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SECTOR 7 — CHART INFORMATION

SECTOR 7

GULF OF ST. LAWRENCE AND ANTICOSTI ISLAND

Plan.—This sector describes the W shore of the Gulf of St. Lawrence between Point Escuminac and Cape Gaspe, and then W along the N side of the Peninsula of Gaspe to Cap de la Madeleine. The S coast of Anticosti Island between Pointe Heath and Pointe Ouest is then described. The descriptive sequence is N and then W along the N side of the Peninsula of Gaspe, and then W along the S side of Anticosti Island.

General Remarks

7.1 The W shore of the Gulf of St. Lawrence between Point Escuminac and Cape Gaspe, about 105 miles NE, is very irregular. Three large bays and many small bays and inlets indent the coast.

Miramichi Bays lie N and W of Point Escuminac and recedes W to the mouth of the Miramichi River. Two deep-water ports stand on the banks of this river.

Chaleur Bay extends W for about 78 miles from its entrance off Miscou Island and is the largest bay bordering the W side of the Gulf of St. Lawrence. Several smaller bays and coves indent its shores. A few of the ports located around the perimeter of the bay and within the Restigouche River, at the head of Chaleur Bay, are important commercially.

Gaspe Bay lies NW of Cape Gaspe and has a sheltered harbor near its head which can accommodate large vessels.

The coast from Point Escuminac to Miscou Island is generally low, but farther N in the vicinity of Gaspe Bay the coast is bold and has many steep headlands.

Between Cape Gaspe and Cap de la Madeleine, about 60 miles NW, the coast is regular and clear of dangers outside the 40m curve which lies, at most, less than 2.5 miles offshore. A number of small bays and coves indent this coast, which is generally bold and cliffy. Rugged hills rise to elevations of 304m or more about 1 to 2 miles inland.

The S coast of Anticosti Island from Pointe Heath, the SE extremity, to Pointe Ouest, the NW extremity, presents no dangers outside the 20m curve, which has its greatest distance about 1.8 miles offshore. The SE and NW sections of this coast, up to 3 miles inland, rises to elevations of about 106m, but in general the shore is lowered by drying reefs.

Gaspe Passage, which lies between the Peninsula of Gaspe and the SW side of Anticosti Island, is deep, the 200m curve lying within 8 miles of the peninsula and within 10 miles of the island.

Winds—Weather

7.2 Although the Gulf of St. Lawrence covers a relatively small area, it is subject to very great variations in weather conditions. During a winter storm, it would be quite possible for the NW part to be experiencing driving snow with temperatures below the freezing point, while the SE part would be affected by mild temperatures, fog banks, intermittent

drizzle, and perhaps also some breaks in the cloud to permit intervals of sunshine.

In the more settled weather of summer, there are many days of sunny skies, light winds, good visibilities, and pleasant temperatures. As well, there will be some days with rain or drizzle which will tend to produce mist or fog. Thunderstorms are relatively rare, being more frequent during July and August. These are sometimes accompanied by squally weather of short duration.

With the approach of autumn, there is an increase in cyclonic activity on the E coast. When disturbances approach from the S to SW, they produce slowly strengthening E winds. Drizzle, and then rain, may follow. If the center of the disturbance passes by to the W of the observer, he will find the moist cool E winds will shift to the S or SW often with at least partial clearing of the skies. In time, this will be followed by a shift of the wind to E or NW with the arrival of a cold front which frequently, though not always, will bring showers. If however, the center of the disturbance passes by to the E of the observer, the moist E winds will back gradually to the N or even NW and any precipitation will gradually come to an end as drier air arrives.

The same general pattern applies to winter disturbances, but the gradual lowering of temperatures with the advance of the season results in snow rather than rain to the N and NW of the center of the disturbance. In the "warm sector" (usually found to the SE of the center), S to SW winds will still occur, but the much milder temperatures associated with these winds may produce rain and mist. Colder air arriving from the NW, once the system has gone by, becomes very unstable over open waters of the gulf in early winter. In such circumstances, snow squalls are produced which may be so frequent and vigorous as to appear like a continuous snowstorm. These strong NW winds of early winter can persist for many hours or even days, producing spray which tends to freeze into thick coatings on ship superstructures. Stability is affected by the heavy coatings of ice thus acquired. The rate of accretion will depend upon many factors such as ship design, course relative to wind and waves, wind strength, and air temperature, but for the purpose of marine warnings, the general practice is to assume significant icing due to freezing spray when air temperatures are -4°C or colder, and wind speeds are 25 knots or higher.

As the winter progresses, more and more of the gulf becomes covered with ice. This not only reduces the likelihood of freezing spray, but diminishes the development of snow squalls in cold NW winds.

The spring months are truly transitional, in that a week or two of wintry conditions may be followed by relatively mild weather, which will give way to yet another cold (and often stormy) period. Gradually however, a decrease in stormy conditions will be noted as the temperatures move toward values above the melting point. More and more frequently, winds from a S to SW direction will be noted, bringing milder air which is rapidly cooled over the still cold waters of the gulf.

Fog is most prevalent from mid-spring to early summer. As mid-summer approaches, water temperatures move toward warmer values, reaching their maximum in late August or early September. As this happens, the frequency of fog diminishes.

Of a different nature is the "sea smoke" sometimes produced in winter if very cold air passes over open water when winds are light. At such times, evaporation from the water is cooled into fog droplets in the first few meters above the water surface, but an observer at a higher elevation (as on the bridge or lookout position of a larger ship) may be able to see quite clearly across the top of the "sea smoke." At or near water-level, visibility may be quite restricted. Such conditions are seldom persistent, as any increase in the wind strength will tend to set up air currents which dissipate the mist.

Visibilities are reduced by fog, mist, or precipitation to 1 mile or less some 5 to 10 percent of the time through the year. In the NW gulf, including the river estuary, poor visibilities occur over 10 percent of the time in February, March, April, and again in July; while in other months, the frequency averages around 6 or 7 per cent.

Thunderstorms can occur in any month, but are rare from November to early May. Waterspouts are not uncommon over the gulf, particularly when the air temperatures are much colder than the water. They are generally short-lived and do not in general represent a serious danger.

Ice

7.3 The sea ice encountered in the Gulf of St. Lawrence is mainly of local origin, but ice is also "imported" from the St. Lawrence Estuary and on rare occasions appreciable drift through the Strait of Belle Isle can develop. Drift of ice from the estuary into the gulf is supported by both mean winds and current, but intrusions through the Strait of Belle Isle arise only in years when persistent NE winds develop after the local ice in the strait has dispersed or melted.

Ice formation usually begins in the upper part of the estuary about mid-December and spreads into the W part of the gulf and along the N shore before the end of the month. At the same time, ice growth begins in the coastal waters of south Labrador and spreads through the Strait of Belle Isle in the latter part of December. In a normal winter the ice builds up gradually along the S side of the estuary, spreads E from the New Brunswick coast through Northumberland Strait during the first half of January, and then gradually fills the SW half of the gulf from Gaspé Peninsula to Cape Breton Island by the early part of February. While this increase in cover is occurring, the ice along the north shore develops more slowly and when ice begins to drift into the Cabot Strait it is normal to find the whole area from eastern Cabot Strait to Heath Point to Pointe Riche still open with only new and gray ice in Jacques Cartier Passage and along the shore E to Harrington Harbor. In the NE arm of the gulf and Strait of Belle Isle, an extensive amount of gray and gray-white ice up to 30 cm thick can be found.

In mild winters, ice growth may only partially fill the SW gulf with no efflux through Cabot Strait at any time during the winter. In cold years, the area may effectively fill with ice by the end of January and drift out of the gulf can begin before the end of the month.

The ice cover in the gulf becomes quite extensive in normal winters, but even in the coldest years it is never completely covered. Tidal motion, currents, and wind induced drift all combine to keep at least small areas of open water present, and in normal seasons there are useful leads that can be used for navigation.

The general drift of ice in the Gulf of St. Lawrence is SE from Gaspé Peninsula to Cabot Strait, with some of the floes arcing south to Prince Edward Island. In the north portion of the gulf, the drift is also SE at first but becomes more S between Anticosti Island and Newfoundland. As a result, open leads and area of dispersed new and gray ice are common from Cape Whittle to Pointe des Monts, along the N shore of Chaleur Bay and, to a lesser degree, on the S side of Anticosti Island and in the lee of the Magdalen Islands. Passing storms may close them temporarily, but in most cases they soon reappear.

Because of the open water area that is commonly present in the Cape Ray-Cape St. George area and the light ice conditions through Jacques Cartier Passage to Pointe des Monts, it is common for winter shipping to follow this somewhat longer route. Years with prevalent NE winds can alter this pattern, but in these cases the lee side of Anticosti Island becomes a more favorable route.

The harbors and bays in the gulf are usually closed by the end of December and even in the S part of the gulf, navigation is not considered safe after the first week in December or before the 15th of April.

As a general rule, the harbors in the W part of the gulf close earlier and open later than those in the E part. Each locality is described separately in the body of the text when local ice conditions require it.

Tides—Currents

7.4 The currents through the Gulf of St. Lawrence are the result of progressive movements of the water on which are imposed the tidal influences, the effects of the winds, and the effects of varying barometric pressure.

The tidal effect on the current is felt throughout the gulf, but it is only in the principal straits and in the mouths of rivers that the direction of the flow is reversed by the tide. Its effect in the more open waters is to cause a gradual change in direction, which is often completely round the compass in the tidal period.

Except for the Gaspé Current and the currents in the straits and near the heads of bays, the velocity of the current seldom exceeds 1 knot; its direction is very variable, being easily influenced by strong winds, and on this account it is necessary to exercise caution in navigation.

Broadly speaking, a general circulation exists in the gulf area, the rotation being counterclockwise.

The Gaspé Current off the Gaspé coast sets constantly SE, or outward, from the St. Lawrence River to the Gulf of St. Lawrence. In general, it occupies a belt lying between 2 and 14 miles offshore. Its greatest strength lies 4 or 5 miles off the coast, where it attains a velocity of 2 knots at springs and about 1.5 knots at neaps. About 10 miles offshore it is much weaker and beyond 14 miles any current there is, is no longer continuously outgoing. Between this belt and the shore, a tidal

current is found which sets W during the rising tide, while on the falling tide the direction is with the main current. This inshore flood current is little felt except at springs and it does not exceed 1 knot at any time.

Although the Gaspé Current is constant in the sense of being always in the one direction, its velocity varies markedly in close relation to the tide. It is thus stronger during falling tide and weaker during rising tide and every tidal variation is reflected in the current.

The winds are usually directional with the coast, but even when heavy, they have remarkably little effect upon this current, amounting to a fraction of a knot in general.

Vessels inbound are tempted to take a route close to land to avoid the Gaspé Current and take advantage of any N flood current along the shore. Aside from the risk of running close inshore, this tidal flood is in most places only strong enough to be helpful during the time of spring tides and then only for the period of tidal flood. By keeping to an offing miles near the outer edge of the Gaspé Current, where it is weak enough to be inappreciable, better time can be made.

For vessels outbound, much is to be gained by keeping in the stretch of the Gaspé Current at an offing of 4 to 5 miles. Vessels bound for the Atlantic by the route S of Newfoundland will benefit by keeping this distance offshore until they leave the Gaspé coast.

On the Anticosti Island side of Gaspé Passage the current usually veers completely around the compass clockwise in the tidal period, but holds longer and more strongly along shore. The strength seldom exceeds 1 knot in any direction.

Any local currents, which might be encountered in the bays, inlets, and rivers which lie within the limits of this sector, will be included in the principal description of that part of the coast which they affect.

Point Escuminac to North Point, Miscou Island

7.5 Point Escuminac (47°05'N., 64°48'W.), the SE entrance point of Miramichi Bay, is a low, wooded sandstone cliff. A light is shown from a white hexagonal tower on the point. The light structure is conspicuous against the dark, wooded background.

From Point Escuminac the coast extends irregularly W for about 22 miles to the mouth of the Miramichi River, and is broken by several bays into which small rivers flow. The coast then continues NE and N for about 67 miles to North Point, the N extremity of Miscou Island. This stretch of the coast is low and bordered by sand bars and beaches, often enclosing shallow lagoons, through which rivers flow into the gulf. The entrances of these lagoons and rivers, known locally as gullies, are usually obstructed by sandbars, and are navigable only by small craft. A chain of islands divides Miramichi Bay into an outer and an inner bay. Miramichi River is navigable by large vessels to the several ports which stand along its banks.

Caution.—The W and S parts of Miramichi Bay are shoal for a considerable distance from shore, but there are no dangers within the bay outside the 10m curve. Northward of Miramichi Bay, the 10m curve follows the general trend of the coast and lies from 0.75 to 1.5 miles offshore between the bay and the N end of Miscou Island.

Miramichi Bay

7.6 Miramichi Bay (47°09'N., 65°01'W.) lies between Point Escuminac and Blackland Point, about 14.5 miles NW. The outer bay is separated from Miramichi Inner Bay by a chain of low, sandy, and partly wooded islands which stretch from the S to the N shore, about 6.5 miles W of Point Escuminac. The preferred channel of approach leads between the two larger islands of the chain, then W and SW to the estuary of the Miramichi River, which is navigable by vessels as far as Northwest Bridge, about 15.5 miles above its entrance. Chatham and Newcastle, two commercial ports, are located within this river.

Escuminac Reef (47°05'N., 64°47'W.), on the SE side of Miramichi Bay, extends about 1.8 miles N and 1.5 miles NE from Point Escuminac.

On the S side of Miramichi Bay, the 5m curve extends W from Escuminac Reef to a position off the S island of the group spanning the bay and lies from 0.5 to 1.5 miles offshore. In the center of the bay, the 10m curve lies from 3.5 miles off the E side of Fox Island to 1.75 miles off the NE side of Portage Island. Depths to the E of this curve increase regularly to 18.3m.

7.7 Miramichi Bar (47°08'N., 64°59'W.), a sandy ridge about 3 miles long with a least depth of 0.6m, lies about 2 miles E of Fox Island and parallel to it. Outer Bar, with depths of less than 9.1m and a least depth of about 4m, lies between the S end of Miramichi Bar and the shoals extending N from the mainland and Huckleberry Island.

Ship Channel, the main channel of approach, lies between Miramichi Bar and the shoals bordering the E side of Fox Island. There is a least depth of 7.7m in this channel. A shoal, "The Lump," lies at the S end of this channel and Spit Shoal lies close W of its N end.

Ice.—Navigation in the bay normally opens about April 15 and closes by December 15.

Tides—Currents.—The currents have a rate of 1 to 1.5 knots in the outer bay, but increase in the narrows between the islands to rates of 2 to 3.5 knots or more. Both the rate and direction of these currents are greatly affected by the winds.

Because of the shallow nature of the bay, estuary, and river, local weather conditions normally cause actual water levels to differ from predicted levels by as much as 1m.

Pilotage.—Pilotage is compulsory. Vessels bound for ports within Miramichi Bay, between April 16 and December 10, must report their ETA to "Pilots Miramichi," 12 hours before the vessel's ETA at the pilot station. The ETA must be confirmed or corrected 4 hours prior to arrival. The time used must be GMT. The pilot boards 3 miles NNE of Point Escuminac. The pilot boat (gray, length 13m) guards VHF channel 16. It is stationed at Escuminac Harbor, 4 miles W of Point Escuminac.

From December 10 to April 15, a helicopter is available at Escuminac for pilot boarding.

During the period December 11 to April 15, vessels inbound from the E for Miramichi embark a pilot at the SE end of the Strait of Canso. The pilot boarding position is 47°24.5'N, 61°01.0'W. Masters of vessels bound for Miramichi must report their ETA to "Pilots Miramichi" at least 24 hours prior to

the vessel's ETA at the pilot boarding station. The ETA must be confirmed or corrected 12 hours prior to arrival. The time used must be GMT. The pilot boat is equipped with VHF and guards channel 14 (156.7 MHz).

Caution.—Because of continuous silting, the navigational aids in Ship Channel are frequently shifted to mark the deepest channel.

The main entrance to the inner bay, between Fox and Portage Islands, has a depth of about 11m in the fairway. The buoyed channel through Horse Shoe Bar, Grand Dune Flats, Oak Channel, and Sheldrake Channel had a least depth of 7.5m in the vicinity of Grand Dune Flats.

Because of silting, the navigational aids marking these channels may be moved to indicate the best fairways.

Depths in the channels are no longer maintained by dredging and may be less than charted.

7.8 Escuminac (47°05'N., 64°53'W.), a small village fronted by a boat basin enclosed by breakwaters, stands about 3.8 miles W of Point Escuminac on the S side of Miramichi Bay. The pilot station is situated here. The widths of the entrances are 39m (outer basin) and 29m (inner basin), and depths of 0.9 to 1.1m and 0.8 to 1.6m, respectively.

Huckleberry Island, crescent-shaped and 10m high, stands about 3 miles W of Lower Escuminac. Huckleberry Gully, the shallow buoyed channel which lies between this island and the mainland. The twin spires of the church in the village of the same name are very conspicuous. The pier at the village has shallow depths alongside.

Fox Island (47°07'N., 65°01'W.), separated from Huckleberry Island by Fox Gully, is narrow and about 4 miles long. The island is partly wooded and consists of parallel ridges of sand hills. Fox Gully almost dries at LW.

The S shore of the inner part of Miramichi Bay, from French River Point, at the NW end of Baie Sainte-Anne, extends WSW for 4 miles to Point Gardiner and then SW for 2 miles to Riviere du Vin. This river has shallow depths.

Bay du Vin (47°04'N., 65°10'W.), the bay fronting Riviere du Vin, provides good anchorage for small vessels in a depth of 5.6m, W of Bay du Vin Island. The W side of the bay is shallow. Bay du Vin Harbor, on the S side of the island, provides anchorage sheltered from all winds. There are tidal currents in Havre du Vin. Between Gardiner Spit and Bay du Vin Island the currents are especially strong, attaining a current flow of 4.5 knots or more. Gardiner Spit, a sandy shoal, extends N from Point Gardiner into the harbor.

Blackland Point (47°16'N., 64°58'W.), the N entrance point to Miramichi Bay, is low, swampy, and has steep black peaty banks. The NW shore of the inner bay extends about 19 miles SW from this point to Moody Point, near the entrance to the Miramichi River. The N half of the island chain spanning Miramichi Bay extends S from Blackland Point and includes Neguac Sand, Lower Portage Island, and Portage Island.

Neguac Sand, also known as Neguac Beach, is separated from Portage Island to the S by Portage Gully. This channel

leads into Miramichi Inner Bay and has depths of less than 1.8m in places.

Portage Island (47°10'N., 65°03'W.), about 2.8 miles long, stands on the N side of the main channel leading into Miramichi Inner Bay, about 1.5 miles N of Fox Island.

Conspicuous church spires are situated in Neguac, about 3 miles NNW of the N point of Portage Island and at Burnt Church Point, about 3 miles WNW of the same point.

The piers at Lower Neguac and at Burnt Church all have shallow depths alongside.

7.9 Miramichi River (47°05'N., 65°19'W.) begins at Sheldrake Island, about 18 miles from Outer Bar in Miramichi Bay. Eastward of that island, the inner bay, with its low and receding shores, bears no resemblance to a river. The river extends in a general SW direction for about 13 miles to Beaubears Island, where it divides into Northwest Miramichi and Southwest Miramichi. The river is navigable as far as Northwest Bridge, which crosses Northwest Miramichi about 2 miles above Newcastle. Besides the ports of Chatham and Newcastle, there are several other smaller towns along the river which have berthing facilities.

The river width abeam Moody Point, about 1 mile W of Sheldrake Island, is 0.75 mile and narrows to 0.5 mile at St. Andrews Point, 1.75 miles upstream, this width being retained almost to Chatham.

The Bartibog River flows into the Miramichi River, close W of Moody Point. Bartibog Island, 9.1m high and surrounded by steep cliffs, lies in the entrance to this river. A narrow, shallow channel passes E of this island and leads into the river which is spanned by a bridge about 0.5 mile above the entrance.

Anchorage can be taken off the mouth of the Bartibog River in depths of 6.1 to 7.6m.

A ferry pier, 78m long, with a depth of 0.6 to 0.9m along its face, and a pier in ruins stand on St. Andrews Point on the S bank of the river about 1 mile above Bartibog Island.

St. Andrew Bank and Leggett Shoal foul the greater part of the river between St. Andrews Point and Lower Newcastle on the N bank. The main channel passes N of these dangers.

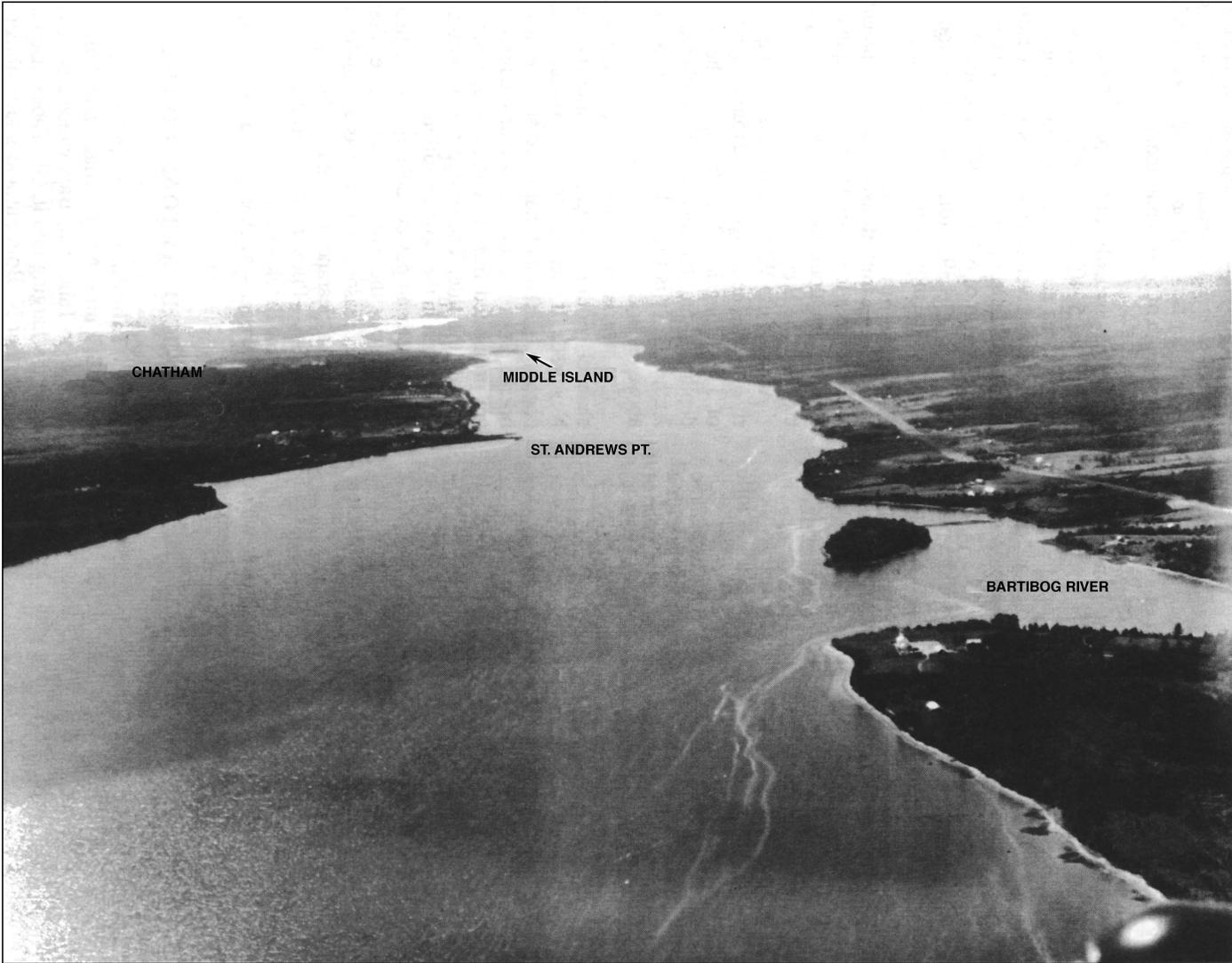
Gordon Point Wharf, a small pier, with a width of 25m across the face and depths of 3.4 to 4.3m alongside, extends from the shore near Lower Newcastle.

A T-shaped pier extends from the shore near Lyons Cove on the N bank of the river about 2 miles above Lower Newcastle. There is a depth of 5.8m alongside the 105m outer face of this pier.

Middle Island (47°03'N., 65°27'W.), joined to the S bank of the river by a causeway, stands about 0.8 mile above Lyons Cove.

An overhead power cable crosses the river at Middle Island, with a vertical clearance of 41m. Vessels with a peak height of over 34m are restricted until a clearance of 3.7m is maintained by either LW or lowering the peak to the required clearance of 3.7m.

Caution.—Mariners are cautioned that there is a maximum speed limit of 7 knots in the Miramichi River above buoy "M51," situated about 0.4 mile S of **Oak Point** (47°07'N., 65°16'W.).



Dept. of National Defence, Canada

Miramichi River



Chatham Harbor

7.10 Chatham Harbor (47°02'N., 65°28'W.) (World Port Index No. 5630) stretches along the right bank of the river commencing above Middle Island and extending along the shore for about 1.5 miles. The river depths close off the town wharves range from 5.9 to 10.9m. Sufficient space is available in the channel to anchor.

Chatham is a port of entry. In 1990, Chatham handles 8 vessels and 49,989 tons of cargo.

The New Brunswick Electric Power oil tanker wharf, below the town, has a depth of 6.4m alongside. There is a powerhouse with a conspicuous chimney, 80m in elevation and marked by obstruction lights, behind the wharf, and also three oil storage tanks.

The Chatham Public Wharf, about 1 mile farther upriver, has a face 136m with a least depth of 6.7m alongside. The Maritime Cement wharf, about 0.5 mile above the Chatham bridge, is 67m long with a least depth of 5.7m alongside.

The Miramichi River extends WSW for 3.5 miles above Chatham Harbor, and then turns abruptly to the S. Newcastle Harbor begins about 0.5 mile S of the turn. The river width is reduced to about 0.5 mile off Chatham.

A high level bridge, with a vertical clearance of 35m at HW, spans the river at Chatham. The width between the supporting piers on each side of the channel is 152m.

Wright Bank (47°01'N., 65°31'W.), with a least depth of 3.9m, commences just above the bridge at Chatham and extends about 2 miles up the center of the river. The main channel passes S of this bank.

7.11 Newcastle (47°00'N., 65°34'W.) (World Port Index No. 5640), a town of moderate size fronted by a harbor area about 2 miles long, stands on high ground close to the river about 4 miles above Chatham.

Newcastle is a port of entry. The channel approach has a least depth of 6.4m. In 1990, Newcastle had 28 vessels, handled 238,393 tons of cargo and recorded 13 international movements of 93,517 grt.

Depths—Limitations.—The Government Wharf on the W bank has a length of 310m and a depth of 7.6m at the S end and 8m alongside the remainder. A depth of 4m lies close off the N end.

Acadia Pulp Wharf stands on the opposite bank of the river above the bridge. It is 215m long with a least depth of 5.8m alongside. The channel to the wharf has a least depth of 4.6m, but this should be checked with the Port Authority. It is the only serviceable wharf of any size above the bridge.

The Morrissey Bridge, with a swing span allowing a channel width of 24.4m, spans the river upstream from Newcastle. Vessels with a gross tonnage in excess of 160 tons are prohibited from passing through the bridge, except against the tide. The bridge has a vertical clearance of 2.4m when in the closed position.

An overhead power cable, with a vertical clearance of 37m, crosses the river close above the Morrissey Bridge. For safety reasons, a vessel passing under this cable must maintain a clearance of at least 3.7m.

A fixed highway bridge, with a vertical clearance of 6.1m, crosses the river 0.4 mile S of the Morrissey Bridge.

Pilotage.—Pilotage is compulsory. Pilots board off Escuminac Breakwater.

Anchorage.—Anchorage is available anywhere off the port.

Miramichi Bay to Miscou Island

7.12 Tabusintac Gully (47°17'N., 64°58'W.) stands about 0.8 mile NE of Blackland Point and is the S entrance to



Newcastle Harbor

Tabusintac Bay, which has a river of the same name discharging into it. Old Tabusintac Gully enters the bay farther N. Both entrances are subject to silting and have general depths of 0.9 to 2.1m. Within the bay, the depths in the staked channel increase to 5.5 to 9.1m.

Two wharves within the Tabusintac River have shallow depths alongside. The N pier, L-shaped, has an outer end 55m long; the S pier is 94m long.

Two miles above the river mouth there is a wharf, 27m long, with depths 1.5 to 4.6m alongside.

Baie de Tracadie (47°33'N., 64°53'W.), the next inlet to the N, is shallow and almost dries in places. Channels crossing the bay lead to the North and South Tracadie Rivers and S to Val Comeau.

The bay entrances and channels are used only by local fishing craft.

A wharf stands on the S bank of the Tracadie River at Val Comeau and has a depth of 1.2m alongside. A wharf at the village of Tracadie has an outer end, 55m long, with a depth of 1.5m alongside. The pier exhibits a light.

Pokemouche Gully (47°40'N., 64°47'W.), the next entrance to the N, is the outlet for the Pokemouche River to the W. The entrance to this gully is shallow and available only to small craft.

Shippegan Gully (47°43'N., 64°40'W.), about 5.8 miles NE of Pokemouche Gully, is the S entrance to Shippegan Harbor and stands at the S end of Shippegan Island (Ile Lameque). The gully is fronted by a shifting sand bar, but there is a dredged channel for small craft in which the depths are reported to be about 1.7m. Two breakwaters protect the entrance.

Springs rise about 2m while neaps rise about 1.4m. The flood sets S, the neap N, and the turn of the flow occurs at about half tide in Shippegan Harbor. The flood is somewhat stronger than the ebb, with the maximum rate in either direction being about 5 knots at springs in the S entrance. Normally, SW lasts for about 10 minutes.

The E coast of Shippegan Island extends NNE for about 13.5 miles from Shippegan Gully. The N end of the island, terminating at Miscou Gully, is low and narrow and forms part of the E side of Miscou Harbor.

Rocky patches, with depths of little more than 3.7m, extend up to 1 mile off some parts of this coast and breakers extend up to 1.5 miles offshore during bad weather.

The harbor for fishing craft measures about 90 by 145m, with reported depths of 0.6 to 1.5m.

Miscou Gully (47°55'N., 64°30'W.), separating Shippegan Island from Miscou Island, is very shallow and is reported to be unnavigable.

Wilson Bank, with depths of 2.4 to 9.1m, extends about 2.5 miles off the E coast of Miscou Island. Birch Point, the NE extremity of Miscou Island, is a 3m high sandstone face covered with trees. A rocky reef extends about 0.5 mile from the shore near the point.

South Shore of Chaleur Bay and Restigouche River to Campbellton

7.13 Northwest Miscou Point (48°02'N., 64°31'W.), marked by a grassy sandhill, is the SE entrance point to

Chaleur Bay. The point is fronted by shoals extending about 3 miles offshore. The N end of Miscou Island is bordered by steep sandy beaches.

During S winds, anchorage can be taken on either side of the shoal fronting Northwest Miscou Point in depths of 9.1 to 18.3m.

Miscou Banks (48°07'N., 64°10'W.) extend about 22 miles NE of the N part of Miscou Island. The shallowest parts of this bank lie within 3 miles N of Northwest Miscou Point and 8 miles NE of Birch Point.

The S shore of Chaleur Bay, between Northwest Miscou Point and Bon Ami Point, about 74 miles to the W, is very irregular, being indented by several harbors and bays.

The S shore is generally low, but there are 30m high red sandstone cliffs between Anse-Blue and Bathurst.

In the area W of Miscou and Shippegan Islands, between Northwest Miscou Point and Maisonnette Point, about 22 miles SW, there are several smaller islands intersected by channels leading to small harbors and anchorages.

West of this area the coast extends WSW, forming a large bight with Nipisiguit Bay in its S part. This indentation is the largest of several which lie within the limits of Chaleur Bay.

Restigouche River, at the W end of Chaleur Bay, is navigable as far inland as Indian Point, about 17 miles above its entrance. The commercial ports of Dalhousic and Campbellton stand on the banks of this river.

Winds—Weather.—The bay is named and noted for its milder climate in comparison with the weather in the adjacent parts of the gulf. Fogs, which are frequent outside the bay, seldom penetrate towards the head, though rain and mist often accompany E gales.

Tides—Currents.—The tidal currents within Chaleur Bay are regular and the rate seldom reaches 1 knot. Off the entrance to the bay the currents are erratic both in rate and direction, especially over Miscou Banks.

Caution.—Depths throughout the central part of Chaleur Bay range from 82.3m in the entrance to a depth of 18.3m in the approach to the entrance to the Restigouche River.

Miscou Banks, which lie N and NE of the N part of Miscou Island, have been previously described.

7.14 From a position about 2.5 miles N of Northwest Miscou Point, the 20m curve extends irregularly SW to a position about 1.5 miles N of Maisonnette Point and then follows the remaining S coast to the Restigouche River at distances ranging from 1 to 4 miles off. The few dangers to be found along the S coast of the bay all lie within the 18.3m curve and are described with the related coastal features.

The W coast of Miscou Island is about 8 miles long between Northwest Miscou Point and Harper Point to the SSW, and recedes about 1 mile E to form a small bight.

About 3 miles S of Northwest Miscou Point there is an opening in the trees which extends across the island. At night this opening has been mistaken by vessels for either Miscou Harbour or Miscou Gully, depending on whether it was viewed from the W or E of the island.

During the summer, fairly good anchorage can be taken NW of this opening in depths of 18.3 to 20.1m.

Miscou Flat (47°57'N., 64°37'W.), which consists of sandstone, extends about 4.5 miles W from the SW side of Miscou Island. Depths of 5.2m and less lie within 2 miles W of the same part of the island.

Shippegan Flat, of sandstone partly covered with sand, lies S of Miscou Flat and is separated from it by Miscou Channel. This foul ground extends almost 5 miles W from Black Point on the N end of Shippegan Island. Its least offshore depth of 0.6m lies about 2 miles W of Black Point.

7.15 Miscou Harbour (47°53'N., 64°33'W.), which lies between Miscou and Shippegan Islands, has depths of 2.4 to 6.4m in its central part over a bottom of soft mud. Miscou Channel, which is less than 0.2 mile wide at one part, has depths of 6.7 to 14m between the steep-to shoals.

The spring rise in Miscou Harbour is 1.5m, while the mean range is about 1.1m.

The rate of the current through the entrance and the approach channel is usually less than 1 knot in both directions.

Two government piers are situated within the harbor, one extending from Miscou Island and the other from Shippegan Island.

In Miscou Harbor, a public pier extends 275m SE from the shore close E of the sandspit, with a length of berth at the pier head of 12m and a depth alongside of 1.2m. A ferry ramp is situated on the E side of the pier. A derrick stands on the pier.

In Little Shippegan, a public pier extends from the S shore, with a depth at the pier head of 0.6m. Lights are exhibited from framework towers at the outer corners of the pier.

The W coast of Shippegan Island, between Black Point and Pointe Canot, about 4.5 miles SW, and then 7 miles SSE to Shippegan Gully, is very irregular and indented by several bays. Baie de Petite Lameque, Baie de Lameque, and Baie aux Caribous all lie along the S half of this coast.

A tower, 94m high, stands about 1 mile NNE of Pointe Canot.

Caution.—Local knowledge is required for entering the harbor.

7.16 Shippegan Bay (47°50'N., 64°44'W.) lies between Shippegan Island and Pokesudi Island, to the W, and is bordered on the S side by that part of the mainland known as Taylor Island. The bay contains several good small harbors and anchorage within its limits.

Shippegan Channel, leading into the sound from the N, passes between Shippegan Flat and Pokesudi Shoal. The buoyed channel is narrow and intricate, and marked by lighted ranges.

The sound is open to navigation from about the second week in May until the first week in December.

Baie de Petite Lameque (47°48'N., 64°42'W.) stands on the E side of Shippegan Sound, about 1.8 miles S of Pointe Canot. Good anchorage can be taken off the entrance to the bay in depths of 4.9 to 6.1m, mud. A pier extending into the bay is in ruins.

Baie de Lameque (47°47'N., 64°41'W.), the next bay to the S, has depths of from 2.1 to 6.7m in the central part of the entrance shoaling gradually to its head. The bay offers protection to vessels in all winds.

The shoal of sand and mud extending across Shippegan Sound from Pointe Alexandre, on the N side of Baie de Lameque, to Pointe Brule on the mainland, limits the depth at the entrance to Shippegan Harbor to 3.7m and into the entrance to Baie de Lameque to 4.9m.

Depths—Limitations.—The approach is through a channel dredged to a depth of 3m. Berths are situated inside two basins as shown below:

| Berth | Length | Depth |
|--------------|--------|----------|
| South Basin | | |
| SW side | 100m | 5.5m |
| SE side | 100m | 5.5m |
| NE side | 90m | 3.6-5.5m |
| North Basin | | |
| N breakwater | 250m | 2.9-4.2m |
| SE side | 140m | 2.9-4.2m |
| NE side | 80m | 2.9-4.2m |

A breakwater extends 120m SW from the breakwater-wharf. A light is exhibited from a framework tower at the head of this breakwater.

7.17 Shippegan Harbor (47°45'N., 64°42'W.) (World Port Index No. 5620), which stands on the mainland about 1.5 miles S of the entrance to Baie de Lameque, is entered through a narrow, buoyed channel. Depth in the channel from Chaleur Bay permits vessels of 3.6m draft to enter the harbor. Lights and buoys are moved as necessary to indicate the best channel. Local knowledge is necessary to enter the harbor.

The harbor is frozen over from about December 15 to April 15.

There are three L-shaped wharves extending from the shore at Shippegan that form two basins. Depths range from 2.7 to 4.0m alongside.

A causeway, with a center lift span, crosses the fairway close S of Shippegan Harbor and connects Shippegan Island to the mainland. The lift span, when open, has a vertical clearance of 13m when raised, 2.7m when lowered.

Savoy Landing Pier, at the NE end of the causeway, is 150m long with a depth of 1.4m alongside the outer end.

Baie aux Caribous (47°44'N., 64°41'W.), fouled by drying flats over most of its area, extends about 2 miles SE from Shippegan Harbor to Shippegan Gully. A buoyed channel, with a least depth of 1.5m, crosses these flats from the harbor to the gully.

7.18 Pokesudi Island (47°48'N., 64°47'W.), separated from Shippegan Island by Shippegan Sound, is about 3 miles long and is joined to the mainland to the W by a drying flat. Little Pokesudie Island lies on this flat close S of the larger island.

Pokesudie Shoal, with general depths of 1.8 to 4.3m, extends about 2.5 miles N from the NE point of Pokesudie Island.

Saint-Simon Inlet (47°46'N., 64°46'W.), entered between the S end of Pokesudi Island and Pointe Brule to the S, provides sheltered anchorage in depths of 6.1 to 9.1m.

The public jetty at Saint-Simon has a depth of 1.2m alongside its head.

The mainland coast, W of Pokesudi Island, extends irregularly WSW for about 10 miles to the head of Caraquet

Bay, about 4.5 miles long and almost 2 miles wide, into which two small rivers discharge. The NW shore of this bay is about 4 miles long and terminates in Maisonnette Point. A narrow strip of land, about 1 mile long and bordered by drying sandbanks, extends SE from this point. A drying sandbank extends about 2 miles farther SE and E to within 0.5 mile of the shore at the town of Caraquet.

Caraquet Island (47°49'N., 64°53'W.), low, narrow, and wooded, lies about 1 mile offshore on an extensive rocky bank stretching from the entrance to Shippegan Channel to Maisonnette Point. The NE part of this area is called Caraquet Shoal and is separated from Pokesudi Shoal by Caraquet Channel, a narrow, buoyed passage leading SW from its intersection with Shippegan Channel.

A narrow, buoyed channel indicated by lighted range beacons passes close W of Caraquet Island.

Fisherman Ledge (47°52'N., 64°53'W.), with a least depth of 3.7m and rocky, lies about 2 miles N of Caraquet Island. Fisherman Channel, which lies S of this ledge, is not recommended for large vessels. The channel has charted depths of 7.6 to 12.5m, suitable only for small vessels.

Scollop Patch, lying almost 1.5 miles N of the E end of Caraquet Island, has a least depth of 5.2m.

Maisonnette Ledge (47°50'N., 64°56'W.), with depths of less than 1.8m, lies about midway between Caraquet Island and Maisonnette Point.

7.19 Caraquet Harbour (47°48'N., 64°55'W.) (World Port Index No. 5600), with the town of Caraquet at its head, is about 5 miles long and protected to the N by Caraquet Island and the drying shoals extending SE from Maisonnette Point. The villages of Lower Caraquet, Upper Caraquet, and Maisonnette also lie within the limits of the harbor. The main imports and exports are pulpwood and frozen fish.

Caraquet Channel, a narrow buoyed passage, has a least depth of 5.3m until abeam of the E end of Caraquet Island. Between the island and the mainland the channel depth is 4.3m. Farther W, the channel widens to a width of about 1 mile with a least depth of 7.3m.

A prominent church stands on the shore of Caraquet Harbor, about 1.8 miles SW of Blanchard Point, the NW extremity of Pokesudi Island.

The spring range of the tide is 1.4m, while the mean range is about 1.2m.

The velocity of the current in the outer channel is about 1.5 knots and 2 knots in the inner channel. The currents set fairly through these channels.

The harbor is usually open to navigation from May 15 to December 15.

Pilotage is available, but not compulsory. Vessels bound for Caraquet must report via any coastal station their ETA to "Pilots Caraquet" at least 12 hours before the ETA at the pilot station. The ETA must be confirmed or corrected 4 hours prior to arrival. The time used must be GMT. The pilot boarding station is at 47°54'24"N, 64°48'30"W. The pilot boat is equipped with VHF and guards channel 16 (156.8 MHz).

At **Stoke Point** (47°48'N., 64°52'W.) there is a public breakwater wharf extending 373m from the shore. The wharf

at the outer end of the breakwater is L-shaped with an outer face 35m in length. There are depths of 3.3 to 4.3m alongside the inner faces.

Close W is another public wharf, 251m long with an L-end 46m long. There are depths of 3.9m along the outer face and 3.5m along the inner face.

The public wharf at Middle Caraquet, together with a breakwater extending from its outer L-end and a breakwater to the E, form a basin. The depth in the entrance is 2.2m, but there are shallower depths inside the basin of 0.9m.

At Caraquet, Young Wharf, with East Wharf and West Wharf, forms two basins. The East Basin had depths of 1.9 to 5.2m.

At Maisonnette Point, 3 miles NW of Young Wharf, the L-shaped pier is 247m long with a 21m face. The depth alongside the face is 1.2m.

Good anchorage can be taken in most of the channel. The best anchorage area lies SE of Caraquet Island in depths of 6.4 to 8.8m, mud.

Low sandhills lie along the shore up to 3 miles W of Maisonnette Point and then rise to sandstone cliffs about 30.5m high and continue for 25 miles SW to Bathurst Harbor. Shoal water extends up to 0.5 mile off this coast.

A breakwater pier, 217m long with a depth of 1.2m alongside, extends from the shore at Anse-Bleue, about 4 miles W of Maisonnette Point. The breakwater is approached on an alignment of lights bearing 195°.

A wreck, not dangerous to surface navigation, lies on the transit of the leading lights, about 1.2 miles from the front light.

A green church spire in the fishing village of Grande-Anse, about 8 miles W of Paisonnette Point, is very conspicuous.

A small breakwater harbor stands at Stonehaven, on the W side of Grindstone Point, about 8.5 miles SW of Grande-Anse. A pier, with a depth of 3m alongside the head, stands on the W side of the breakwater.

Nepisiguit Bay (47°45'N., 65°33'W.) is about 14.5 miles wide at its entrance between Grindstone Point and Rochette Point, and recedes about 7 miles S to the mouth of the Nepisiguit River.

7.20 Bathurst Harbour (47°38'N., 65°38'W.) (World Port Index No. 5590), a sheltered harbor, stands on the Nepisiguit River about 3 miles from its mouth. The port includes the facilities of Bathurst, West Bathurst, and East Bathurst.

Tides—Currents.—The spring range is 1.4m, while the mean range is 1.2m.

The current sets through the outer channel at a rate of 1.5 knots and 2 knots through the inner channel. Both currents set fairly through the channels.

Depths—Limitations.—The harbor is entered over a bar to Carron Point through a narrow dredged channel which extends about 1.5 miles NE of the river mouth. Because of continuous silting depths, both outside and within, the river is subject to change. The buoyed channel outside the river is 180m wide and 42m wide within the river. The buoys are moved to meet changing conditions. Both channels are dredged annually. Vessels should not attempt to enter without local knowledge.

In 1993, depths of 3.7m at LW were reported in the entrance channel, with an additional 1.2m at HW Neaps and 2.1m at HW Springs. The largest vessel accommodated had a draft of 5m.

The berths alongside the Consolidated Bathurst Wharf and the Government Wharf are subject to rapid silting. Local information should be obtained before attempting to berth or approach these wharves. The Government Wharf on the E bank of the river is 123m long, with alongside depths of 1.6 to 2.6m, which may be reduced by silting. The Consolidated Bathurst Wharf is 152m long, with an alongside depth of 3m. The berths at the other wharves in the harbor have depths of 1.2 to 3.4m alongside.

The port is open to navigation from about April 15 to December 15.

Pilotage.—Pilotage is compulsory. To avoid delay in obtaining a pilot, vessels bound for Bathurst should report their ETA via any coastal radio station to "Pilots Bathurst" at least 12 hours before the ETA at the pilot station, and must be confirmed or corrected 4 hours prior to arrival. The time used must be GMT.

The pilot boarding station is situated at 47°43.7'N., 65°33.8'W. The pilot boat is equipped with VHF and guards channel 16 (156.8 MHz).

The master that wants to depart or make a move and requires a pilot in doing so, must report to "Pilots Bathurst" 4 hours prior to such estimated time of departure. The time used should be local time; if GMT is used, it must be expressly stated.

Anchorage.—Anchorage can be taken E of the entrance range in a depth of 21.9m, about 5 miles NNE of the river mouth.

The shallow entrance to a lagoon lies about 3 miles NW of the entrance to Bathurst Harbour.

An illuminated cross, 44.5m high, stands on a church near the N end of the lagoon at Beresford and is very conspicuous.

Pointe Rochette (46°47'N., 65°42'W.), about 8.5 miles NNW of the entrance to Bathurst Harbour, is fronted by a breakwater with a small wharf at the L-end. A depth of 1.8 to 3.4m exists alongside this wharf. A conspicuous illuminated cross stands on a church at Petit-Rocher to the W.

A small boat harbor, formed by two breakwaters, is situated at Pointe Verte, about 5 miles NNW of Pointe Rochette. Depths in the basin are shallow.

7.21 Belledune Harbor (47°54'N., 65°50'W.) which lies between Belledune Point and a point about 1 mile to the W, is the site of fertilizer and smelting installations. The breakwater which fronts the harbor is angled midway along its length.

Winds—Weather.—The prevailing winds are from the W, although in September and October they may be from SW. When the wind is from the E, a swell may be experienced at the harbor entrance and the berths.

Ice.—The harbor is ice free in the winter and is open to navigation throughout the year. However, the prevailing E winds bring pack ice into Baie des Chaleurs, making the approach to Belledune difficult at times, with heavy and rafted ice.

Depths—Limitations.—The approach channel has a width of about 145m and a reported depth of 11.6m. It is recommended that fully loaded bulk carriers berth at HW and have a maximum arrival draft of 12.6m.

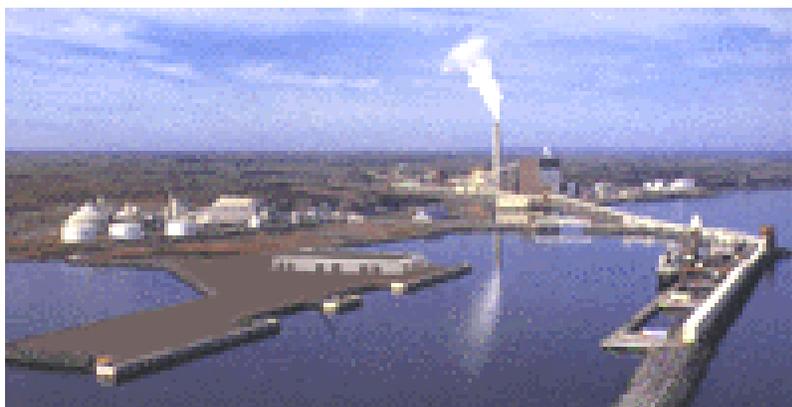
Berth information for Belledune Harbor is given in the accompanying table:

| BELLEDUNE BERTH INFORMATION | | |
|-----------------------------|--------|-----------------|
| Berth | Length | Depth alongside |
| Coal Wharf | 307m | 14.4-14.8m |
| BMS Wharf | 155m | 10.1m |
| Mixed Cargo Wharf | 455m | 10.1m-11.5m |

A light is exhibited at the outer end of the breakwater.

Pilotage.—Pilotage is not compulsory, but is recommended. The pilot boards 1.5 to 3 miles NE of the breakwater.

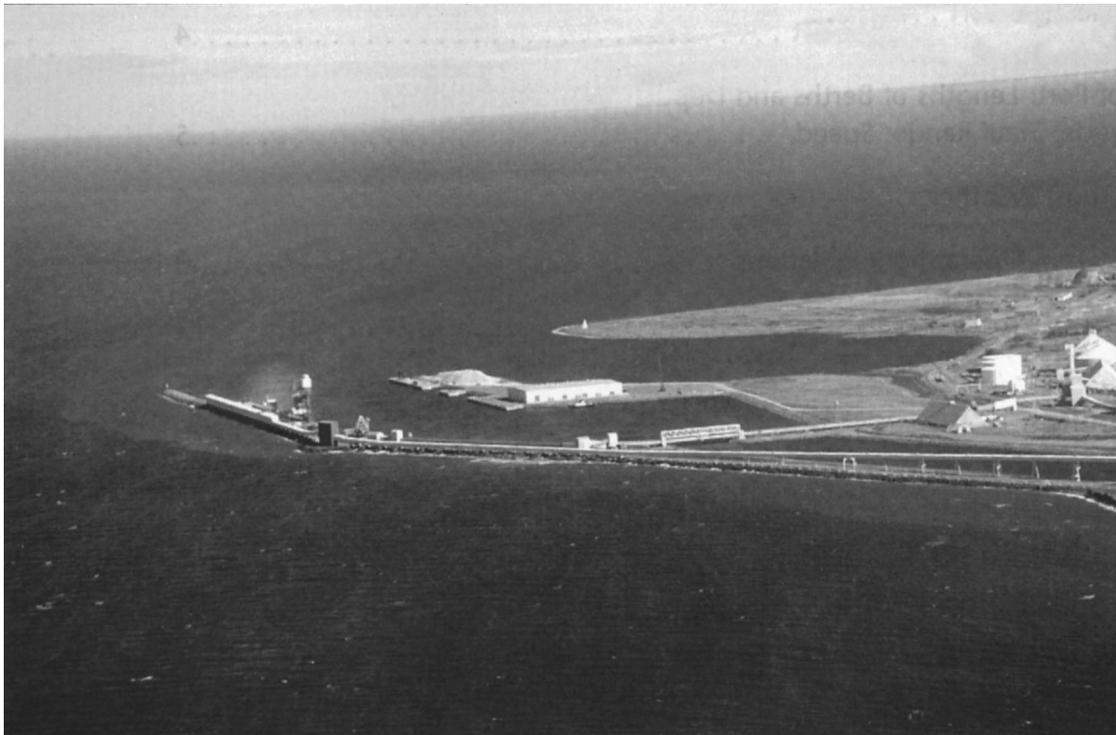
Regulations—A vessel may not enter the harbor without first notifying the harbormaster on VHF channel 16 or 65A. The port has restrictions on docking in certain wind conditions and may require vessels to use the services of a tug.



Belledune Harbor from E



Belledune Harbor from N



Belledune Harbor from NW



Belledune Harbor from S

Anchorage.—Two designated anchorages lie 1.5 miles and 3 miles NE of the breakwater in 27 to 33m, good holding ground of hard mud, but with little shelter.

The 10m curve between Belledune Point and Heron Island, about 12.5 miles WNW, gradually increases in width, lying 3 miles offshore in the vicinity of the island and about 2 miles offshore from there to the head of the bay.

Heron Island (48°00'N., 66°08'W.), wooded and moderately high, is bordered by red cliffs about 12.1m high along its NE side.

Heron Channel, which lies between the island and the coast, is narrow, intricate, and suitable only for small craft. Heron Rock, with a depth of 1.2m, lies in the middle of the E entrance. Two piers, on the S side of this channel, have shallow depths alongside.

Good anchorage can be taken in a depth of 7.6m, mud, about 3 miles W of the W end of Heron Island and 1.5 miles N of the mainland.

A power station with a conspicuous chimney, 91.4m high stands N of Eel Bay, 1 mile WSW of Inch Arran Point. A breakwater projects 0.25 mile E from the shore abreast the chimney.

Bonamy Rocks, which extend almost 0.5 mile E of the point S of Inch Arran Point, the W entrance point to the Restigouche River, are steep, high, and broken. Shoal water, with depths of less than 9.1m, extends about 0.2 mile E from these rocks and continues NW to Dalhousie Island.

Miguasha Point (48°04'N., 66°18'W.), the E entrance point to the Restigouche River, is fronted by Miguasha Spit, which

extends about 1 mile to the SW. Depths over this spit range from 1.8 to 3.7m.

7.22 Dalhousie Harbor (48°05'N., 66°22'W.) (World Port Index No. 5560) stands on the S bank of the Restigouche River, about 1 mile within the entrance and is a port of entry.

The harbor is usually open year round. When required, ice breakers are used to keep the harbor ice-free.

Tides—Currents.—The spring tidal range is about 2.1m, while the mean tidal range is about 1.7m.

The velocity of currents in the river and harbor entrance does not exceed 2 knots.

Depths—Limitations.—Depths in the entrance to the river range from 14 to 27.4m, shoaling gradually to depths of 9.4 to 14.9m in the fairway between Dalhousie Island and Middle Ground to the N. Farther W, the depths decrease to a dredged depth of 9.1m N of Government Wharf.

The maximum size of vessels handled is 229m long, beam 30m, and a draft of 10.4m at the Government Wharf. Vessels approaching these dimensions must berth at HW, port side-to. Maximum draft entering the harbor and berthing starboard side-to is 8.5m because of a restricted turning basin.

There are tidal restrictions if a vessel exceeds an 8.5m draft on arrival. To berth starboard side-to at any berth a vessel should arrive 3 hours before HW.

An extensive area of reclaimed land forms the area of the wharf and the site of the New Brunswick International Paper Company plant. The wharf, situated about 0.4 mile E of the public wharf, is reported in disuse. The public wharf, 183m



Dalhousie—Inch Arran Point

long, is at the W end of the harbor and has a depth of 9.8m reported, but is liable to siltation.

The DOT wharf is 192m long with two mooring dolphins, 76m and 152m E of the wharf. The wharf is adapted for ro-ro operations. Depths alongside range from 3.7 to 4.3m.

The channel of the Restigouche River, between Dalhousie Harbor and Campbellton Harbor, about 14 miles upstream, is wide and deep for the first 5 miles above the river mouth, but then narrows and shoals gradually. Buoys mark the channel, and above **Pointe au Chene** (48°02'N., 66°37'W.), by leading lights. There was a channel depth of 4m. Above Pointe a la Garde, the channel narrows to a width of 0.1 mile with a least depth of 6.1m. The channel between Pointe au Chene and Campbellton is no longer dredged. A least depth of 4m was found in this section of the channel.

The various channel reaches are marked by navigational aids. Vessels are cautioned that the channel buoys may be dragged off station by passing log rafts.

Pilotage.—Pilotage is compulsory. To avoid a delay in obtaining a pilot, any vessel bound for Dalhousie Harbor must report their ETA to any coastal radio station addressed to "Pilots Dalhousie" at least 12 hours before the vessel's ETA at the pilot boarding station. The ETA must be confirmed or corrected 4 hours prior to arrival. The time used must be GMT.

The pilot boarding station is situated in 48°03'12"N, 66°15'00"W. The pilot boat is equipped with VHF radio and guards VHF channel 16.

The master of a vessel that is to depart or make a move within the compulsory pilotage area of Restigouche must give

at least 4 hours notice prior to such ETD. The time used should be local time. If GMT is used, it must be expressly stated.

Caution.—The approaches to the wharves and all dredged areas are subject to silting. Less depths than charted may be encountered in these areas. An earlier survey indicated that Middle Ground had extended S into the main channel.

When approaching the river entrance from the E, Dalhousie Hill, about 2.5 miles WSW, and Mount Escuminac, about 9.5 miles WNW of Inch Arran Point, are conspicuous and useful marks. A conspicuous high chimney stands close W of Inch Arran Point rear range light and a similar chimney stands about 0.8 mile SW of the same light.

Mariners are cautioned that there may be less water than shown on the charts.

7.23 Campbellton Harbor (48°01'N., 66°40'W.), a lumber exporting center, stands on the S bank of the Restigouche River near the head of navigation. Campbellton is a port of entry.

The port is open to navigation from May to December.

The spring rise of the tide is 2.6m, while the mean rise is about 2m.

A railway wharf, situated at the NE end of the town, is 442m long. There is a reported depth of 3m located 3m off the N face of the wharf, about 23m from the E end. The basin on the S side of the wharf has silted considerably.

A bridge spans the river from Campbellton to the opposite bank. Only small vessels can proceed upriver above this bridge.



Dalhousie Harbor

Pilotage is compulsory. See Dalhousie Harbor, paragraph 7.22, for details on pilotage.

North Shore of Chaleur Bay—Maquereau Point to Restigouche River

7.24 The N shore of Chaleur Bay, like the S shore, is very irregular. From Maquereau Point, the coast extends about 25 miles SW then about 40 miles W to Maguasha Point at the entrance to the Restigouche River. Several small commercial ports are situated in some of the bays which indent this coast.

Caution.—Depths throughout most of Chaleur Bay are deep and free of detached shoals except near its shores. It gradually becomes shallow towards the head of the bay. Along the N side of the bay there are no known off-lying dangers seaward of the 10m curve, which nowhere lies more than 2 miles offshore. The dangers within this curve are described with the related coastal features.

Maquereau Point (48°12'N., 64°47'W.), the NW entrance point to Chaleur Bay, is bold, dark colored, and has craggy rocks rising to an elevation of about 61m.

Pointe Reddish (48°11'N., 64°52'W.), about 3.8 miles W of Maquereau Point, is composed of red limestone and from a distance appears as an island. Close NE of the point, the mouth of the Ruisseau Chapados is protected by two jetties with shallow depths in the channel.

Port Daniel (48°10'N., 64°58'W.), entered between Pointe Pillar and Pointe Ouest, lies about 3.8 miles W of Reddish Point. Good anchorage is provided in a depth of about 10.1m, mud, sheltered from all except winds between the S and E. The port facilities at the head of the bay are in ruins. Caution is necessary as the bay is subject to continual silting.

Colline Daniel, 122m high and the highest land along this part of the coast, stands about 1.5 miles SW of Pointe Ouest.

Shigawake Pier, 82m long with a depth of 1.2m at its outer end, extends from the shore about 6 miles SW of Pointe Ouest.

St. Godefroi, a small village with a conspicuous church, stands 2 miles SW of Shigawake Pier. A small pier with shallow depths extends from the shore abreast of the village.

The Nouvelle River discharges into the bay about 1 mile SW of St. Godefroi. A pier and a training pier at the mouth of the river have shallow depths alongside and are suitable only for small boats.

Pointe de Paspebiac (48°01'N., 65°15'W.) (World Port Index No. 5550), about 5.5 miles SW of the Nouvelle River, stands at the outer end of a triangular-shaped sandy beach, which encloses a partially drying lagoon. A sandspit, with depths of 1 to 10m, extends about 0.8 mile S from the point.

The village of Paspebiac is situated N of the lagoon. Aquaculture sites are situated about 1.2 miles SW of the harbor.

Paspebiac Pier, of irregular shape and 0.2 mile long, extends from the shore NW of Paspebiac Point; the outer 59m of the pier are in ruins. The port has a total of 675m of berthing space, with depths of 4.9 to 6.7m alongside.

Two submarine water intake pipelines are situated close E of the public wharf.

A light is shown close N of Pointe de Paspebiac.

Two conspicuous radio towers, 125m high, marked by obstruction lights, stand in the lagoon N of Paspebiac Point.

A high microwave tower, 107m high, and a church with a tall spire stand in New Carlisle, about 3.5 miles W of Pointe Paspebiac.

Good anchorage can be taken in a depth of 10.7m, clay, about 1 mile W of Pointe Paspebiac. The shelter is good, except from winds between the W and SE through S; SW winds send in a considerable sea, but the holding ground is very good.

7.25 Pointe Bonaventure (48°00'N., 65°27'W.), about 4.5 miles W of New Carlisle, consists of low, red sandstone cliffs.

Rocky shoals, with depths of 5.5m and less, extend 1 mile offshore from Bonaventure Point and border the coast up to 5 miles to the W.

Bonaventure River, with a village on its N side within the entrance, flows into the bay about 2 miles NW of Bonaventure Point. Two wharves stand in the lagoon at the mouth of the river, but the depths alongside and in the channel leading to them are subject to rapid change. Range lights are shown from shore at the entrance to Havre de Beaubassin.

Caution.—The piers and the breakwaters along this section of coast are subject to silting and ice damage, and should be approached with caution. Many of the small piers are in ruins. The depths and condition of the piers may vary from season to season.

The coast between the Bonaventure River and Black Cape, about 14 miles WNW, has several small villages standing along the shore. All of the dangers are contained within about the 10m curve, which lies between 0.25 and 0.75 mile offshore.

At Black Cape (Howatson Point), 1.3 miles NW of Les Caps Noirs, a jetty extends 305m S from the coast. The jetty is reported to be a good radar target, but is difficult to identify visually.

Depths—Limitations.—The New Wharf abuts the W side of the L-shaped old wharf and extends 305m to seaward from the shore. The outer 120m is capable of berthing vessels on the W and E sides. On the W side depths of 5m exist, 120m from the wharf head, increasing to 9.2m at the head. Depths on the E side may be less and 4.4m has been reported. In 1993, it was reported that the light at the head of the wharf was operational.

Anchorage.—Anchorage is available off the jetty, clear of a submarine pipeline that extends about 0.5 mile SW from the shore at a point about 137m W of the jetty.

Caution.—The outer part of the E spur of the old wharf has been demolished and constitutes a danger to navigation. Reports indicate that the entire old wharf is in ruins.

It was reported that depths in the vicinity of the old wharf are less than indicated on the chart.

7.26 Baie de Cascapedia (48°09'N., 65°55'W.), entered between Les Caps Noir and Tracadigache Point, about 12.5 miles WSW, recedes N to the mouth of the Cascapedia River. The mouth of this river is fouled by shoals and drying flats which extend up to 2 miles offshore. The piers which extend from the shores of this bay are in ruins or the approaches to them are completely silted up.

Pointe Tracadigache, a triangular-shaped sandbar enclosing a drying lagoon, is fronted by a sandspit which extends about 0.5 mile S from it.

Baie Tracadigache (48°05'N., 66°11'W.), entered between Tracadigache Point and Miguasha Point, about 7 miles to the W, is fringed by shoals which extend about 0.8 mile off the N shore and up to 1.5 miles off the NW shore; the E side is fairly steep-to.

At the village of **Carleton** (48°06'N., 66°08'W.), on the E side of Baie Tracadigache, a jetty and a breakwater SE of it form a small basin.

Depths—Limitations.—Carleton Wharf is 246m long with berths on both sides. On the NW side there are two berths; 100m long with a 7.2m depth alongside, and a 40m long berth with a 5.3m depth alongside. On the SE side there is one berth, 70m long, with a depth of 6m. The outer face of the wharf is 22m long with a depth of 7m alongside. Silting is rapid.

Within the basin there are a number of inter-connecting jetties for use by small craft and the marina is situated in the NE part of the basin.

Caution.—Marine farms, some of which may lie up to 3 miles offshore, are situated in Baie de Cascapedia and Baie Tracadigache.

Maquereau Point to Cape Gaspe

7.27 The W shore of the Gulf of St. Lawrence, between Pointe Maquereau and Pointe St. Pierre, about 35 miles NE, is very irregular and indented by several bights. Bonaventure Island is the largest of several small islands lying close offshore. One commercial port and a few fishing harbors are situated in the bays indenting the coast.

Baie de Gaspe, entered between Pointe St. Pierre and Cap de Gaspe, about 7.5 miles to the N, recedes about 16 miles to the NW. Two arms continue to the W and NW from the head of the bay, which contains the commercially important Gaspe Harbor.

Caution.—This coast is mostly steep-to with all of the dangers, except Banc des Americains, lying within about the 60m curve which nowhere lies more than 4 miles offshore, except for a few detached patches with depths of less than 54.9m.

7.28 Leander Shoal (48°24'N., 64°18'W.), with a least depth of 4.3m, lies on the outer part of a shoal which extends about 2 miles SE from Cap d'Espoir. All vessels, except small craft, should pass S and E of this danger.

Banc des Americains (48°37'N., 63°56'W.), a narrow shoal with general depths of 73m, extends about 10 miles SE from a position about 4 miles SE of Cap de Gaspe. A 11.6m patch, the shallowest depth on this bank, lies about 13 miles SE of Cap de Gaspe.

The other dangers which lie adjacent to the coast are described with the related features.

Tides—Currents.—The flood and ebb currents set regularly between Ile Bonaventure and the mainland at a rate of about 1 knot. The flood sets SW around Cap d'Espoir and into Chaleur Bay, and the ebb sets in the opposite direction.

7.29 Newport (48°16'N., 64°45'W.), a small, fishing village about 4 miles NE of Maquereau Point, is fronted by

breakwaters with a shallow basin in between. There are depths of 0.8 to 1.8m in the river entrance. A rocky shoal lies about 137m S of the river entrance.

Newport Point (48°17'N., 64°43'W.) has a small, shallow basin on its W side bordered by a breakwater and a pier. There is a depth of 2.7m within the basin.

The harbor is approached through a buoyed channel with a least depth of 4.8m on the transit of the leading lights and 4.1m in the harbor entrance.

Depths—Limitations.—Berths at Newport Point are situated near the fish plant, at the end of the W breakwater, and on Fisherman's Jetty, as follows:

| Berth | Length | Depth |
|---|------------------|-------|
| Fish plant, S wharf | 64m | 4.5m |
| Fish plant, E wharf | 30m | 4.7m |
| W breakwater, inner side | 149m | 5.0m |
| Fisherman's jetty extending from N side of harbor | 30m on outer end | 2.3m |

A small cove stands close W of Pointe du Grand Pabos, about 1.5 miles NNE of Newport Point. Good shelter is provided for small craft.

Chandler (48°21'N., 64°40'W.) (World Port Index No. 5540), a small exposed port, lies about 2.5 miles NE of Pointe du Grand Pabos. Pulp and paper products are the main industry.

The chimney and water tower at the paper plant, on the W side of Anse a L'Ilot, and the church spire and cupola in the town are conspicuous from the offing.

The approach to the wharf in the town is restricted by Ile Dupuis and the shoals which surround it. Minimum depth in the channel is 8m. A curved stone breakwater extends about 458m from the shore in position 48°20.8'N, 64°39.4'W. A public jetty, 150m long, extends SW from the end of the breakwater.

The berth for shipping, which is 150m long, with a least depth of 9m alongside, is on the NW side of the public jetty. There is no berth on the SE side. The approaches have been dredged to a depth of 9.8m within a radius of 190m from the SW end of the jetty.

Pilotage is available, but not compulsory. A local pilot can be obtained, but prior arrangements have to be made through Chandler Pilots c/o La Compagnie Gaspesia Limitee. Notification of ETA should be made at least 12 hours in advance and confirmed or corrected 4 hours before arrival.

The pilot boarding station is situated at 48°19'N, 64°38'W. The pilot vessel is equipped with VHF radio and monitors VHF channels 11 and 16.

Grande Riviere (48°24'N., 64°30'W.), a small fishing port, stands about 7.5 miles ENE of Chandler at the mouth of the river of the same name. A dredged channel leads into the port at the mouth of the river of the same name. Because of silting, lesser depths than charted may be encountered.

There is an L-shaped wharf, 294m long and 75m wide, with depths of 3 to 3.5m alongside.

A conspicuous illuminated cross stands about 0.8 mile NNW of the pier at Pointe Verte. A church near the river mouth is also conspicuous.

A pipeline extending 120m from the shore, terminating in an obstruction, runs close SE of the S breakwater.

Petite Riviere Est, which has a small boat basin, is formed by a breakwater and an L-shaped breakwater-wharf N of it. The entrance is 30m wide and the depths alongside are 2.5 to 3.4m.

Cap d'Espoir (48°25'N., 64°19'W.) consists of red cliffs about 15m high, with the land inland rising to high ridges. A narrow shoal bank extends about 2 miles SE from the cape. Leander Shoal, which lies on this bank, has been previously described in paragraph 7.28.

L'Anse-a-Beaufils (48°28'N., 64°19'W.), a small fishing village, stands in the NW part of the bay of the same name, about 3 miles N of Cap d'Espoir. There is a basin which has depths of 0.3 to 2.2m. The public wharf has dredged depths (1998) of 2.5m alongside its outer 145m and 1.7m alongside its inner 82m. Ruins lie close off and parallel to the SE shore of the basin. Pontoons and a footbridge have been established close off the SW shore.

Cap Blanc (48°30'N., 64°13'W.), separating L'Anse-a-Beaufils from Perce Bay to the N, is steep-to.

Caution.—Due to silting, the depths in the fishing harbors cannot be relied upon. A shoal area was reported in the entrance to the boat harbor in the mouth of the river.

7.30 Ile Bonaventure (48°30'N., 64°10'W.) lies about 1.8 miles E of Cap Blanc and is separated from the mainland by a navigable clear channel having depths of 18.3 to 36.6m. The island is about 137m high, with steep red cliffs 76m high in places on its NE side. The island is a government bird sanctuary.

Anchorage can be taken in the passage between the island and the coast in a depth of 27m, however, a heavy swell rolls in during bad weather.

Perce Bay, entered between Cap Blanc and Perce Rock to the N, has the town of Perce along its NW shore. A pier, 172m long with depths of 4.9 to 5.8m alongside, extends from the shore abreast of the town. Perce Reef extends about 0.4 mile offshore, about 0.2 mile S of this pier.

Perce Rock, 88m high with a remarkable large hole through it, is the E entrance point to Perce Bay.

Mont Sainte-Anne, with a conspicuous monument on its slope, rises to an elevation of 375m about 1 mile W of the town of Perce. Three conspicuous radio towers, marked by obstruction lights, stand on this mountain.

La Mal Baie (48°35'N., 64°13'W.), entered between Perce Rock and Pointe Verte, about 5.8 miles N, is deep and clear of dangers. The head of the bay is bordered by a wide sand and gravel beach enclosing a shallow lagoon. The S shore of the bay between Perce Rock and Cannes de Roches is bordered by a perpendicular cliff over 198m high. The N side of the bay is bordered by low cliffs and patches of beach.

Barachois-de-Malbaie, the principal settlement, stands in the NW part of the bay. A pier, with a depth of 2.7m at its outer end, extends from the shore abreast of the settlement. The lagoon empties into the bay N of this pier.

A pier, 90m long, extends to a depth of 5.8m alongside the outer end of the N side, shoaling to 1.9m at its root, from the village of Mal Baie, on the N shore of the bay.

Anchorage is not recommended off the village of Mal Baie because of frequent SE gales, which are often preceded by heavy fogs and high seas.

Pointe St.-Pierre (48°38'N., 64°10'W.), the S entrance point to Gaspé Bay, is low and covered by numerous white houses.

Ile Plate, a low island, lies about 0.4 mile NE of Pointe St.-Pierre.

Baie de Gaspé

7.31 Baie de Gaspé (48°44'N., 64°14'W.), entered between Pointe St.-Pierre and Cap de Gaspé, about 7.5 miles to the N, recedes about 17 miles to the NW to the entrance to Gaspé Harbor. West of this harbor the bay divides and leads into Northwest and Southwest Arms. The general width between the NE and SW shores is about 4.5 miles up to 7.5 miles within the entrance, but from there to the entrance to Gaspé Harbor the bay narrows gradually to a width of 0.75 mile in the entrance to the harbor. The roadstead off Douglstown, along the SW shore of the bay about 12 miles NW of Pointe St. Pierre, provides excellent anchorage.

Tides—Currents.—The current from the St. Lawrence River sets strongly past Cap de Gaspé and toward Ile Plate, particularly during a falling tide, and often attains a velocity of 2 knots. It must be guarded against, especially by vessels bound for Baie de Gaspé when a N wind is blowing. This current, when meeting the prevailing swell from the S and SE, raises a high, short breaking sea along the coast and across the entrance to Baie de Gaspé.

Depths—Limitations.—The depths in the bay range from 109.7m in the entrance shoaling gradually to a depth of 20.1m in the entrance leading into Gaspé Harbor. All of the known dangers are contained within the 10m curve, which nowhere lies more than 0.75 mile offshore and in many cases much less. The NE side of the bay is steep-to in places within a short distance of the shore.

Banc des Américains, the only off-lying danger in the approach to Gaspé Bay, has been previously described in paragraph 7.28.

A 13.1m patch lies 1 mile SE, and a detached shoal, with a least depth of 23.8m, lies 4.5 miles SE of Cap de Gaspé. Tide rips occur at times.

Traffic Separation Scheme.—The in-bound lane of the traffic separation scheme between Cabot Strait and Saint Lawrence River lies 33 miles NE of **Cap de Gaspé** (48°45'N., 64°10'W.).

7.32 The SW shore of Baie de Gaspé, between Pointe St.-Pierre and Douglstown, about 12 miles NW, is backed by steep cliffs rising to heights of about 46m in places.

St. Georges-de-Malbaie (48°39'N., 64°13'W.), a small village about 2.8 miles NW of Pointe St.-Pierre, is fronted by some piers with shallow depths alongside. Cap Rouge, a small

projecting headland marked by a cross, stands about 0.5 mile farther NNW.

Anse-a-Brillant, a small boat basin marked by some jetties in ruins, stands about 2.5 miles NW of Preval.

Douglastown (48°46'N., 64°22'W.), a small lumber and pulpwood exporting town, stands on rising ground on the S side of the mouth of the Riviere St.-Jean about 4.5 miles NW of Anse-a-Brillant. A small pier extends from the shore.

Anchorage can be taken anywhere in the extensive roadstead off Douglastown in depths of 11 to 18m, sand and clay. Southeast winds send in a heavy swell, but good shelter is provided from other winds.

A depth of 3m lies in the channel leading into the Riviere St.-Jean, but only small boats can be accommodated.

7.33 Cap de Gaspé (48°45'N., 64°10'W.), the N entrance point to Baie de Gaspé, is a headland forming the SE extremity of Presqu'île de Forillon. Cliffs rise to a height of 21m on the NE side of the peninsula, but are much lower on the SW side.

Rocher Flowerpot, 1.5m high, stands close off the SE end of the cape.

Cap de Gaspé has been reported to be a good radar target up to 21 miles and has been reported to be identifiable with charted features by radar up to 18 miles.

The NE shore of Baie de Gaspé is steep-to and free from detached dangers as far as Seal Rock, about 7 miles NW of Cap de Gaspé.

Anse-aux-Sauvages (48°46'N., 64°12'W.), about 1.8 miles NW of Cap de Gaspé, there is a pier 90m long with a depth of 7.6m alongside the outer end and 4.9m alongside the outer 30.5m.

Caution.—Due to silting, the depths in the fishing harbors cannot be relied upon. A shoal area was reported in the entrance to the boat harbor in the mouth of the river.

A small enclosed basin, with a depth of 1.8m, stands at Grande-Greve, about 2 miles NW of Anse-aux-Sauvages. A small pier extends from the shore. Anchorage can be taken abreast of Grande-Greve, about 0.3 mile offshore, but farther seaward the depths increase rapidly.

Gros Cap aux Os, a 21.3m headland, stands about 4 miles NW of Grand-Greve. A village stands in the small bay E of the cape. A wreck, visible at LW, lies about 0.2 mile SE of the cape.

Rocher Seal (48°49'N., 64°18'W.), with a least depth of 0.9m, lies on a reef about 0.8 mile SE of Gros Cap aux Os.

A small pier extends from the shore at Cap aux Os, about 1 mile WNW of Gros Cap aux Os.

7.34 Gaspé Harbor (48°50'N., 64°26'W.) (World Port Index No. 5510) lies inside the natural breakwater formed by Sandy Beach Bar and Sandy Beach Spit; due to silting, Sandy Beach Bar may extend outside its charted limits. The harbor is about 4.5 miles long with a general width of 1 mile. Depths range from 7.3 to 20.1m, mud, with good shelter. Northwest Arm and Southwest Arm are extensions of the harbor, but both are shallow in their inner reaches. The harbor usually freezes over from about December 15 to April. Icebreakers are available.

The entrance between the shoals extending from Sandy Beach Spit and the shoals to the E of Pointe de Penouille has a depth of about 20.1m in the middle of the fairway.

A radar transponder beacon is situated and transmits from Pointe de Penouille.

Gaspé Harbor extends about 2.5 miles W from Sandy Beach Bar to Jacques Cartier Point, which separates Southwest Arm from Northwest Arm.

Paddy Shoal, about 0.3 mile SW of Jacques Cartier Point, has depths of less than 5.5m and the greater part of it dries. It extends about 0.2 mile from the shore into Southwest Arm.

Pointe de Lourdes, about 0.8 mile SE of Jacques Cartier Point, is the SE entrance point of Southwest Arm. Lourdes Spit, with depths of less than 5.5m, extends about 0.5 mile NW from Pointe de Lourdes.

Gaspé Basin, the deep-water part of Southwest Arm, can accommodate many vessels. A new highway bridge, marked by lights, crosses the narrows at the entrance to the arm and joins the villages of Gaspé and Gaspé Harbor. The vertical clearance under the center of the bridge is 6.4m. The old bascule bridge has been destroyed. Two abandoned submarine cables cross the narrows just W of the bridge.

Numerous oil tanks stand in the vicinity of Delaire on the S side of the outer harbor. A conspicuous high radio tower stands 0.5 mile W of Delaire.

In good summer weather a sea breeze blows right up Gaspé Bay from about 0900 to sunset, and at night a land breeze blows in the opposite direction. The outer part of the bay is often calm, even when a fresh breeze is blowing outside Cape Gaspé; these breezes usually blow from the SW.

In Gaspé Harbor entrance and Gaspé Basin the flood and ebb are regular but weak. The currents within the bay are variable, almost imperceptible and weak, even near the shore.

At Sandy-Beach, on the S side of the outer harbor, the public wharf is 33m wide with berthing lengths of 210m on the N side and 235m on the S side. The depth alongside the N side is 10m for the outer 180m; the depth on the S side is 8m for the outer 175m.

An L-shaped jetty, which is in ruins, is situated 61m S of the public jetty. Its use is temporarily prohibited.

A number of wharves line the N shore of Southwest Arm at Gaspé. Some are in ruins. The coal wharf, just inside the entrance, has depths of 5.2 to 6.1m at the outer face. The east section was reported in ruins.

A marina, protected by breakwaters, is situated on the S shore close E of the bridge.

Pilotage is not compulsory, but can be arranged with prior notice and is recommended. No licensed pilots are available, but men with local knowledge can be obtained provided prior arrangements have been made with marine radio station VCG at Fox River Gaspé by radiotelephone. A pilot may be obtained off Rocher Flowerpot or at Grande Grive.

Secure anchorage can be taken in Gaspé Harbor in depths of 9.1 to 18.3m, mud, and in Gaspé Basin in depths of 5.5 to 16.5m, mud.

Cap de Gaspé to Pointe a la Renommée

7.35 Cap de Gaspé (48°45'N., 64°10'W.) has been previously described in paragraph 7.33.

The coast between Cap de Gaspé and Pointe à la Renommée, about 30 miles to the NW, extends irregularly 6.5 miles to the N to Cap des Rosiers, with the coast receding to the W between these points to form a bight. Between Cap des Rosiers and Pointe à la Renommée, about 23.5 miles to the NW, the coast consists of bold cliffs backed by high terrain a few miles inland. Several small fishing harbors lie along this stretch of coast.

Depths—Limitations.—The coast between Cap de Gaspé and Pointe à la Renommée is clear of all dangers outside about the 40m curve, which lies at its greatest distance almost 2 miles offshore about 4 miles N of Cap de Gaspé. Recif du Serpent, with a least depth of 2.1m, extends about 1 mile E from Pointe du Serpent.

Between Cap de Gaspé and Cap Bon Ami, about 3 miles to the NW, the coast is bordered by limestone cliffs rising sheer from the sea to a height of about 213m. North of this latter cape the coast gradually declines in height as far N as Cap des Rosiers, about 4 miles distant. All dangers along this stretch of coast are contained within the 11m curve, which lies about 0.5 mile offshore.

Cap des Rosiers (48°51'N., 64°12'W.), low and rocky, is fringed by foul ground which extends about 0.3 mile offshore. The cape has been reported to be a good radar target up to 6 miles.

Cap-des-Rosiers-Est is a fishing village with a small pier, about 1.5 miles S of Cap des Rosiers.

Two jetties border the channel that leads to the inner basin. The S, L-shaped jetty is 137m long and is rock-filled at its S end; the N jetty is 100m long. The walls of the basin provide a total berthing length of 200m. Periodically the basin is dredged to a depth of 1.5m

Between Cap des Rosiers and Anse-au-Griffon, about 6.5 miles NW, the coast is steep-to within 0.75 mile of the shore.

Jersey Cove, a small fishing harbor, lies about 3 miles NW of Cap des Rosiers. A submerged rock, with a depth of 6.4m, lies 0.5 mile offshore almost abreast of the cove.

Anse-au-Griffon (48°56'N., 64°18'W.), about 2 miles wide at its entrance, has a small boat harbor at its head at the mouth of a river, protected by training walls. The entrance to the harbor is protected on the S side by a breakwater and a breakwater-jetty on the N side, both of which extend in an E direction. The entrance and a section of the harbor were dredged to a depth of 1.3m; the depths alongside the wharves are less.

Due to silting, the depths in the harbor may be less than charted. Berths are situated on both sides of the river mouth.

Anse de la Rivière-au-Renard (49°00'N., 64°23'W.), a small enclosed harbor entered between Pointe au Renard and Pointe Samuel, lies about 5 miles NW of Anse-au-Griffon. The harbor is protected by a breakwater which extends from Pointe Samuel and by a pier which extends from Pointe au Renard. This pier extends 396m from the shore to a depth of 6.7m. A spur near the inshore end of this pier forms a small basin with a depth of 4.9m inside.

A group of four conspicuous radio masts with aircraft obstruction lights stand close NW of the bay.

Small vessels can take sheltered anchorage within the harbor in depths of 3.7 to 4.6m.

The coast between Anse de la Rivière-au-Renard and Pointe du Serpent, about 5 miles NW, is fairly steep-to within 1 mile of the shore.

L'Echourie (49°03'N., 64°29'W.), close NW of Pointe du Serpent, is fronted by a 152m pier with a depth of 4.6m at its outer end.

L'Anse-a-Valleau, a small fishing harbor with a depth of 2.1m, stands about 3.5 miles NW of Pointe du Serpent.

There is a N wharf that is wooden and 120m long. The S wharf is 165m long. Depths alongside both wharves vary from 0.2 to 2.5m. Pontoons and a ramp are situated at the head of the basin.

The coast between L'Anse-a-Valleau and Pointe à la Renommée, about 3 miles NW, is steep-to within 0.5 mile of the shore.

Pointe à la Renommée to Cap de la Madeleine

7.36 Pointe à la Renommée (Fame Point) (49°07'N., 64°36'W.) is a bold promontory rising steeply from the shore. The point has been reported to be a good radar target up 18 miles and has been reported to be identifiable with charted features by radar up to 10 miles.

The coast between Pointe à la Renommée and Cap de la Madeleine, about 31 miles WNW, is bold and cliffy and indented by several bays and coves. Inland, the rugged terrain rises to elevations of about 305m within 1 to 2 miles of the shore.

All of the dangers along this section of coast are contained within about the 20m curve, which lies up to 1 mile offshore in places.

Between Pointe à la Renommée and Pointe à la Fregate, about 14 miles WNW, the coast is steep-to within 0.5 mile of the shore.

Pointe de Cloridorme (49°11'N., 64°51'W.), the NW entrance point to a small bay, stands about 11 miles WNW of Pointe à la Renommée. Spits extend about 0.5 mile from both entrance points. The village of Cloridorme stands on the shores of the bay. An L-shaped jetty, 200m long and rock filled on its N side, is situated on the NW side of the bay, near Pointe Cloridorme. A breakwater extends S from the head of the jetty. Depths alongside range from 2.8 to 3.5m.

A light is exhibited from the head of the main jetty.

A conspicuous television tower, with an elevation of 228m, stands near the coast about 1 mile W of Pointe de Cloridorme.

A white cross (49°11'N., 64°51'W.) on Pointe Cloridorme is a useful mark.

Pointe à la Fregate (49°12'N., 64°56'W.) can be identified by the numerous white houses in the vicinity and by the conspicuous waterfall to the W of it.

Petite-Vallee is a small indentation in the coast about 4.5 miles W of Pointe à la Fregate. The pier on the E side of the cove is in ruins.

Grande-Vallee, 8 miles W of Petite-Vallee, is a shallow cove with a pier extending from its W side for a distance of 251m, with depths of 4 to 7m at the outer end, and reported (1998) to be in ruins. A depth of 3.4m is located about 0.3 mile E of the outer end of the pier.

A conspicuous television tower, with an elevation of 335m, stands about 2 miles W of Grande-Vallee.

The coast between Grande-Vallee and **Cap de la Madeleine** (49°15'N., 65°20'W.), about 8 miles to the W, is generally steep-to with all of the known dangers lying no more than 1 mile offshore.

Cap de la Madeleine is described in paragraph 9.14.

Anticosti Island—S Coast

7.37 Pointe Heath (49°05'N., 61°42'W.), the SE extremity of Anticosti Island, is only about 3m high. This point, being so low, disappears from view at a distance of a few miles.

Tides—Currents.—At springs, the tidal current strongly rounds Pointe Heath at a distance of about 6 miles from shore. The flood current sets NE, while the ebb currents sets SW. About 5 miles from land, the currents turn 1 hour 30 minutes before HW and LW on shore. During neaps, these currents are modified both in speed and direction by the wind. The tidal current, running at a rate of about 0.75 knot, veers clockwise, making a complete circle in a tidal period.

Tide rips form over the coastal shoals during spring tides, with heavy overfalls in bad weather.

Winds—Weather.—Occasionally, W winds converge from both sides of Anticosti Island toward Pointe Heath and in the area between the winds and the land, usually 5 to 8 miles E of the island, the winds are light and variable.

Between Pointe Heath and Escarpment Bagot, about 21.5 miles to the W, the coast is low and somewhat irregular. This section of the coast is clear of known dangers seaward of the 10m curve, which lies, at most, about 1.5 miles offshore. Cybele Bay lies close W of Pointe Heath and provides fair anchorage in depths of 11 to 18.3m with offshore winds.

Caution.—Fog is frequently encountered off the E part of Anticosti Island and caution should be exercised when making an approach.

Pointe au Cormoran (49°04'N., 61°50'W.), about 5 miles W of Pointe Heath, is a conspicuous steep slope of red clay about 6.1m high. Foul ground, usually marked by breakers, extends about 0.8 mile S from the point.

Several streams discharge into the gulf along this stretch of coast and elevations of about 91.5m lie between 4 and 5 miles inland.

Pointe du Sud, 15 miles W of Pointe au Cormoran, is low and flat, with some small ponds just inshore of it, and no trees within 0.5 mile.

7.38 Escarpment Bagot (49°04'N., 62°16'W.), 0.7 mile W of Pointe du Sud, is only a slight rise in a coast that is otherwise low and flat. A rocky spit, with a depth of 3.7m at its outer end, extends 1.5 miles offshore, about 2 miles WNW of Escarpment Bagot.

The coast is low between Escarpment Bagot and Pointe du Sud Ouest, about 56 miles SW, and has much the same aspect for its entire length. It is difficult to distinguish one part from the other. A number of streams discharge into the gulf along this section of coast. From Riviere du Pavillon, 26.5 miles WNW of Escarpment Bagot, the low shore begins to rise and a high ridge extends to the W close inside the shore for some miles past Pointe du Sud Ouest. Although the coast between Escarpment Bagot and Pointe du Sud Ouest is clear of off-

lying dangers seaward of the 11m curve, which extends up to 1.5 miles offshore in place, there are reefs which extend about 1 mile offshore and are so steep-to that soundings give little warning of their proximity.

Tides—Currents.—The current, about 6 miles off Escarpment Bagot and 9 miles off Riviere du Pavillon, usually sets in a clockwise direction during the tidal cycle. Inshore, the current follows the coast and sets W with the flood and E with the ebb. The maximum rate of slightly over 1 knot occurs 1 hour 45 minutes before HW or LW at Pointe au Pere.

Between Escarpment Bagot and Chaloupe, a point about 12 miles WNW, several streams empty into the gulf. The 11m curve lies up to 1 miles offshore in places. There are no off-lying dangers.

Between Chaloupe and Cap des Caps, about 18.5 miles WNW, all of the dangers are contained within about the 10m curve, which lies up to 1 mile offshore in places. A limestone cliff marks the mouth of the Riviere du Pavillon, about 15 miles WNW of Chaloupe. At Cap des Caps, about 4 miles farther WNW, there is a conspicuous sand cliff about 1.5 miles long. The mouth of the Riviere du Cap stands close W of this cliff.

Between Cap des Caps and Pointe du Sud Ouest, about 25 miles WNW, the 11m curve lies up to 1.5 miles offshore in places. The low coast recedes about 0.8 mile at Baie des Sables (Sandy Bay), about 13 miles WNW of Cap des Caps; this bay is shallow and fringed by foul ground. During offshore winds, only indifferent anchorage is available off the middle of the bay. A submerged rock, with a depth of 4.3m, lies about 2 miles SE of the NW point of the bay.

7.39 Pointe du Sud Ouest (49°24'N., 63°36'W.), lying about 11.5 miles WNW of Baie des Sables, is a low projecting mound of limestone with a small cove on its N side. Inland, the terrain rises to the summit of a ridge. The cliffs rise perpendicularly to the sea to a point about 5 miles NW of the point. A drying reef extends about 0.5 mile W from the point.

Tides—Currents.—Along the S coast of Anticosti Island, and as far as the middle of the passage between this island and the Gaspé coast, the current is very variable. As a rule, the set veers continuously around the compass clockwise but there are times when the veer may be counterclockwise through more than one quadrant or when the set may hold in one direction for several hours. The rate is never great. The maximum rate about 5 miles offshore is less than 1.5 knots. The rate in any onshore direction, as the current veers, seldom exceeds 0.5 knot.

Between Pointe du Sud Ouest and Cape Ottawa, about 4 miles NW, the coast is bordered by a high cliff. About 1 mile N of Cape Ottawa, the Jupiter River, the largest river on Anticosti Island, flows into the gulf. Conspicuous sandy cliffs, 55m high, stand close N of the river entrance. St. Mary Cliff, 44.2m high and easily distinguished, stands about 15 miles NW of the Jupiter River. A cove indents the shore about 6.5 miles WNW of this cliff. Cap a l'Aigle, the E entrance point to Ellis Bay, stands about 11.5 miles farther WNW.

Anchorage.—Anchorage in the cove is not recommended. Although sheltered from E winds, it can be dangerous during W winds which are usually preceded by a heavy swell. The holding ground of gravel and shell is poor.

The coast between Pointe du Sud Ouest and Pointe Ouest, about 47 miles NW, is indented by Ellis Bay, about 8 miles E of the latter point. Port Menier, the principal settlement on the island, stands on the NE side of this bay. This coast is also fringed by reefs and foul ground which extend up to 1 mile offshore in places. The 10m curve contains all the dangers along this section of coast, but steep-to reefs lie close within this curve.

7.40 Baie Ellis (49°48'N., 64°21'W.), entered between Cap a l'Aigle and Cap Henri, about 2.8 miles WNW, recedes about the same distance to the NW. The bay is easily identified from the offing, for Cap Henri being a bluff, and the land at the head of the bay being very low, the opening is clearly made out. A long line of breakers is usually visible off the flats on both sides of the entrance. White Cliff, 13.7m high and conspicuous, stands on the E side of the bay, about 2.5 miles N of Cap a l'Aigle.

The entire shore of the bay is bordered by flats which almost dry, and by extending shoals with depths of 5.5m and less.

The entrance channel, which leads through the central part of the bay, has general depths of 5.5 to 7.6m up to 1.75 miles above the entrance, and a dredged depth of 4.6m from there to the loading berths.

7.41 Port Menier (49°49'N., 64°21'W.) (World Port Index No. 1920) was formerly the headquarters of a paper company.

A causeway, at the outer end of which is a public wharf protected by a breakwater, extends SW from the NE shore of the bay to the seaward edge of the reefs. The S side of the wharf has a berthing face 210m long. A ramp is situated on the N side of the jetty at its outer end. The basin between the jetty and the breakwater is sheltered except from the SW.

Dolphins, in ruins, extend in two lines from the head of the public jetty to the N shore of the bay; in the past they were used to hold a boom.

The port is usually open to navigation from April 1 to November 30.

The spring range of the tide is about 1.4m, while the mean range is about 1.1m.

Leading lights, in line bearing 339.5°, lead into the bay. There is a noticeable white cliff, 14m high, on the E shore of the bay.

During June, July, and August, anchorage can be taken in a depth of 5.5m, mud, close E of the range line. This position is exposed to the S and caution should be used when using it. Anchorage can be taken farther out, near the range line, about 1.5 miles SSE of the public wharf, in depths of 6.4 to 7.3m, but the ground and shelter are not as good as in the central part of the bay.

Between Baie Ellis and **Pointe Ouest** (49°52'N., 64°32'W.), about 7 miles NW, the coast is fringed by reefs which extend up to 1.25 miles offshore in places. Pointe Oueste is described in paragraph 8.28.