rock in about 18.3m.

The entrance of Estuario Cisnes, about 0.3 mile wide, lies on the S side of Isla James about 15 miles E of the SW end of the island and trends about 3.5 miles NW. Anchorage may be taken in Estuario Cisnes, a short distance within the entrance, in 21.9 to 27.4m or about 2 miles within the entrance, in 18.3m. When entering the inlet a vessel should keep close to the E entrance point in depths 14.6 to 16.5m to avoid the reef on the W side of the entrance.

Islotes Gemelos, consisting of two islets and some rocks, with depths of less than 1.8m, extend about halfway across Canal Ninualac from the S shore at a position about 3.5 miles E of the entrance to Estuario Cisnes.

**Isla Auchilu** (45°20'S., 74°35'W.) is the S island of Grupo Vallenar. A beacon, consisting of a white post with a white disc topmark, stands on a rock close offshore NE of Punta Sur, the SE extremity of the island. A light is shown from a tower standing close NW of Punta Sur. A shoal, which breaks in heavy weather, extends about 0.7 mile W and SW from the same point. The island has been reported to lie 0.5 mile S of its charted position.

**Caution.**—The depths in the approaches to Bahía Darwin and Bahía Anna Pink are deep, over 18.3m, but soundings throughout the area are sparse and scattered. Less water or dangers in addition to what is shown on the chart may exist. Rocks lie up to 1 mile off the seaward sides of the outermost islands.

Bahía Darwin lies between the S end of Bahía Adventure and the N end of Bahía Anna Pink, about 20 miles SW. The N shore of Bahía Darwin is formed by Grupo Vallenar.

The E and S shores of the bay are formed by the W coast of Isla Garrido and the N coasts of Isla Clemente, Isla Tenquehuen, and Isla Menchuan. The W coast of Isla Garrido is high, rugged, and barren. The N coast of Isla Clemente, which is also rugged and barren, rises to an elevation of 968m.

**Isla Analao** (45°29'S., 74°41'W.), steep, flat-topped, and about 40m high, lies in the center of the bay and is a good landmark. Two above-water rocks lie close off the E and N sides of the islet and breakers extend about 0.8 mile S.

**Rada Vallenar** (45°19'S., 74°33'W.) lies on the E side of Grupo Vallenar, between Isla Tres Dedos and Isla Auchilu on the W and the W end of Isla Isquiliac on the E. The harbor is an excellent roadstead and is easy of access. Anchorage may be taken, in about 21.9m, protected from the prevailing winds, about 0.5 mile off the SE extremity of Isla Tres Dedos.

**6.34** Canal Darwin is entered between the SW end of Isla Isquiliac and the N end of Isla Garrido. A light is shown from the SW end of Isla Isquiliac. The passage is free of dangers. It is considered to be the best of the channels which lead through the archipelago from the Pacific to Canal de Moraleda. The

channel is about 3 miles wide at its entrance, which is clear of danger and between high ground.

A 3.9m shoal was reported close off the SE tip of Isla Isquiliac, near the S entrance to Canal Unicornio.

The tidal current within the channel sets E on the flood and W on the ebb at a maximum velocity of about 3.5 knots between Punta Quilan (45°24'S., 74°07'W.) and Isla Negra, about 7 miles ESE close S of the SW coast of Isla Quemada.

**Roca Pajaros** (45°24'S., 74°11'W.), a white rock about 3m high, lies a little over 0.5 mile NW of the W extremity of Isla Marcacci. A shoal, with at least a depth of 12.5m, lies 0.6 mile W of Roca Pajaros. A 10m sounding is charted about 0.4 mile NW of the rock.

Bajo Darwin lies about 1.5 miles NE of Roca Pajaros about midway between Roca Pajaros and the SE extremity of Isla Italia. Bajo Darwin is a small pinnacle rock with almost 7m over it and is surrounded by deeper water. The rock can be passed on either side, but to the N is preferred, as this side is marked by a lighted buoy with a radar reflector.

Vessels should exercise caution in the vicinity of Islotes Lamencura and Islote Lobos, close W of the S end of Isla Palumbo (45°23'S., 74°03'W.), as the bottom is rocky and uneven. Above and below-water rocks extend about 0.2 mile S from the W extremity of Isla Quemada, about 4 miles ESE of Punta Quilan, and the width of the channel between these rocks and the NW end of Isla Luz (45°30'S., 73°56'W.) is only about 0.3 mile. A rock, with a depth of less than 1.8m, lies close off the S end of Isla Quemada. An 8.5m patch lies 0.5 mile SE of the rock.

Isla Analao can usually be seen at a distance of 15 to 20 miles, even in hazy weather. On approaching closer, Grupo Vallenar and Monte Isquiliac (45°20'S., 74°29'W.) are easily identified, and the entrance to Canal Darwin, with its high and rocky sides, shows clearly. There is a conspicuous white patch near the middle of the S coast of Isla Italia, about 13 miles E of Punta Alfredo. Another conspicuous patch is located on the S side of the W end of Isla Quemada about 1 mile E of the W extremity of the island.

Canal Williams connects the W end of Canal Darwin with the E end of Bahía Anna Pink. The channel is entered between Punta Garrido and Punta Este (45°26'S., 74°25'W.), a little over 0.8 mile ESE, and trends SSW for about 24 miles with an average width of about 0.5 mile, although narrower in places. The channel has not been examined and is not recommended.

**6.35 Puerto Yates** (45°29'S., 74°26'W.) lies from 2.5 to 3 miles S of the N entrance to Canal Williams and provides anchorage, in about 21.9m, sand, about 0.5 mile N of the spit mentioned below. The anchorage is bounded to the S by a low sandspit, which extends about 0.5 mile W from the NW coast of Isla Rivero. A small islet lies 183m NW of the extremity of the sandspit. Between the end of the spit and the W shore, there is a passage about 0.2 mile wide with depths of 6.7m. Depths of less than 5.5m extend 0.3 mile N from the spit.

**Caution.**—Depths in Puerto Yates may be decreasing due to sediment deposited by the meeting of tidal currents from Canal Williams and Canal Darwin.

**Bahía Anna Pink** (45°47'S., 74°49'W.) is formed between the N side of Peninsula Skyring on the S and Isla Tenquehuen,

Isla Menchuan, and Islas Inchin on the N. Numerous islets and rocks lie within the bay. Most of the bay is unsurveyed except for a partially examined passage that trends E between the islets and rocks in the S part of the bay and which leads into Boca Wickham.

The N side of Peninsula Skyring is indented by a number of inlets. Puerto Refugio is the only inlet that has been examined and that is known to provide shelter to vessels.

The bay is entered from the W between the N point of Cabo Taitao and Isla Inchemo, about 3.5 miles NNE.

**Isla Inchemo** (45°48'S., 75°00'W.) lies about 3.5 miles NNE of Punta Seal, the N extremity of Cabo Taitao. Islita Penguin, with a rock close off its S side, lies 0.5 mile off the E side of the island. A light with racon is shown from a tower standing on the S side of the island.

**Anchorage.**—Anchorage can be taken, in 14.9m, good holding ground, about 0.7 mile ESE of the light on Isla Inchemo. Anchorage can also be taken closer inshore, in 16.5m, sand, with the S point of Isla Inchemo bearing 207° and Islita Penguin bearing 060°.

Roca Gallardo, submerged and on which the sea sometimes breaks, lies about 2.3 miles E of the S point of Isla Inchemo. A detached rock, with a depth of 3.9m, lies 0.8 mile N of Roca Gallardo.

Isla Julian, 90m high, lies 3 miles E of Islita Penguin. Islote Mitra and Islote Patch lie close together about 1.5 miles ESE of Isla Julian. A reef, on which the sea breaks, extends about 0.5 mile W from Islote Mitra and Islote Patch. Grupo del Medio consists of three small islets which lie from 2.5 to 3 miles ENE of Islote Mitra. A shoal, with a least depth of 2.1m, lies about 0.3 mile S of Grupo del Medio.

From Punta Seal to Punta Gallegos, about 3.5 miles E, the N side of Peninsula Skyring is indented by two inlets, both of which are unexamined. Seno Purgatorio, the W inlet, has several small islets and rocks in its entrance. Fiordo Gallegos, the E inlet, recedes about 10 miles SE. Small vessels can anchor on the SW side of the latter inlet, about 4 miles inside the entrance.

From Punta Gallegos to Punta Stripe, about 5.5 miles ENE, the shore recedes S to form a very irregular bight that is further indented by several coves, the entrances of which are encumbered with numerous rocks and islets. The only cove suitable to small vessels is Puerto Refugio.

**6.36 Puerto Refugio** (45°52'S., 74°48'W.) recedes about 2 miles SE between Punta Stripe and Isla Puentes, about 1.5 miles SSW. Islote Hyatt and a number of above-water rocks encumber the entrance. The entrance is restricted to a width of about 0.2 mile, between some rocks that lie about 0.3 mile S of Punta Stripe and the above rocks adjacent to the N side of Islote Hyatt. A rock, with less than 1.8m over it, lies on the SW side of the entrance fairway. An unnamed islet lies 0.3 mile E of Isla Puentes. A reef, with a least depth of 7m, extends 0.5 mile E from the islet.

**Anchorage.**—Anchorage can be taken, in 20.1 to 37m, about 0.7 mile SE of the summit of Isla Puentes. Within the entrance a rock, with less than 1.8m over it, lies about 0.3 mile NNE of Islote Videla, which lies about 0.8 mile SE of Isla Puentes.

From Punta Stripe to Boca Wickham, about 8 miles E, a number of islets lie on the S side of the passage leading to that channel. A shoal, with a depth of 12.1m, lies on the recommended track, about 0.8 mile NW of Isla Entrada; a shoal depth of 6.8m lies close to the track, about 1.3 miles WNW of the same islet.

**Boca Wickham** (45°49'S., 74°34'W.), Canal Pulluche, and Canal Chacabuco form a continuous passage between Bahía Anna Pink and Canal Errazuriz, the S extension of Canal de Moraleda. The passage is narrow and winding, but navigable. It is about 35 miles long and trends E, NE, and then E.

A light marks the SW end of Isla Ricardo (45°49'S., 74°28'W.). The recommended track passes through Canal Pulluche from Ricardo Light and leads 6.7 miles to NNW of Punta Morro Light on Isla Prieto. The track then leads 4.7 miles NNE to Punta Pangal (45°42.3'S., 74°15.5'W.) then leading E to enter Canal Utrupa or Canal Chacabuco as necessary.

**Tides—Currents.**—The tidal currents set E and NE through the above passage following the trend of the passage at velocities of up to 4 knots on the rising tide and in the opposite direction on the falling tide.

**6.37 Islote Notable** (45°49'S., 74°29'W.) is a conspicuous islet on the N side of the fairway.

**Anchorage.**—Anchorage can be taken, in 14.6 to 20.1m, mud, in the entrance of Fiordo Balladares (45°44'S., 74°22'W.), a small inlet on the SE side of Isla Rivero.

Anchorage can be taken, in 20.1m, about 0.4 mile W of Cayo Observatorio in Puerto Harchy (45°43'S., 73°55'W.) at the E end of Canal Chacabuco. Caution is necessary here, as many dangers lie in the approaches, and the anchorage itself is open to SW winds.

**Canal Utrupa** (45°31'S., 74°14'W.), about 15 miles long and with a least fairway width of about 1 mile, joins Canal Darwin and Canal Chacabuco and passes along the E side of Isla Rivero. The fairway trends NNE to abreast Puerto Condell, about 4.5 miles N of the SE point of Isla Rivero, and then it trends NNW between Isla Rivero and Isla Matilde. Like the other major channels within the Archipelago de los Chonos, it has only been partially examined.

The E side of Isla Rivero is fringed with above and below-water rocks up to 0.3 mile offshore in places. Numerous islands and rocks lie on the E side of the channel SE of Isla Matilde.

**Anchorage.**—Anchorage can be taken in Puerto Condell (45°37'S., 74°12'W.), in 21.9 to 29.3m, sand and shell, about 0.3 mile WNW of the S entrance point.

Anchorage can be taken in Puerto Aurora, in 42 to 46m, about 0.7 mile within the entrance. This anchorage is situated in Fiordo Doble Sur, an inlet entered on the E side of Isla Rivero, about 3 miles NNW of Puerto Condell.

## Cabo Taitao to Cabo Tres Montes

**6.38** The coast between Cabo Taitao and Cabo Tres Montes, about 65 miles SSW, is formed by the outer part of Peninsula Taitao. The NW part of Peninsula Taitao is formed by Peninsula Skyring and the SW part by Peninsula Tres Montes. The conspicuous gap, located about 10 miles NW of

Cabo Tres Montes and connecting the two peninsulas, is low, densely wooded, and about 1.3 miles wide. This coast is irregular and indented by a number of coves and inlets, most of which have not been examined. Steep, barren hills, with heights of up to about 1,067m, back the coast. The fringing dangers lie within 1 mile of the coast, except for Rocas Hellyer, described below in paragraph 6.39. There are no ports, but small vessels with local knowledge can find shelter in some of the inlets and coves.

**Tides—Currents.**—The offshore currents along this coast set toward the land at a velocity of 1 knot on the rising tide. A SSE set has been observed in the vicinity of Cabo Tres Montes. The currents are probably augmented by the tidal currents setting into the embayments N and S of Cabo Taitao and Cabo Tres Montes.

**6.39 Cabo Taitao** (45°52'S., 75°04'W.), the NW extremity of Peninsula Skyring, is steep, barren, and fringed with rocks up to about 1 mile offshore. Cabo Taitao is one of the most prominent promontories in the vicinity. It appears as an island from the offing.

**Rocas Hellyer** (46°02'S., 75°10'W.), several rocks awash, are the outermost dangers along this coast. A shoal, with a depth of 15.8m, lies about 1.5 miles S of Rocas Hellyer, while a second shoal, with a depth of 16m, lies the same distance E of the rocks.

Fiordo Cornish is entered between the SW end of Peninsula Duende and a point about 7 miles S. This inlet recedes about 22 miles NE from its entrance and narrows toward its head. It nearly separates the Peninsula Skyring from Peninsula Taitao. Within the entrance, several arms branch off either side. Monte Alejandro, 590m high, rises close within the S entrance point. An islet, with submerged rocks up to 0.5 mile off its NW side, lies about 0.5 mile off the S entrance point.

**Islas Usborne** (46°11'S., 75°00'W.), three islands and several islets and rocks, lie in the middle of the entrance of Seno Cornish. Foul ground obstructs the passage E of the islands. Small vessels can take anchorage, in 9.1 to 11m, sand, off the E side of the western and largest island. Rocks, which dry, extend up to 1 mile W and 0.8 mile S of that island.

The main channel into Fiordo Cornish is N of Islas Usborne. Small vessels can find shelter from W winds in a small inlet on the NW side of Seno Cornish, about 8 miles within the entrance. The depth at this inlet is about 23.8m. Three islets lie off the entrance of the latter inlet.

**Fiordo Alejandro** (46°14'S., 74°55'W.), an inlet, branches SE from the S side of Fiordo Cornish just within the entrance. Two rocks which dry lie in the entrance.

An island lies close offshore about 3 miles NNE of the NE entrance point of Fiordo Alejandro. Vessels can take anchorage off the S side of this island in good holding ground, mud bottom. This anchorage should be approached from the W passing S of Islas Usborne. Vessels should be careful to avoid a rock that lies about 0.3 mile N of the S entrance of the bay formed by the island.

From the S entrance point of Fiordo Cornish to Caleta Gato, about 4 miles SSW, the coast is fronted by numerous islets and rocks up to 1 mile offshore.

**6.40 Caleta Gato** (46°17'S., 75°03'W.), a small inlet frequented by sealing vessels, is entered by passing S of the islets in its entrance.

**Estero San Esteban** (46°19'S., 75°06'W.), a narrow inlet, recedes about 10 miles E between Punta Rescue, a small prominent peninsula, and a point about 2 miles E. Cerro Oscura, 645m high, rises within the N shore of the inlet about 8.5 miles E of Punta Rescue and is a good mark for approaching the inlet. The rocks off Punta Rescue should be passed at a distance of at least 0.1 mile. A rock lies in mid-channel about 3.5 miles from the inlet's head. Breakers were reported in a position about 3 miles NE of Punta Rescue. Anchorage can be taken in the lee of Punta Rescue, in about 18.3m, clear of the fringing rocks.

**Caleta Cliff** (46°28'S., 75°17'W.), entered about 10 miles SSW of Punta Rescue, affords excellent anchorage for small vessels, in depths of 8.7 to 57m, mud. The entrance channel is about 0.3 mile wide and at the inner end the cove opens to a width of 1.5 miles forming a circular basin protected by mountains. The least depth in the fairway is 7m. A small islet lies close off the S entrance point of the cove. Rocks lie up to 180m N of the islet and should be passed to N. Two triangular-shaped islets, lying close together, lie about 2 miles NNE of the cove entrance. One of these islets has an open tunnel through it which is clearly visible from W. A group of rocks, which break, lies about 1 mile NW of the islet.

**Directions.**—Vessels should approach the entrance on a course of 130° to 144° and then maintain mid-channel courses to the basin. Within the basin anchorage can be taken, in 25.6m, mud and sand, about 0.2 mile off the NW shore, or in 31.1m, mud and sand, 0.2 mile off the SE shore.

Bahia Stewart, just S of Caleta Cliff, has extensive areas of foul ground and anchorage is not recommended.

**Punta Pringle** (46°32'S., 75°30'W.) is fringed with rocks which extend about 0.5 mile offshore from the coast. Within the point the land is low.

**6.41 Bahia San Andres** (46°34'S., 75°31'W.) is entered between Punta Pringle and Cabo Gallegos, about 4.5 miles SW. The inner part of the inlet is divided into two arms, Caleta Inutil, the NE arm, and Estero Cono, the SW arm. Monte Cono, a prominent 488m conical peak, rises at the outer end of the peninsula which separates the two arms. Islita Cono lies at the entrance of Estero Cono.

**Estero Cono** (46°37'S., 75°28'W.) is protected except when the NW winds enter the anchorage area, and it does with great violence. A submerged wreck (46°36.9'S., 75°28.1'W.) lies about 100m off the W shore, half-way along the fjord.

Cabo Gallegos is a bold steep promontory, barren on its seaward side. Islita Rees, small and rock-fringed, lies about 0.5 mile SW of the cape. This islet is pot-shaped and pierced by a tunnel which is visible from the W. Islita Rees is a good mark for identifying the cape from the S. It was reported that a stranded wreck lies on the shore about 0.8 mile SE of the cape.

**Anchorage.**—Small vessels can take anchorage, in 11.9 to 21.9m, in Caleta Pascuas, a small cove on the S side of Bahia San Andres about 1.8 miles E of Cabo Gallegos, or off the S side of Islita Cono. Small vessels can also take anchorage near

the head of Estero Cono, about 2.3 miles within the entrance of this arm, in 21.9 to 31m, mud and sand.

**Cabo Raper** (46°49'S., 75°38'W.) lies about 13 miles SSW of Cabo Gallegos. The coast between is mostly cliffy and rugged, rising to elevations of over 700m. The cape is a high, barren promontory. Foul ground extends about 1 mile W from it. A main light is shown from a tower, 14m high, standing on the cape.

**6.42 Cabo Tres Montes** (46°59'S., 75°26'W.) lies about 13 miles SE of Cabo Raper. It is a bold and remarkable headland rising to an elevation of 396m. A conical above-water rock lies close off the cape.

Between Cabo Raper and Cabo Tres Montes the coast is formed by Peninsula Tres Montes. The peninsula is hilly with elevations of up to about 396m along the coast. It is joined to Peninsula Taitao just SE of Cabo Raper by a low isthmus. The summits of the hills are often obscured by clouds or squalls when the lower land is visible from a distance of about 2 miles. The small coves that indent the SW side of the peninsula are accessible only to boats, but some have sandy beaches at their heads.

A prominent gap, which is a good mark when the summits of the hills are obscured, separates the NW side of Peninsula Tres Montes from the SW end of Peninsula Taitao.