Abstract. Seven more-or-less well documented cases of the use made of ice-bound sea areas in winter for the purposes of warfare are reviewed. The sea-ice crossings took place in 1495, 1577, 1581, 1658, 1809, 1940, and 1943, i.e. the first five occurred during the Little Ice Age. A book authored by a prominent Swedish personality (Archbishop Olaus Magnus) and published in 1555 says that warfare on frozen sea areas in winter by the Muscovites (Russians) and Swedes was as common as warfare by ships on the open seas in summer. There are indications of some crossings of ice-bound seas prior to 1495 and not necessarily for warlike activities. It seems that the Vikings too did some sea-ice crossings.

The crossings of 1495, 1577, 1581, and 1940 involved the Gulf of Finland, that of 1809 the Gulf of Bothnia and the Åland Islands area of the Baltic, that of 1658 the Danish Belts, and that of 1943 the Gulf of Taganrog in the Sea of Azov. In the first three cases the powers concerned were Muscovy (Russia) and Sweden which for centuries were fighting for supremacy in the Baltic and over the routes from the inner Baltic (Gulf of Finland and Bay of Riga) to western Europe. The case of 1809 involved, again, Russia and Sweden, though in the background of the conflict between the two were wider European issues of the Napoleonic wars. The 1658 crossing of the frozen-over Danish Belts was accomplished by the Swedes, forcing the Danes into submission: In the ensuing Peace Treaty Sweden for the first time in her history achieved her present territorial extent in the Scandinavian Peninsula. The case of 1940 was connected with the 1939–40 Winter War of Soviet Russia against Finland. The crossing of 1943 was made by German forces retreating from the Caucasus under the pressure of Soviet forces in World War II.

The crossings of 1577, 1581, 1658, 1809, 1940, and 1943 took place between late in January and late in March; the case of 1495 appears to have taken place early in the winter season: probably late in November. Since in the period 1931–60 no part of the Gulf of Finland froze over before about the middle of December, the early date of the crossing of 1495 is possibly one of the many indications of cold winters during the Little Ice Age.

1. Introduction

In this paper we study the role of ice-bound sea areas in historical military events, a topic that has not received attention so far. We exclude from consideration the high polar latitudes of the northern hemisphere where the sea is frozen-over throughout the year. Rather we shall discuss cases in latitudes and areas where large expanses of the sea take on an ice cover in cold winters and where these areas are lined by inhabited lands. Such seas are the Baltic and, to a lesser extent, the northeastern reaches of the North Sea. Indeed, almost all cases examined below relate to these two and, especially, to the Gulf of Finland portion.
of the Baltic. To the north of this Gulf lies Finland which from the Middle Ages on for several centuries formed part and parcel of Sweden, a country that counted as a great power in the 17th and during part of the 18th centuries. The lands to the south of the Gulf, such as the historical territory Livonia (see below), were the objects of a long-drawn-out rivalry from the 14th to the 18th centuries among Denmark, which was a great power from the later Middle Ages to the early 17th century, Sweden, Poland-Lithuania and, last but not least, Muscovy — the emerging Russia to the east of the Gulf.

The cases of crossing of ice-bound sea areas related in this paper cover, in the main, the period from about the 1490s to about 1810, though brief mention will be made of some earlier, less well-substantiated cases as well as cases as recent as 1940 and 1943.

It will be noted that the period 1490 to 1810 falls into what is often called in climatic history as the Little Ice Age. During the Little Ice Age the incidence of hard winters when the Baltic, or a substantial part of it, and certainly the Gulf of Finland and the Gulf of Bothnia froze over must have been higher than, say, during the past century. This presumably higher frequency of ice-covered sea must have offered the contending powers, such as Muscovy and Sweden, more opportunities to put to use the frozen sea in their war activities.

Some early cases of taking advantage of ice-bound sea areas are very briefly mentioned in a paper by Norinder (1914, pp. 40–42). One of the better established cases is that of the winter 1322–23, when, according to some of the chronicles quoted by him, the whole of the Baltic was frozen over. People from Slavia rode on the ice as far as Denmark, raiding and plundering. On their long trip, the raiders pitched ‘tabernae’, the term meaning huts or, possibly, tents. The German historian Albertus Krantzius (1448–1517), who lived in Lübeck, on the Baltic coast of Germany, writes in his tract on Polish (‘Wendish’) history Wandalia (Krantzius, 1600, p. 269) that ‘the sea’ [meaning the Baltic] froze hard so that it was possible to walk on the ice to Denmark and to Prussia [presumably, meaning the north of East Prussia] and that in some places small huts and inns were erected on the ice for the convenience of travellers.

An earlier and somewhat controversial (see, e.g., Speerschneider, 1915, p. 10) case is that for 1296. According to a document, the oldest surviving copy of which dates back to 1415 and which is published in Scriptores Rerum Sveciarum Medii Aevi (1818, p. 35), in 1296 the North Sea between Norway and Denmark became covered by ice so that it was possible to ride on the ice from ‘Opslo’ (Oslo) to Jutland.

Still earlier, the Vikings seem to have done some sea-ice crossings. Hávamál, a poem of the late Vikings of Norway and Iceland (about A.D. 900), tenders the advice ‘Praise not the... ice, until it has been crossed’ (Brøndsted, 1978, p. 251). Possibly, the Vikings had some experience with ice crossings, some of them of a treacherous nature.


It appears that in the Middle Ages, and for some time thereafter, battles and crossings of ice-bound sea areas for warlike purposes were relatively frequent in northwestern and nor-