CURRENTS IN THE GULF OF ST. LAWRENCE.

In/luence of the wind.—It appears probable that the chief reason that the current keeps along the Gaspé coast is because the prevailing winds on the Lower St. Lawrence are towards the south-east side. When the winds are north-westerly in the Gaspé region also, they assist in keeping the current along that shore, and tend to increase its speed. On the other hand the current appears to be kept away from the coast, and to be most disturbed when the winds are from the southward of west (magnetic) on the Lower St. Lawrence, and at the same time south or south-east in the Gaspé region. The winds then blow in upon both ends of the waterway which forms the entrance to the St. Lawrence, and they have an off-shore direction along that part of the coast which the Gaspé current usually follows. The winds can only have the above directions in these regions, when a low pressure area or storm-centre is travelling along a course which lies to the northward of the St. Lawrence valley.

This northern course for an area of low pressure is less frequent; as the usual path of storms lies to the south of the St. Lawrence valley, or along the Atlantic sea-board. The conditions above indicated are therefore unusual; and if the displacement and reversal of the Gaspé current are dependent upon them, it is clearly correct to consider these conditions of the current itself as exceptional.

It may therefore be said in general, that vessels may expect to find the usual outward current, setting south-east along the Gaspé coast, unless they have reason to infer from the weather they meet with, that a low pressure area or storm-centre is passing to the northward. This would probably be accompanied by winds to the southward of west along the Lower St. Lawrence; and southerly winds with a falling or low barometer at the entrance to the St. Lawrence south of Anticosti. The condition of the current will then be disturbed; and its course altered, or its direction reversed, as above explained.

Vessels making inwards, especially if the weather is foggy, must not count too definitely however, on the absence of the outward current as an assistance in rounding the Gaspé coast; as under these disturbed conditions, there are times when the current may be setting more or less on shore.

The current at other seasons.—The following description of the current is given by two fishermen who have lived for many years at Cape Gaspé, and have noticed the set of the currents while fishing off the Gaspé Coast and around Anticosti. They have also excellent opportunity during the winter to judge of the current from the movement of the ice off Cape Gaspé itself; as their point of view on Cape Gaspé is nearly 600 feet above the water. They state that the in-shore tidal current which runs up and down on this coast is seldom more than one mile or one and a half miles wide. Outside of this, the ice runs constantly outwards all winter, and no open water is visible. This continues as long as the wind is north or north-west, which is its prevailing direction in winter; but when the wind changes to south or south-west, the ice leaves the shore, and makes open water as far out as can be seen. There is no change in the speed of the ice towards spring; but the fresh water ice which then begins to appear is quite different from the winter ice and can be readily recognized. The current, however, is stronger in the spring of the year than in the autumn.

They believe that the current circles round, running outwards on the Gaspé side and inwards on the Anticosti side; and that it is assisted in turning by the set in Mingan Strait, which they consider to make inwards more than outwards.

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