



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.
SECTOR 8 — CHART INFORMATION

SECTOR 8

WEST AND NORTH COASTS OF MINDANAO

Plan.—This sector describes the W and N coasts of Mindanao. The descriptive sequence is N from Caldera Point to Sibalic Point (Sibalik Point), then W to E to Madilao Point.

General Remarks

8.1 The W coast of Mindanao borders on the Sulu Sea and consists of the W side of the Zamboanga Peninsula. Heavily forested mountains rise to elevations of about 366 to 610m, forming a wide central ridge which is virtually unexplored, and extending the length of the Zamboanga Peninsula. The 20m curve fringes the W coast, varying from 0.2 to 0.5 mile offshore.

The 200m curve varies from 0.25 mile to 5 miles offshore. There are no known dangers seaward of the 200m curve. It is a very exposed coast and heavy seas are experienced, especially during the Southwest Monsoon. The best sheltered anchorage on the W coast is Port Santa Maria. There is no recommended typhoon refuge.

The N coast of Mindanao is indented by four large bays separated by broad peninsulas which terminate in bold capes. The largest of these, Iligan Bay, has a long SW reach nearly dividing the island in two, with only 7.5 miles at the narrowest part.

The terrain of the N coast is rugged and otherwise similar to the W coast except that the hinterland is much higher. The 200m curve fringing the N coast varies from about 0.3 mile to 4 miles offshore, except for a narrow shelf extending about 11 miles NW from the NW extremity of the island. Nasipit Harbor and Port Ozamiz are recommended typhoon refuges.

Wind—Weather.—The Southwest Monsoon prevails from the end of June until November. It is not as strong and steady as the Northeast Monsoon. It is usually accompanied by overcast sky and rain, especially on the W coast of Mindanao. Southwesterly gales, which are accompanied by heavy rains, occur occasionally during the Southwest Monsoon. In October, the winds vary from SW to N and are usually accompanied by squalls and thunderstorms.

From December until early March, the Northeast Monsoon prevails with some strength on the N coast of Mindanao and occasionally reaches gale force in the open sea.

Mindanao is S of the usual typhoon tracks, however, occasionally they pass across the island from E during the month of December.

Tides—Currents.—Off the W coast of Mindanao, the W tidal current from **Basilan Strait** (6°48'N., 122°00'E.) flows N, meeting the S tidal current from **Surigao Strait** (10°28'N., 125°23'E.) about midway up the coast.

Strong E eddies set toward **Caldera Point** (6°57'N., 121°58'E.). A rough sea rises off this coast during the Southwest Monsoon.

In the **Bohol Sea** (Mindanao Sea) (9°21'N., 124°00'E.) there is a W set in both monsoons, varying in strength according to wind and tide. Between the S end of **Negros** (9°03'N.,

123°03'E.) and **Tagolo Point** (8°44'N., 123°23'E.), there is a SE set.

Vessels approaching **Surigao Strait** (10°28'N., 125°23'E.) from the W should keep well N of the **Camiguin Island** (9°15'N., 124°43'E.) N extremity to offset the SW set. In the S part of Bohol Sea, the currents are weak and follow the direction of the prevailing monsoon. Along the N coast of Mindanao, the currents are influenced by the discharge of the rivers.

Mindanao—West Coast

8.2 The coast between **Caldera Point** (6°57'N., 121°58'E.) and Coronado Point, about 62 miles NNE, consists of heavily-wooded mountain slopes which rise steeply from the shore except on the SW coast of the peninsula, which is low and extensively cultivated. A number of exposed bays, which afford temporary anchorage, indent the coast.

Caldera Point, a sandy point with a coconut plantation, is located on the SW extremity of Zamboanga Peninsula.

San Ramon (7°00'N., 121°55'E.), 3.75 miles NW of Caldera Point, is the site of a penal colony. The buildings are quite prominent, day or night, as many lights are kept on all night. A monument stands on the coast in the middle of the colony.

Batorampon Point (7°07'N., 121°54'E.) lies about 7 miles NNW of San Ramon; the coast between is low, covered with trees, and bordered with steep sand beaches. Batorampon Point is backed by a sand hill, 137m high, flat on top, and densely wooded.

Vessels approaching from N by night, keep well clear of Alimpaya Point, 2.25 miles N of Batorampon Point, as it is low and flat and does not show up well against the higher point S.

From Alimpaya Point to **Pangian Point** (7°17'N., 122°01'E.), the S entrance point of Sibuco Bay, the coast trends NE about 10.5 miles.

The coast is steep-to and free of dangers, except for close offshore rocks lying about 6 miles NE of Alimpaya Point.

Sibuco Bay (Sibuko Bay), entered between Pangian Point and Sibuco Point, about 3.3 miles NNE, offers no protection during either monsoon, and a considerable swell sets in. The bay is deep and clear of dangers.

Vessels calling at Sibuco Bay anchor about 0.2 mile offshore, in a position about 0.5 mile SW of Sibuco town, at the head of the bay.

Between Sibuco Point and **Cauit Point** (7°32'N., 122°05'E.), about 12 miles NNE, the coast is high and has several small coves that afford temporary anchorage for coastal vessels.

From Cauit Point to **Siraguay Point** (7°33'N., 122°07'E.), about 2.5 miles ENE, several small bays indent the coast. Pican Bay, a small cove located E of the former point, affords protection to small vessels during the Southwest Monsoon.

Panabutan Bay, entered between Siraguay Point and Balatacan Point, about 2.8 miles N, has a very irregular shore line. A timber mill stands at the head of Panabutan Bay. The N

part of the bay is sheltered from the Northeast Monsoon, with a depth of 18m.

A good landmark for approaching Panabutan Bay is the 270m hill close E of Balatacan Point. The hill is heavily-wooded, except for the lower slope of its S side.

Anchorage can be taken E of **Panabutan Point** (7°35'N., 122°07'E.), in 18m, mud. This anchorage is open to W and SW winds.

Caution.—A rock awash, lies 91m off Balatacan Point. It is difficult to distinguish at HW.

Siocan Bay (Siocan Bay) is entered between **Balatacan Point** (7°36'N., 122°06'E.) and Dulunguin Point, 8.5 miles N. It provides anchorage for small vessels in the N part, sheltered from NE winds, but close in because of the great depths.

A 4.9m patch lies 0.75 S of Dulunguin Point, and a group of rocks, 2m high, lies 10.75 mile N of the point.

The Siocan River flows into the bay about 3 miles SE of **Dulunguin Point** (7°44'N., 122°05'E.).

A good landmark for the N part of the bay is a hill, 75m high, located on the N bank of the river about 1.3 miles NE of the river mouth.

8.3 Port Santa Maria (Puerto) (7°46'N., 122°07'E.) (*World Port Index No. 59600*), a timber port, lies in a nearly landlocked bay 2 miles N of Dulunguin Point. The entrance, which is difficult to distinguish from a distance, is 0.2 mile wide between the shoals just inside it and has considerable depths in the fairway.

Mount Santa Maria, 197m high, lies about 0.8 mile S of the S entrance point of the harbor and is a good landmark.

A privately owned wooden wharf, 67m in length, with a T-head 24m long, is situated on the N side of the E bay.

Depths of 9.1m were reported alongside. It is reported that fish traps lie on the N and S side of the approach to the wharf, and vessels should pass between them.

There is good anchorage in either bay at the head of the harbor, in depths of 22 to 27m. It provides the best sheltered anchorage on the W coast of Mindanao.

8.4 Nunuyan Bay, entered between **Sampoak Point** (7°47'N., 122°06'E.), 1.5 miles N of the entrance to Port Santa Maria, and Nunuyan Point, 1.5 miles NE, provides good anchorage during the Southwest Monsoon (May to September). Several small settlements stand along the shores of the bay.

Baligian Bay, entered N of Nunuyan Point provides good anchorage, in depths from 9 to 27m, protected from the NE.

The approach lies S of **Candulungan Island** (7°49'N., 122°07'E.), which lies 0.6 mile W of the N entrance point of the bay, with shoal water between. The island is steep-to, but should be given a berth of 0.25 mile.

Coronado Bay is entered between **Tumao Point** (7°52'N., 122°10'E.), located 3.5 miles NE of Candulungan Island and **Coronado Point** (7°57'N., 122°13'E.), 5.75 miles farther NE.

Anchorage, protected from NE, can be obtained close S of Coronado Point, in 18 to 36m. Coronado Point is reported to be a good radar target at 24 miles.

Two shoals, with depths of 3m and 11.3m, lie 2 miles SSW and SW, respectively, of Coronado Point. Two other shoals,

with depths of 3.2m and 7.6m, lie 1.25 and 1.75 miles S, respectively, of the same point.

Between Coronado Point and **Quipit Point** (8°04'N., 122°28'E.), about 16 miles NE, the coast is backed by heavily-wooded mountains. The lower slopes and foothills are undulating and have large, coarse, tall grass areas.

Sibalic Point (8°03'N., 122°21'E.), 10 miles NE of Coronado Point, is steep-to and bold. Quipit Point, low, flat, and sandy, is located 6.75 miles ENE of Sibalic Point. The 20m curve is charted less than 1 mile offshore, except N of Quipit Point where shoals and banks extend about 3.5 miles offshore.

8.5 Murcielagos Islands (8°07'N., 122°27'E.) are two islands lying on the same reef, 3 miles NNW of Quipit Point. The E and larger island is 12m high to the top of the trees. The reef is steep-to; a 3m shoal lies off its E end.

There is a deep channel between Murcielagos Islands and the coastal bank off Quipit Point, but there is a 11.9m patch lying 0.75 mile S of the larger island. There are tide-rips E of the channel.

Quipit Bay, entered between **Quipit Point** (8°04'N., 122°28'E.) and **Sawigan Point** (8°05'N., 122°31'E.), low, flat, and sandy located 3.5 miles E, provides shelter protected from SW. Several shoals, with depths of 2.7 to 8.5m, lie between the entrance points.

Anchorage, protected from SW winds and swells, can be taken in 13 to 17m in the middle of the bay. The approach is made from NE, passing about 0.5 mile off Sawigan Point.

Sindangan Bay, entered between **Sindangan Point** (8°10'N., 122°40'E.) and Lanboyan Point, about 19 miles NE, is a broad exposed bay with great depths; it is clear of dangers right up to the shore. The 20m curve is found less than 0.5 mile offshore, except off the town of Sindangan, where depths of 7 to 15m are found as far as 1 mile offshore.

Anchorage, protected from SE, can be taken in the E part of the bay, WNW of Sindangan, in 7.3 to 14.6m, mud. The anchorage lies about 295° from the town, at a distance of 0.5 to 1 mile from the shore.

8.6 Lanboyan Point (8°18'N., 122°56'E.), the NE entrance point of Sindangan Bay, appears as a yellow slide that rises abruptly from the water's edge to a height of 46m to the tree tops on the point. Strong tide-rips are found NW of the point.

Between Lanboyan Point and Blanca Point, about 14.5 miles NNE, sparsely wooded lower slopes extend inland to heavily-wooded mountains. The coast is clear seaward of the 20m curve, which is charted less than 0.75 mile offshore.

Madalag Point (8°25'N., 122°59'E.), 6.75 miles NNE of Lanboyan Point, is high and steep-to. Dark trees cover the seaward side of the point and show well against the lighter vegetation surrounding it.

Diwait Point (8°29'N., 123°02'E.), about 5.3 miles NNE of Madalag Point, is steep-to and fringed by a narrow reef. Lumayag Rock, on the edge of the latter reef, resembles a sail from NE or SW.

Mount Disacon (8°29'N., 123°05'E.), 456m high, 3.5 miles E of Diwait Point, is the most prominent landmark in the vicinity.

Blanca Point (8°31'N., 123°03'E.), 2.5 miles NE of Diwait Point, is a vertical cliff of white clay, 15m high, and is formed

by a long horizontal table-land covered with grass, but with no trees. The hinterland in this vicinity is mountainous, and there are many densely wooded small peaks and ridges.

Between Blanca Point and **Boton Point** (8°39'N., 123°22'E.), about 20 miles NE, the coast forms a broad unnamed bay, which is deep and free of dangers seaward of the 20m curve; the latter is charted less than 1 mile offshore. The bay is exposed to both monsoons.

Port Roxas (8°31'N., 123°15'E.) is situated about 12 miles E of Blanca Point, close SE of the mouth of the Pian River. The area is floodlit at night. Coconut oil and copra are loaded in bulk from a jetty which projects about 91m offshore and which is equipped with four concrete mooring dolphins, two on each side of the jetty.

Vessels berth heading 150°. A vessel, with a length of 169m and 31,766 dwt, berthed at the jetty. The pilot boards 0.5 mile from the jetty. There are no tugs.

8.7 Dipolog (8°35'N., 123°20'E.) ([World Port Index No. 59610](#)) stands on the S side of the mouth of the Dipolog River, about 4 miles SSW of Boton Point. There is anchorage anywhere W of the town according to draft; depths of 9m are found 0.4 mile offshore.

A concrete cross stands at the seaward end of the main street. During the Southwest Monsoon, when it is too rough to load off Dipolog, coastal vessels call at **Pulauan** (8°38'N., 123°24'E.), lying about 4 miles NNE.

Aligbay Island (8°45'N., 123°13'E.), lying about 10.5 miles NW of Boton Point, is about 30m high and wooded.

A steep-to coral reef extends 0.25 mile from its NW side, and shoal water extends 0.5 mile from its E side. The island is a good radar target up to 22 miles.

Challenger Reef, with a least depth of 6.4m, lies about 2 miles SSE of Aligbay Island.

Don Reef (8°40'N., 123°18'E.), with a depth of 3.7m, coral and steep-to, lies 4.25 miles WNW of Boton Point.

Dapitan Bay (8°40'N., 123°24'E.), entered between Boton Point and Tagolo Point, 5 miles N, is free of dangers and provides shelter from all except NW winds. There are numerous fish traps in the bay. Pilots can be obtained at Cebu or at Cagayan de Oro.

8.8 Pulauan (8°38'N., 123°24'E.) ([World Port Index No. 59620](#)), on the SW side of Dapitan Bay, is located 0.75 mile SE of Boton Point. The pier at Pulauan is 55m long with a depth of 8.8m at its head. A light is shown from Pulauan. It is the loading port for Dipolog and Dapitan.

Dapitan (8°39'N., 123°25'E.) is situated at the head of the bay on what is virtually an island formed by the two mouths of the Dapitan River. With a smooth sea, small craft can cross the bar at HW. Two pyramidal spires of the church at Dapitan are prominent.

There is anchorage, from 0.4 to 0.6 mile offshore, with Dapitan Church bearing 092°, in a depth of 6.4m, but anchorage may be obtained in any part of Dapitan Bay.

Tagolo Point (8°44'N., 123°23'E.), 30m high, is located about 5 miles N of Boton Point. A narrow steep-to reef fringes the point, with wooded slopes rising inland.

The tidal currents are very strong off the point, setting either E or W. A light marks Tagolo Point. Tidal currents set E and W at a considerable rate off Tagolo Point.

Mindanao—North Coast

8.9 Between Tagolo Point and Sulauan Point, about 66 miles ESE, the coast trends about 23.5 miles ESE and then recedes about 26 miles S to form Iligan Bay, the largest bay on the N coast of Mindanao. Panguil Bay is the shoal arm extending about 18 miles SW from the head of Iligan Bay; a number of small bays and coves indent the shores of Iligan Bay.

A coastal plain of varying width rises to high, rugged, wooded mountains. Between Sulauan Point and Bagacay Point, about 28 miles NE, the coast is indented about 12 miles SE by Macajalar Bay. Northward of the E shore of the bay heavily-wooded mountains reach an elevation of 914m.

Tides—Currents.—The tidal currents appear to be very weak along the coast and the currents follow the direction of the wind in both monsoons. The tidal currents set SE from the S end of Negros Island toward Tagolo Point and Silla Point.

Caution.—Seaward of the 200m curve, which follows the general trend of the coast from 0.25 mile to 3 miles offshore, the only dangers are Iligan Reef and Alutaya Reef.

Iligan Reef (8°39'N., 123°52'E.), lying about 7.8 miles ENE of Polo Point (8°36'N., 123°45'E.), is a dangerous reef consisting of coral and white sand; it has a least depth of 2.7m.

Silino Island (8°51'N., 123°25'E.) is a low, flat, wooded island lying about 8 miles NNE of Tagolo Point.

A steep-to reef which is narrow on the E side extends about 0.3 mile from the W side of the island.

Depths of less than 183m prevail as far as 2 miles from Silino Island.

A depth of 12.8m was reported to lie 1.5 miles NNW of Silino Island.

8.10 Between Tagolo Point and **Silla Point** (8°42'N., 123°30'E.), the coast trends ESE for about 6 miles and thence NE for about 2 miles to Silla Point, forming a reef-fringed bay.

The head of the bay W of Silla Point is fringed by a wide coral reef, through which a passage leads to Cavite village on the W shore. Mount Silla, 292m high, is located 0.75 mile S of Silla Point; it is prominent from E or W.

Murcielagos Bay, entered between Silla Point and **Bulalo Point** (8°40'N., 123°35'E.), 5.5 miles ESE, is encumbered by numerous coral reefs and shoals, through which are several channels where small vessels may obtain sheltered anchorage.

With light and smooth sea, the edges of reefs fringing the passage may be seen. The W and S shores are hilly, rising gradually to the mountains inland.

A channel in the W part of the bay leads to an anchorage near the N end of Sinipay Daco Island, 2 miles S of Silla Point.

Directions.—When proceeding to the anchorage off Sinipay Daco Island, steer for **Mount Canim** (8°39'N., 123°28'E.), 334m high, located 4 miles SSW of Silla Point, bearing 232°, until Mount Silla bears 293°, to clear the bank extending E from Latungon Point, 1 mile SSE of Silla Point.

When Talulac Islet, lying 0.25 mile NW of the NW point of Sinipay Daco Island, bears 234°, steer for it on that bearing until the W extremity of Sinipay Daco Island bears 207°. Then steer 216°, which will lead to the anchorage, with the N point of Sinipay Daco Island bearing 090°.

8.11 Baliango Bay, with **Baliango** (8°40'N., 123°36'E.) ([World Port Index No. 59640](#)) standing near the NE corner of Murcielagos Bay, is a loading port for copra. Large vessels or vessels without local knowledge should not enter the bay, as aids to navigation are unreliable and the charted coastline is reported to be difficult to recognize.

Anchorage.—Vessels usually anchor 0.5 mile NW of the largest of the Cabgan Islands, located on the E side of Murcielagos Bay, in a depth of 35m, rocky bottom.

During the Southwest Monsoon, a strong E set may be experienced at this anchorage.

Directions.—When approaching the anchorage in Baliango Bay from N or E, steer 182°. Pass 91m W of a can buoy marking the W edge of a bank, with depths of 0.5 to 10m, extending 0.75 mile W from the largest of the Cabgan Islands.

Cabgan Islands are connected with **Bulalo Point** (8°40'N., 123°35'E.) by a drying reef.

8.12 From Bulalo Point the coast trends E to **Baliango Point** (8°40'N., 123°37'E.), then 4 miles ESE to Usucan Point.

Polo Point (8°36'N., 123°45'E.) lies about 4.8 miles SE of Usucan Point.

The entire coast from Bulalo Point to Polo Point is backed by a low plain and is fringed in places by a narrow steep-to reef. A light is shown from Polo Point.

Usucan Shoal (8°39'N., 123°42'E.), with a least depth of 2.7m, lies outside the 37m curve, 0.6 mile ENE of Usucan Point. Langaran Shoal, with a least depth of 3.7m, lies close offshore outside the 37m line, 1 mile SE of Usucan Shoal.

The town of Plaridel is situated about midway between Usucan Point and Polo Point. During the Southwest Monsoon, anchorage can be taken, in 18.3m, with the bell tower in the town bearing 182°, about 0.5 mile distant. The approach to this anchorage is encumbered by the two shoals described above.

Inamucan Bay (8°36'N., 123°43'E.) ([World Port Index No. 59650](#)) lies about 1 mile SE of Plaridel and is entered between two points, about 0.1 wide, between the reefs.

Plaridel Light is shown from a structure standing 0.5 mile W of Baubaon Point.

Large vessels usually anchor outside the bay, in about 75m, with the light on Polo Point bearing 129.5° and the pier in the bay bearing 223.5°.

Iligan Bay

8.13 Iligan Bay (8°30'N., 124°00'E.) is entered between Polo Point, a low, flat point, and Initao Point, about 33 miles E; the bay extends 25 miles S. The long narrow inlet of Port Ozamiz, including Panquil Bay extend 22 miles farther SW from the SW part of the bay. The W shore of the bay is low and flat.

The foothills begin to rise gradually from 1 to 2 miles inland to a mountain range about 10 miles distant which parallel the coast. The S and E shores of the bay are planted in coconuts.

The interland is mostly wooded hills rising gradually from the S shore to volcanic peaks about 1,219m high, some 13 miles inland.

The bay is deep outside the 200m curve, which lies less than 3.5 miles off the W shore and less than 1.25 miles off the S and E shores of the bay.

The W side of Iligan Bay trends in a SSE direction from Polo Point to Tabu Point, 17.5 miles distant.

The hills for a distance from 6 to 10 miles from the coast are cultivated; there are many large trees on the uncleared portion. The mountains are heavily wooded, and the peaks appear to be very steep and the valleys are precipitous.

Mount Ampiro (8°26'N., 123°38'E.), 771m high, rises 12.75 miles SW of Polo Point.

Caution.—The dangers along this stretch of coast are all contained within the charted 20m curve, with a few exceptions.

A dangerous rock is charted about 0.3 mile offshore, 7.25 miles NNW of **Tabu Point** (8°20'N., 123°52'E.). A detached reef lies 0.75 mile offshore, 2.25 miles N of Tabu Point.

8.14 Polo Bay, lying between Polo Point and **Silanga Point** (8°33'N., 123°46'E.), 2.5 miles SSE, is encumbered by reefs.

Capayas Islet, covered with bushes about 1.5m high, lies on the coastal reef in the mouth of the bay. Silanga Island, covered with trees 18.3m high, lies on the coastal reef 0.5 mile SE of Silanga Point.

Layaban Point (8°31'N., 123°47'E.), located 2.5 miles SSE of Silanga Point, is low, sandy, and bordered with densely growing coconut trees, which give the point appearance of a bluff when viewed from a distance.

Papayan Bay is entered between Layaban Point and a point 0.75 mile S. The bay is fringed by a reef, awash, that extends up to 0.4 mile offshore.

Loboc Cove, an opening in the coastal reef, is located about 1 mile SSE of Papayan Bay. A shoal, with a depth of 25.6m, lies 2 miles ENE of Loboc Cove. There is a pier at the head of the cove, with a depth of 3.4m on its face and 6.1m on the N. The final approach to the pier is through a narrow break in the reef and is navigable only by very small vessels.

8.15 Oroquieta (8°29'N., 123°49'E.) ([World Port Index No. 59660](#)), the capital of Misamis Occidental Province, one of the largest towns in Iligan Bay, is situated 0.75 mile SSE of Loboc Cove on the N side of the mouth of the Oroquieta River.

The buildings of the town are conspicuous from northward. The church standing W of the river's mouth is ornamental, and is easily made out from seaward.

Anchorage, sheltered from S and W, but exposed to the Northeast Monsoon, can be taken about 0.3 mile offshore, in 27m, mud, good holding ground, with the church bearing 215°.

Simio Point (8°28'N., 123°49'E.), located 0.75 mile SE of the mouth of the Oroquieta River, is low, sandy, and covered with coconut trees.

Anchorage can be taken, in a depth of 7.3m close N of the mouth of the San Vicente River, which discharges 1 mile S of Simio Point.

Balaring Point, 3.25 miles SSE of Simio Point, is sandy and bordered by mangroves and nipa palms.

The coastal reef for 4 miles S of Balaring Point does not extend more than 0.5 mile offshore, but for the next 2.5 miles it extends up to 1 mile offshore.

8.16 Jimenez (8°20'N., 123°50'E.) ([World Port Index No. 59670](#)) is situated about 1 mile inland, 5.75 miles S of Balaring Point. It may be identified by a prominent white stone church

with a square tower and dome, visible through the trees fringing the town.

The Palilan River enters the bay E of Jimenez; there is a shallow bar fronting the entrance. A black metal warehouse stands 0.25 mile S of the river entrance, and marks the position of a small lighterage pier extending 0.1 mile offshore, with a depth of 4.6m at its head.

It has been reported that shoaling has occurred and that a heavy swell sometimes reaches the pier during the Northeast Monsoon. Four prominent white tanks stand on the N side of the root of the pier.

Pilotage.—Pilotage is compulsory for berthing and unberthing and is reported available during daylight hours only. The pilot boards about 10.7 mile SE of JOMI pier 8°19.4'N, 123°51.7'E.

The coast in the vicinity of Jimenez is fringed by a bank which extends 0.25 mile offshore. It is fronted by Poricos Reef and Madre Reef and other reefs, mostly awash, which are usually well defined and easy to distinguish.

These reefs provide a sheltered anchorage in front of the town.

Directions.—To approach this anchorage a vessel, from a position with Tabu Point light bearing 285°, distant 2 miles, steer 270° which leads about 0.2 mile S of the reef 0.3 mile SE of Tabu Point. When the light bears 340°, alter course N and pass from 91 to 137m E of Tabu Point and then, after rounding the point, steer for the anchorage.

8.17 From Tabu Point (8°20'N., 123°52'E.) the W coast of Iligan Bay trends 10.5 miles S to Ozamiz. This coast is low, with shores of sand and mangroves; most of the coast is fringed by coral. There are isolated shoals that lie between the 20 and 200m curves.

A T-headed private pier owned by JOMI of Jiminez, stands about 0.1 mile SW of Tabu Point. The pier extends about 130m from the shore. In 1990, it was reported that the head of the pier, 40m long and 12m wide, had a depth of 11m alongside its outer face. Two dolphins off each end of the T-head provide a mooring length of 200m.

A factory and large warehouse stand at the SW side of the root of the pier, with two conspicuous tanks close NE of the pier.

Range lights are shown in line, bearing 307°. The front range is on the SW end of the pierhead and the rear from the top of a water tank. They lead to the pier, clear of all dangers.

There is anchorage 0.1 mile SE of Tabu Point, in a depth of 22m. The anchorage should be approached with the SW end of the T-headed pier bearing 307°. When Tabu Point light bears 328°, it should be steered for on that bearing, anchoring when the head of the pier, or at night, the front range light, bears 238°.

Tidal currents set N and S in the approach to the pier or anchorage, and must be guarded against.

The maximum size of vessel accepted is reported to be 25,000 dwt, 180m loa, and a 10m draft. Copra expellers and coconut oil are exported.

Fresh water is available in limited quantities.

8.18 Balicaocao Point (8°14'N., 123°52'E.), about 5.5 miles S of Tabu Point, is sandy and bordered with coconut

trees. A chain of reefs, part of them dry, extend from 1 mile S of Tabu Point to within 0.5 mile NE of Balicaocao Point. The outer edge of these reefs, which are steep-to, lie about 1.5 miles offshore. Shoals, with depths of 2.7m and 4m, lie 0.4 mile E and 0.7 mile SE, respectively, of the point.

Loculan Point, located about 1.5 miles S of Balicaocao Point, is low and sandy. The village of Clarin (Loculan) lies close W of the point, and the mouth of the Loculan River lies about 0.3 mile N of the point.

Anchorage can be taken 0.4 mile E of Loculan Point, in a depth of 11m, sand.

Loculan Shoals consists of two groups, lying from 0.5 to 1.75 miles from the W shore, midway between Loculan Point and Opol Point, 2.5 miles S. The W shoal has a dangerous wreck lying close NW of it.

The W group consists of sand and rock, parts of which dry; trunks of trees may often be seen on these shoals.

The E group, with depths from 0.9 to 2.1m, lie 0.5 mile E of the W group, with a deep channel between. A lighted buoy marks the E side of the shallowest patch of this group.

Port Ozamiz (8°08'N., 123°51'E.)

World Port Index No. 59680

8.19 Port Ozamiz, also known as Port Misamis, lies with its entrance between Loculan Point and Binuni Point, low and wooded, 9 miles E. The shores are low and fringed with mangroves, but N of Ozamiz City, the site of the main piers, on the W shore, there is an extensive sandy beach, and S of the city on the opposite shore, there are high hills. Port Ozamiz is a Port of Entry.

Wind—Weather.—The port is sheltered from all directions except NE, but winds rarely exceed force 6. There is some rainfall the year around, but more falls during the Southwest Monsoon. Port Ozamiz is a recommended typhoon refuge.

Tides—Currents.—About 1 mile E of Misamis Point the tidal currents set either NE or SW; the maximum rate is reported to be about 4 knots. The ebb current sets E across the head of the pier at Ozamiz City.

In the approach to the pier at Migcaniguig Point, on the E side of Port Ozamiz, the tidal current sets SW on the rising tide and NE on the falling tide. In the vicinity of the pier they set more E and W. In the vicinity of the pier the rate is estimated to be about 0.8 knot. Strong currents of 4 to 5 knots were reported in the outer anchorage areas, and the same year about 2 knots was reported in the vicinity of the pier.

The mean tidal range is about 0.9m and the diurnal range is about 1.4m.

Depths—Limitations.—The main concrete pier at Ozamiz extends 67m SSW from the S side of Misamis Point; it has an extension 15m in length, and a 30m long arm extends W from the center of the pier.

There were depths from 3 to 4.3m alongside the W side of the main pier. There were also depths from 3 to 3.7m alongside the N side of the arm, and from 3.7 to 5.5m alongside the S side, with 7.3m off the head. Inter-island vessels berth on either side of the pier.

When approaching alongside, care must be taken to avoid an underwater obstruction, the outer end of which lies 115m E of

the pierhead. It extends NNW to the shore and is entirely submerged at HW.

The port has 2 reinforced concrete general purpose piers for foreign and domestic dry bulk and general cargoes as well as passengers.

Pier No. 1 has a length of 167m, with a depth of 5.2m alongside.

Pier No. 2 has a length of 81m, with depth of 5.2m alongside.

A stone mole extends 80m SE from the shore, near the old fort at Misamis Point. A small pier stands between the mole and the main pier.

A timber pier, 175m in length, stands close E of Migcaniguig Point. There were depths on the E side from 7.6m at the head, decreasing to 6.1m, about 255m from the head. On the W side there were depths of 8.2m at the head, decreasing to 7.3m about 128m from the head.

The pier must be approached with caution as the submerged remains of an old pier extends about 61m beyond the head.

The following improvement is underway: Land reclamation for the development of back-up areas and the construction of a 135m reinforced concrete wharf, rock bulkhead.

Aspect.—On the NW side of Ozamiz City, Mount Malindang rises to a height of 2,425m. It is the highest peak of a mountain range, and is situated about 13 miles W of Loculan Point. Ozamiz City is easily distinguished by its numerous buildings.

The old fort standing on Misamis Point 0.5 mile SE of the city is marked by a light; a water tower painted aluminum stands 0.2 mile NW of the light. A large isolated metal-roofed building stands 1 mile NW of the light and Bucagan Hill, 96m high, stands 1.5 miles WSW of the city.

Pilotage.—Pilotage is not compulsory, but is recommended because of the dangers in the approach and the strong tidal currents. Pilots may be obtained from Ozamiz City or from Manila or Cebu City. The pilot will embark in the vicinity of No. 2 buoy, which will be lit on advance notice of nighttime arrival.

Anchorage.—Deep-draft vessels can anchor, in 18.3m, 0.7 mile ESE of Misamis Point. Vessels with a lighter draft may anchor 0.3 mile SSW of the point, in a depth of 7 to 9m. There is anchorage, in a depth of 8m, 0.75 mile NNE of Migcaniguig Point.

Directions.—Port Ozamiz should be approached with caution and in daylight only. From a position about 6 miles NE of Misamis Point, steer course 193° on the alignment of the light beacons on Migcaniguig Point, pass close E of No. 2 buoy and W of a 4.6m patch, 0.4 mile E.

Two prominent oil tanks stand close E of the leading lights. If bound for Ozamiz City, alter course to 226° when Ozamiz Light bears 235°. If the vessel is proceeding to the anchorage or pier near Migcaniguig Point, hold the 193° course to the pier or anchorage as desired.

Caution.—Narvaez Shoal, with a least depth of 0.9m, and Panguilinan Shoals, with a least depth of 2.1m, lie on the E side of the approach to Port Ozamiz, 4 and 2.5 miles NNE, respectively, of Migcaniguig Point. Pasil Shoal, with depths of 0.3 to 5.5m, is an extensive shoal which lies about 1.5 miles NW of Migcaniguig Point.

8.20 Panguil Bay (8°01'N., 123°44'E.), a continuation of Port Ozamiz, is a shallow bay about 10 miles in length from NE to SW and has a width of about 4 miles.

It is bordered by nipa palms backed by mangroves and fish traps are numerous in the bay. Most commerce between the towns scattered along the shores of the bay is conducted by sailboats and small launches.

Pasnguig Bay Light is shown close S of Jandalalao Point.

From **Binuni Point** (8°12'N., 124°01'E.), the E entrance of Port Ozamiz, the coast trends in an E direction to the Agus River, about 10 miles distant.

The coast is backed by heavily wooded hills that rise a short distant inland, and is fringed by a reef which extends as far as 0.5 mile offshore. There are a number of small rivers traversing the narrow coastal plain.

The Agus River flows into the SE corner of Iligan Bay. It is an outlet for a mountain lake that lies about 14 miles S. The mouth of the river is fronted by a bar, with a depth of 1.2m at LW. A tank, painted aluminum color and standing 0.75 mile S of the mouth of the Agus River, has been reported to be a good landmark.

From the Agus River, the coast trends about 3.3 miles NE to Iligan, then N 19.5 miles to Initao Point, the E entrance point to Iligan Bay.

8.21 Camp Overton (8°12'N., 124°12'E.), an abandoned military post, located about 1 mile NE of the mouth of the Agus River, is now the site of considerable industrial development. Large buildings which are prominent from seaward included the chimneys of a steel mill, a fertilizer factory with a tower, and a tank.

There is a pier at Camp Overton of concrete construction with a T-head; depth alongside is 5.5m. A wooden pier stands about 0.8 mile E of the T-head pier, with a depth of 3.7m at its head.

An offshore berth capable of taking up to 20,000 grt oil tankers, consists of three mooring buoys. It is situated 0.2 mile NW of the T-head pier and is connected to the shore by a submarine pipeline.

The berth is suitable for ships up to 175m long with a draft of 9.75m. Ships secure to one buoy ahead and two astern. The berth is closed from mid-November to mid-February due to adverse weather conditions.

Iligan Steel Mill Pier, 230m long, lies about 1.3 miles E of the T-head pier at Camp Overton. The pier is of steel and concrete construction. There are depths of 10m alongside its E side and 6.1m alongside its W side.

A 160-ton fixed leg crane is mounted on the offshore end of the pier. The pier can be identified by a steel furnace on the W side and four oil tanks on the E side. It was reported that the pier could accommodate vessels up to 229m in length and a draft of 11m.

Iligan (8°14'N., 124°14'E.)

World Port Index No. 59700

8.22 Iligan, an important port, stands at the mouth of the Iligan River, 2 miles NE of Camp Overton. The city's

importance has increased because of the many power projects in the vicinity.

Tides—Currents.—The mean range of tides is about 0.8m and the diurnal range is about 1.5m. The tidal currents on the ebb set N across the piers. They are especially strong when the Iligan River is in flood.

Depths—Limitations.—There are three concrete piers. The two S piers, about 91m apart, are each 96m long. The S pier has a controlling depth of 13.1m at its seaward end and 3.7m midway along its length on either side. The middle pier has a controlling depth of 9.1m at its head and 1.8m midway along its length. Vessels over 30m in length and drawing more than 4m forward should not attempt to berth on the sides of these two piers.

The N pier, standing 0.1 mile NE of Iligan City Light, has been reconstructed to form a wharf 240m in length and 15m wide, with a depth of 7.6m alongside.

It was reported (1993) that vessels of 23,000 grt with a draft of 10.7m could be accommodated.

Fresh water is available at the S and N piers. Fuel oil and gas oil are available by road tanker, with prior notice.

Aspect.—The cross on the dome of the church is conspicuous. At night the numerous lights of the electric plant, 3 miles SW of Iligan, are prominent as is a building standing on a 45m hill 0.75 mile SE of the church. High Peak, 521m high, rises 2.75 miles SE of the city.

Pilotage.—Pilotage is compulsory. Pilots will meet the vessels 1 mile NW of the piers. Vessels from foreign ports intending to dock at private piers must first anchor.

Domestic vessels may berth at any time, day or night, but foreign-going vessels must berth during daylight hours.

Anchorage.—Anchorage is not recommended due to the deep water near the fringing reef. Vessels waiting to berth can obtain temporary anchorage, in 48m, about 500m W of Iligan Light. During the Northeast Monsoon, vessels can find sheltered anchorage in Quinalang Cove, about 3 miles NNE.

8.23 Quinalang Point (8°16'N., 124°15'E.), 2 miles NNE of Iligan is the S entrance point to Quinalang Cove. The Mandulog River flows into the bay close N of Quinalang Point.

The village of Santa Filomena (Mandulog) stands on the shore close NE of the river mouth. A pier, 90m in length, is situated near Santa Filomena. Pile clusters and mooring dolphins stand W and E of the head, forming a T-head.

Caution must be used as the piles are loose, the pier weak, and the local labor inexperienced in line handling.

The shore of Quinalang Point, for a distance of 1.25 miles N of the river's mouth, is low and comprised of a swamp with dense growth.

Three parallel concrete piers extend S from the N end of Quinalang Cove, 1.5 miles NNE of Quinalang Point. The W pier has a depth of 10.7m at its head. The other two piers are T-headed. The W T-head pier has a depth of 4.9m along its seaward face and the E T-head pier has a depth of 7m alongside its seaward face. A wharf, 93m long, lies between the W pier and the T-head piers. It has a least depth of 4.6m alongside.

These three piers serve the grain silo, the bulk copra loading berth, and the bulk cement loading berth.

It is reported that vessels of 183m length can berth at the grain and copra berths, with depths of 12.2m and 9.8m

alongside. The cement berth is reported capable of accommodating vessels of 25,000 grt. The Coconut Oil Berth was reported to accommodate vessels having a draft of 13.7m.

The conspicuous white chimney of a cement factory, where there is a small pier, stands near the coast, 0.3 mile SE of the above concrete piers.

It is reported that a berth for loading coconut oil and coconut products, with a depth alongside of about 11m at LW, is situated N of Santa Filomena.

8.24 From Quinalang Cove the coast trends in a NNE direction to Manticao Point, about 5.5 miles distant, thence about 5 miles farther NNE to **Naawan Head** (8°28'N., 124°17'E.). Naawan Head can be identified by its low cliff face. A narrow steep-to reef extends about 0.3 mile offshore along this coast.

The Talabaan River flows into the bay 1.5 miles S of Naawan Head; the village of Naawan lies on the S side of the river. There is anchorage 0.6 mile offshore, SW of the mouth of the river, in a depth of 73m, good holding ground. The anchorage is used at times to load ore.

Initao Point (8°33'N., 124°19'E.), the E entrance point of Iligan Bay, is about 5.3 miles NNE of Naawan Head.

The intervening shore consists of a series of cliffs, interspersed with short sandy beaches. Initao Point is wooded and undercut by wave action. The coast is fringed by a narrow steep-to reef.

The village of Initao sits at the head of Initao Bay, about 2.8 miles SSE of Initao Point. Anchorage for vessels calling at Initao may be taken in the bay W of the city, in a depth of 5.5m.

Sulauan Point (8°37'N., 124°29'E.) is situated 10.5 miles NE of Initao Point. The coast between these two points consists of a series of cliffs interspersed with sandy beaches. Sulauan Point is low and wooded.

Macajalar Bay

8.25 Macajalar Bay (8°34'N., 124°37'E.) is entered between Sulauan Point on the W and Gorda Point, 16.75 miles ENE. The W shore of the bay is low and fringed by steep-to coral reefs.

At the head of the bay, grass-covered hills rise about 1 mile inland, to elevations of more than 460m.

The E shore is higher and consists of sand beaches separated by low, rocky points. Several rivers, which are navigable by boats, flow into the bay.

The 20m curve lies close to the edge of the reef fringing the shores of the bay. The shoal fringing Macabalan Point, near the head of the bay, was reported to have extended at least 91m farther NE than charted.

Alutaya Reef (8°41'N., 124°41'E.), lying in the NE part of the bay, consists of a patch of sand and rocks which uncovers.

The passage between the reef and shore is about 2.5 miles wide between the 20m curves.

8.26 The SW side of Macajalar Bay extends in a SE direction from Sulauan Point to Cagayan de Oro at the head of the bay. The shore, in general, is backed by grass covered hills.

Alubijid Bay (8°36'N., 124°29'E.), close S of Sulauan Point, is a loading place for the chromite ore mined in the vicinity. A privately owned pier, with a depth of 4.2m alongside, is located near the head of the bay.

A church that is prominent from the offing stands close inland 3.5 miles SE of Alubijid Bay.

Molugan Point (Malugan Point) is fringed by a reef, which partly dries, that extends 0.75 miles offshore.

Opol (8°31'N., 124°35'E.), a small town 8 miles SE of Sulauan Point, lies close S of Molugan Point. Chrome ore is usually loaded into lighters from a pier which has a depth of 5.2m alongside.

The water off Opol is too deep for vessels to anchor. An anchorage, exposed to the Northeast Monsoon, is available N of Molugan Point, with the church in the village of Molugan (Malugan) bearing 180°, in a depth of 30 to 33m.

Cagayan de Oro (8°30'N., 124°39'E.)

World Port Index No. 59710

8.27 Cagayan de Oro, situated 2 miles inland on the E bank of the Cagayan River in the SW part of Macajalar Bay, is an important commercial center. It is a Port of Entry.

Port Authority is Philippine Ports Authority, Port of Cagayan de Oro Port Manager, Macabalan, Cagayan de Oro City, Philippines.

Winds—Weather.—During the Southwest Monsoon, the harbor is sheltered from the prevailing winds, but it is exposed during the Northeast Monsoon.

The dry season which is short, lasts only 1 to 3 months, usually occurring from February to April.

There is no period of a pronounced maximum rainfall reported.

Tides—Currents.—The mean tidal range is about 0.8m. The tide becomes diurnal around the time of the moon's maximum N and S declination. The diurnal range is about 1.3m. High and LW occurs 15 minutes earlier than at Cebu.

The tidal currents are weak in Macajalar Bay.

Depths—Limitations.—The approach to the port is deep and clear of dangers with the exception of Alutaya Reef.

Port Cagayan de Oro has been constructed for the import and export of container freight and timber.

The port is reported (1996) to have 11 berths, which can handle general cargo, break-bulk, containers, ro-ro, and liquid bulk cargo. Alongside depths vary between 8.5 and 13m.

Aspect.—The buildings and wharf at Cagayan de Oro are prominent. Two radio towers stand 0.5 mile SW of the light on Macabalan Point, and a silo stands 0.5 mile farther SW.

Pilotage.—Pilotage is compulsory for foreign vessels anchoring in the stream, docking, or undocking. Pilotage is optional for vessels leaving the anchorage. Pilots will embark 0.75 mile E of Macabalan Point or off the wharf.

Anchorage.—The usual anchorage for vessels not proceeding alongside is 0.1 mile SE of the wharf, in depths of 33 to 55m.

Directions.—Vessels from NW can pass about 4.5 miles E of Sulauan Point and steer for a position about 1 mile NE of Macabalan Point, then to the anchorage area.

Vessels from N or E, after clearing Alutaya Reef, can steer for a position about 0.2 mile E of Macabalan Point, then anchor, or go alongside the wharf, in daylight only.

Caution.—Two below-water wrecks lie together about 60m off the middle of the main wharf.

8.28 A prominent red-roofed house stands on the S shore of the bay, in a position 3.5 miles ESE of Macabalan Point.

A conveyor-belt pier was reported to be in operation at Agusan, 4.5 miles ESE of Macabalan Point. The pier appears to be capable of handling large vessels. There is a mill and a cupola standing near the pier.

Bugo (8°31'N., 124°45'E.) (World Port Index No. 59720), the site of a cannery, stands in the SE corner of Macajalar Bay.

There are two piers at Bugo, 90m apart, and faced with dolphins, which provide berths for deep-draft vessels. The pier heading is N and S.

The S pier, a T-headed wooden main pier, is 61m long, with a least depth of 10.1m alongside. Pile clusters at either end of the pier give a total berthing length of 183m. The pier was reported to be 121m long. Vessels usually berth port side to. A wreck, awash, is reported to lie close S of the pier.

The N pier, which is L-shaped, has a berthing face 20m long and a controlling depth of 7.9m alongside. It was reported that the berthing face of each pier was to be joined to extend the berthing area. A dangerous wreck lies 91m NE of the N end of the pier.

An oil installation, consisting of three mooring bollards and a floating pipeline, is situated N of the piers.

Pilotage.—Pilotage is compulsory and may be obtained from Cagayan de Oro or by prior arrangement with the cannery company at Bugo. The pilots embark 0.5 mile off the piers, farther out if awaiting a berth.

There is anchorage 0.2 mile W of the piers, in depths of 55 to 73m, or 0.5 mile NW of the piers, with a good holding ground, in a depth of 42m.

8.29 Gorda Point (8°42'N., 124°45'E.), the NE entrance point of Macajalar Bay, is located 12 miles N of Bugo. It is a conspicuous steep-to promontory with wooded slopes and a flat crown. The point can be easily identified from any part of the bay.

A pier, 50m long with a depth of 9.1m alongside, is situated 1.5 miles NW of Bugo.

The Tagoloan River discharges into the bay about 2.5 miles N of Bugo. The bar at the river mouth is shallow, and outside the depths are too great to provide anchorage.

The holding ground is poor.

An L-shaped pier, with a depth of 6.1m, is situated at the town of Tagoloan, about 1.3 miles within the mouth of the Tagoloan River.

A 3.6m shoal, marked by privately maintained buoys, lies 2 miles NNE of the N entrance point of the Tagoloan River.

Villanueva (8°35'N., 124°46'E.), about 2.5 miles NNE of the N entrance point of the Tagoloan River, has an ore terminal. The terminal consists of a wharf constructed on piles about 400m long in a 050°-230° direction.

The outer side of the wharf has depths of 23 to 29m and is capable of accommodating 350,000 dwt bulk ore carriers.

There is a quay for medium sized vessels close NE of the main berth.

Loading of iron ore is by means of a conveyor system; the discharge of iron ore is carried out with the use of two gantry cranes. Reported loading and discharge rates are 4,500 tons per hour and 25,000 tons per day, respectively.

Tugs and some lighters are available. Fresh water is reported to be available. Fuel oil and diesel oil can be supplied by road tanker. No repair facilities are available.

Lighted buoys, privately maintained, mark the dangers in the approach to the main berth.

Pilotage is compulsory for berthing. Movements are only by day. Pilots are available at Cagayan de Oro, and are reported to board about 4 miles N of that port. A boat or tug is used for boarding and the pilot can be contacted by VHF radio.

There is anchorage, in depths of 70 to 80m, about 2 miles NNW of the terminal.

Cabulig Bay (8°38'N., 124°46'E.), situated 5.5 miles N of the entrance to the Tagoloan River, affords anchorage close inshore during the Northeast Monsoon. There is a pier, about 94m long, with a depth of 7.6m at its head, situated at the village of Jasaan near the head of the bay. A church, which is conspicuous, stands in the village.

Gorda Point lies 4 miles N of Cabulig Bay.

8.30 Banbayan (8°46'N., 124°46'E.), about 4 miles NNE of Gorda Point, is the N entrance point of Balingasag Bay. The town of Balingasag stands at the head of the bay. There is a church in the town, and a monument which stands on the beach W of the town that is prominent.

There is anchorage, in a depth of 16m, sand, 0.2 mile offshore in front of Balingasag. During the Southwest Monsoon, there is better protected anchorage near the head of the bay in a depth of 22m, mud, with the church bearing 005° and the N tangent of Gorda Point bearing 265°.

Between Banbayan Point and Bagacay Point, 12.5 miles N, the terrain rises abruptly from a narrow coastal plain to heavily wooded slopes reaching an elevation of 914m about 4 miles inland.

The coast is fringed by a steep-to coral reef which dries in places. Constancia Reef, with a depth of 0.5m, lies outside the 20m curve, 0.75 mile NW of Banbayan Point. A reef, with a depth of 4.6m, lies outside the 20m curve, 6 miles NNE off the same point.

From **Bagacay Point** (8°59'N., 124°47'E.), the coast trends in a general ENE direction about 6 miles to Sipaca Point. Steep bluffs and cliffs rise abruptly from the shore in the vicinity of Bagacay Point and it is fringed by a steep-to drying reef as far as 0.5 mile offshore.

Canauayon Islet (9°01'N., 124°51'E.), 33m high, lies 4.5 miles NE of Bagacay Point; it is connected to the mainland, 0.25 mile SE, by a reef which nearly dries.

Canauayon Anchorage (9°01'N., 124°51'E.) is a small protected bay entered 0.15 mile W of the islet through a break in the coastal reef. There is also anchorage for small vessels with local knowledge, in depths from 14 to 17m, about 0.15 mile N of a warehouse with a metal roof, standing in the W part of Baligoan village. The village is located on shore about 0.4 mile SSE of Canauayon Islet.

Camiguin Island

8.31 Camiguin Island (9°10'N., 124°43'E.), a high, steep volcanic island, lies with its S extremity 6 miles N of Bagacay Point. Mount Mambajao, a volcanic peak, rises to a height of 1,713m, near the center of the island.

Mount Hibok Hibok, 1,332m high, is an active volcano located 3.5 miles NW of Mount Mambajao. The island is reported to be a good radar target at 18 miles.

The entire island, except the upper mountain slopes, is cultivated. Above a height of 460m the mountains are heavily wooded.

The channel between Camiguin Island and the coast of Mindanao is clear of dangers.

The island is steep-to, with the 20m curve lying less than 0.25 mile offshore. The S and W sides of the island are clear of off-lying dangers, but there are several reefs and islets lying off the N and E sides.

8.32 Medano Islet (9°16'N., 124°39'E.) is a sand cay, 2m high, with a few bushes, lying 1 mile NW of Agoho, on the NW side of Camiguin Island. The fringing reef extends 0.5 mile off the entire islet. The channel between the islet and Camiguin Island is deep and clear of dangers, however, tide rips form 0.5 mile NW of the islet.

Jigdup Reefs (9°16'N., 124°47'E.), with a depth of 1.2m, lies 4 miles E of the light at Mambajao.

Bulias Shoal is a small shoal, with a depth of 7.6m, located 4.75 miles SSE of Jigdup Reefs. Mantigui Islet is a low, wooded and sandy islet lying 1.5 miles S of Bulias Shoal that is fringed by a reef that extends about 0.5 mile off its N side.

Mambajao (9°15'N., 124°43'E.) ([World Port Index No. 59740](#)), the principal town of Camiguin Island, stands at the N extremity of the island.

The harbor consists of a break in the coastal reef which extends 0.1 mile to seaward on either side. There is a pier which had reported depths on its W side from about 2.1 to 2.4m. The E side of the pier is not usable.

There is anchorage off Mambajao, in 33m, sand, with the light bearing 204°, about 0.1 mile distant.

A light is shown at Mambajao.

Mahinog (9°09'N., 124°47'E.) is a small town located on the E side of Camiguin Island, 7.5 miles SSE of Mambajao. The white tower of the church can be identified at a distance of 5 miles. There is anchorage off the town, in a depth of 27m, sand.

Binoni (9°08'N., 124°48'E.), standing 1 mile S of Mahinog, is the second busiest port on the island.

The L-shaped wharf has a berthing face 38m in length. There were reported depths from about 8.5 to 10.4m along the S side. The N face is foul. A wreck lies about 40m off the end of the pier.

A light is shown from a small point between Mahinog and Binoni.

Farol Point (9°05'N., 124°46'E.) is the S extremity of Camiguin Island. The tidal current S of this point is dangerous to small vessels when the current sets against the wind.

Sagay is a small town 3 miles NW of Farol Point. The white church in the town is visible at a distance of 20 miles. Anchorage, sheltered only during the Northeast Monsoon, can

be taken in 22m, sand, with the N gable of the church bearing 002°.

Catarman, one of the islands principal villages, is located about 3 miles NW of Sagay. A 18m pier, with a depth of 3.7m alongside, is situated at the village.

Catarman Point (9°13'N., 124°38'E.), about 6 miles NNW of the village, is one of the few bluff points on the island.

Gingoog Bay

8.33 Gingoog Bay (8°57'N., 125°06'E.) is entered between Sipaca Point and Diuata Point, 20 miles ENE. Densely wooded mountains rise to an elevation of 1,177m, a short distance inland, between Sipaca Point and Gingoog, 17.5 miles SE. The shores of the bay are fringed with narrow steep-to coral reefs; there are no charted dangers outside a distance of 1 mile offshore.

Sipaca Point (9°01'N., 124°52'E.), located 1.75 miles ENE of Canauayon Islet, is an excellent landmark and consists of a bold conical hill rising from the water's edge to an elevation of 267m, about 0.1 mile inland. It is separated from the mainland by a mangrove swamp and appears as an island when viewed from a distance.

Talisayan (9°00'N., 124°53'E.), the principal town in Gingoog Bay, stands 1.25 miles SSE of the summit of Sipaca Point.

A detached coral shoal, 7.3m deep, lies 0.1 mile offshore.

There is a deep channel between the shoal and the coastal reef fronting the town. A pier, 165m in length, with a depth of 4m alongside its head, is situated in the town.

There is anchorage, exposed to NE winds, close to the coastal reef N of Talisayan, in a depth of 37m.

Small vessels sometimes anchor on the shoal patch, with Sipaca Point bearing 321° and a prominent metal-roofed building near the beach bearing 237°.

8.34 Medina (8°55'N., 125°02'E.) is a small harbor, situated on the S side of Medina Point, about 11 miles SE of Sipaca Point.

Depths—Limitations.—The N pier, which is government owned, is T-headed with a berthing face of 20m in length. Pile clusters off either end provide a berth 122m in length.

A vessel reported depths of 7.3 to 14.6m along the inboard side. A privately owned L-shaped pier is situated about 91m SE of the government pier. The berth facing is 7m long, but dolphins off the NE corner have increased the berth to take vessels of about 150m in length. Such a vessel, berthing starboard side to, reported depths of 8.2 to 16.5m along the inboard side.

A wreck, partly awash, lies on the N side of this pier.

Aspect.—The town may be identified by several buildings with metal roofs. A concrete tower 10m high stands near the town. There are two piers here exposed to the Northeast Monsoon.

Pilotage.—Pilotage is advisable for berthing and unberthing, as coral heads encumber the inshore ends of the S pier. Pilots can be obtained from Davao. Vessels should arrive during daylight only and berth starboard side to the head of the pier. Care must be taken to keep the stern clear of the wreck, which is awash.

Anchorage.—Anchorage is not recommended on account of deep water close offshore.

8.35 Minlagas (8°53'N., 125°03'E.) is located about 2.5 miles SE of Medinas.

There is a berth for loading copra pellets and coconut oil. The berth consists of a concrete pierhead 6m in length, standing about 150m offshore. There are breasting and mooring dolphins on each side, providing a total berth length of 150m and a mooring berth of 350m.

The pierhead supports a loading gantry and manifold, supplied by a conveyor system and pipeline from the shore installation. The depth alongside is reported to be 15m at MLLW.

A smaller berth for the discharge of copra is situated about 70m N of the main berth.

Pilotage is compulsory and pilots are obtained from Cagayan de Oro, boarding from a canoe about 2 miles from the berth.

There are no tugs or facilities for provisions, fresh water or fuel.

8.36 Lunao (8°51'N., 125°04'E.), a small timber loading town, is situated 5 miles SSE of Medina. The T-headed pier is difficult to identify until well into Gingoog Bay; however, a light is shown from the SE corner of the pier.

The pier face is 61m long, there were depths of 9.1m at the S end, decreasing to 5.8m at the N end. There are mooring posts for securing bow and stern lines. The pier can be used by large vessels. It is recommended that vessels berth starboard side-to during the Southwest Monsoon and port side-to during the Northeast Monsoon. The use of an anchor is recommended. A pilot boards just off the pier.

A 2.7m coral shoal lying 1 mile ESE of the pier is reported to be clear of the approach.

There is anchorage 0.2 mile off the pier at Lunao, in depths of 30 to 55m.

Gingoog (8°50'N., 125°06'E.), a town standing at the head of the bay in a position 2 miles SE of Lunao, is visible from seaward. There is a wooden pier 152m long located at the town. A concrete tower, 10m high, stands close W of the root of the pier.

Pilotage is compulsory.

Anchorage can be taken 0.25 mile N of the town, in a depth of 27m.

8.37 Anakan (8°51'N., 125°09'E.), the site of a lumber camp, stands in a bight 3 miles ENE of Gingoog. Timber is loaded at the pier or in the anchorage.

The privately owned L-shaped pier has a controlling depth of 8.2m, alongside. The berthing space was reported to be 183m long, with a depth of 9.8m alongside.

A pair of beacons in range, bearing 132°, are secured to trees on the hillside, but they are difficult to distinguish beyond 1.5 miles distance. The E peak of a low ridge of hills behind the beacons, bearing 132°, serves as a guide from a distance.

Pilots are not available, but a representative from the timber mill will board 1.5 miles offshore.

There is anchorage NW of the pier, in a depth of 73m, good holding ground with Gingoog bearing 243°.

There are numerous logs adrift in the vicinity of Anakan, some of them large enough to damage a ship's propeller. The approach should be made in daylight.

Odiongan (8°51'N., 125°10'E.) (*World Port Index No. 59750*), a village at the mouth of the Odiongan River, is situated on the SE shore of the bay, 1 mile E of Anakan.

There is anchorage for small vessels with local knowledge on a ridge of sand and coral, N of the E side of the entrance to the river. Larger vessels may anchor 0.2 mile offshore, in a depth of 37m.

The E side of Gingoog Bay, from Odiongan to Linugos, 10.5 miles N, is fringed by a narrow, steep-to, drying reef.

8.38 Linugos (9°01'N., 125°11'E.) is a small town which stands on the N side of the mouth of the Linugos River.

The coastal plain, less than 0.5 mile in width, is backed by a ridge which quickly rises to a height of over 305m.

A break in the coastal reef, about 0.3 mile wide off Linugos, affords good anchorage, sheltered from NE winds, in 13m, sand and mud. Between Linugos and Diuata Point, about 5 miles N, the terrain rises steeply from the shore, with some cliffs. In this area a narrow, steep-to drying reef fringes the shore.

Diuata Point (9°06'N., 125°13'E.) is low and densely wooded; it rises to a height of 355m, 3 miles S.

Butuan Bay

8.39 Butuan Bay (9°07'N., 125°27'E.), entered between Diuata Point and the entrance to the Tubay River, 19 miles ENE, is open and clear of dangers.

Vessels can proceed directly from the entrance to any part of the bay. Pilotage is compulsory and at Masao.

The ports of Butuan, Masao, Nasipit, and Surigao are administered by the Philippine Ports Authority, Port Management Unit, Agusan del Norte.

The port limits extend from Diuata Point to NE of Surigao and include the islands of Siargao and Dinagat.

Nasipit Harbor (9°00'N., 125°20'E.) is located about 10 miles SE of Diuata Point. The harbor is formed by an opening between bluff rocky headlands 0.5 mile apart.

Nasipit (8°59'N., 125°20'E.) (*World Port Index No. 59345*), a timber port of some importance, stands on the E side of the harbor.

Vessels up to 170m long and 7.6m draft can be accommodated.

The spring tides rise about 1.2m, and neaps about 0.8m. The LWS tides can fall as much as 0.5m below chart datum. There is a rather strong tidal current which sets in a S direction during the rising tide and in a N direction during the falling tide.

The reef, on the W side, extends about 700m N from the W entrance point; the reef, which partially dries and shows plainly on a clear day, is marked by a buoy on its SE edge. A small restricted area is established about 274m SW of this buoy. The fringing reef on the E side outside the entrance extends about 183m offshore. A buoy is moored about 183m NE of the E entrance point; a beacon stands close W of the same position.

A large timber mill stands on reclaimed land on the E entrance point. The cross on the church in the town, the timber

mill's pier, the buildings, and the black chimney of the timber mill are prominent from seaward.

A conical kiln 24m high and two black oil tanks stand on the E side of the harbor.

The timber mill pier has a T-head 140m long, extending in a NNW direction, with a depth of 13.4m alongside. The pier face is 85m from shore. There are two dolphins off the inner face of the N arm of the T-head. The berth can accommodate vessels 168m in length. Vessels usually berth starboard side-to.

Another pier, for loading copra, extends 183m W from the shore in the SE part of the harbor. It has a 64m long berthing head, with a depth of 6.4m alongside, although depths of 7 to 7.9m alongside have been reported. A mooring buoy is laid 183m S of the pierhead.

Development of an International Port at Nasipit has been undertaken in recent years. It is reported that there is a berth 299m in length, with a depth of 6m alongside, for container, general, and ro/ro traffic. There are also reported to be facilities for handling petroleum products.

Pilotage in Nasipit Harbor is compulsory and it is recommended that a pilot be used due to changing harbor conditions and the numerous log rafts within the harbor.

Large vessels can take anchorage, in depths of 37 to 46m, sand and mud, about 0.5 mile offshore close E of the harbor entrance.

The S shore of Butuan Bay, between Nasipit and the Agusan River, which discharges into the bay 11 miles E, is low and heavily wooded to the sandy beach. The coastal bank does not extend more than 0.5 mile from the shore.

Buenavista (8°59'N., 125°25'E.) is a small town which stands 4.5 miles ESE of Nasipit.

8.40 Masao (9°00'N., 125°29'E.) is situated 4.75 miles ENE of Buenavista and 1.5 miles WSW of the entrance to the Agusan River.

The port of Masao was developed to service a number of operating areas in the locality. Vessels are directed to deep-water anchor berths in open water off the entrance to the Agusan River.

Requests for pilotage, which is compulsory, should be communicated to the Port Authority at least 24 hours before arrival.

The quarantine and waiting anchorage is 2.5 miles W of Masao, in position 9°00.5'N, 125°28.25'E.

Ten anchor berths are located between 1.25 and 2.25 miles W of Agusan River Light, in general depths which vary between 73 and 164m.

Masao Pier, a concrete structure, stands on the S side of the entrance to the Agusan River, close ENE of Masao.

Recent development is reported to have included land reclamation and extension of the available berth space.

8.41 The Agusan River (9°01'N., 125°31'E.), which discharges into the SE corner of Butuan Bay, is the second largest river in Mindanao. Pontod Island, a sandy cay, lies off the NE entrance point of the river and divides it into two channels. There is a pilot station and a settlement on the island.

It is reported that the entrance to the river can be identified from W by two small groups of hills on the N side of the river mouth.

A prominent triangular-shaped hill about 180m high, about 2.5 miles NE of Agusan River Lighted Beacon, is reported to be a useful mark and a good radar target.

The S entrance channel is 137m wide at its narrowest part, and a depth of 2.7 or 3m can usually be carried over the bar at LW, and from 3.7 to 4.3m at ordinary HW. A hard gravel shoal, with depths of 0.3 to 1.2m, extends 0.25 mile S from Pontod Island.

Caution.—The entrance channel is constantly changing, and no vessel should attempt to enter without current local knowledge.

8.42 Butuan (8°57'N., 125°33'E.) ([World Port Index No. 59760](#)) stands on the W bank of the Agusan River, 5 miles from the entrance. A depth of 4.6m can be carried from the bar to the town.

During the rainy season, which begins in November and lasts four months, the river is high and filled with floating debris, most of which can be avoided by anchoring in the lee of a point. There is a constant current running out of the river all year, and at times it runs at a considerable rate. The river is at its lowest in September and October.

The services of river pilots can be arranged.

Development of the port has been undertaken in recent years, and it is reported that there is a berth 138m in length with a depth of 5m alongside at MLLW.

8.43 Magallanes (9°01'N., 125°31'E.) stands on the W bank of the Baug River, close within the entrance of the Agusan River.

The T-head pier of a lumber company extends 0.2 mile from shore in a NW direction, 1 mile N of Magallanes.

The pierhead is about 91m long, with a least depth of 7.3m alongside, and can accommodate a large vessel. It is reported that the best approach to the pier is from the N towards the NE end of the pierhead, berthing port side-to.

Cabadbaran (9°07'N., 125°32'E.), on the E shore of Butuan Bay, stands on the S bank of the Cabadbaran River, 6 miles N of the mouth of the Agusan River.

The mountains which back this coast rise to a height of about 1,829m, 12 miles E of the mouth of the Cabadbaran. The shore is low, densely wooded, and fringed by a steep-to ledge as far as 0.75 mile offshore.

A light is shown from a round metal tower, 9.1m high, standing on the S side of the river mouth.

The bar of the Cabadbaran River dries at LW. A stone pier, 0.5 mile S of the light, provides landing for small boats.

It is reported that there is anchorage, 0.1 mile offshore, 1 mile N of the Cabadbaran River entrance, in 18.3m.

8.44 Tubay (9°10'N., 125°31'E.), a small town, sits on the S bank of the Tubay River, about 3 miles N of Cabadbaran.

There is little water reported on the bar that fronts the Tubay River.

Anchorage can be taken about 0.4 mile offshore, in 22 to 27m, with the town bearing 167°, distant 1 mile.

Mount Tubay (9°11'N., 125°32'E.), 447m high located 1.5 miles NE of Tubay, is prominent.

Between the mouth of the Tubay River and Madilao Point, 37 miles NNW, the coast is bold, steep-to, and has no known off-lying dangers.

Madilao Point (9°46'N., 125°24'E.) is 82m high, steep-to, and composed of dark rock.

Bilaa Point (9°49'N., 125°26'E.), the N extremity of Mindanao, lies 3.75 miles NE of Madilao Point. It is at the N end of a range of coastal mountains.

The coast between these two points recedes and forms a slight bay. The 20m curve lies close to a ledge, less than 0.5 mile wide, which fringes this bay.

There is anchorage, close in, which is sheltered from NE, through E to SW winds.