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**SECTOR 5 —CHART INFORMATION**

# SECTOR 5

## EAST COAST OF LUZON

**Plan.**—This sector first describes the coast of Luzon between Escarpada Point to San Miguel Bay. The arrangement is from N to S.

The sector then continues to describe the SE coast of Luzon between Butauan Bay and Bingay Point. The arrangement is from W to E and then S.

### General Remarks

**5.1** The E coast of Luzon is high, rugged, and densely wooded. The coast is indented in its S side. The coast is sparsely inhabited except in the Palanan River valley, about 85 miles S of Escarpada Point.

The rugged coastline is exposed to the full force of the Northeast Monsoon and the seas of the Pacific Ocean. There are no ports of any size along the coast, but there are several small bays where some shelter is afforded.

Typhoons which lash the coast cause heavy swells. Vessels transiting these waters are cautioned to pay strict attention to weather conditions and reports.

**Winds—Weather.**—The wet and dry seasons on the E coast of Luzon are the reverse in period to those on the W coast of that island. This is due primarily to the exposure to the Northeast Monsoon and to the high mountains of the Sierra Madre which block the winds. Northeast winds prevail from October to March, the monsoon beginning with the N winds, which are short duration and soon become NE.

In January and February the E winds begin, and terminate the monsoon. The heaviest rains occur from October to January.

The winds are variable in March and April, and sometimes in the early part of May, bringing in the Southwest Monsoon. April and May are the driest months of the dry season, but rain often occurs.

Thunderstorms, which occur from June to November, are most frequent in August. The sea is generally calm during the Southwest Monsoon, but it is especially heavy during the middle period of the Northeast Monsoon.

The typhoons which form E or SE of Samar and Leyte and cross the archipelago to the N of Manila are very dangerous to shipping. The N part of the E coast of Luzon is particularly dangerous during the period of the typhoons.

The typhoons that pass S of Manila are also dangerous as they bring strong NE to SE winds. The typhoons which recurve N and E before reaching the Philippine Islands bring strong winds and rain squalls from the SW. These sometimes continue for 5 or 6 days.

Typhoons may form at any time of the year, but they become more frequent in July and are most prevalent on the E coast of Luzon from September to December.

**Tides—Currents.**—The tidal currents are very irregular off the E coast of Luzon, but they generally set parallel with the coast at an estimated maximum rate of about 2 knots. They set N on the rising tide and S on the falling tide.

A fairly strong current sets parallel with the NE coast of Luzon. This current apparently does not follow the rise and fall of the tides, but is predominantly SW unless a prolong S wind is in evidence, at which time the direction of the current is reversed.

The tidal currents are very irregular in Lagonoy Gulf and Albay Gulf and appear to be greatly influenced by the force and direction of the wind. The tidal current attain a rate of 1.5 knots in Rapu Rapu Strait.

### Escarpada Point to Palanan Point

**5.2** The coast between Escarpada Point, the NE extremity of Luzon, and Iligan Point, 14 miles to the SSE, is indented by numerous small coves, suitable only for small craft. The tidal currents in this stretch of coast are irregular, but generally set parallel with the coast at a maximum rate of 2 knots. There are tide-rips in the vicinity of Escarpada Point and Iligan Point.

**Patunungan Bay** (18° 24'N., 122° 18'E.) lies 9 miles SSE of Escarpada Point, and is formed by a narrow opening in the coastal reef. The entrance, with a least depth of 11m, may be identified by Masak Rock on its NW side and Susak Rock on its SE side. The bay affords good shelter for small vessels. The anchorage can accommodate one small coastal vessel.

**Iligan Point** (18° 18'N., 122° 20'E.) lies about 5.5 miles SSE of Susak Rock. The point, which is 73m high and covered with grass, rises to an elevation of 160m about 0.5 mile inland. Russo Rock, 3m high and prominent, lies close off the point.

Mount Tinago, a serrated summit 251m high, stands close to the coast about 3.25 miles NNW of Iligan Point.

Mount Marotong, 366m high and densely wooded, stands about 0.5 mile SW of Iligan Point.

Mount Marotong appears as a sharp peak with steep slopes from the NE, but from the SE it has a bee-hive shape. It is one of the most prominent peaks nearby.

**5.3** The coast between Iligan Point and Palanan Point, 71 miles S, consists of a succession of small bays open to the sea, with short stretches of sandy beach backed by steep mountains.

**Maloncon Island** (18° 15'N., 122° 20'E.) lies about 4 miles S of Iligan Point and 0.5 mile offshore. The island has a sharp summit and is the largest and most prominent island in this section of the coastline.

When seen from SW or NE, the island has steep sloping sides. Heavy tide rips are frequently seen in the areas E and N of the island. Landings can be made on a sheltered beach on the W side of the island.

Mount Ninamandum, 406m high, lies about 3.75 miles SW of Maloncon Island and about 0.5 mile NW of Nanisetan Point.

Mount Canapauan, 615m high, lies about 7 miles WSW of Maloncon Island. It is prominent when viewed from the SE because of its height and its flat appearance.

**Naglocsaden Point** (18° 10'N., 122° 16'E.) lies about 6 miles SW of Maloncon Island. A shoal, with rocks awash and a depth

of 5.8m at its outer end, extends about 0.5 mile S from the point. Tide rips can be found in the area of the shoal.

**J. B. Miller Bay** (18° 05'N., 122° 11'E.) lies about 6 miles SSW of Naglocsaden Point. Bolos Point, the N entrance point of the bay is bold, rocky, and densely wooded. Cabutunan Point, the S entrance point of the bay, lies 3.5 miles S of Bolos Point and is low, covered with grass, and fringed by a coral reef.

Good anchorage can be taken almost anywhere in the bay, but it is fully exposed to E winds.

**Capulutan Point** (18° 00'N., 122° 11'E.) lies about 5 miles S of J. B. Miller Bay. The point is a bold, rocky headland whose seaward face is vertical and rises to a height of about 58m.

Mount Capulutan, 328m high, is a double-topped mountain with a small pass between the two highest peaks. It rises about 0.75 mile SW of Capulutan Point. The gray, vertical, rocky bluff on the S side of the mountain is prominent from the S.

A deep rocky gorge, which is a good landmark, lies midway between Capulutan Point and Cabutunan Point, 3.5 miles N.

**Valley Head** (17° 55'N., 122° 11'E.) lies about 5 miles S of Capulutan Point and consists of a triple-pointed, rocky headland rising abruptly from the shore. Valley Cove, the N arm of which provides good shelter to small craft, lies 5 miles S of Valley Head. Twin Peaks, high and sharp pointed, stand 3 miles W of Valley Cove.

**Caution.**—Tidal currents between Capulutan Point and Valley Head attain a rate of 2 to 2.5 knots.

**5.4 Baguio Point** (17° 42'N., 122° 10'E.), a sharp knoll 50m high, lies 13 miles S of Valley Head. A black detached rock lies close off the point. Flat Peak, with a sheer rocky E face, lies 3.5 miles WNW of Baguio Point.

**Mount Cetaceo** (17° 42'N., 122° 03'E.) lies 6.5 miles W of Baguio Point and consists of a dome-shaped summit which rises to an elevation of 1,833m. It is the highest peak in the area and is prominent.

**Divilacan Bay** (17° 23'N., 122° 19'E.) lies about 20 miles SSE of Baguio Point and indents the coast about 3 miles SW. The bay is open to the N and is encumbered with shoals and reefs. The shores of the bay are low and densely wooded. Several large streams discharge into the bay.

Divilacan Peak stands about 10.5 miles SSW of the E entrance point of the bay and is prominent.

Vessels with local knowledge can take anchorage in the NW bight of Divilacan Bay, in depths of about 9m, hard sand. The reefs at the entrance give some protection from E swell.

Vessels can find some protection from E winds by anchoring W of Gay Island (Dipado Island) and N of the reef fringing the S shore of the bay. Protection from SW winds can be obtained in a bight in the SE part of the bay, in depths of 13 to 16m.

**Port Dimalansan** (17° 19'N., 122° 23'E.), entered between Gay Island and Estagno Island, about 1.5 miles ESE, extends about 3 miles S between low and wooded hills to a rather large shoal basin. The channel has a least width of 137m and a least depth of 3.7m. Heavy tide rips and strong currents are often found at the entrance. Small vessels with local knowledge can find excellent shelter in Port Dimalansan.

**Port Bicobian** (17° 15'N., 122° 26'E.) lies about 7 miles SSE of Estagno Island. Aubarede Point, the SE entrance point to

Port Bicobian, is fringed by drying reefs up to a distance of about 0.1 mile offshore.

Shoals extend about the same distance S from the fringing reef. A drying reef extends about 0.4 mile NE from the S entrance point. Shoals and foul ground extend about 0.15 mile offshore from the edge of the drying reef.

The E side of the inlet is fringed by drying reefs up to about 0.2 mile. Drying reefs extend up to 0.5 mile E from the W side of the inlet.

A detached reef, which dries, extends about 0.4 mile N from a position 0.6 mile WSW of Aubarede Point. Shoals extend up to about 0.1 mile E from this reef.

A rock, which dries 1.5m, stands on the reef fringing the W shore of the inlet in a position 1 mile WNW of Aubarede Point.

**Caution.**—These reefs are not always marked by discoloration.

The unmarked channel to Port Bicobian has a width of about 0.25 mile between the detached reef and the reef fringing the W side of Aubarede Point. The channel gradually narrows to a width of about 91m near the head of Port Bicobian.

There is anchorage, in a depth of 18m, 0.2 mile from the E shore, 1.5 miles NNW of Aubarede Point. There is also anchorage 0.75 mile from the head of Port Bicobian, in a depth of 8m, mud.

Vessels approaching this anchorage should favor the E shore as the fringing reef does not extend as far as from the W shore.

**5.5 Palanan Bay** (17° 10'N., 122° 27'E.) is entered between Aubarede Point and Palanan Point, about 7 miles SSE. The bay indents the coast for about 3.75 miles in a SW direction. A reef extends from Palanan Point, which should not be approached within one mile. A river flows into the S part of the bay.

The bay is deep throughout, and with the exception of reefs and shoals which extend about one mile N from the mouth of the river, all dangers lie within 0.5 mile of its shores.

Titlong Peak, wooded and conical, rises to a height of 321m, 2.5 miles SSW of Palanan Point; it helps to identify the point from the offing.

**Palanan** (17° 04'N., 122° 25'E.) is the only town on the E coast of Luzon N of Casiguran. It stands on the N bank of the river about 5 miles within the river's mouth; it is small and of little importance. There is a government radio station at Palanan and inter-island vessels make infrequent calls off the mouth of the river to load logs.

Strong tidal currents and heavy rips are found off the point. Vessels are advised to give the point a berth of at least 1 mile when entering the bay.

Vessels with local knowledge can take anchorage W of the reef and shoals fronting the mouth of the river, in depths of 13 to 44m.

**Disumangit Point** (17° 03'N., 122° 31'E.), a rocky headland, lies about 6 miles S of Palanan Point. Spires Islet, a prominent pinnacle rock, lies close off the point.

The Knobs, a conspicuous group of hills covered with trees, lies 1 mile inland, 5.5 miles SSW of Disumangit Point.

**5.6** The coast between Palanan Point and Cape San Ildefonso, 75 miles SSW, is mostly steep, with wooded hills

rising sharply from bare hills backed by massive mountain ranges, and is indented by many shallow bays.

There are numerous coral heads within about the 20m curve, with little or no indication of their existence, so caution is necessary when approaching this coast.

A current, setting NNE at a rate of 2 knots, has been observed during the Southwest Monsoon (May to September) running parallel with the general trend of the coast.

**Digollorin Point** (16° 53'N., 122° 28'E.) is located 9.5 miles S of Disumangit Point. It can be identified by a rock, 22m high, about 91m off the point. A shoal, with a depth of 2.1m, lies about 0.75 mile N of Digollorin Point.

**Digollorin Bay** (16° 50'N., 122° 26'E.) lies about 3.75 mile SSW of Digollorin Point. A river discharges into the head of the bay. A rock, 3m high, lies 0.75 mile E of the N entrance point of the river.

**Diviuisa Point** (16° 48'N., 122° 26'E.) lies 5.75 miles SSW of Digollorin Point. A prominent pinnacle rock, 64m high, lies close off the point.

**Dinatadmo Point** (16° 31'N., 122° 17'E.) lies about 12.5 miles SSW of Digollorin Bay. The point is low and covered with bushes.

**Dinapiqui Point** (16° 32'N., 122° 17'E.), located 7 miles SSW of Dinatadmo Point, marks the S limit of the high, cliff-faced coastline. The shore S of the point is low, heavily wooded, and fringed by sandy beaches. A rock, 1.8m high, lies about 0.5 mile S of the point.

**5.7 Diapitan Bay** (16° 26'N., 122° 13'E.) lies about 14 miles SSW of Dinatadmo Point. The bay is about 1.75 miles wide at its entrance and indents the coast about 3 miles in a SSW direction.

Tarigtig Point, the S entrance point of the bay, has a bold rocky cliff on its seaward side. A small bare rocky islet lies close NE of the point. Foul ground extends about 0.3 mile NNE from the point. Foul ground, on which stand two detached rocks awash, extends about 0.5 mile W from a position about 0.9 mile SSW of Tarigtig Point.

A shoal, with a depth of 5m, lies in the middle of the outer part of the bay about 1 mile W of Tarigtig Point. A shoal, with a depth of 5.7m, lies about 0.6 mile WSW of the point.

There is a sandy beach at the head of the bay, which is backed by flat, wooded land. A reef, which bares at LW and which is connected to the shore by foul ground, lies near the SW corner of the bay in a position about 1.75 miles SW of Tarigtig Point.

Vessels can take anchorage in the middle of the bay about 0.5 mile SW of the 5m shoal, in a depth of 14.6m. Vessels proceeding to this anchorage should pass W of the shoal.

Protected anchorage can be found in the SE part of the bay S of the foul ground on which stand two detached rocks, in depths of 7 to 8m, mud, good holding ground. Vessels entering the bay should pass at least 0.75 mile N of Tarigtig Point.

**Casapsapan Bay** (16° 19'N., 122° 13'E.) lies about 6 miles S of Diapitan Bay and is entered N of Dijohan Point. The bay indents the coast 3 miles in a SW direction. The bay is fully exposed to Northeast Monsoons. A small islet lies close NE of Dijohan Point. The shores of Casapsapan Bay are densely wooded.

A shoal, with a depth of 6.4m, lies about 1 mile N of Dijohan Point. A narrow shoal, with depths of 6.9 to 8.7m, extends about 1.75 miles SW from a position about 0.75 mile WNW of Dijohan Point. This shoal lies parallel with and about 0.5 mile off the E shore of the bay. Several detached shoals lie within 0.5 mile of the W shore of the bay.

**5.8 San Ildefonso Peninsula** (16° 07'N., 122° 04'E.), joined to the mainland by a strip of land about 3.5 miles wide, trends about 22.5 miles SW from Dijohan Point to Cape San Ildefonso. Its seaward face is wooded and rugged.

**Baltimore Peak** (16° 05'N., 122° 02'E.), about 4 miles from the S end of the peninsula, is high and prominent. It appears double-topped from N or S, but from SE it shows as a sharp point. There is a large, triangular, grassy scar on the outer coast in a position about 2 miles NE of Baltimore Peak. This scar is an excellent landmark when approaching from the N or E.

A SW current sets along the E side of San Ildefonso Peninsula at a rate of 1 knot, unless there is a strong S wind, when the direction is reversed.

**Casiguran Sound** (16° 05'N., 121° 58'E.) is entered W of Cape San Ildefonso. It extends 11 miles NE to the entrance to Casiguran Bay. The sound and the bay are deep and clear of dangers in the fairway and afford excellent shelter for all classes of vessels.

The SE shore of the sound is high, rugged, steep-to and clear of dangers, except for a detached shoal, with a least depth of 8.5m, lying about 0.75 mile N of Cape San Ildefonso. A reef, with a depth of 4.5m at its outer end, extends about 0.3 mile NW from a position about 1 mile NNE of the cape.

The NW shore of the sound is lower and backed by rolling hills and high mountains. It is fronted by shoal water to a distance of up to 0.6 mile.

Vessels navigating the sound or the S part of the bay, should keep in depths of 37m or more, as the depths decrease rapidly near the shore in many places.

The only outlying danger in Casiguran Sound is a shoal, with a depth of 6.4m, lying about 4.5 miles WSW of Motioning Point, the W entrance point to Casiguran Bay.

Casiguran Bay is entered between Motioning Point, located about 11 miles NNE of Cape San Ildefonso, and the shore about 0.5 mile E. A shoal spit, with a depth of 6.7m at its outer end, extends about 0.1 mile E from Motioning Point.

Shoal water extends about the same distance W from the E side of the channel, abreast the point. The head of the bay is low and densely wooded. Dipalali Point, which is located about 1.5 miles NE of Motioning Point, can be identified by an old fort, 3m high.

Wheeling Peak, 258m high and prominent, stands on the E side of the entrance to the bay in a position about 0.75 mile SSE of Dipalali Point. A detached shoal, with a least depth of 0.9m, lies about 1.25 miles SW of Wheeling Peak.

Casiguran Bay is deep with a soft clay or mud bottom. A detached shoal, with a least depth of 2.1m, lies about 0.4 mile off the W shore in a position about 2 miles N of Dipalali Point. The coastal bank, as defined by the 5.5m curve, extends up to 0.2 mile from the E shore, 0.3 mile from the W shore, and 0.6 mile from the head of the bay.

The tidal currents are fairly strong along the SE shore of Casiguran Sound. A rate of 1.25 knots has been observed about

1 mile N of Cape San Idefonso. Currents on the NW shore are weak. Surface currents from the rivers are found in Casiguran Bay.

Vessels can take anchorage anywhere along the NW shore of Casiguran Sound, in depths of 37m and over. The best anchorage is located in the middle of Casiguran Bay, in depths of 28 to 48m, soft mud or clay.

**Directions.**—Vessels entering the sound should give the SE shore a berth of about 1.5 miles until abreast of Baltimore Peak. Then they should steer for Wheeling Peak on a course of 057° until Motioning Point bears 325°, distant 0.5 mile. Then a mid-channel course should be steered through the narrow channel leading into Casiguran Bay and anchorage taken, as convenient.

**5.9 Casiguran** (16° 17'N., 122° 07'E.), a small town, which is not visible from the bay, situated about 1 miles inland on the E bank of a river which empties into the NE corner of the bay. The river is navigable only by small craft.

**Gumaining** (16° 15'N., 122° 04'E.) lies at the head of a small cove on the W side of Casiguran Bay. A pier, 155m long, with a reported depth of 5.5m at its head, was reported to be in poor condition. Vessels lie off the end of the pier to discharge oil to a pipeline laid on the pier surface. Several oil tanks stand near the pier at Gumaining.

**Debutunan Point** (16° 04'N., 121° 47'E.) lies 12.5 miles W of Cape San Idefonso. A rock, which dries, lies about 1.25 miles SSW of the point. A shoal, with a depth of 7.8m, lies close N of the rock. Strong tidal currents have been observed off the point.

**Rinabasan Cove** (15° 58'N., 121° 38'E.) lies about 10 miles SW of Debutunan Point. A detached shoal, with a depth of 8.5m, lies about 1.5 miles offshore, 4.5 miles NE of Delgada Point, the S entrance point of the cove. A rock, 4.9m high, lies about 0.5 mile E of a high knob, which is located 2.25 miles NE of Delgada Point.

Small vessels with local knowledge can take anchorage, in the S part of the cove, in a depth of 12.8m.

**Baler Bay** (15° 50'N., 121° 35'E.), entered between Delgada Point, and the NE extremity of Cape Encanto, about 13 miles S, indents the coast up to 5 miles.

Los Confitas Reef, a group of rocks which break at LW, lies about 1 mile N of the N extremity of Cape Encanto. A shoal, with a depth of 6.7m, extends about 0.5 mile NE from this group of rocks.

The bay may be identified by the high land N and S of it, separated by the valley of the Baler River, which discharges into the S end of the bay.

**Baler** (15° 46'N., 121° 34'E.) (World Port Index No. 58020), a small town, stands about 1 mile W of the mouth of the Baler River and about 0.5 mile inland. The town is not visible from the anchorage. A light is shown from a concrete tower, 9m high, standing 137m from the beach.

Port Aurora, a small cove and landing place, lies about 0.5 mile E of the mouth of the river.

Baler Point, a small low projection, is located close W of Port Aurora; a reef extends about 0.2 mile N from the point.

Shoals extend 0.2 mile N from the mouth of the Baler River. A detached shoal, with a least depth of 0.9m, lies about 0.5 mile ENE of Baler Point. The entrance to Port Aurora lies

between this shoal and the E side of the reef which fringes Baler Point.

Anchorage can be obtained, in depths from 15 to 18m, sand and rock, with the entrance to the Baler River open, bearing 180°. The holding ground is poor.

Small vessels may anchor in Port Aurora in depths of 9m. All the anchorages are exposed to the Northeast Monsoon.

**5.10** The coast between Cape Encanto and Agria Point, about 25 miles SSW, is rugged and very densely wooded. Numerous islets and large rocks, some up to 30m high, lie close offshore.

**Dibut Bay** (15° 41'N., 121° 37'E.) is entered between Disucsip Point, 1.75 miles S of Cape Encanto, and Salaysay Point, about 3 miles further SSW. The shores of the bay are high, rugged, and steep-to. All dangers in the bay lie within 0.25 mile of the shore.

There is anchorage, in depths of 22 to 26m off the W side of the bay. Anchorage can also be taken in the middle of the SW bight, about 0.65 mile from its head, in a depth of 14.6m.

The coast between Salaysay Point and Dicapanisan Point, about 8.5 miles SSW is high, rugged, and densely wooded. Dibayabay Bay, a small open bight, is located about 1.25 miles SW of Salaysay Point.

Two small islets, about 1.5m high, lie in the E approach to the bay about 0.75 mile offshore. A shoal, with a depth of 10.3m, lies in the SE approach to the bay in a position about 1.75 miles SSW of Salaysay Point.

Egg Islets, a group of small islets, the highest of which is 30m high, lie about 0.75 mile offshore in a position about 4.5 miles SW of Salaysay Point.

A small islet, 39m high, lies close offshore in a position about 1 mile N of Dicapanisan Point.

**Dingalan Bay** (15° 18'N., 121° 25'E.) lies about 18 miles SSW of Dibut Bay, and is entered between Agria Point and Deseada Point. The shores of the bay are high and rugged. A number of rivers empty into the bay.

Vessels with local knowledge can take anchorage in the N part of the bay, about 1.25 miles WNW of Agria Point, in depths of 5 to 16m.

Anchorage can be taken in the S part of the bay, in a position about 0.75 mile NE of the mouth of the Umiray River, in depths of from 11 to 15m.

## The Polillo Islands and Polillo Strait

**5.11 Polillo Strait** (14° 50'N., 121° 45'E.) lies between the E coast of Luzon and Polillo Island. The strait has a least navigable width of 7.5 miles and is deep in the fairway. Prueba Rock is a low rock rising from a steep-to coral reef lying 1.5 miles off the coast of Luzon, 15 miles SSE of Deseada Point.

The coast of Luzon between Deseada Point and Prueba Point, about 14 miles SSE, is backed by densely wooded ranges of mountains, lying parallel to the coast. Prueba Point is low and hard to identify. Marcelino Point, 7.5 miles SSE of Prueba Point, is high and prominent.

From Deseada Point to Dinahican Point, 33 miles SSE, the coast is steep-to. All dangers lie within 0.75 mile of the coast, between these two points, with the exception of Prueba Rock. A bank, with a depth of 48m, lies 4 miles NE of Prueba Rock.

The Agos River empties into Polillo Strait about 5.5 miles SSE of Marcelino Point. A concrete tower stands about 1.25 miles WNW of the mouth of the Agos River.

The town of Infanta stands about 2 miles SSW of the mouth of the above river.

Vessels can take anchorage during the Southwest Monsoon 1.25 miles SE of the mouth of the Agos River, and about 0.5 mile offshore, in depths of 11 to 15m. The anchorage is often obstructed by debris brought down the river by floods.

**Dinahican Point** (14° 42'N., 121° 43'E.), marked by a light, lies 6.5 miles SE of the mouth of the Agos River.

The point is low, densely wooded with trees, 15m high, and steep-to. The coast between the river and the point is sandy. There are tide rips and much discolored water off the point.

## Polillo Island—West Coast

**5.12 Polillo Island** (14° 50'N., 121° 57'E.), separated from the E coast of Luzon by Polillo Strait, is hilly and heavily wooded.

Mount Malolo, the highest peak of the island is a good landmark and the first thing seen when approaching from the E or NE.

**Panampalan Point** (15° 03'N., 121° 50'E.), the NW extremity of Polillo Island, is the termination of a low mangrove area. The point is encumbered with shoals. The coast between this point and Panangatan Point, about 7.25 miles SSW, is fringed by reefs and backed by hills.

**Hook Bay** (14° 56'N., 121° 50'E.), a narrow inlet which affords excellent shelter for small craft, indents the coast about 1.5 miles in a N direction about 1 mile E of Panangatan Point. The inlet is about 0.2 mile wide at the entrance. Depths of 12.8m and over are found in its narrow fairway. The shoals and dangers fringing both sides of the entrance narrow the channel to a width of less than 91m. Inside the entrance the inlet widens to a greater width of about 0.2 mile.

Vessels can take anchorage in the middle of the widest part of the inlet, in depths of 18.3m, mud. Anchorage can be taken in the small cove W of the W entrance point to Hook Bay, in depths of 27m, mud.

The coast between Hook Bay and Malagas Point, located about 11.5 miles S, is fringed by a narrow, steep-to reef. A detached reef, with a depth of 1.8m, lies about 0.75 mile SW of Abuigoin Point, located about 2.5 miles SSE of the E entrance point of Hook Bay.

Salipsip Point and Anibong Point, two rounded projections, are located about 5.5 miles and 8 miles, respectively, SSE of Abuigoin Point. A shoal, with a depth of 2.7m, lies about 0.35 mile SW of Salipsip Point.

A reef, with a rock awash at its outer end, extends about 0.5 mile SW from Anibong Point.

**Polillo Point** (14° 43'N., 121° 55'E.), the W entrance point of Polillo Harbor, lies 13 miles SSE of the entrance to Hook Bay.

Yellow Rock, with a depth of 2.1m, and on which the sea breaks, lies on the NW edge of a bank, which extends 5.5 miles NW from Polillo Point. A buoy is moored close S of the rock.

Union Reef, with a depth of 2.1m, lies about 1.25 miles S of Yellow Rock. There are a number of shoals between Union Reef and Polillo Point.

**5.13 Polillo Harbor** (14° 44'N., 121° 56'E.) ([World Port Index No. 58040](#)) is formed between the N extremity of Polillo Reef, a drying reef extending about 2 miles N from Polillo Point and Malagas Point, about 1.5 miles E. Numerous fish traps line the edge of the drying reef. Range lights, in line bearing 145°, stand at the head of the harbor.

Vessels can take anchorage about 0.3 mile W of the church at Polillo, in a depth of 16.5m. There is a small pier off the town at the head of the harbor, with a depth of 5m alongside its W face.

**Directions.**—Vessels approaching from the N can make a direct approach through Polillo Strait. Vessels approaching from the S should not bring Panangatan Point to bear W of 001° until Mount Malolo bears 097°, at which time the course should be altered to 097°.

When the church tower at Polillo bears 145° and the entrance beacons are in range, the course should be altered to 145°.

This course should be held until the W tangent of Polillo Point bears 210°, at which time the course should be altered to 152°. This course leads to the recommended anchorage located about 0.3 mile W of the church.

Vessels are cautioned to keep a good lookout in order to avoid the detached shoals in the harbor.

**Agta Point** (14° 38'N., 121° 56'E.), the S extremity of Polillo Island, is low and densely wooded. A bank, with a depth of 3.7m, extends 0.5 mile offshore, 1 mile NW of the point. A detached 3m shoal lies off the SW extremity of this bank. An 11.3m patch lies 2.75 miles S of Agta Point.

## Polillo Island—North and East Coasts

**5.14** The N coast of the island is fringed by a wide steep-to reef. There are several breaks in this reef, forming small bays which do not provide anchorage. Several hills stand 3 miles inland.

**Pinavisagan Bay** (15° 01'N., 122° 01'E.), entered about 11 miles E of Panampalan Point, lies on the NE part of the coast and provides some protection to vessels with local knowledge from W and S winds.

**Minayit Point** (Minayet Point) (15° 00'N., 122° 03'E.), the NE extremity of the island is a brown, rocky, prominent bluff, bare of trees, and 18m high. The coast between the point and Banla Point, 3 miles S, is fringed by a narrow reef.

**Anibawan Bay** (14° 59'N., 122° 01'E.), entered between Banla Point and an unnamed point about 3 miles SW, indents the coast about 3.5 miles. Banla Point may be identified by a 60m hill standing 0.75 mile N. A shoal spit extends about 1 mile SE from Banla Point.

Buguitay Islet, 23m high and fringed by a reef, stands on this spit about 0.4 mile SE of the point. A rock, with a depth of 0.9m, lies about 0.75 mile WSW of Banla Point.

A shoal, with a least depth of 4m, lies about 1 mile NW of the same point.

The Anibawan River, which is navigable by small craft, flows into the NW part of the bay. Three small islets and numerous shoals lie in the S entrance of the bay. Anawan Island, 35m high, lies about 1.25 miles S of Banla Point.

Anirong Island, 11.3m high, lies about 0.75 mile SW of Anawan Island. Reefs and foul ground extend about 0.5 mile S, 1 mile E, and 0.75 mile NE from Anirong Island.

A deep channel, about 91m wide, lies between Anirong and the S side of Anawan Island. Cabalao Island, 55m high, lies about 1 mile SW of Anirong Island.

Vessels with local knowledge can take protected anchorage in Anibawan Bay, in depths of about 37m. Vessels wishing to anchor off the mouth of the Anibawan River are cautioned that mud flats extend 0.5 mile E from the river mouth.

Vessels approaching the anchorage from the N or E should use the narrow channel between Anawan Island and Buguitay Island. Vessels coming from Burdeos Bay should use the channel between Cabalao Island and Anirong Island.

Strong tidal currents with a rate of 2.5 knots are found in the entrance to the bay.

The coast between the S entrance point of Anibawan Bay and Tataupin Point, about 12.5 miles S, is very irregular and fringed by a wide reef. The coast is low, backed by high hills, and somewhat indented in its N part.

Numerous islands, reefs, and shoals lie are known off the coast.

The coast between Tataupin Point and Agta Point, about 8 miles SW, is in general, backed by high hills and is steep-to. A shoal, with a depth of 9.1m, lies about 1 mile offshore in a position about 4 miles ENE of Agta Point.

**5.15 Palasan Island** (14° 52'N., 122° 02'E.), 67m high, extends about 4.5 miles ESE from its NW extremity, located about 4.75 miles SSW of Banla Point; it is fringed by a wide reef, except on its W side.

Icol Island, narrow and low, extends about 1.25 mile W from its E extremity located about mile W of the NW extremity of Palasan Island. The NE side of Icol Island is fringed by a wide reef.

**Burdeos Bay** (14° 48'N., 122° 05'E.) lies between the E coast of Polillo Island on the W side, Palasan Island on the N, and Patnanongan Island on the E. The bay offers a large area of anchorage ground well protected from all winds and sea.

The Burdeos River flows into the bay in a position about 4.75 miles SSW of the S entrance point of Anibawan Bay. The small town of Burdeos is located on the river about 0.5 mile from its mouth. The channel between Cabalao Island and Icol Island is about 0.25 mile wide between the fringing reefs.

A reef, with a depth of 14.6m, lies in the channel about 0.2 mile S of Cabalao Island. A reef, with a depth of 6.4m, lies in the E approach to this channel about 1 mile SE of the E extremity of Cabalao Island.

Detached shoals, with depths of 6.4m and 2.3m, lie about 0.75 mile N and 0.5 mile W, respectively, of the W end of Icol Island.

The channel leading SSE between Icol Island and the coast of Polillo Island is deep and clear of dangers in the fairway.

The channel between Cabalao Island and Polillo is intricate, its width being narrowed to about 0.1 mile by reefs on either side. The narrow channels between Icol Island and Palasan Island and the latter island and Patnanongan Island are deep and clear of dangers in the fairway. These rarely used channels are dangerous because of the very strong currents passing through them.

The S approach to Burdeos Bay is encumbered with numerous shoals and reefs. Narrow and tortuous channels lead through these dangers to the anchorage in the N part of the bay.

**Burdeos Light** (14° 51.4'N., 121° 58.6'E.) is reported to be shown from a concrete column, 10m high, on the SW side of the bay.

Minasawa Island, small and about 15.2m high, lies about 1.25 miles off the SW coast of Patnanongan Island. It can readily be identified because of its bright green color. Cataoyan Reef, which dries, lies parallel to and about 1.75 miles E of the SE coast of Polillo Island.

Coccoc Rocks, a group of above and below-water dangers, lie close N of Cataoyan Reef.

Pacabalo Reef lies in the middle of the bay in a position about 2.5 miles S of the SW extremity of Patnanongan Island.

The channel W of Cataoyan Reef is very narrow and should not be attempted. The channel E of Pacabalo Reef is apparently safe, but the channel between Cataoyan Reef and Pacabalo Reef is recommended and generally used.

Bini Island, which is small and low, lies in the middle of the channel between the SW extremity of Palasan Island and the coast of Polillo Island.

San Rafael Island lies about 1.25 miles WSW of the SW extremity of Palasan Island. Vessels can take anchorage about 0.75 mile W of the N extremity of San Rafael Island in depths of 14.6m, mud.

The tidal currents are strong and unpredictable between the reefs and between the islands. They attain a maximum rate of 4 knots at spring tides in the narrow channel between Palasan Island and Patnanongan Island.

**Caution.**—The channels leading into Burdeos Bay are unmarked and dangerous due to the strong tidal currents and dangers in their vicinities.

Vessels with local knowledge should use these channels only under the most favorable conditions.

## The Polillo Islands—Off-lying Islands and Dangers

**5.16 Patnanongan Island** (14° 48'N., 122° 11'E.), the largest island of the group, is 85m high and densely wooded. It extends about 12 miles SE from its NW extremity located about 0.5 mile E of the SE extremity of Palasan Island; the shores are fringed by reefs and bordered by mangroves.

The **Uala Islands** (14° 55'N., 122° 10'E.) lie on a large reef separated from the N side of Patnanongan Island by a narrow, shallow, and tortuous channel.

Kalongkooan Island, 24m high, lies on the N edge of this reef in a position about 5.75 miles NE of the NW extremity of Patnanongan Island. Malaguinoan Island, 45m high, lies on the W edge of this reef in a position about 3.75 miles NNE of the same extremity.

Ticlin Island, 11m high, and a small islet, 24m high, lie about 0.75 mile SW and 1.5 miles W, respectively, of Malaguinoan Island. Shoals, with depths of 7.8 and 2.3m lie about 0.5 mile and 1.25 miles SE, respectively, of the small islet.

**Caution.**—The waters between Palasan Island, Patnanongan Island, and the Uala Islands afford good protection, but the currents are very strong and the area is encumbered with shoals and dangers.

Ikikon Island, 28m high, and Minamata Island, 6.7m high, stand near the S edge of a large reef which extends about 7.75 miles NNW from a position close N of the NE extremity of Patnanongan Island.

Katakian Grande Island, 34m high, and Katakian Chica Islet, 29m high, lie on the W side of a reef lying close off the NE end of Patnanongan Island.

East Ikikon Island, small and 14.9m high, is located about 3 miles NE of a position close N of the NE extremity of Patnanongan Island. The island stands near the NW edge of a reef which extends 2.5 miles E and 1.75 miles SSE from it.

Several shoals, with a depth of 10.9m at the outer end, extend about 20 miles E from the island. Two patches, with depths of 1.5 and 4.6m, lie 2.5 and 5.5 miles E of the island.

Several shoals, with depths of 7 to 10m, lie within 6.5 miles ESE of East Ikikon Island.

**5.17 Jomalig Island** (14° 42'N., 122° 23'E.), low and heavily wooded, is separated from the SE end of Patnanongan Island by a channel, with a least depth of 9.1m in the fairway, and a navigable width of 2.75 miles.

The island is fringed by a drying reef which extends about 0.75 mile from its E shore. The W end of the island is moderately high, the tops of the trees being about 30m high. A light marks the NW extremity of Jomalig Island.

Manlanat Islets, a group of three islets and a number of rocks, lie on the fringing reef in a position about 0.5 mile E of the E extremity of Jomalig Island. The islets are wooded and 10.6, 12.8, and 16.5m high, respectively.

Lantao Rock, 2.4m high and bare, lies on the E edge of a drying reef in a position about 1.5 miles ENE of the NE extremity of Jomalig Island.

Lantao Islets are two small, bare, rocky islets about 45m high, of a whitish appearance, lying close together about 4.25 miles NE of the E end of Jomalig. Several rocks awash lie up to 3 miles E of Lantao Rock.

## Dinahican Point to Jesus Point

**5.18 Dinahican Point** (14° 42'N., 121° 44'E.) has been previously described in [paragraph 5.11](#).

**Lamon Bay** (14° 25'N., 122° 00'E.) is entered between Dinahican Point and Jesus Point, about 51 miles ESE. The bay is partly protected from the Northeast Monsoon by Poliillo Island and its off-lying islands. The tidal currents and the bay currents are mostly weak and variable.

**Port Lampon** (14° 40'N., 121° 37'E.) lies in the NW part of Lamon Bay and consists of a small sheltered inlet, except during SE and S winds. Depths of 20 to 24m, found on the E side of the entrance, decreasing sharply to 2.1m about 0.75 mile NNW of Tacligan Point. The Pulo River, which discharges into the head of the inlet, is navigable by small craft for a distance of 2.5 miles.

**Puerto Real** (14° 40'N., 121° 37'E.) ([World Port Index No. 58030](#)) stands on the W side of the mouth of the Pulo River, about 1 mile NW of Tacligan Point. The port can be identified by a tall, concrete tower and a warehouse with a galvanized roof. Strong tidal currents, with an estimated rate of 3 to 4 knots, set S from the river on the falling tide.

The municipal pier has a berthing face 65m long, with a controlling depth of 6m alongside.

Vessels can take anchorage in the entrance to the port about 0.5 mile S of a training wall, with Tacligan Point bearing 100°, in depths of 9 to 18m. Vessels are cautioned against proceeding N of this anchorage because of the rapidly decreasing depths.

The coast S of Port Lampon is bold, densely wooded, and rather steep-to. Magasawang Rock, 12.2m high, lies about 0.25 mile offshore in a position about 13 miles S of Tacligan Point. It is connected to the mainland by a drying reef. A reef extends about 0.1 mile E from the rock.

Two prominent waterfalls are located about 3.5 miles S of Magasawang Rock and another 5.5 miles farther SE.

Saley Point, located about 14 miles SE of Magasawang Rock, is high, well-wooded, and rather steep-to.

**Malazor Point** (14° 12'N., 121° 45'E.) lies about 31 miles S of Dinahican Point. The point is low and terminates in a wooded knoll higher than the rest of the point. A reef extends about 91m E and S from the point. A light is shown from the point.

**5.19 Mauban** (14° 12'N., 121° 44'E.) ([World Port Index No. 58050](#)), a loading port for copra, lies about 1.5 miles SW of Malazor Point. A large church, with a metal roof, stands in the SW part of the port. A monument stands on the top of a hill on the S side of the port. A stone breakwater extends SE from a position close NE of the port. There is a depth of 3m alongside the outer end of the breakwater.

Vessels can take anchorage off the port, with the church bearing 288° and Malazor Point bearing 031°, in depths of 7m.

The coast between Mauban and **Atimonan** (14° 00'N., 121° 55'E.) ([World Port Index No. 58060](#)), 16 miles SE, is steep-to, and mostly bordered by sandy beaches and backed by wooded mountains. It is the principal town in the vicinity and lies on the S bank of the Atimonan River. The church spire, which resembles a lighthouse, can be seen for about 13 miles. A light is shown on the S side of the mouth of the river. A chemical factory stands about 1 mile NW of Atimonan. The storage tanks and buildings at the factory are conspicuous. There is a pier for ocean-going vessels at the site, of which berthing takes place about once a month. Cargoes handled are coconut oil and copra.

**Pilotage.**—Pilotage is compulsory; notice must be given 24 and 12 hours prior to arrival. Vessels do not enter the port during hours of darkness. It is not advisable to leave the port after darkness, as some of the piles on the sea bed near the jetty are broken. The pilot boards about 2 miles SW of the port.

Vessels with a maximum length of 198m, a beam of less than 30.4m, and a maximum draft of 13.4m can be accommodated.

Vessels can take anchorage off the river mouth, with the church spire bearing 180°, in depths of 18m, mud. Small vessels can anchor closer in, but should not proceed within depths of 11m, as depths decrease rapidly, and the holding ground is poor.

During the Northeast Monsoon, this anchorage is at times untenable. Vessels should then seek refuge at Port Alabat or Sangirin Bay, on the SW side of Alabat Island.

**5.20 Siain** (Plaridal) (13° 58'N., 122° 01'E.) ([World Port Index No. 58065](#)) lies about 6 miles ESE of Atimonan. The

port can be identified by a number of buildings, warehouses, and two prominent piers.

Vessels can take anchorage about 0.5 mile offshore, in a depth of 38m. During the Northeast Monsoon, the anchorage cannot be considered safe due to the deep water lying so close to the shore.

A light is shown from Gamau Point, close SE of Sliain.

**Gumaca** (13° 55'N., 122° 06'E.), a small town, lies 5.25 miles SE of Siain. Vessels can take anchorage about 1 mile offshore, in a depth of 31m. This anchorage is unsafe during the Northeast Monsoon. A drying reef lies about 0.3 mile NNE of Gumaca Church.

**Lopez Bay** (13° 56'N., 122° 12'E.) lies about 6 miles E of Gumaca and indents the coast for about 6 miles in a SE direction. A river discharges into the head of the bay.

Depths of over 18.3m are found throughout the greater part of the bay. A detached shoal, with a depth of 0.6m, lies about 1 mile SSE of Niogan Islet. A buoy is moored on the N side of the shoal.

Vessels can take anchorage in the S part of the bay, about 1.25 miles NW of the mouth of the river, in a depth of 14.6m.

**5.21 Hondagua** (13° 57'N., 122° 14'E.) ([World Port Index No. 58070](#)) stands on the NE side of Lopez Bay. The town can be identified by the oil tanks to the S. There is a causeway and pier at the port area. This berth is for grain discharge and for coastal tankers supplying fuel. Arrival and departure from the berth is during daylight only. The pier can accommodate ocean-going vessels with a maximum length of 152m. The berthing area has a depth of 8.5m at the E dolphin and 11.9m at the W dolphin.

Tankers discharge by means of a flexible pipeline off the head of the pier. A light is shown about 0.25 mile ENE of the pier. A beacon stands on a hill 0.1 mile NE of the pier.

Depths of over 18.3m are found in the approach and in the outer part of the harbor. The inner part of the harbor, which has depths of 9 to 18m, is narrowed to a width of about 0.4 mile by the shore reefs on either side.

Pilotage is available with a minimum of 12 hour notice required. Pilots board about 10 miles W of Hondagua on the N coast of the mainland. The pilot boat is a small dug-out canoe fitted with outriggers and an outboard motor, and by day exhibits the pilot flag.

Vessels can take anchorage anywhere in the middle of the harbor, in depths of 9 to 18m. Tankers and vessels loading cargo generally anchor 137m off the head of the pier, in a depth of 13m.

**Roma Point** (14° 00'N., 122° 11'E.), marked by a light standing on the outer edge of a reef extending N from the point, lies about 5 miles NW of Hondagua. A reef, with a depth of 0.3m near its outer end, extends about 0.5 mile SW from a point about 0.75 mile S of Roma Point.

On the N side of the W approach there is a shoal, which partly dries, lying about 1 mile W of Roma Point and about 0.5 mile from the N shore. A reef, with a depth of 5.5m, lies in the middle of the pass in a position about 0.1 mile 342° from the light structure on Roma Point.

A reef, with a depth of 3.6m, lies on the N side of the pass in a position about 0.25 mile SE of Aguhuc Point, located about 0.5 mile N of Roma Point.

**5.22 Silangan Pass** (14° 00'N., 122° 11'E.) is entered between Roma Point and the SE extremity of Alabat Island. The pass is about 0.5 mile wide, but the navigable channel is reduced to about 0.3 mile between the reefs fringing the shore on either side. The depths in the pass are very irregular.

Navigators are cautioned that other isolated dangers may exist in the pass. Only vessels with local knowledge should use the pass, and then only under the most favorable conditions.

Quezon, a small town with a church, stands on the W side of the pass. The town is prominent from both entrances to the pass. There is a small stone mole landing for small craft on the SE side of the town.

**Directions.**—A vessel approaching Silangan Pass from the W should, when about 2 miles SW of the town of Quezon, steer for the SE tangent of Alabat Island, bearing 046°, until Roma Point light structure bears 088°, when she should steer 068°; this course leads close S of the rock, with a depth of 5.5m, lying in the middle of the pass.

A vessel approaching the pass from the E, should steer 248° for the middle of the pass until the light structure on Roma Point bears 088° and the SE point of Alabat Island bears 046°. Then alter course to 226° for 2 miles, at which time all dangers will have been passed.

**5.23 Alabat Island** (14° 06'N., 122° 03'E.) extends from Silangan Pass 20 miles NW to Sangirin Point, and then 3 miles NNE to Gerardo Point. The island is densely wooded and has a ridge running its entire length. There are five peaks on this ridge, the highest being Mount Camagong, 421m high. These peaks resemble islands from a distance.

The coast between Gerardo Point and Sangirin Point is fringed by a reef from 0.1 to 0.4 mile wide. This reef extends about 0.3 mile WSW from Sangirin Point.

The coast between Silangan Pass and Port Alabat, about 12 miles WNW, is fairly regular and densely wooded. Reefs and shoals front the coast to a distance of up to 1 mile.

**Port Alabat** (14° 06'N., 122° 00'E.) has accommodations for three or four small vessels. The shores of the harbor are low, with an extensive sandy beach.

The town of Alabat stands on the E side of the port. It is the center of the copra industry on Alabat Island. There is a post office and radio station in the town. A concrete causeway, 445m long, and a wooden pier, 21m long, affords berthing space for small craft.

Foul ground, of rocks and sand, extends about 0.3 mile S from the NW entrance point and about 0.6 mile W from the SE entrance point.

The channel between these dangers, leading into the port, is about 0.3 mile wide with depths of 22 to 28m in the fairway.

Vessels can take anchorage with the light structure bearing 060°, distant 0.3 mile, in depths of 13 to 18m. The shoals on either side of the entrance are usually marked by fish traps.

The coast between Port Alabat and Sangirin Bay, about 6.75 miles NW, is densely wooded. Shoals extend up to 1 mile offshore.

**5.24 Sangirin Bay** (14° 12'N., 121° 55'E.), entered between the E face of Sangirin Point and a position about 0.6 mile E, is small and mostly shoal. The land forming the point and that surrounding the bay is low. Reefs and drying shoals extend up

to 0.5 mile W from the coast forming the E side of the S approach to the bay.

A large detached reef, which dries, extends about 0.5 mile S from a position about 0.5 mile SSE of Sangirin Point. These reefs protect the bay from S winds and seas.

The town of Perez is on the E shore of the bay. There is a post office and a radio station in the town.

A light is shown near the beach in the S part of Perez.

Vessels can take anchorage in the middle of the bay with the church bearing about 066°, distant about 0.3 mile, in depths of 13 to 15m. Small vessels with local knowledge can anchor about 0.1 mile from the head of the bay, in a depth of 10.9m.

Vessels approaching from a position about 1.5 miles W of Sangirin Point should alter course to the SE so as to pass about 1 mile SW of that point. Then a course of 046°, with the light ahead, leads to the recommended anchorage. Vessels should favor the SE side of Sangirin Point when entering the bay.

**Baliscan Island** (14° 15'N., 121° 54'E.), marked by a light, is a small, bare, flat-topped rock, 6m high, that lies about 2 miles WNW of Gerardo Point. A reef, with a depth of 8.2m, extends 0.5 mile from its SW side.

**5.25 Cabaleta Island** (14° 17'N., 121° 50'E.) lies about 6 miles WNW of Gerardo Point. The channel between the island and the coast of Luzon is 2.5 miles wide. When using this channel, the Luzon side should be favored.

A shoal extends 2.5 miles SE from the E side of Cabaleta Island. A shoal, with a depth of 10m, lies 2.75 miles E of the S extremity of the island. Reefs and shoals fringe the remaining shores of the island to a distance of 1 mile.

The NE coast of Alabat Island, between Gerardo Point and Silangan Point, about 20.5 miles SE, is steep-to and clear of dangers. Pasig Rock, 35m high, lies close offshore in a position about midway between the above points.

**Calauag Bay** (14° 00'N., 122° 15'E.) is entered between the SE end of Alabat Island and the coast of Luzon. The bay is generally deep and clear of dangers. The head of the bay is encumbered with partly drying mud flats which extend 1 mile offshore.

Calauag, a small town, stands at the head of the bay. Calauag has several metal roofed buildings visible from seaward. A small boat channel leads to the town.

Vessels with local knowledge can take anchorage about 1.5 miles NNW of the church in Calauag, in a depth of 9.1m. This anchorage is sheltered from all but NW winds.

**Apat Bay** (14° 01'N., 122° 19'E.) lies in the NE corner of Calauag Bay. The entrance is nearly closed by a reef extending from Dayap Point, the N entrance point of the bay.

Vessels with local knowledge can take anchorage off the entrance to the bay, in a depth of 7.3m, mud. Partly protected anchorage for small craft exists about 137m SSE of Apat Island, in a depth of 4m, mud.

The NE shore of Calauag Bay is bordered by mangroves and fronted by a reef which extends up to 0.75 mile offshore. A below-water rock lies 1 mile offshore, 4.25 miles NW of Dayap Point. A 1.8m patch lies 1 mile NW of this point.

**Pangao Point** (14° 10'N., 122° 10'E.) lies 9.5 miles N of Silangan Pass. The point is fringed by a reef which extends

about 1.75 miles NW. Palupari Island lies near the outer edge of this reef and is fringed with mangroves.

**Balesin Island** (14° 25'N., 122° 02'E.) lies about 16 miles NW of Pangao Point. Its NW, N, and NE sides are fringed with drying reefs and shoals, with depths from 2 to 8m. The shoals extend about 2.25 miles W from the SW side of the island. Tarlac Reef, with a least depth of 7.6m, is located about 2 miles SSW of the S extremity of Balesin Island.

**5.26 Dapdap Point** (14° 13'N., 122° 17'E.) lies about 8 miles NE of Pangao Point. The point is the N extremity of a long peninsula which forms the W side of Basiad Bay.

**Basiad Bay** (14° 13'N., 122° 18'E.) is entered between Dapdap Point and Mappingil Point, about 5 miles E. A prominent hill, 61m high stands on Mappingil Point. The shores of the bay are fringed with drying reefs extending up to 0.75 mile offshore. The Tabogon River, the largest in the area, discharges into the head of the bay.

A shoal, with a depth of 9.1m, lies about 1.75 miles NW of Mappingil Point. Several shoals, with depths of 1 to 7m, lie within 1 mile W of the point. A rock, with a least depth of 0.3m, lies about 2 miles WSW of the point.

There are many detached shoals, with depths of 6 to 9m, between this shoal and the E face of Dapdap Point. The channel which lies between the above 0.3m shoal and the shoals fringing Mappingil Point is about 0.75 mile wide with depths of over 18.3m.

Vessels can take anchorage anywhere in the outer part of Basiad Bay, S of the numerous detached shoals that encumber the mouth of the bay, in depths of 11 to 18m.

Small vessels with local knowledge can anchor near the head of the bay in a position S of a drying reef, located about 1.25 miles N of Bagolayag Point, in a depth of 5.5m, mud.

This anchorage may be approached on either side of the drying reef, but should not be attempted unless the dangers are previously marked.

The coast between Mappingil Point and Jesus Point, about 11 miles ENE, is very irregular and backed by densely wooded hills. Numerous small and foul bays indent this coast.

Detached shoals, with depths of 11 to 13m, lie about 2.5 and 7 miles NNW, respectively, of Sagbungon Point. A shoal, with a depth of 14.6m, lies about 3.75 miles NNE of the same point. Vessels navigating this coast should keep at least 3 miles seaward of the projecting points.

Jaulo Island, fringed with mangroves and connected to the shore by a drying reef, lies about 1 mile offshore, about 4.5 miles NE of Sagbungon Point.

**Capalonga Bay** (14° 20'N., 122° 30'E.), entered about 0.75 mile W of Jesus Point, indents the coast about 2 miles in a SSE direction. A reef, with a depth of 5.8m at its outer edge, extends about 1.5 miles NW from the E entrance point of the bay. A river discharges into the head of the bay. A light is shown on the E side of the bay.

Access to Capalonga is blocked by reefs, and launches can approach only at HW.

Capalonga, a small town, stands on the W shore of the bay, near the entrance. The church steeple and some buildings in town are good landmarks.

## Jesus Point to Rungus Point

**5.27 Jesus Point** (14° 21'N., 122° 31'E.) is formed by a round-topped hill, 30m high, connected to the mainland by a low neck of mangrove swamp. The point has the appearance of an island when first seen from E or W. It is fringed by a narrow reef, on which the sea breaks heavily at times.

A reef, with a depth of 9.6m, lies about 2.5 miles NNE of Jesus Point.

**Calalanag Island** (14° 21'N., 122° 36'E.), low, wooded, and fringed by a white sandy beach, except on the N end, which is composed of black rock, lies 1.5 miles offshore in a position 4.75 miles E of Jesus Point.

Shoals, with depths of 5 to 9m, lie up to 1 mile NNW of the island. A shoal, with a depth of 4.1m, lies 0.75 mile E of the island and a narrow shoal, with a least depth of 5.1m, extends 1.25 miles ESE from a position 1.25 miles NNE of the same island.

**Tanao Islands** (14° 25'N., 122° 40'E.) are a group of three islands and several large rocks, lying about 8.5 miles ENE of Jesus Point. Tailon Island, the largest and middle island of the group, is covered with bushes and bordered by a sandy beach. A light marks the S extremity of the island. Palumbato Island, the W island, is small, bare, and flat topped. Tanao Island, the E island, is small and wooded.

A ridge, with a depth of 3.6m in the middle over which the sea breaks in a N swell, extends between Palumbato Island and Tailon Island. A 0.6m shoal lies 1.25 miles SE of Tanao Island.

**Tanao Pass** (14° 22'N., 122° 40'E.), located between the coast of Luzon on the S and the Tanao Islands and Maculabo Island on the N, has a least width of 3.75 miles between Mangrove Point and Tanao Island, and 2.75 miles between the shoals on either side. Depths of over 28m are found in the fairway of the pass.

**Directions.**—Passing 3 miles N of Jesus Point, steer 093° for 6.8 miles, heading for the S end of Maculabo Island. When 1.75 miles S of Palumbato Island, the W Tanao Islet, steer 111° for 8.3 miles, when the W ends of Maculabo and Samur Islands should be in range, bearing 021°.

Then steer 094° with Mangrove Point astern for 4 or 5 miles then shape the course as desired. The latter course passes 1.25 miles S of Medio Reef and about the same distance N of Paracale Reef.

Care must be taken to avoid the 6m shoal located about 1.3 miles SSE of Medio Reef.

**Caution.**—A strong SSW set has been reported in the area between Maculabo Island and Medio Reef.

**5.28 Dahikan Bay** (14° 19'N., 122° 37'E.) ([World Port Index No. 58080](#)) lies about 6 miles ESE of Jesus Point, and is entered between High Point and a low point about 1.25 miles ENE.

The bay has good shelter for small vessels with local knowledge, in a pocket in the reef S of High Point. The head of the bay is shallow and fringed by a reef which dries. Facilities in the bay were reported destroyed and abandoned. A ruined pier stands close S of High Point.

Pilotage for Dahikan Bay is compulsory. Pilots are obtained at Port Jose Panganiban, which is the port of entry for this area. The bay is only entered during daylight hours.

There is anchorage, in a depth of 10m, 0.3 mile ESE of High Point. Small vessels anchor 0.25 mile SE of High Point, in a depth of 6.4m.

**Directions.**—Vessels entering the bay should steer 153° for the extremity of High Point. When the N tangent of Calalanag Island bears 077°, distant 0.7 mile, change course to 145°; this course leads about midway between Calalanag and Entrance Islands. When High Point bears 255°, the course can be altered to the S.

**5.29 Entrance Island** (14° 20'N., 122° 35'E.), 45m high and well wooded, lies close offshore in a position about 1.5 miles WNW of High Point. It is surrounded by reefs which fill the passage between it and the mainland. Reefs and dangers extend a little over 1 mile NNW from its N side.

**Tabusao Island** (14° 21'N., 122° 38'E.), the farthest NE of the four Dahikan Islands, lies about 2 miles E of Calalanag Island. It is low and wooded, and surrounded by a white sandy beach. Shoals, with depths of 1 to 8m, extend about 1 mile NW and 1 miles N, respectively, from this reef-fringed islet. A 5.1m shoal lies about 2 miles NW of the islet.

**Palita Island** (14° 20'N., 122° 38'E.), low, wooded, and fringed by a white sandy beach, lies on a drying reef in a position about 1.5 miles NE of High Point. Drying reefs and shoals, with depths of less than 5.5m, extend up to 1 mile N from the island. A shoal, with a least depth of 1.8m, lies about 0.75 mile WNW of the N end of Palita Island.

There are several shoals between Calalanag and Palita Islands and also between Palita and Tabusao Islands.

**5.30 Larap Bay** (14° 19'N., 122° 39'E.) ([World Port Index No. 58090](#)) lies about 1.5 miles SE of Dahikan Bay. The bay is entered W of Calambayanga Island. An ore pier stands on the NE extremity of the island. A large building stands E of the pier. It was reported that a conspicuous brick chimney stands 0.15 mile SW of the root of the pier.

The ore pier consists of a T-head lying in a 016°-196° direction. A line of fender mooring piles stand close off the pier face, with a depth of 10.7m alongside. A maximum draft of 8.2m has been reported.

The pier is normally sheltered, but during the Northeast Monsoon (October through March), a heavy swell rounding Pinandungan Point is sometimes felt alongside and during this period, vessels usually berth starboard side-to.

Pilotage is compulsory. Pilots are embarked W of Pinandungan Point.

The 10m curve lies close within the entrance points. Inside this line the bay is shoal and its head is filled with mud flats and rocks.

A shoal, with a depth of 1.8m, lies about 0.3 mile NNW of Calambayanga Island. A narrow spit, with depths of 2.3 to 6m, connects the shoal with the reef that extends about 0.1 mile N from the island.

Vessels can take anchorage anywhere in the outer part of Larap Bay, in depths of 9 to 15m.

**5.31 Port Jose Panganiban** (Port Mambulao) (14° 18'N., 122° 41'E.) ([World Port Index No. 58100](#)) is entered between Calambayanga Island and Pinandungan Point, two miles NE. Jose Panganiban, the town, stands on the SE side of the port.

An L-shaped pier and causeway stand 1.75 miles NNW of Jose Panganiban. The berthing face of the pier is 142m long while the depth alongside is 6.1m.

It is reported that, due to typhoon damage, the length of berth available is limited to 75m, and that vessels are restricted to anchorage berths only, with a maximum size of 230m loa and a 9.1m draft.

The galvanized buildings of a coconut processing plant inshore of the pier make a good landmark. There is a pipeline connection for diesel oil on the pier.

Pilotage for the port is compulsory. Pilots will board vessels between Pinandungan Point and Tabusao Island. Requests for pilots must be sent to the Harbor Pilots Association, Lagazpi City, at least 36 hours before arrival.

Vessels can take anchorage anywhere in the outer part of the port N of a line joining the S extremity of Calambayanga Island with the head of the above pier, in depths of 9 to 18m. Care must be taken to avoid submerged wrecks. Anchorage elsewhere is poor, owing to the greater depths.

Depths decrease gradually from 18.3m in the entrance to less than 1.8m off the town.

A church, with a pyramidal spire, is located in the town and serves as a good landmark. A mine tower is located about 0.4 mile N of the town.

It was reported that two conspicuous white radar domes stand on the summit of a hill, about 2.5 miles S of Pinandungan Point.

The port is sheltered during the Southwest Monsoon. During the Northeast Monsoon, especially after typhoons, a heavy swell rolls in and the sea is apt to be choppy. It is not recommended as a typhoon anchorage.

Storm signals are displayed from a mast near the municipal building at Jose Panganiban. This mast is not visible from the anchorage.

The port is somewhat restricted because of wrecks, fishing stakes, and the necessity of anchoring near the copra wharf.

**Directions.**—Vessels should enter the port with the front range beacon bearing  $146^\circ$ , until the beacon on the SE shore of Calambayanga Island bears  $248^\circ$ .

Then haul sharply to the E and steer  $068^\circ$ , heading for the pier or anchor as desired.

**5.32 Mangrove Point** ( $14^\circ 21'N.$ ,  $122^\circ 41'E.$ ) lies 1.25 miles E of Pinandungan Point. The point is low, covered with mangroves, and fringed by a reef which extends 0.25 miles offshore.

Gumaus Bay lies 2.5 miles E of Mangrove Point. The bay is clear of dangers except for a narrow reef which fringes the shore of the bay, and extends about 0.2 mile NW from Gumaus Point. Depths of 9 to 18m are found in the middle of the bay. A shoal, with a depth of 3.6m, lies 0.6 mile WNW of Gumaus Point.

**Pulandaga Bay** ( $14^\circ 19'N.$ ,  $122^\circ 47'E.$ ) lies about 2.5 miles SE of the E entrance point of Gumaus Bay. A ruined pier stands in the E part of the bay.

Small vessels can take anchorage in the middle of the bay, in a depth of 9m. Pulandaga Bay and Gumaus Bay are frequently unusable during the Northeast Monsoon.

The coast between Pulandaga Point and Tanoban Point, 3.5 miles SE, is indented by a bay which is divided into two

smaller bays. The bays are separated by Longos Point, a wooded promontory, 61m high.

**Paracale Bay** ( $14^\circ 18'N.$ ,  $122^\circ 48'E.$ ) lies about 1 mile SE of Pulandaga Bay. A river flows into the head of the bay. A town stands on the W side of the mouth of the river.

Small vessels can take anchorage in the outer part of the bay, in depths of 7 to 9m.

**Malaguit Bay** ( $14^\circ 17'N.$ ,  $122^\circ 49'E.$ ) is mostly shoal and lies close SE of Paracale Bay. A river flows into the SW part of the bay. A town stands on the W bank of the river, near its mouth.

Vessels can take anchorage in the middle of the outer part of the bay, in depths of 6 to 9m. Ore is shipped in barges from the river to the anchorage.

**Tanoban Point** ( $14^\circ 17'N.$ ,  $122^\circ 51'E.$ ), located about 3.75 miles ESE of Pulandaga Point, is rounded, wooded, and about 85m high. A shoal, with a depth of 2.7m at its outer end, extends 0.5 mile E from the drying reef fringing the point.

**Caution.**—Both anchorages at Malaguit Bay are usually unusable during the Northeast Monsoon.

## Luzon—Off-lying Islands and Dangers

**5.33 Maculabo Island** ( $14^\circ 24'N.$ ,  $122^\circ 49'E.$ ) lies about 7.5 miles E of Tanao Island and 6.5 miles N of Malaguit Bay. The island is steep-to, except for a narrow, drying reef on its W side.

Several shoals, with depths from 7 to 11m, lie between Tanao and Maculabo Island, with deep channels between them.

A shoal, with a least depth of 10.9m, lies 2.5 miles NW of Maculabo. A shoal, with a depth of 11.9m, lies 1.5 miles S of Maculabo, and a shoal patch, with a depth of 9m, lies 1.75 miles SE of the island.

**Paracale Reef** ( $14^\circ 19'N.$ ,  $122^\circ 49'E.$ ), with a depth of 7.3m, lies about 2 miles ENE of Maculabo Island. A reef, with a depth of 8.2m, lies about 1.5 miles offshore in a position about 3.75 miles E of the same point.

**Medio Reef** ( $14^\circ 22'N.$ ,  $122^\circ 46'E.$ ), with a least depth of 5.5m, lies about 3 miles WSW of the S extremity of Maculabo Island. A strong SSW set has been reported in the area between Maculabo Island and Medio Reef.

**Calagua Islands** ( $14^\circ 27'N.$ ,  $122^\circ 56'E.$ ) are a group of 6 islands and a number of islets, rocks, and dangers lying on the N side of the E approach to Tanao Pass. Most of the islands of the group are bold and rugged. Guintinua Island and Tinaga Island are the largest of the group. They are joined to each other and to the Huag Island by drying reefs. Several smaller islands lie in this area.

Vessels with local knowledge can take anchorage SSW of a village located about 1.5 miles W of the SE extremity of Guintinua Island. Small vessels can anchor closer to shore but must exercise caution as the coastal reef is steep-to.

**Ingalan Island** ( $14^\circ 22'N.$ ,  $122^\circ 57'E.$ ), the farthest S of the Calagua group, lies 2 miles S of Guintinua Island. The island is small and grass covered. Amalia Islet and Paquita Islet lie about 4.5 miles and 5.25 miles E, respectively, of Ingalan Island. Both islets are steep-to and clear of dangers.

Roses Reef, two rocks with depths of 0.3m and 1.2m, lies about 1 mile W of Amalia Islet. Matandumaten Rock, a 44m high bare, perpendicular rock, lies about 5 miles ESE of Paquita Rock.

**5.34 Pinacuapan Islands** (14° 30'N., 122° 54'E.), a group of small islands and islets, lie about 2.5 miles N of the W extremity of Tinaga Island. Samur Island, round topped and prominent, lies about 3.5 miles NNE of Maculabo Island. Twin Rocks lie about 1 mile SE of Samur Island.

Thurston Rock lies about 4.5 miles NNW of Samur Island. A reef of rocks, some of which are awash, lies within 1.5 miles E of Thurston Rock.

Depths are very irregular E of these rocks and N of Samur Island.

**Lima Rock** (14° 36'N., 122° 46'E.), with a depth of 1.2m, lies 4 miles N of Thurston Rock. A 5m shoal is reported to lie 2.5 miles NW of Lima Rock.

## Bacacay Point to San Miguel Bay

**5.35 Bacacay Point** (14° 16'N., 122° 52'E.) lies about 3 miles ESE of Malaguit Bay. The point rises to a wooded hill with a prominent bare patch. A 4.6m shoal lies 1 mile E of the point.

**Indan Point** (14° 13'N., 122° 55'E.) lies about 4.75 miles SE of Bacacay Point. A shallow river flows out on the W side of the point. Indan Point should be given a wide berth as foul and shoal ground extends about 2 miles NNW from it.

**Quinamanuca Island** (14° 12'N., 122° 57'E.) is located about 1.75 miles SE of Indan Point. The island is densely wooded and shows up well against the low land between the coast and Mount Bacacay, about 5.75 miles W of Indan Point.

A shoal, with a depth of 5.5m, lies about 2 miles SSE of the island. Navigators are advised to pass at least 1 mile NE of the island.

**Mercedes** (14° 07'N., 123° 01'E.) ([World Port Index No. 58110](#)) is the port for the town of Daet, which stands about 3.5 miles to the W. The port lies on the W side of the mouth of the Daet River. The port can be identified by several iron roofed buildings and a church. The harbor is not safe for vessels drawing over 3.6m, or over 55m in length. Pilotage is compulsory.

Vessels can take anchorage about 0.75 mile N of Mercedes with Canimo Island Light bearing 082°, in a depth of 14.6m, sand. This anchorage is open to N and E winds.

The anchorage should be approached with Cone Mountain, a prominent 421m peak about 8.5 miles S of Daet Point, on a bearing of 200°.

**5.36 Canimo Island** (14° 07'N., 123° 04'E.) lies about 2.5 miles E of Mercedes. The N and E slopes of the island are grass covered to its summit. The remainder of the island is heavily wooded. A light is shown on the NW extremity of the island.

Vessels can take anchorage, protected from all winds except from the N, in a position W of the island.

**Canton Island** (14° 05'N., 123° 06'E.) lies 2.5 miles SE of Canimo Island. The island is grassy, but has several scattered trees near its summit. The SE extremity of the island is a well defined, thinly-wooded bluff, which is a good landmark when approaching San Miguel Bay.

**Apua Grande Island** (14° 05'N., 123° 05'E.) and Apua Grande Island lie between Canimo Island and Canton Island. Canton

Island and a number of islets and rocks are connected and surrounded by reefs, partly bare at LW.

**Quinapagyan Island** (14° 04'N., 123° 04'E.) lies about 1.5 miles S of Canimo Island. The island is densely wooded. The W extremity of the island is a steep-to, prominent sandy point.

**Caringo Island** (14° 02'N., 123° 06'E.), located 1.75 miles SE of Quinapagyan Island, is low and densely wooded. Drying reefs extend up to 0.75 mile from its NE and E sides. Malasugue Islet, small and low, lies midway between Quinapagyan Island and Caringo Island.

**5.37 Canimo Pass** (14° 06'N., 123° 03'E.), the W channel into San Miguel Bay, lies between Luzon on the W and Canimo Island and Quinapagyan Island on the E. It is used mostly by small coastal vessels proceeding between Mercedes and the head of San Miguel Bay.

Vessels without local knowledge are advised to take a pilot, who may be obtained at Mercedes or Cabusao.

The coast between Daet Point and Pambuan Point, 3.75 miles SSE, is fringed by a wide drying reef extending up to 0.5 mile offshore. Depths of 7 to 15m are found in the fairway of Canimo Pass.

The channel is narrow and intricate in the vicinity of Quinapagyan Island because of the reefs extending from the mainland and the reef extending N from the island. A reef, with a depth of 1.8m, lies 0.75 mile N of Sand Point.

The greatest danger in the pass is a large, rocky reef, awash at extreme LW, lying in mid-channel about 0.35 mile WNW of Sand Point. Except at LW, there is no indication of its presence.

Vessels from N bound through the pass should, from a position 0.6 mile W of Canimo Island light structure, steer for Sand Point, bearing 159°. When about 0.25 mile distant from the point, course should be altered S so as to pass about 0.1 mile W of the point.

Culasi Point, bearing about 167° and open W of Sand Point, leads W of 2.3m shoals on the E side of the pass.

## San Miguel Bay

**5.38 San Miguel Bay** (13° 50'N., 123° 10'E.), entered between Caringo Island and Siruma Island, indents the coast for about 18 miles.

The navigable width of the entrance is about 4 miles between Bicol Rock and the reef extending from the E side of Caringo Island. Depths of from 11 to 15m will be found in the middle of the bay. The S part of the bay is very shoal.

## San Miguel Bay—West Side

**5.39 Angas** (14° 03'N., 123° 02'E.), a small port on the NW side of the bay, lies about 2 miles WSW of Quinapagyan Island. The port can be identified by a group of houses with galvanized iron roofs. A pier in ruins lies close S of the port.

Vessels can take anchorage about 1.25 miles S of the W end of Caringo Island, in depths of 11 to 13m.

**Magsatangi Point** (13° 53'N., 123° 06'E.), lies about 11 miles SSE of Angas. Culasi Peak (Colasi Peak), sharp, conical, and 388m high, is located close to the shoreline, about 0.5 mile NW of Magsatangi Point. The peak is conspicuously isolated from the rest of the high land and is identified from all

directions except SE. A small peninsula, nearly 1 mile long, extends SSW from the S side of the point.

A small bight that dries at extreme LW indents the W side of this peninsula.

Tacubtacuban Hill, round-topped and 103m high, forms the extremity of this peninsula. The isthmus connecting this hill with the mainland to the N is low and covered with mangroves. A low hook of land extends SW and W from the SW slope of the hill, almost enclosing the small bight.

Vessels can take anchorage, protected from NW winds, about 0.5 mile S of the W extremity of the above-mentioned small peninsula, in a depth of 5.5m, mud.

Large vessels can anchor a little farther out, with Tacubtacuban Hill in range with Culasi Peak, in a depth of 7.3m. The beach along this coast is mostly rocky and wooded to the water's edge.

**5.40 The Bicol River** (13° 44'N., 123° 07'E.) empties into the head of the bay on its W side. The river is navigable for small craft as far as Naga, about 20 miles from the mouth.

Pilotage is compulsory and pilots are available at Cabusao. A light is shown on the W entrance point of the river.

The coast between the mouth of the Bicol River and Tanglar Point, 7 miles E, and then to the mouth of the Caaluhan River, 6 miles farther NE, is low, flat, and muddy.

**Tanglar Island** (13° 45'N., 123° 15'E.), located close N of Tanglar Point, is bold and wooded. There are rocks along the N coast of the island.

A small round islet lies 0.15 mile offshore, 0.6 mile E of Tanglar Island.

Mount Isarog, an extinct volcano, is located 11 miles SE of Tanglar Point; it is prominent and rises to two peaks, 1,906 and 1,976m high, respectively.

## San Miguel Bay—East Side

**5.41 Cagsao Point** (13° 46'N., 123° 17'E.), about 3.5 miles NE of Tanglar Point, and Bogui Point, 0.5 mile further NE, are the principal breaks in a muddy or sandy beach, located midway between Tanglar Point and the mouth of the **Caaluhan River** (13° 48'N., 123° 19'E.).

**Cauit Island** (13° 47'N., 123° 16'E.), 44m high, lies about 0.6 mile NW of Cagsao Point. A light-colored bluff stands on its N side. A shoal, with some rocks awash at HW, lies about 0.4 mile W of Cauit Island. Less than 0.25 mile SW of these rocks is a sunken rock, which is covered with seaweed and sometimes bares at LW.

**Cabgan Island** (13° 46'N., 123° 16'E.), about 0.1 mile SW of Cauit Island, is conical in shape and 51m high.

There is a small warehouse on the island, and a larger one on the mainland opposite. The passage between Cauit Island and Cagsao Point has a depth of 1.8m and is clear of dangers.

**Tinambac** (13° 49'N., 123° 19'E.), a small village standing 1 mile N of the N entrance point of the Caaluhan River, can be identified by its church with a white cross.

**Kaglilig Point** (13° 54'N., 123° 17'E.), about 50 miles NNW of Tinambac, is rocky and has a detached rock lying about 91m W of it; a rocky bottom extends some distance offshore. Vessels should give the point a berth of at least 1.5 miles.

**Balocbaloc Point** (13° 55'N., 123° 17'E.), the S entrance point of the Looc River, lies 0.75 mile N of Kaglilig Point and is low and sandy.

The **Looc River** (13° 55'N., 123° 18'E.), the outlet for a large tidal lagoon, is about 1.5 miles wide at its entrance. The shores of the river and the lagoon are low and fringed by mangroves. The river is shoal with strong tidal currents.

Only small vessels with local knowledge, operating under the most favorable weather conditions, should attempt to enter the river.

**5.42 San Miguel Island** (13° 58'N., 123° 14'E.), low and wooded, lies about 4.5 miles NW of Balocbaloc Point. Its shores are rocky, and a drying sandbar connects its SE end to the mainland. Detached rocks extend about 0.3 mile off the NW end of the island.

Vessels can take anchorage about 0.5 mile SE of the SE end of the island, in a depth of 5.5m, sand. Large vessels can anchor about 0.75 mile S of the same point in a depth of 9.1m, mud. These anchorages are fairly sheltered from winds between NW, through N, to SE.

A small anchorage, with a depth of 5.5m, sand, mud, and rock bottom, lies E of the N end of the island, about midway between the point and the shore.

This anchorage should be approached with caution as there are drying rocks lying some distance off the mainland.

**Siruma Bay** (14° 01'N., 123° 14'E.), entered between Quelun Point, lying 2 miles N of San Miguel Island, and Siruma Point, about 2 miles further N, is foul and encumbered with dangers.

Shoals, with depths of less than 1.8m, extend about 1 mile from the head of the bay. A reef, with a depth of 2.1m, lies in the W approach to the bay in a position about 0.6 mile S of the W extremity of Siruma Island. A rocky islet lies about 0.75 mile W of Quelun Point.

Sunken rocks extend about 0.3 mile W from the islet. Siruma, a small town, stands on the S shore of the bay.

**Siruma Island** (14° 02'N., 123° 13'E.), the E entrance point of San Miguel Bay, is a small, low, wooded island about 15.2m high. The E end of the island is connected by reefs with Siruma Point, a long, narrow point projecting W from the mainland. The island is fringed by a reef which extends about 0.75 mile W from its W side.

A rock, above water, lies on the fringing reef in a position about 0.1 mile N of the N extremity of the island.

Two shoals, with depths of 4.5m and 5.5m, lie on the E side, respectively, of the fairway in positions about 1.25 miles NW and 1.75 miles NNW of the W extremity of Siruma Island. A shoal, with a depth of 12.8m, lies about 3.25 miles WSW of Siruma Island.

**Bicol Rock** (14° 02'N., 123° 11'E.), which dries 0.6m, lies about 1.25 miles W of Siruma Island.

**5.43 Sapenitan Bay** (14° 03'N., 123° 14'E.), entered between Siruma Point and Sapenitan Point, about 3.25 miles NE, indents the coast about 2.25 miles. Sapenitan Point is low and wooded at its extremity, but the land within rises to a height of 107m about 2.25 miles SE. The point is fringed by a drying reef which extends 1 mile NW and N.

Depths of 9 to 17m are found in the middle of the bay. Shoals, with depths of 6.7 and 5.5m lie on the S side of the

entrance about 1 mile N and 1.25 miles NE; respectively, of Siruma Point.

Vessels can take anchorage sheltered from all winds except those from N and NW, about 1 mile offshore, between the mouths of two rivers which empty near the head of the bay, in depths of 7 to 11m, mud.

### Sapenitan Point to Lamit Bay

**5.44 Butauanan Bay** (14° 06'N., 123° 17'E.) is entered between Sapenitan Point and Quinabucasan Point, about 5.25 miles ENE. The shores of the W arm of the bay are fringed by reefs.

A small area, about 1 mile long and 0.5 mile wide, with depths of 9 to 15m, lies between the reefs. The E arm of the bay is encumbered with reefs, on which there are several small islets.

**Butauanan Island** (14° 07'N., 123° 19'E.) forms the NE side of Butauanan Bay. The island is separated from Quinabucasan Point by a channel with a least width of 0.1 mile and a least depth of 10.9m in the fairway. The W side of the island is fringed by a reef which extends about 0.6 mile W from its S part.

A shoal spit, with a rock lying awash, extends about the same distance W from the edge of the reef. A shoal spit extends 0.3 mile S from the S edge of the same reef.

The bay may be entered from the NW between Butauanan Island and the peninsula forming Quinabucasan Point.

Reefs, which partly dry, and shoals extend up to 1 mile NE from Sapenitan Point. A reef, with a depth of 6.9m, lies at the junction of the two channels, 0.5 mile WNW of the point separating the two arms of the bay.

**5.45 Tandoc** (14° 04'N., 123° 18'E.) ([World Port Index No. 58120](#)) stands near the head of Butauanan Bay, about 2.75 miles SE of Sapenitan Point. There is an L-shaped pier extending 128m NE and then 76m NW, from the shore. The pier is 7.5m wide. The pier is not recommended for vessels with a draft of more than 6.9m.

Vessels docking should do so in calm weather and at slack tide. The flood tidal current flows E and the ebb W.

The pier is not safe during the Northeast Monsoon or when there is a heavy swell.

Pilotage is not compulsory but is recommended for large vessels. A pilot is available at Mercedes or from Manila. Three to four days ETA is required.

Vessels can take anchorage during strong NE winds about 0.5 mile off the W side of Butauanan Island, with the S end of the island bearing 130° and the NW extremity of the island bearing 334°, in a depth of 22m, mud.

The approach to the anchorage is not difficult, but vessels are cautioned against approaching too close to the reef extending W from the S side of Butauanan Island.

The approach to the inner anchorage from NW lies between the SW side of the shoal spit which extends S from the above reef, and the 6.9m patch 0.5 mile S.

The approach to the pier is difficult as the other reefs are unmarked and hard to discern. Entrance should be made during daylight hours under favorable conditions.

**5.46 San Vicente Bay** (14° 02'N., 123° 22'E.) is entered between Dagdagen Point and a point 0.75 mile to the ESE. The bay is encumbered with reefs, and a rock awash lies about 0.5 mile NE of the E entrance point. Foul ground lies between the rock and the point.

Reefs and shoals extend up to 0.75 mile N from Dagdagen Point; a shoal, with a depth of 11.9m, lies 1.25 miles NNE of the point.

The only available anchorage is in the entrance, S of the W entrance point, in depths of from 16 to 22m.

**Port Tambang** (13° 58'N., 123° 26'E.) lies about 4 miles SE of San Vicente Bay. The bay is encumbered with reefs and shoals. An islet lies close W of the SE entrance point to the bay. The bay is of no use to the navigator.

### Lamit Bay and Off-lying Islands

**5.47 Lamit Bay** (13° 56'N., 123° 32'E.) lies about 5 miles E of Port Tambang. The bay is considered the best typhoon harbor on the E coast of Luzon. The bay is formed by a group of islands lying off the indented coast.

Protected anchorage can be taken among the many small islands in the area.

The W entrance to Lamit Bay lies between the S extremity of Pagbocavan Island and a point 0.75 mile SW. The entrance is about 0.5 mile wide between the reefs and shoals extending from both sides.

**Pagbocavan Island** (13° 57'N., 123° 31'E.) lies on the N side of the W entrance to Lamit Bay. The S end of the island terminates in a large brown rock. The island for the most part is wooded. Reefs extend up to 0.25 mile W from the NW side of the island.

Cagbinunga Island lies about 0.25 mile NNE of Pagbocavan Island and is connected to it by a reef. Reefs and shoals extend as far as 0.5 mile NE from the N side of the island.

**Sibauan Island** (13° 59'N., 123° 31'E.) lies about 0.4 mile NW of Cagbinunga Island. The island is wooded and high at its S end. A shoal, with a depth of 1.8m, lies 0.25 mile SSW of the S end of the island. Naglaous Islet lies almost 0.5 mile N of the NE extremity of Sibauan Island.

The W side of the island is fringed by reefs which extend 0.1 to 0.4 mile offshore. Sampotan Islet, 9.1m high, lies on this reef about 0.4 mile SW of the N extremity of the island. Several shoals, with depths of 2.7 to 7.3m, front the W side of the island to a distance of 0.7 mile.

The N side of the island is fringed by a drying reef extending 0.5 mile NE. Dinug Islet, 30m high, lies on the edge of this reef N of the island. Salobot Islet lies about 0.75 mile NE of the NE extremity of Sibauan Island.

**5.48 Paniqui Islands** (14° 00'N., 123° 31'E.) are three small islands lying about 0.75 mile N of Sibauan Island. The largest island is 62m high. These islands can be safely passed at a distance of 0.25 mile.

**Aguda Rock** (14° 02'N., 123° 31'E.) is a small rocky ledge, with a depth of 3.7m, and lies 1.5 miles N of the Paniqui Islands. It can only be distinguished by the color of the water under the most favorable conditions, and the rock breaks only in heavy weather.

Cimarron Islands are a group of four islands lying in the N approach to Lamit Bay, 2.75 miles NNW of the Paniqui Islands. The central island, 49m high, appears conical from E or W, but from N or S it appears as a short ridge.

**5.49 The Lamit Islands** (13° 58'N., 123° 34'E.) are two densely wooded islands, separated by a narrow impassable channel.

The S island is separated from the mainland by a shallow channel which leads into Quinalasag Passage.

Pawican Islet lies close NW of the N extremity of N island, and is connected to it by a reef.

Bani Islands, two in number and separated from each other by a narrow channel, lie off the W coast of the Lamit Islands.

**Anchor Island** (13° 58'N., 123° 32'E.) lies about 1 mile S of the Bani Islands. The island is fringed by a reef which extends about 0.25 mile N from the NW side of the island. A rocky islet lies near the N edge of this reef.

Shoals, with depths of 3.6 and 1.2m, lie about 0.25 mile WNW and 0.6 mile W, respectively, of the SW extremity of Anchor Island. A shoal, with a depth of 0.9m, lies about 0.5 mile ESE of the NE extremity of the island.

Vessels can take anchorage anywhere in the bay in adequate depths. The usual anchorage is in depths of 7.3 to 14.6m, mud, S and SW of Anchor Island.

Vessels from E usually enter the bay via the N entrance. Pawican Islet and the NW extremity of the N of the Lamit Islands should be rounded at a distance of about 0.25 mile. Then a SW course should be steered to a position about 0.25 mile W of the W extremity of the W of the Bani Islands.

Then vessels should pass about 0.2 mile N of the small rocky islet located about 0.25 mile N of Anchor Island, and then about 0.25 mile E of Anchor Island. Then a SW course leads to the recommended anchorage.

Vessels with local knowledge may steer a SSW course from the position about 0.25 mile W of the W extremity of the W of the Bani Islands to the recommended anchorage. This course leads between the W side of Anchor Island and the E sides of Cagbinunga and Pagbocavan Islands. The shoals in the middle of the N part of the bay are unmarked, making it advisable for vessels without local knowledge to use the W entrance.

Vessels approaching Lamit Bay from W should steer about 136° for the opening between Pagbocavan Island and the mainland. When the S end of Pagbocavan Island bears 125°, the course should be altered a little to the E to pass about 0.25 mile S of the island. Then an E course leads to the middle of the bay where anchorage can be taken anywhere S of a line drawn between Pagbocavan Island and Anchor Island.

Vessels approaching from the E or N and wishing to use the W entrance should pass about 0.5 mile N of the Paniqui Islands. When the largest of the Cimarron Islets bears 001°, the course should be altered to 181°.

This course, which leads W of the shoals off the W side of Sibuan Island, should be held until the S end of Pagbocavan Island bears 125°, then the directions given previously should be followed.

## Lamit Bay to Cataduanes Island

**5.50 Quinalasag Island** (13° 56'N., 123° 38'E.), densely wooded, lies with its N extremity about 3.5 miles E of Cugun Point, the NE extremity of the N Lamit Island. Bagacay Island lies about 0.1 mile N of the N extremity of Quinalasag Island, to which it is connected by a reef.

The island is a good landmark from E or W, showing as twin peaks of equal height. Hervor Rock, awash, lies 1.75 miles NW of Bagacay Island.

A rock, with a depth of 1.8m, was reported to lie 1.5 miles WNW of Hervor Rock; this rock breaks.

Badi Islet, 11.9m high, lies 0.25 mile NW of the NW extremity of Quinalasag Island. A shoal, with a depth of 6.4m, lies 0.25 mile N of the islet.

**Malabungut Island** (13° 56'N., 123° 35'E.) lies with its W end about 0.2 mile E of the S extremity of the S Lamit Island. The island forms the head of Binagasbasan Bay. Drying reefs extend up to 0.6 mile N from the N side of the island.

**Binagasbasan Bay** (13° 57'N., 123° 35'E.) lies between the E side of S Lamit Island and the W side of Quinalasag Island. The bay is encumbered with reefs and shoals and is of no use to shipping. Bacon Islet lies in the middle of the N entrance to the bay. Shoals, with depths of 4.5m, lie 0.6 mile SSW and 0.75 mile SSE, respectively, from the islet.

**Masamat Bay** (13° 58'N., 123° 38'E.) indents the N coast of Quinalasag Island in a SE direction. Small vessels can obtain good typhoon anchorage in the bay.

Depths of 6 to 18m are found in the middle of the bay. Reefs and dangers extend up to 0.4 mile from the projecting points.

**Crater Bay** (13° 58'N., 123° 40'E.), entered between the NE extremity of Quinalasag Island and a point about 0.6 mile WNW, indents the NE side of the island about 0.5 mile. Depths of 8 to 18m are found in the middle of the bay.

**5.51 Sisiran Bay** (13° 55'N., 123° 41'E.) is entered between the E extremity of Quinalasag Island and Tinajuagan Point, about 1.75 miles E. The W side of the bay is fringed by a narrow reef and its E side is fringed by a wide reef that extends up to 0.5 mile offshore.

Vessels can take anchorage off the indented SE coast of Quinalasag Island, in depths of 7 to 9m. Anchorage can also be taken SW of Tinajuagan Point, in a depth of 12.8m.

**Laja Islet** (13° 58'N., 123° 42'E.) is a dark, bare rock, which lies about 1.5 miles N of Tinajuagan Point.

A shoal, with a depth of 7.6m, lies about midway between the islet and the drying reef that extends 0.3 mile N from Tinajuagan Point. The sea breaks heavily over this shoal in rough weather. Breakers have been reported on the shoals SE of Laja Islet.

**Tagun Bay** (13° 57'N., 123° 46'E.) is entered between Tinajuagan Point and Sugar Loaf Point, the NW extremity of Lahuy Island. Wide coral reefs fringe the W side of the bay and also encumber its head. The E side is less dangerous as the depths are greater.

Vessels can take anchorage 2 miles S of Sugar Loaf Point. Also, vessels anchor in 26m, 0.75 mile farther S.

**Black Islet** (14° 00'N., 123° 47'E.) lies about 2.5 miles NW of Sugar Loaf Point. The islet is 9.1m high and bare. The channel

between the islet and Lahuy Island is deep and free of dangers in the fairway.

Masnou Islet lies 1 mile NW of Black Islet and is covered with grass. Molar Rock, about 18.3m in extent, lies about 0.75 mile NNW of Masnou Islet. A sunken rock, which breaks heavily in bad weather, lies about 0.35 mile NNW of Molar Rock.

**5.52 Lahuy Island** (13° 57'N., 123° 49'E.), narrow and hilly, extends about 5.25 miles in a N to S direction. There are three prominent peaks in the S half of the island. The W side of the island is very irregular with reefs and shoals extending up to 0.75 mile from the coast.

Several small islets and rocks lie close off the NW and N sides of the island. Ocata Island, marked by a light, lies about 0.5 mile NE of Sugar Loaf Point.

The E side of Lahuy Island is fringed by a reef extending from 0.25 to 2 miles offshore. Basot Island and Cotivas Island lie on the E side of this reef. A grassy peak, 47m high, lies in the N part of Basot Island, and there is a flat-topped peak, 51m high, in the S part.

The coast consists of sandy beaches and rocky cliffs. Basot Island is covered with grass. Cotivas Island, closer SW, is wooded.

Pocket Bay, a small cove, lies between the above reef and a reef that extends from the NE side of Lahuy Island.

Small vessels with local knowledge can take anchorage in the middle of the cove, in a depth of 14.6m.

**Lucsuhin Islands** (13° 52'N., 123° 51'E.) are a group of rocks and islands lying on a partly drying reef, between the S end of Lahuy Island and the mainland. The islands are wooded and appear as one from seaward, but at HW a boat can pass between them.

**Etinas Island** (13° 52'N., 123° 52'E.), 39m high, is the farthest E of the Lucsuhin Islands. It is located on the edge of the reef 2.5 miles N of **Yopoquit Point** (13° 50'N., 123° 52'E.). A shoal spit, with a least depth of 4.1m, extends 1 mile N of the island; a shoal, with a depth of 8.7m, lies 0.5 mile NNE of the island.

Tirao Islet, 12.2m high, lies on the edge of the reef 0.15 mile S of Etinas Island.

Solodon Islet, the farthest SE of the group, is a large barren rock 27m high, with a few bushes on its summit. The islet is located on the N side of the channel leading to Tabgon anchorage, in a position 1.75 miles N of Yopoquit Point.

A shoal, with a depth of 10.9m, lies about 1 mile E of Solodon Islet.

**5.53 Haponan Island** (13° 50'N., 123° 51'E.) lies about 0.75 mile S of the S Lucsuhin Island, and is grass covered. Its coasts consist of sandy beaches and low rocky points. The area between the island and the mainland is foul. Reefs extend 0.5 mile NE from the island and form part of the S side of the channel leading to the anchorage.

**Puling Island** (13° 51'N., 123° 50'E.) lies about 0.2 mile N of the NW extremity of Haponan Island. An islet lies close N of the island.

An anchorage area lies SW of Puling Island or between the island and Haponan Island. A reef, with a least depth of 1.2m, lies on the W side of the anchorage, about 0.4 mile W of Puling Island.

Cocos Island, 38m high and covered with palms, stands on the reef extending from the mainland, 2 miles NW of Puling Island.

**Tabgon** (13° 50'N., 123° 49'E.), a small village, lies at the foot of a prominent hill, about 1.75 miles W of the W coast of Haponan Island.

A large anchorage lies about 1.5 miles NE of the village. There are depths of 7 to 22m in the anchorage.

Depths of 14.6m and over are found in the fairway of the E approach channels to Tabgon anchorage, but these channels are unmarked and only used during fair weather conditions.

The channel between Puling Island and Haponan Island is deep, but it is seldom used.

South Islet lies about 0.1 mile N of Puling Island; the channel between this islet and North Islet, a 14m high islet lying about 0.3 mile further N, is the preferred channel and has a least width of 0.1 mile between the reefs.

**Directions.**—Vessels from E should steer 267° with the N tangent of Puling Island ahead. When about 0.4 mile SSW of Solodon Islet, the course should be altered to 279.5°, with the S side of North Islet in range with the S side of Cocos Island. Maintain this course to a position 0.75 mile E of North Islet, when a mid-channel course between North Islet and South Islet should be steered.

When South Islet is abeam the course should gradually be altered to the SW so as to pass midway between the reef covered by 2.7m, about 0.2 mile SW of North Islet, and a reef with rocks, awash, extending 0.1 mile W of South Islet.

Then steer S to pass about 0.2 mile W of Puling Island, and anchor, as convenient, off the SW side of the island.

**5.54 Yopoquit Point** (13° 50'N., 123° 52'E.) lies about 1 mile E of the S extremity of Haponan Island. The point is fringed by a reef which extends over 0.5 mile offshore, and gradually narrows toward the coast about 2 miles SE.

Depths are reported to be very irregular off this stretch of the coast. During the Northeast Monsoon, the sea occasionally breaks on some of the outer shoal patches. This area should be navigated with caution.

**Malarad Islets** (13° 48'N., 123° 54'E.) are a group of rocks and islets lying within 1 mile of the coast and 1.75 miles ESE of Yopoquit Point. Most of them are wooded, with steep rocky sides.

Port Caramoan, a bay, lies between Yopoquit Point and Malarad Islets. A small village stands near the head of Port Caramoan.

**Caramoan Point** (13° 48'N., 123° 56'E.), the NE extremity of Caramoan Peninsula, is steep-to and lies about 3.5 miles ESE of Port Caramoan. The land within the point rises to numerous densely wooded peaks. The highest of these is a round-topped peak standing about 4 miles W of the point. A small rounded peninsula lies about 0.5 mile SE of the point and is connected to the coast by a narrow neck of land.

**Pitogo Bay** (13° 47'N., 123° 57'E.), located 1.25 miles S of Caramoan Point, is the only sheltered anchorage on this stretch of coast. The bay is backed by high wooded hills.

There are two entrance channels, one on either side of Pitogo Island. The N channel is generally used as the S channel is encumbered with shoals and reefs. Small vessels can take anchorage in mid-channel, W or SW of Pitogo Island.

**5.55 Lugan Cove** (13° 45'N., 123° 57'E.), located about 1.25 miles SSE of Pitogo Bay, consists mostly of reefs and shoals. Batobato Rocks, consisting of two rocks, lies about 0.5 mile S of Lugan Islet. Sombrero Islet lies about 2 miles SSE of Batobato Rocks. The islet serves as a good landmark as it is higher than the adjacent coasts. Laung Bay, close W of Sombrero Islet, is filled with reefs and shoals.

**Maqueda Channel** (13° 42'N., 124° 01'E.) separates Luzon from Catanduanes Island. The channel is about 4.5 miles wide between Rungus Point and Sialat Point, the W extremity of Catanduanes Island. The S end of the island is divided by the Palompon Islands, two in number, lying 1.5 miles E of Rungus Point. The E island is 46m high.

In the N part of Maqueda Channel there are a great many dangerous rocks and shoals. Dagat Rocks, the farthest W of these dangers, is separated from Basot Island by a deep, clear channel about 6.5 miles wide.

Vessels should use caution when approaching the channel from the N as Ocata light is unwatched and at times may be extinguished.

**5.56 Palumbanes Islands** (14° 01'N., 124° 02'E.) are a group of three islands and several islets and rocks, lying from 4 to 7 miles WSW of Balangona Point, the NW point of Catanduanes Island. Calabagio Island, the E island of the group, is wooded.

Anchorage can be taken about 0.25 mile W of the SW side of Calabagio Island, in a depth of 27m. Porongpong Island, the middle and largest of the group, is covered with high trees. There is a village on its E side. The W island of the group is wooded.

A rock awash lies about 1.75 miles ENE of Calabagio Island, near the N end of a shoal area which extends 2.5 miles S; there are depths 6 to 18.3m on the shoal. In a position about 0.1 mile E of the rock the sea breaks over the shoal in a light swell.

There is an isolated 12.8m depth, midway between the shoal and Catanduanes Island.

A shoal, with a depth of 12.8m, lies 0.75 mile N of Calabagio Island and two shoals, with depths of 3.6m, lie 1.25 and 1.5 miles NNW of Porongpong Island.

**Lane Rocks** (14° 07'N., 124° 00'E.), the N danger in the area, consists of four or five steep-to rocks, which dry 1.5m, and lie about 5 miles NNW of Porongpong Island.

The rocks are conspicuous to the eye. A 3.7m shoal lies 0.5 mile N of the rocks with a deep channel between.

**Sail Rock** (13° 59'N., 124° 04'E.), 19m high with a few bushes, lies 1.5 miles SSE of Porongpong Island and is a prominent mark. Several above-water rocks lie up to 0.1 mile N of Sail Rock and a 3.7m patch lies 0.5 mile SSW of Sail Rock.

**Dagat Rocks** (13° 59'N., 123° 59'E.) are a group, 1m high, near the NW end of an extensive coral reef, lying 3 miles SW of the W island of the Palumbanes Islands. A 7.3m patch lies 0.35 mile NNW of Dagat Rocks.

A small patch awash lies about 1.75 miles SSE of Dagat Rocks. In calm weather it cannot be seen from any distance. There are depths of 8 to 17m over the remainder of the reef.

**Caution.**—A rock awash lies 3 miles SSW of Sail Rock. It can be distinguished at all times, but when the sea is smooth, it is not very noticeable.

## Catanduanes Island

**5.57 Catanduanes Island** (13° 45'N., 124° 15'E.) is mountainous with rugged coasts. The N and S coasts are indented by a bay. The W coast is rugged and fairly regular.

The E coast is irregular and indented by numerous small coves and bays. The island is reported to give a good radar return up to 18 miles.

**Yog Point** (14° 06'N., 124° 12'E.), the N extremity of Catanduanes Island, is covered with grass and a few shrubs. A rocky islet lies close N of the point.

A rock stands on the N side of the islet. The islet may be safely rounded at a distance of 0.25 mile.

**Pandan Bay** (14° 04'N., 124° 10'E.), entered between Yog Point and Pandan Point, 4.25 miles SW, is fringed by reefs extending up to 0.5 mile from the shores of the bay.

A small peninsula divides the head of the bay into two small coves. The NE cove is foul, but there are depths of 9 to 15m between the reefs on either side of the cove.

Two small islets, 18.3 and 15.2m high and covered with coconut trees, are located about 0.6 mile and 1.1 miles ESE, respectively, of the Pandan Point. The Mambang River empties into Pandan Bay through a narrow channel lying between these islets.

A shoal, with a depth of 10m, lies about 1 miles NE of Pandan Point. A bank, with a least depth of 12.8m, lies about 1.5 miles NNE of the same point.

Pandan Light is shown from a concrete tower, 9m high, standing on the shore in the W part of Pandan Bay.

**5.58 Pandan** (14° 03'N., 124° 10'E.), a small village, stands 0.25 mile inland from the head of the W cove. The village, which contains a church, is nearly hidden by coconut trees. It is a port of call for small craft and launches coming to load copra and hemp. No fresh water, provisions, or stores are obtainable. There are no medical facilities in the town. Postal and telegraph facilities are available. There are no repair facilities.

Vessels with local knowledge can take anchorage with the E islet on the W part of Pandan Bay bearing 205°, and the N extremity of the small peninsula, bearing 087°, in depths of 22 to 24m.

Small craft can anchor SSE of this position, in a depth of about 16.5m, between the fringing reefs. These anchorages are open to the N and fully exposed to the Northeast Monsoon. Vessels wishing to communicate with Pandan usually anchor in Cobo Bay.

Vessels from the E should make the approach with the E islet, bearing 205°. Vessels from the W should make the approach with the N extremity of the small peninsula bearing 102°. This course should be held until the E islet bears 205°, at which time the course should be altered to that bearing and anchorage taken when the same extremity bears 087°.

**Balangona Point** (14° 04'N., 124° 07'E.), 0.75 mile WSW of Pandan Point, is the NW extremity of Catanduanes Island. It is 30m high and covered with grass.

The shores of the point are bold and steep-to. The cove close S of the point is shallow at its head and restricted by the fringing reefs.

**Cobo Bay** (14° 01'N., 124° 08'E.), located 2.5 miles S of Balangona Point, affords protection from the Northeast

Monsoon. Toytoy Point, the S entrance point of the bay, is a sharp, prominent, and partly wooded neck of land about 22m high. Its shores are rocky and there is a 15.2m bluff on its W side.

A rounded and wooded hill, 86m high, stands near the head of the bay in a position about 1 mile NE of the N extremity of Toytoy Point. Cobo, a small village, is located close S of this hill and partially obscured by trees.

Reefs and shoals extend up to 0.25 mile from the S shore and 0.15 mile from the N shore. The head of the bay is shoal.

Depths of 9 to 15m are found in the middle of N part of the bay.

Two rocks, the highest of which is 5.5m, are located about 0.1 mile SSE of Toytoy Point. Three smaller rocks lie about 0.1 mile E of these rocks.

Vessels can take anchorage with the rounded hill, bearing 098°, and Toytoy Point, bearing 206°, in a depth of 13.7m, sand. A heavy swell is found at this anchorage during periods of strong N winds.

Small craft may obtain protection from the swell by anchoring in a break in the fringing reef, in depths of 7 to 9m, sand.

**5.59 Port Manamrag** (13° 44'N., 124° 06'E.) is located about 16 miles S of Toytoy Point; the intervening coast is hilly and densely wooded. The head of the bay is shoal and rocky. Depths of 9 to 15m are found in the outer part of the bay.

A shoal, with a depth of 3.6m at its outer end, extends about 137m S from Manamrag Point, the N entrance. Manamrag Point is 30m high and rocky.

Vessels can anchor in a position about 0.2 mile S of Manamrag Point, in a depth of 14.6m.

The coast between Borigay Point, 0.75 miles SSE of Manamrag Point and Sialat Point, 5.75 miles SE, is high, rugged, and mostly steep-to. A shoal, with a depth of 7.3m, lies 0.35 mile offshore in a position 1.25 miles SW of Borigay Point.

**Sialat Point** (13° 40'N., 124° 01'E.), the W extremity of Catanduanes Island, is a high, rocky bluff. Several rocks that dry lie about 0.1 mile SW of the point. A rock awash lies about 1.5 miles SSE of the point. A light is shown on the point.

**Agoho Point** (13° 36'N., 124° 03'E.) is located about 4 miles SSE of Sialat Point; it is a mangrove swamp fringed by a drying reef to a distance of 0.25 mile. A reef-encumbered bight, with numerous rocks and dangers, lies close N of the point.

**5.60 Calolbon** (13° 36'N., 124° 06'E.), a small town, is situated about 3 miles E of Agoho Point. The town church and a large water tank are conspicuous from offshore.

Vessels can take anchorage off the town, in a depth of 18.3m, 0.75 mile offshore. A light is shown NW of the water tower.

The anchorage is usually approached with the light structure ahead bearing 036°.

The anchorage is protected from winds from W, through N, to ESE. A depth of 3m is located close WNW of this anchorage.

A shoal, with depths of 6 to 18m, extends 1.25 miles SW from a position 1 mile SE of Calolbon. A rock awash lies about 2.25 miles SE of Calolbon Light.

Two shoals, with depths of 6 and 7.3m, lie 3.25 and 3.5 miles SE, respectively, of the same light.

Taguntun Bank, with a depth of 7.8m, lies about 5 miles SSE of Calolbon light. Teresa Bank, with a least depth of 3.1m, lies about 2 miles NNW of Taguntun Bank.

**Virac Point** (13° 31'N., 124° 13'E.), the S extremity of Catanduanes Island, is located 8 miles SE of Calolbon.

**Pechili Reef** (13° 30'N., 124° 11'E.) lies about 2.5 miles SW of Virac Point. The reef has a least depth of 4.5m and breaks in heavy weather. A shoal, with a least depth of 10.9m, lies about 0.5 mile SE of Pechili Reef.

Virac Bank, with a least depth of 11m, and on which the sea breaks in heavy weather, lies about 4.5 miles SE of Virac Point.

**Johns Reef** (13° 32'N., 124° 14'E.), with a least depth of 0.9m and on which the sea breaks, lies about 1.25 miles ENE of Virac Point. A rock, with a least depth of 6.7m, lies 1 mile E of the shallowest part of Johns Reef.

**Cabugao Bay** (13° 34'N., 124° 16'E.) is entered between Virac Point and Nagumbuaya Point, about 7.75 miles ENE. The shore of the bay is mostly sand and is partly fringed with coral reefs.

The Pajo River discharges into the W side of the bay and the Bato River discharges into the NE part of the bay.

The mouths of both rivers are blocked by reefs and shoals. Winds between E and S cause heavy seas in the bay. A number of rocks and shoals lie in the bay.

**5.61 Virac** (13° 35'N., 124° 14'E.) ([World Port Index No. 58130](#)) stands on the W side of Cabugao Bay. The town is clearly visible from seaward. The white dome of the town church is conspicuous. A light is shown near the E end of the town.

A concrete pier, 51m in length, stands at the end of a rock causeway which projects 117m from the shore. Depths vary from 6.1m at the head, to 1.5m at the inshore end of the pier.

The submerged outer end of an L-shaped breakwater, which projects from the shore SW of the pier, lies 109m S of the pierhead and constitutes a danger in the approach to the pier. The E side of the pier should be favored to avoid this danger.

Vessels can take anchorage about 0.75 mile SE of the town church with the lighthouse bearing 344°, in depths of 15 to 17m. This anchorage is reported to be uncomfortable during the Northeast Monsoon (October to March). Small vessels can anchor 0.15 mile off the sandy beach at Virac.

**Directions.**—Vessels proceeding to the anchorage off Virac should steer 344° with the light structure ahead.

This course leads W of Virac Bank, E of Johns Reef, and W of a charted depth of 8.2m, 0.75 mile ESE of Johns Reef.

## Catanduanes Island—East Coast

**5.62** The coast between Yog Point and Bugao Point, about 7.5 miles SSE, is composed of cliffy projections that are fringed by narrow and steep-to reefs.

**Horadaba Rocks** (14° 07'N., 124° 17'E.) are three bare rocks lying 4.5 miles E of Yog Point. The rocks lie close together. Matulin Rock lies about 0.6 mile SE of Horadaba Rocks. A number of sunken rocks and rocks awash lie between Matulin Rock and Horadaba Rocks.

**Tabugoc Cove** (14° 04'N., 124° 14'E.) and Minaile Cove, both small and encumbered by reefs, lie 3 miles and 4.5 miles SE, respectively, of Yog Point.

**Tarahid Point** (14° 02'N., 124° 16'E.), 0.5 mile SE of Minaile Cove, is 15m high and rugged.

**Purog Bay** (14° 01'N., 124° 16'E.) is entered 0.5 mile S of Tarahid Point. The bay is encumbered with reefs, but there are two narrow boat channels through them leading to the head of the bay. Minigil Islet lies in the middle of the entrance to the bay and is connected with the shore by a reef awash.

Bugao Point, 1.5 miles SSE of Minigil Islet, is low, sandy, and covered with bushes and small trees. The point is fronted by a reef for a distance of 1 mile; a reef, with a depth of 4.9m at its outer end, extends 0.5 mile SE from the reef.

Tahidan Point, 2 miles S of Bugao Point, is reddish in color, has a conical summit covered with grass, and is very prominent. A reef awash extends 0.75 mile NE from Tahidan Point.

**Panay Island** (13° 58'N., 124° 20'E.) lies 1.75 miles E of Tahidan Point. The island is fringed by coral reefs on all but the SW side. The island is reported to give a good radar return up to 27 miles.

A loran tower situated on the NW extremity of the island.

Lete Island lies close off the W side of Panay Island. A shoal spit, with a depth of about 0.9m, lies between Lete Island and the W side of Panay Island.

Macarilan Islets lie on the fringing reef 1 mile WSW of the N extremity of Panay Island.

**5.63 Port Bagamanoc** (13° 57'N., 124° 17'E.) lies between Lete Island and the coast of Catanduanes Island. The bay is open to the N and provides no protection from the Northeast Monsoon.

Bagamanoc, a small town which contains a church, stands at the head of the port in a position about 1.5 miles S of Tahidan Point. The town is partially obscured by a low ridge of gravel which is covered with bushes. The shores of the port are fringed by reefs extending up to 0.35 mile offshore.

A reef, with a depth of 1.8m, lies in the middle of the port in a position about 0.5 mile ESE of Tahidan Point.

There are depths of 9 to 18m in the outer part of the port.

Arch Rock, 18.3m high, a prominent, reddish-brown, arch-shaped rock, lies near the edge of the shore reef in a position about 0.75 mile SSE of Tahidan Point.

Vessels can take anchorage about 0.25 mile E of Arch Rock, in depths of 5.5 to 6.4m, mud.

The swinging room in this anchorage is restricted by the shoals lying on either side.

**Directions.**—Vessels bound for Port Bagamanoc should round the Macarilan Islets at a distance of about 0.5 mile and steer for the SW extremity of Lete Island, bearing 181°.

The course should be held until Arch Rock bears 214°, when she should steer for it on this bearing, passing midway between the 1.8m reef in the middle of the port and the reef fringing the W side of Lete Island.

Anchorage can then be afforded in the inner part of the port.

**5.64 Babaguan Bay** (13° 56'N., 124° 19'E.) lies between the SW side of Panay Island and the coast of Catanduanes Island. The bay is very shallow, especially in the S part, where there

are extensive drying mudflats. A river, used by boats, flows into the S part of the bay.

**Port Anajao** (13° 57'N., 124° 21'E.) lies between the S side of Panay Island and Catanduanes Island. The port is small but a well-sheltered harbor of refuge. The only entrance is from the E. Lolong Point, the SE extremity of Panay Island, is the N entrance point of the harbor. It is 27m high, covered with grass, and terminates in cliffs, 9m high. A light is shown from a concrete tower, 9m high, situated on the point.

Anajao Point, the S entrance point of the port, lies about 0.4 mile SSW of Lolong Point. It is covered with grass and is 30m high. The coast between Anajao Point and Viga Point, about 1.25 miles WSW, is slightly indented by two small and shallow coves.

The shores of the port are bold and well defined by low rocky cliffs. Densely wooded hills, about 122 to 152m high, stand on each side of the port abreast its narrowest part.

Reefs and shoals extend about 0.1 mile E from Lolong Point. Komagat Rock, 5.5m high and surrounded by rocks awash, lies about 91m E of the point. Reefs and shoals extend about 0.25 mile E from Anajao Point.

Two islets are about 45m and 137m E of this point. The inner one is a bare rock 8.5m high. The outer islet is 17.7m high and covered with grass, brush, and a few small palms.

Manyagui Rock, 4.9m high and dark in color, lies on the S side of the outer entrance to the port in a position about 0.4 mile ENE of Anajao Point. The rock is steep-to on all sides except its SW side, which is fronted by shoals to a distance of 0.1 mile.

The rock may be passed on either side, but the recommended channel into the port is N of the rock. This channel is 0.25 mile wide and 28m deep in the middle.

Minaaso Islet, 25m high and densely wooded, lies at the head of the port in a position about 0.3 mile S of Omuntal Point. It is bordered by cliffs and fringed by a reef that extends about 0.1 mile NE from it.

A rock, 3.6m high, and several rocks, awash, lie on this reef.

Several rocks, the outermost of which is awash at LW, extend about 0.1 mile S from the E entrance point of Babaguan Cove.

Vessels can take anchorage in the middle part of the port, in depths of 7 to 15m. Small vessels with local knowledge can anchor, in about 6.4m, mud, in a position S of the middle of the entrance to Babaguan Cove.

**Directions.**—A vessel entering Port Anajao should steer for Minaaso Islet bearing 255° and just open of the S shore. This course leads about midway between Manyagui Rock and Komagat Rock.

As the narrows are approached, a mid-channel course should be steered and anchorage taken as convenient.

Small vessels proceeding to the inner anchorage should continue on a mid-channel course until the village of Babaguan opens, then steer for Omuntal Point, bearing 288°. Vessels can take anchorage when the stone building in the village bears 001°.

**5.65 Agutayan Island** (13° 54'N., 124° 24'E.) lies about 3.5 miles SE of Lolong Point. The island is high and covered with grass. Several rocks, some awash, lie off the N extremity of the island.

Soboc Bay, a narrow inlet, lies close W of Agutayan Island. A village lies at the head of the bay. Botinagan Bay indents the coast for about 1 mile and lies about 0.5 mile E of Soboc Bay.

**Linampanan Island** (13° 53'N., 124° 24'E.), a small grass covered island, lies on the E side of the entrance to Botinagan Bay. A number of detached rocks, the highest is 20m high, lie close N and E of the island.

**Botinagan Bay** (13° 53'N., 124° 24'E.), entered between the E face of Agutayan Point and Sohoton Point, about 0.5 mile SSE, indents the coast about 1 mile.

Bocana Bay, entered between Conloy Point, located 1.25 miles S of Sohoton Point, and Minabat Point, about 0.5 mile S, indents the coast about 0.75 mile.

**Lictin Point** (13° 51'N., 124° 25'E.), located 0.75 mile SE of Minabat Point, is 42m high and rugged. The cliffs are about 23m high, and the slopes leading to the 114m hill, 0.75 mile W of the point, are largely covered with grass and small trees.

Sicmil Bay, entered between Lictin Point and Bantayao Point, about 1 mile SW, indents the coast about 1 mile.

**Bagalayag Point** (13° 48'N., 124° 25'E.), located about 3 miles S of Lictin Point, is formed by rugged cliffs, and is very prominent from N or S. It is densely wooded, except for a small grassy area on its seaward side, and is about 23m high. A group of rocks, from 3 to 12m high, extend about 0.25 mile E from the point.

Pondanan Island, located about 0.5 mile N of Bagalayag Point, is 26m high, and is covered with grass. Numerous rocks, varying high from 2 to 6m, lie close SW of the island. The island is connected to the coast to the W by a shoal spit. A shoal, with a depth of 5.1m on its SW end, lies about 0.3 mile N of the island.

The outer limit of the 20m curve enclosing this shoal lies about 1 mile NNE of the island and the same distance E of the coast of Catanduanes Island. A reef, with a depth of 10.5m, lies about 0.4 mile E of the island.

**5.66 Dalaynay Point** (13° 47'N., 124° 25'E.), located about 0.75 mile S of Bagalayag Point, is 94m high and covered with grass. A densely wooded hill, 131m high, lies about 0.75 mile SW of Bagalayag Point.

Dalaynay Islets are two small, grass-covered islets lying close E of Dalaynay Point. The N and large islet is 47m high with rugged cliffs. The S islet rises to a sharp point, 23m high.

A number of bare rocks, varying in height from 3 to 12m, lie near these islets.

Poro Island, located about 0.3 mile SE of the Dalaynay Islets, is 57m high and appears as a truncated cone.

The E side of the island is steep-to, but reefs fringe its other sides to a distance of 0.1 mile.

**Gigmoto Bay** (13° 47'N., 124° 25'E.) lies about 1.25 miles SSW of Bagalayag Point, and is entered between Dalaynay Point and Macalanhag Island. A small village stands near the head of the bay. Coral reefs fringe both sides of the bay and limit the width of the channel to 0.1 mile.

Vessels can take anchorage in the middle of the bay, N of the central part of Macalanhag Island, in a depth of 16m, mud. Small vessels can anchor in the middle of the inner part of the bay.

**Nagsilag Point** (13° 45'N., 124° 24'E.), located about 2 miles SSW of Dalaynay Point, is 42m high, and is covered with

grass. The point is connected to the high land to the W by a neck of land 15.2m high.

Two steep-to rocks, 5.8 and 6.7m high, lie 0.7 mile NE and 0.4 mile SE, respectively, of the point. A rocky islet, 24m high and covered with brush, lies 0.1 mile S of the point.

**Bitaoogan Point** (13° 44'N., 124° 24'E.), located 0.75 mile SW of Nagsilag Point, is the E extremity of a prominent and densely wooded ridge that extends about 3 miles W. The W portion of this ridge rises to two peaks that are 628m and 571m high. The valley between the two points is prominent.

Balacay Island, a densely wooded islet, rises to a height of 80m near its SW end. The islet is fringed by a drying reef which connects it with Catanduanes Island to the W.

**5.67 Agban Bay** (13° 43'N., 124° 23'E.) lies about 4 miles S of Gigmoto Bay and is entered between the S side of Balacay Island and Vinticayan Point, about 0.4 mile S.

Small vessels can take anchorage in the middle of the bay, in depths of 7 to 18m. This anchorage is well protected from the Southwest Monsoon and partially from the Northeast Monsoon. Vinticayan Point is composed of high rocky cliffs, with grass on its E extremity.

**Binorong Point** (13° 40'N., 124° 25'E.), located about 2.75 miles SSE of Vinticayan Point, is formed by high, dark-colored, rocky cliffs. A wooded peak, 81m high, stands about 0.1 mile within the point, and is prominent.

Zayao Islet, lying in the middle of the approach to Guinsaanan Bay, about 0.5 mile N of Binorong Point, is 24m high and barren. It is connected to the mainland W and NW by a reef that breaks in a moderate sea.

A rock, 5.5m high, lies about 0.2 mile SSE of Tominongton Point, located about 1.25 miles SW of Binorong Point.

**5.68 Guinsaanan Bay** (13° 40'N., 124° 25'E.) lies about 3 miles SE of Agban Bay. The bay is encumbered with rocks and reefs.

**Kalapadan Bay** (13° 39'N., 124° 22'E.) is entered between Bandayanon Point and Taris Point, 2.25 miles SW. The shores of the bay are fringed by reefs up to 0.5 mile offshore.

The town of Baras stands on the NE side of the bay. A white iron roof at the E end of town is prominent.

It is visible from the vicinity of Sinalog, 5 miles SSW. Pinohagan Islet, wooded, lies on the edge of the fringing reef close SW of Bandayanon Point.

Jumbit Islets, consisting of seven grassy islets, extend about 1 mile S of Bandayanon Point. The larger islets vary in height from 19 to 34m and are covered with grass and bushes.

The smaller islets are mere rocks, from 2 to 9m high. The entire group rises from a reef extending 0.25 to 0.5 mile W and 0.25 mile E of the islets. A rock, 0.9m high, lies 91m S of the islet farthest S.

The most dangerous part of the reef is at the NW end where depths of as little as 0.3m are found.

Detached reefs, with depths of 5.5 to 9.1m, lie 0.75 mile and 1.1 miles WSW, respectively, of Pinohagan Islet. A shoal, with a depth of 8.2m, lies about 0.4 mile NNE of Maguinling Islet. A shoal, with a depth of 4.1m, lies about 0.5 miles SW of Minabalay Islet.

Vessels can take anchorage in Kalapadan Bay about 0.4 mile W of Pinohagan Islet, in a depth of 16.5m, sand. Small vessels

can anchor about midway between Minabalay Islet and the W face of the peninsula that forms Bandayanon Point, in a depth of 7.3m, mud.

Baras Light is shown on a point 0.5 mile NNW of Bandayanon Point.

**Cagaray Point** (13° 37'N., 124° 21'E.), located 0.75 mile S of Taris Point, is a narrow densely wooded neck of land, and faced with rugged cliffs. An islet of the same name lies close N of the point. Sinactan Point, 1.25 miles S of Cagaray Point, is a densely wooded point of land.

**Locot Bay** (13° 34'N., 124° 20'E.) lies about 2.25 miles SSW of Sinactan Point. A coral reef near the middle of the head of the bay extends almost 0.75 mile E, thus dividing the bay into two parts. Locot Islets, two in number, lie on the E extremity of this reef. Both islets are rocky and covered with bushes.

**Nagumbuaya Point** (13° 33'N., 124° 21'E.) is the S entrance point of Locot Bay. The point is the termination of a narrow strip of land. It is very rugged, especially near the outer end, where the cliffs rise abruptly. Four hills stand near the E end of the point. The land W of these hills is low and wooded. A rock, 10.6m high, lies close E of the end of the point.

## Lagonoy Gulf

**5.69 Lagonoy Gulf** (13° 35'N., 123° 50'E.), entered between Nagumbuaya Point and Ungay Point, the E extremity of Rapu Rapu Island, is a deep body of water, about 23 miles wide at the entrance. There are considerable depths in the middle of the gulf and there are no reported dangers outside a distance of 3 miles from its shores.

**Palag Bay** (13° 44'N., 123° 56'E.) lies about 2 miles NW of Rungus Point. The head of the bay is fringed by a steep-to reef. Both entrance points are free of charted dangers on their seaward side.

Rungus Rock, an above-water danger, lies 0.2 mile NNW of Rungus Point. A shoal, with a depth of 4.5m, lies 0.25 mile offshore in a position 0.75 mile NW of Rungus Point.

Vessels can take anchorage in the middle of the bay, in depths of 37 to 55m.

The space available is small, but well protected from all but SE winds.

**Gujjalo Bay** (13° 44'N., 123° 52'E.) lies about 3.5 miles W of Palag Bay. The bay is deep and clear of dangers in its middle part. The head of the bay is fringed by a steep-to reef.

Port Minas, a small port, lies in a cove on the W side of Gujjalo Bay. Anchorage can be taken off the entrance to the cove.

**Alto Point** (13° 43'N., 123° 39'E.), about 18 miles W of Rungus Point, is moderately high and steep-to. Rosa Islet, low and wooded, lies about 0.75 mile ESE of Alto Point. It is fringed by a reef. There is a clear, deep channel, 0.5 mile wide between the islet and the N shore of the gulf.

Alto Reef, part of which dries, lies 0.5 mile SW of Alto Point. The channel between the reef and Rosa Islet is about 1 mile wide and clear of dangers.

**Directions.**—When passing N of Rosa Islet and Alto Reef, keep 0.25 mile from the Luzon shore which is clear of dangers and steep-to.

**5.70 Panagan** (13° 44'N., 123° 36'E.) (World Port Index No. 58140) lies about 3.5 miles WNW of Alto Point. A wharf extends in a S direction from the port. Sabang, a small town, lies about 1.25 miles WSW of Panagan, and stands on the S side of the entrance to the Lagonoy River. A light is shown from the town.

Vessels can take anchorage, in depths of from 18 to 22m, 0.5 mile offshore with Sabang Church bearing between 316° and 001°.

**Sagnay Point** (13° 36'N., 123° 33'E.) lies 7.5 miles SSW of Sabang. A reef, on which there are some above-water rocks, extends about 0.5 mile N from Sagnay Point. A small town stands about 1.5 miles W of the point.

The **Nato River** (13° 36'N., 123° 33'E.) empties into the gulf close N of Sagnay Point. The entrance to the river is blocked by reefs and shoals. Nato, a small town, stands on the N bank about 0.75 mile from the mouth of the river. A small wharf is located N of the town.

Vessels can take anchorage with Sagnay Point bearing 171°, Atulayan Island bearing 148°, and Rosa Islet bearing 054°, in a depth of 26m. A small boat showing a flag meets incoming vessels and leads them to the anchorage.

**5.71 Atulayan Bay** (13° 35'N., 123° 33'E.), extending between Sagnay Point and Gorda Point, indents the coast for about 2 miles. A reef fringes the shores of the bay.

Atulayan Island, fringed by a narrow reef, lies in the middle of the entrance to Atulayan Bay. Reefs, with a least depth of 3.6 and 1.8m, lie 0.25 mile SW and 0.25 mile NW of the island.

Vessels can take anchorage with Sagnay Point bearing 012°, the W extremity of Atulayan Island bearing 040°, and the SE entrance point of the bay bearing 098°, in a depth of 37m, mud.

Vessels entering the bay may pass either NW or S of Atulayan Island. When using the NW entrance, vessels should pass fairly close to Sagnay Point in order to avoid the large reef NW of Atulayan Island.

**5.72 Tabaco Bay** (13° 20'N., 123° 47'E.), lies SE of Gorda Point and is entered between Tiwi Point and San Miguel Point, about 7 miles SE. The bay extends about 12.5 miles in a SE direction.

A 7.3m rocky shoal lies 1 mile NW of San Miguel Point and a 10.4m patch lies about 0.25 mile farther N; this latter patch was found to have extended S. The fairway into Tabaco Bay lies between these shoals.

A bank, with depths from 1 to 16m, extends 3.25 miles NW from a position 1.75 miles NW of San Miguel Point, leaving a deep, narrow channel between its NW end and the N coast of Luzon, 2 miles SE of **Tiwi Point** (13° 29'N., 123° 40'E.). There is a sand cay near the NW end of the bank.

The shores on both sides of the bay are steep-to. The towns of Malinao, Tabaco, and Malilipot, located about 5, 8, and 10.5 miles SSE, respectively, of Tiwi Point. The churches at Tiwi, Malinao, and Tabaco serve as good landmarks for vessels entering Tabaco Bay. There are a number of prominent warehouses and buildings at Tabaco.

Malinao leading marks are situated at **Malinao** (31° 24'N., 123° 42'E.). The front is a white concrete pillar, 7m high, on the beach NE of Malinao. The rear is a wooden, framework tower

0.65 mile WSW of the front mark. Fixed red lights are shown from these beacons, which in line 239°, lead into Tabaco Bay, N of the 7.3m shoal but across the S end of the 10.4m patch mentioned above.

Caution is therefore required when making the approach. The leading marks have been reported difficult to see.

Bacacay, a small town, is located on the SW shore of the bay in a position about 3.5 miles ESE of Malilipot. A reef extends about 1 mile NE from the W side of the head of Tabaco Bay, about 1 mile E of Bacacay.

Buguias Islet, low and flat, lies on this reef about 0.5 mile within its outer end. There are several islets and shoals lying SE of this reef and near the head of the bay.

Pili Bay is a long shallow inlet extending from the SW side of the head of the bay almost to Albay Gulf; its S end is separated from the gulf by a narrow, gravel bank about 1.8m high.

Sula Channel, with a least depth of 1.5m, is a narrow and tortuous channel that separates Luzon from Cagraray Island and connects the head of Tabaco Bay with Albay Gulf.

**5.73 Tabaco** (13° 22'N., 123° 44'E.) (World Port Index No. 58150) is the most important point in Lagonoy Gulf.

The town church and several large buildings are prominent. The port is protected by a natural breakwater formed by a sandbar which is partly covered with vegetation and trees.

**Tides—Currents.**—During the Northeast Monsoon (November to early March), berthing at the pier is very difficult. Rain and wind squalls occur quite frequently during the months of December and January. During the typhoon season (June to November), typhoons often cause severe damage in the Tabaco Bay area.

The tidal currents are weak and reported variable in Tabaco Bay. It is reported by local pilots that the flood current sets N and the ebb S off the face of the pier at Tabaco. A strong eddy current is reported to exist in the vicinity of Baculud Point.

**Depths—Limitations.**—There is a concrete wharf about 300m long and 12m wide, with a depth of 9.1m alongside. A dangerous wreck lay at the N end of the wharf. The maximum size of vessel accepted is 300m in length and a draft of 8.5m. Improvements to the port are planned.

**Pilotage.**—Requests for pilotage, which is compulsory, should be communicated to the Harbor Pilot Association, Legazpi City, at least 24 hours before arrival. The pilot boarding area is established 2.25 miles NNE of San Miguel Point.

**Anchorage.**—There are no good anchorages in Tabaco Bay due to the deep water. An anchorage area is established 0.9 mile ESE of the pier, in a depth of about 75m, mud.

**Directions.**—Tabaco Bay should be approached with Malinao Leading Marks in line, which leads 0.3 mile NW of the 7.3m shoal in the entrance. When Tabaco Church bears 186°, steer to pass close E of Baculud Point and then to the anchorage.

**Caution.**—Vessels should not enter Tabaco Bay at night, but may leave after dark. It has been reported (1994) that the range is obscured by trees and is not lit at night.

**5.74 San Miguel Island** (13° 23'N., 123° 48'E.) is densely wooded. Drying reefs extend 1 mile off its NE side.

A shoal, with a depth of 11m, lies 2 miles N of Budias Point, the E extremity of the island.

The town of San Miguel stands on the S side of San Miguel Island in a position about 2.75 miles SE of **San Miguel Point** (13° 24'N., 123° 46'E.), the NW extremity of the island. The offshore end of a small landing at San Miguel is destroyed.

**Cagraray Island** (13° 18'N., 123° 52'E.), densely wooded and 383m high, is separated from the SE side of San Miguel Island by Casolgan Pass, a narrow strait that nearly dries at LW. There are four small islets in the pass, the one farthest S being the largest.

The deeply indented E side of the island is separated from Batan Island by Cagraray Pass, a narrow strait that is blocked by reefs.

Mango Islet, which lies in the middle of the pass, is low and partly covered with coconut trees.

The N shore of Cagraray Island is fringed by a reef that extends up to 1 mile offshore. A shoal, with a depth of 11m, lies about 3.25 miles NW of Tumaras Point, the NE extremity of the island.

Cagbulauan Island, 76m high, and Guinanayan Island, 56m high, lie in the N end of Cagraray Pass, E of the NE side of Cagraray Island and N of the W part of the N coast of Batan Island.

The islands are small, wooded, and surrounded by reefs that extend about 0.5 mile offshore from their N sides.

**5.75 Batan Island** (13° 15'N., 123° 59'E.) extends about 11.25 miles E from Mancao Point, its W extremity, which is located about 2.75 miles SSW of Tumaras Point.

Mount Viscaya, 396m high and located about 7 miles ESE of Mancao Point, is the summit of the island. The island is heavily wooded and is rich in coal. The N coast between Mancao Point and Kalanaga Bay, about 7.25 miles E, is fringed by a reef extending about 1 mile offshore in places.

Small craft, with local knowledge, can find protected anchorage SE of Guinanayan Island. The approach to this anchorage is narrow and bordered by reefs.

Gaba Bay, entered between Labcan Point, located about 4 miles E of Mancao Point, and Nanlampalay Point, about 1 mile E, indents the coast about 1.75 miles. The entrance is encumbered with shoals and the shores of the bay are fringed with reefs.

A very narrow channel, with depths of 7 to 17m, leads between the reefs to the head of the bay. Small craft, with local knowledge, can find protected anchorage in the middle of the bay, in a depth of 16.5m.

Cone Island, a small, sharp islet about 61m high, stands close off Nanlampalay Point. Mount Bilbao, densely wooded and 288m high, is the summit of the peninsula that separates Gaba Bay from Kalanaga Bay.

Kalanaga Bay, entered between Sharp Point, located about 1.75 miles ESE of Nanlampalay Point, and Kalanaga Point, about 0.5 mile ENE, indents the coast about 1 mile. The shores of the bay are fringed by drying reefs, leaving only a narrow channel and a limited anchorage space. The bay is surrounded by wooded hills.

The town of Kalanaga stands on the SE shore of the bay. There are a few huts on the low spit on the E side of the

entrance. The surf breaks heavily on the W side of the entrance.

Vessels can take anchorage E of Sharp Point, in depths of 16 to 18m. The coast between Kalanaga Point and East Point, about 4 miles ESE, is bold and steep-to. A shoal, with a depth of 8m, lies about 1 mile ENE of East Point.

**Rapu Rapu Island** (13° 13'N., 124° 08'E.) lies with its W extremity 1.5 miles SE of the SE extremity of Batan Island. The island is mountainous and heavily wooded.

The NE coast is fringed by a narrow coral reef that dries, and detached shoals lie up to 2 miles off this coast.

Ungay Point, the E extremity of the island, is bold and prominent. A light is shown from a concrete tower, 16m high, situated on the point.

**5.76 Rapu Rapu Strait** (13° 14'N., 124° 05'E.) lies between Batan Island and Rapu Rapu Island. The strait is 5 miles long and 0.4 mile wide at its narrowest point. The channel is tortuous and is encumbered with numerous reefs, but there is a good channel through it with a least depth of 6.4m. It should only be used with local knowledge.

Navigational aids mark some of the dangers in the strait and can best be seen on the area chart.

Drying reefs and shoals lie up to 1.5 miles off the E coast of Batan Island. Reefs and shoals extend 0.6 mile WNW and 1.75 miles W from Acal Point, located about 4.25 miles ENE of Babayon Point. The remainder of the NW coast of Rapu Rapu Island is fringed by reefs and shoals up to a distance of 0.4 mile.

Middle Reef lies on the W side of the channel in a position about 1.5 miles SSW of East Point. The reef is awash at LW and breaks heavily during the Northeast Monsoon. Drying reefs and shoals lie between this reef and the coast of Batan Island to the WNW and W.

A shoal, with a least depth of 6.9m, lies on the E side of the fairway in a position about 1.25 miles S of East Point.

The channel between the 10m curve surrounding this shoal and the 10m curve surrounding Middle Reef has a least width of about 0.1 mile.

A large drying reef lies about 0.4 mile E of Middle Reef. A shoal spit extends about 0.1 mile SW from its SW side.

A shoal, with a depth of 6m, lies about 0.4 mile S of the S end of Middle Reef.

Derickson Reef extends about 0.5 mile NE from its S extremity, which is located about 1.25 miles ENE of Babayon Point. The reef is partly awash and generally can be readily identified. The channel passes close SE of the S extremity of this reef.

A shoal, with a least depth of 2.3m, lies about 0.2 mile N of the N extremity of Derickson Reef.

A shoal, with a depth of 7.8m, lies about 0.9 mile NE of Babayon Point. Two small shoals, with depths of 6.9m, lie close together in a position about 0.5 mile N of the same point.

A shoal, with a least depth of 5.1m, lies about 0.6 mile NW of Babayon Point. The channel passes well S of these shoals.

Columbia Reef, with a least depth of 1.3m, lies about 1 mile W of Babayon Point. Detached shoals, with depths of 4.1 to 14.6m, lie between this shoal and the coast of Batan Island to the N.

Babayon Reef, which partly dries, lies about 0.4 mile WSW to Babayon Point. The channel between the 10m curve surrounding this reef and the 10m curve surrounding Columbia Reef is about 0.3 mile wide.

Two range beacons, located about 2.25 miles ENE of Babayon Point, mark the channel E of Middle Reef. These beacons in range 185.5° lead between Middle Reef and the reefs E of it. Ships passing through Rapu Rapu Strait from N should use this range.

Tidal currents in Rapu Rapu Strait attain a rate of 1.5 knots.

**Batan Harbor** (13° 14'N., 124° 03'E.) lies on the SE coast of Batan Island. The entrance to the harbor, which is easy of access, lies N of the SW entrance of Rapu Rapu Strait.

A wooden wharf extends SE from the shore and was reported to have a depth of 3.7m alongside. The channel leading to the wharf is marked by beacons.

Small vessels usually anchor 0.2 mile SE of the wharf, in depths of from 15 to 18m.

**5.77 Coal Harbor** (13° 15'N., 123° 55'E.) (World Port Index No. 58160) is entered between Binalbagan Point, the SW extremity of Batan Island, and Cagraray.

The harbor extends about 2 miles NW, beyond which it is blocked by reefs.

Numerous shoals and dangers lie in the middle of the harbor, through which there is a deep channel leading from the outer harbor into the inner harbor.

Liguan, a small town with an abandoned coal mine, stands near Liguan Point about 2.75 miles NW of Binalbagan Point. Misibis, a small town, stands on the W side of the harbor in a position about 0.5 mile NNW of Cagraray Point.

A drying reef extends about 0.3 mile offshore from a position about 0.5 mile NW of Binalbagan Point. Detached shoals, with depths of 0.3 to 6.9m, lie up to 0.5 mile S and 0.3 mile SW of Tinukawan Point, which is located about 2 miles NW of Binalbagan Point.

Liguan Point is fringed by a drying reef that extends 0.4 mile W and 0.5 mile S. A rock, 6.1m high, stands near the middle of this reef. A shoal, with a depth of 4.1m, lies on the E side of the channel in a position about 10.75 miles WSW of Liguan Point. A lighted buoy marks the NE side of the shoal extending from Cagraray Point.

**Anchorage.**—Vessels can take anchorage in the outer harbor, sheltered from all winds, except from SE, about 0.5 mile N of Cagraray Point, in depths of from 46 to 55m.

Small vessels with local knowledge can anchor in a small bight, fringed by coral reefs, about 0.35 mile NW of Liguan Point, in a depth of 33m.

**5.78 Cagraray Point** (13° 14'N., 123° 55'E.), located on the W side of the entrance to Coal Harbor, is fringed by a reef that extends 0.3 mile offshore. A shoal spit extends 0.25 mile E from the reef; a least depth of 1.2m is found on the spit.

A detached reef lies awash about 0.4 mile offshore in a position 0.75 mile SW of Cagraray Point. A shoal, with a depth of 5.1m, lies 0.4 mile SSW of the same point.

**Port Sula** (13° 14'N., 123° 52'E.) lies about 2.75 miles WSW of Coal Harbor, and is entered between Cabadea Point, and a point about 0.3 mile to the NW. The port is about 0.25 mile wide from the entrance to Picadero Point.

A light is shown on Cabadea Point. The channel above Picadero Point is narrow, shoal, and unfit for navigation.

Vessels can take anchorage in the middle of the unmarked channel, in depths of from 11 to 18m.

**Libog** (13° 14'N., 123° 47'E.) is a small town located in the NW corner of Albay Gulf, about 5.5 miles W of Port Sula. The twin spires of the town church is prominent. A drying reef extends up to 0.25 mile offshore abreast of and E of the town.

## Albay Gulf

**5.79 Albay Gulf** (13° 10'N., 124° 00'E.) is entered between Ungay Point and Bingay Point, 7 miles SSW.

The shores of the gulf are mostly steep-to and the depths are considerable, but there are several dangerous reefs lying up to 3 miles from the head of the gulf.

**Rapu Rapu** (13° 11'N., 124° 08'E.), a small town, is located about 5.5 miles W of Ungay Point. There is a post office and radio station in the town.

The S side of Rapu Rapu Island is clear of dangers, except for a large drying reef that extends about 0.75 mile offshore in the vicinity of the town of Rapu Rapu. This reef extends along the coast for about 2.5 miles. On the outer edge of the reef, abreast the W end of the town, are two rocks, about 6.1m and 9.1m high.

Small vessels can take anchorage, protected from SW winds, in a small bay located close E of the E end of the reef. There is a narrow channel entered from W, between the reef and the S side of the island, which leads to within 0.5 mile of the town.

**Bugton Point** (13° 13'N., 124° 01'E.), the S extremity of Batan Island and the SW entrance point of Rapu Rapu Strait, is low, rounded, and backed by high hills.

A small cove, located about 2.25 miles WNW of Bugton Point, indents the coast to a distance of about 0.75 mile. The E shore and the head of the cove are fringed by reefs. A rock, 7m high, stands on the W edge of the reef that fringes the E shore.

A drying reef lies in the SW approach to the cove in a position about 3 miles WNW of Bugton Point and about 0.25 mile offshore.

Small vessels can take anchorage off the W side of the cove, in a depth of 5.8m.

**Mayon Volcano** (13° 15'N., 123° 41'E.), the most prominent landmark in this part of Luzon, is located about 5.5 miles W of Libog. The volcano has the shape of a perfect cone, and at times emits a considerable amount of vapor.

Mount Linguoin, a conical wooded hill, 169m high, exhibiting an obstruction light, is located 5 miles SSW of Libog.

**5.80 Legazpi Port** (13° 09'N., 123° 45'E.) ([World Port Index No. 58170](#)), the principal seaport on the E coast of Luzon, lies at the head of Albay Gulf. It is the center of the largest hemp-producing area of the Philippines.

**Winds—Weather.**—From October to May, the prevailing winds are from the N and NE. The rest of the year is predominated by SW winds.

**Depths—Limitations.**—Legazpi Port is not considered to be a safe harbor, except under the most favorable weather conditions. Berthing should be attempted only in daylight hours.

The harbor consists of a basin formed by two breakwaters. There is a wharf, about 328m long, on the N side. It was reported that the usable length was limited to 69m, with a depth of 4m.

It was reported that the maximum size of vessel accepted in Legazpi Port was 120m loa with a 7.6m draft. The maximum size of vessel accepted at Legazpi Oil Company pier is 230m with a draft of 10m.

There are two small piers on the waterfront N of the basin. The piers extend about 45m from the shore. Vessels moor stern-to to these piers. These piers have been reported to be damaged.

A conspicuous copra plant made of galvanized metal, and well lighted, stands 2.25 miles N of the entrance to Legazpi Port.

There is an L-shaped pier, reported to be in poor condition at the plant, with a berthing head of 14m and a depth of 11.9m alongside. Dolphins are placed to form a 167m long berth. Vessels up to 230m in length and 10.6m in draft can use the berth.

It has also been reported that there is usually a heavy swell at the berth, with January being unsafe and July and August being the calmest.

All grades of fuel are reported to be available by road tanker.

**Aspect.**—The port is distinguished by the number of houses with metal roofs and the various small piers jutting out from the warehouses on the waterfront.

A light, partly obscured by trees when viewed from NE and difficult to distinguish in the early morning light, is shown 0.5 mile N of the port.

An obstruction light is shown from the top of a hotel in the port but has been recently reported extinguished. A prominent church stands on a hill, 3 miles W of Capuntucan Point.

**Pilotage.**—Pilotage is compulsory. The pilotage district embraces the waters within a radius of 3 miles from the light. The pilot boarding area is about 3.5 miles NNE of Legazpi Light. A 48 hour notice should be given, and the ETA to be confirmed 24 hours before arrival.

**Anchorage.**—An anchorage area is established 10.8 miles E of Legazpi Light, in a depth of about 66m.

The holding ground is poor because of the irregular steep bottom. The anchorage is open to the E and exposed to the Northeast Monsoon, which causes a heavy swell.

During heavy weather from the E, vessels should seek anchorage in Coal Harbor or in Port Sula.

**Directions.**—Lagazpi Port is usually approached by skirting the N shore of Albay Gulf at a distance of at least 1 mile, until the harbor bears 211°, when it should be steered for

The anchorage may be approached directly by steering for the light 0.5 mile N of the port, bearing 255°, which leads midway between Barao Reef and Denson Reef.

In daylight, the prominent church at **Daraga** (13° 09'N., 123° 43'E.), bearing 257° and just open N of the light, is a good leading mark for this channel.

**5.81 Catubeg Reef** (13° 11'N., 123° 48'E.), with a depth of 3m, lies about 3.5 miles NE of Capuntucan Point. Three reefs, one uncharted, with depths of between 13.2 to 21.9m, lie between 1 mile and 1.5 miles W of Catubeg Reef. Barao Reef,

with a least depth of 1.2m, lies about 0.5 mile SW of Catubeg Reef

Denson Reef, with a least depth of 1.2m, lies about 1.25 miles S of Barao Reef.

Poliqui Reef, with a depth of 5.1m, lies about 1.5 miles SE of Denson Reef. Legazpi Reef, with a least depth of 4.6m, lies about 1 mile NNW of Lubas Point.

**5.82 Poliqui Bay** (13° 06'N., 123° 48'E.) lies in the SW corner of Albay Gulf and is entered between Lubas Point and Cautit Point, 5 miles E. The bay indents the SW side of the gulf for about 5 miles. There are no ports of any importance in the bay.

**Manito Reef** (13° 09'N., 123° 51'E.), with a least depth of 2.7m, lies about 1 mile WNW of Cautit Point. Cautit Reefs, 0.5 mile S of Manito Reef, consists of two reefs separated by a narrow, deep channel. The N reef has a depth of 0.3m, while the S reef has a depth of 0.9m.

The S shore of Albay Gulf, from Cautit Point to Bacon, 12 miles SE, is fringed by a narrow reef.

**Bacon** (13° 02'N., 124° 02'E.) is a small town. A prominent hill stands 1 mile W of the town. The town church and red roofed schoolhouse are conspicuous. A dangerous rock lies awash N of the church and 0.2 mile offshore.

Vessels can take anchorage about 0.75 mile offshore, with the church bearing 181°, in depths of 22 to 28m, mud and sand.

Small vessels can anchor on the same bearing, 0.25 mile off, in a depth of 9.1m. These anchorages are open roadsteads and fully exposed to the Northeast Monsoon. The holding ground is poor where small vessels can anchor.

**Sugot Bay** (13° 02'N., 124° 05'E.), entered between Papucha Point, 1.5 miles SW of Bacon, and Pagjuriran Point, 3 miles NE, indents the coast for about 2.75 miles in a S direction.

A town stands on the NE side of the bay, about 1.25 miles S of Pagjuriran Point. A village stands 1.25 miles S of the town.

A mole extends 0.2 mile from the E shore, about 1.25 miles from the head of the bay.

Vessels can take anchorage about 1 mile N of the head of the bay, in depths of from 22 to 27m.

**Bingay Point** (13° 04'N., 124° 11'E.), the S entrance point to Albay Gulf, is low and wooded. It is fringed by a drying reef extending about 0.25 mile N and about 1.5 miles E. The reef is well defined and steep-to.

Bingay Island, a rock 4.5m high, is located 0.4 mile E of Bingay Point; the reef extends about 0.1 mile N of the islet. A dangerous wreck lies close E of the edge of the reef 2 miles ESE of Bingay Point.