

THE GASPE CURRENT.

The following description of the behaviour of this current, refers chiefly to the region extending from Fame Point to Cape Gaspé ; as it is there that vessels make and leave the Gaspé coast on all the trans-Atlantic and Gulf routes which lead into the St. Lawrence. It is based upon investigations in July and September, in 1895.

The usual current.—While ordinary weather prevails, the current in the offing of the Gaspé coast runs constantly outwards to the S.E. and S.S.E. (magnetic). It usually occupies a belt of about 12 miles in width lying from 2 to 14 miles off shore, in the vicinity of Fame Point. This belt appears to become narrower and the current stronger towards Cape Rosier ; and between it and the shore there is a tidal current in both directions, as shown on the Admiralty Chart No. 1621, entitled 'Entrance to the St. Lawrence.' In passing Cape Gaspé it keeps closer to the shore, cutting off the in-shore tide, and its direction there varies from S.S.E. to S.S.W. This current past Cape Gaspé was found to be constant during very varying conditions of the current elsewhere. The speed of the current usually ranges from one to two knots ; the highest observed being 2.81 knots per hour.

Displacement of the current.—The main current setting south-east, was found at times to lie in the middle of the passage between the Gaspé coast and Anticosti ; and to have approximately the position shown by the line along the middle of the passage marked 'Constant Current' on Admiralty Charts Nos. 2516 and 1621. The current does not appear to be felt on the Anticosti side, however.

When the current is in this position, the area between it and the Gaspé coast may be occupied by weak and fluctuating currents, or even by a reverse current setting inwards. This position of the current in the middle of the passage may therefore be regarded as a displacement of the current, or an alternative route which it may take.

Reversal of the current.—A reverse current may set inwards to the north-west along the Gaspé coast at times when the main current takes the above route along the middle of the passage. Such a current, in the offing of Fame Point, may occupy a belt lying between 2 miles and 12 miles from shore, and may run constantly to the north-west for as much as six days, with a speed which ranges from 0.50 to 1.40 knots per hour. This reverse current may thus occupy the site of the usual outward current along the Gaspé coast ; but while this takes place, the current past Cape Gaspé still runs southward, and its direction will probably be a little west of south.

Off and on-shore directions of the current.—It is possible for the current while undergoing the above changes, to veer in direction, and thus to set directly off or on shore for a few hours at a time.

Tidal influence.—When the current runs constantly in one direction, whatever position it may take, and whether it runs with its usual outward direction or is reversed, it is always subject to a fluctuation in speed which corresponds with the tide. When the current has its usual south-eastward direction, or outwards from the St. Lawrence to the Gulf, it is strongest at low water and weakest at high water ; but when the current runs inwards the reverse is the case.