

after much delay from the fog, and great labour; the impossibility of landing in the heavy swell upon the precipitous coast outside the harbour having rendered it necessary to proceed on foot over the barren moors to Cape Pine, and also to Cape Race, which I thought it useful to include in the survey, in readiness either for a beacon or lighthouse as may hereafter be determined.

2. Having thus put myself in possession of the necessary data on which to form an opinion, I selected the site for the Lighthouse on Cape Pine, which is shown in the accompanying copy* of our survey, and which I consider preferable to Cape Freels, the only other part near on which it could be placed with advantage, on account of its superior elevation and more favourable situation for guiding vessels into Trepassey Harbour.

3. The geographical and relative position of the Lighthouse, if placed on a site which I have recommended, will be as follows: latitude, $46^{\circ} 37' 12''$ north; longitude, $53^{\circ} 32' 27''$ west, if the first meridian of my surveys, viz. the Observation Bastion, Quebec, be considered to be in $71^{\circ} 13' 45''$ west; Halifax Tablet, in dock-yard, $63^{\circ} 35' 32''$ west, and the Chain Rock Battery, St. John's, Newfoundland, $52^{\circ} 41' 32''$ west.

The Lighthouse will stand 150 fathoms north of the true south extreme of the Cape. Cape Freels, the south extreme of the land to the westward, will bear from it south 74° west true, distant rather more than one mile; but the light, from its superior elevation, will be seen over that land to "Easter Head" of St. Shott's, and on a bearing several degrees to the northward of west true, a bearing which would lead a vessel just clear of St. Mary Cays, distant about 27 miles from the light.

To the eastward, Mistaken Point, the south extreme of the land, will bear north 88° east true, distant 16 miles.

This is the French Mistaken Point of the Admiralty chart (North American East Coast, No. III.); the English Mistaken Point is $2\frac{1}{4}$ miles nearer, but that is called "Freshwater Point" by the fishermen, and I strongly recommend the adoption of this latter name, and that the name of Mistaken Point be limited to the one which I have applied it to, rejecting the unmeaning distinction of French and English, which is constantly causing confusion. Point Powles ("The Poles" of the fishermen) will bear north $51\frac{1}{2}^{\circ}$ east true, distant nearly seven miles.

4. The foundation of the site is dry and rocky, and free from bushes; its elevation above the sea will be more exactly determined by Lieut. Binney, R. E.; but an approximate measurement by sextant angles, gave 246 feet, which is about 100 feet higher than the cliffs of clay-slate, which in perpendicular height range from 90 feet to 150 feet around the Cape, and are perfectly inaccessible.

5. The question as to whether a high or low light be preferable, has been much discussed; but in truth, the occasions in which it is possible to see, either over or under fogs, from a ship at sea, looking towards the land, are of too rare occurrence to justify the sacrifice of the obvious advantages of a high light.

The wrecks have most frequently occurred late in the year, when fogs are less frequent than at other seasons, and when the light would be useful in proportion to the distance from which it could be seen. In the summer months there is often not more than one day in a week free from fog, and then a heavy gun to be fired from the Lighthouse every hour during its continuance, would be of far more use than the light; and I strongly recommend it accordingly.

A bell or gong, in such a situation, would be useless, since it would seldom if ever be heard when the wind blew towards the shore, that is when it would be most wanted, for there is seldom or never any fog with the wind off the land.

6. With respect to the nature of the light to be placed on Cape Pine, I beg to submit, that it appears much more necessary to distinguish it from the revolving light on Cape Spear, distance only 75 miles, than from the fixed light on St. Pierre, distant 110 miles, more especially as to mistake Cape Spear for Cape Pine might, and probably would, be fatal, whilst to mistake the latter for St. Pierre would not be likely to be followed by such serious consequences.

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* A chart of the coast was sent to the Admiralty with this Report, but it has not been considered necessary to give it herewith.