

it sets northwest, and with northwest and southwest winds, northeast. This northerly current continues past the east side of St. Lawrence island to King's island; from there it sets in toward Port Clarence, then follows the trend of the coast past capes York and Prince of Wales, and into the Arctic ocean. The current on the east side is not as strong as that on the west side, and north of St. Lawrence island the west shore from Indian point to the Diomedé islands is invariably clear of ice before the east shore; consequently Indian point is the first objective point for vessels pushing their way north in the spring. The action of these currents is as follows:

Ice clears the Pribyloff islands about May 1. The pack moves north, the sides clearing ahead of the center, and vessels following the pack reach cape Navarin about May 10. Here the heavy ice, which forms in the gulf of Anadir by the young ice piling up under the influence of northeast winds, is met coming out of the gulf. This ice is set to the eastward by the spring southerly and westerly winds until it meets the strong northeast current, when it sets up into the channel between Indian point and St. Lawrence island; then the main body of it swings around on the north and northeast side of St. Lawrence island, where it lodges until the last of it breaks up and goes north during the middle of July. Young ice continues to form in Bering sea until May 10, and after that time it is not looked for. On April 12, 1888, the steamer *Orea* steamed for six hours through young ice in about latitude 60° N., longitude 178° E. It sometimes happens that vessels find a clear lead from cape Navarin to Indian point or St. Lawrence island as early as May 18, but this occurs only in exceptional seasons. As a rule, vessels that are determined to keep the west shore follow leads into the gulf of Anadir, steamers forcing through the broken ice, and sailing vessels hauling through it with ice hooks and steam winches; the former coming out into clear water off cape Bering about May 25, and the latter about June 10. When cape Bering is clear, Indian point can be reached without much difficulty. Should a vessel arriving near cape Navarin find the ice heavily packed in that vicinity, indicating prevailing easterly spring winds, she should not be misled by the space of open water that generally exists south of the cape, and which is about 50 by 25 miles in extent, but should follow the line of the pack to the eastward and try the eastern shore. By so doing she will probably find the edge of the pack in the longitude of St. Matthew island, in latitude 59° to 60° ; from there it will lead her close to the west coast of Nunivak island, from which position she should work up to the southeast cape of St. Lawrence island; thence she may work along the south side of the