

## **Book Review**

### ***Russian Arctic Seas: Navigational Conditions and Accidents***

By Nataliya Marchenko

Springer-Verlag, Berlin, Heidelberg, 2012,

pp. xxi+274, ISBN 978-3-642-22124-8 (h/bk)

Taisaku Ikeshima

The Arctic has come to attract the world's attention because it is regarded as the hopeful reservoir of mineral resources, such as natural gas and oil, and the possible development of its Northern Sea Route (NSR), crossing the Arctic Ocean along the long Russian coast-line. In this sense, Russia is one of the most influential and interested stakeholders in Arctic development. Russian positive involvement in the development of the NSR will be a key factor for the future. However, there are various uncertainties with Russian regulations and jurisdiction over the NSR, even after the Cold War era. Moreover, Russia is famous for some unpopular surprises involving the Arctic, such as the 2007 planting of a Russian flag on the seabed at the North Pole by Russian polar explorer Artur Chilingarov. The future of the Arctic is less predictable than we would like, and recent international incidents have cast a gloomy picture on the future development of the NSR. These include the 2013 seizure of Greenpeace activists and their vessel, demonstrating Russia's assertive attitude against external interventions in its Arctic maritime area and the 2014 Russian annexation of the Crimea Peninsula.

In fact, however, there are few materials useful for better understanding the current situation of Russian Arctic maritime matters. Researchers and practitioners have been waiting for updated specialised books in English about the Russian NSR. In this sense, this book is more than welcome. It is a rare bilingual monograph written in English and Russian on the Russian Arctic Sea 'to systematize knowledge of ice conditions and of human behaviour in extreme situations to ensure the safety of transport and other operations in the Arctic for sustainable development and appropriate exploitation of natural resources' (p. vi). Analysing the navigational issues related to the Russian Arctic, Dr Nataliya Marchenko of the University Centre in Svalbard, Norway, focuses on the eastern sector of the Arctic with special attention given to the accidents caused by natural conditions such as sea-ice. The book focuses on four Arctic areas along Russia's northern coast: the Kara, Laptev, East Siberian, and Chukchi seas.

Most readers will likely have some understanding of how the NSR may develop in the context of global climate change. They will, however, learn some surprising facts. For instance, that ‘with the transition to a market economy the volume of traffic and activity in the Arctic have been greatly reduced, and ice navigation practically ceased except for the Murmansk-Dudinka route’ (p. x), and that ‘Russia uses mostly foreign sources, which are limited in access or are costly’ due to the scant availability of hydrometeorological facilities and ice monitoring tools (p. xi). In order for us to look forward regarding Arctic development, it is crucial to look back upon past records and information concerning sea ice navigation and accidents with colourful maps and photos, as is exemplified in the book under review. Therefore, this book, which is ‘the first full navigational description of the Russian Arctic seas available to English-speaking readers’ (p. xvii), is certainly of great value and timely for all those who are interested in the development of energy and resource extraction along the NSR and in the Russian Arctic.

Chapter 1, titled ‘Common Features of the Russian Arctic Seas’, describes natural conditions of the four Arctic seas of the NSR (Kara, Laptev, East Siberian, and Chukchi), including information on bottom and shore types, climate and hydrological features, and sea ice. This chapter points out the constant presence of ice as a major problem for navigation in the seas. Therefore, the navigational routes taken in the NSR depend on the seasonal conditions that affect the state and distribution of the ice cover, varying from routes close to the northern coast to those closer to the North Pole.

Chapter 2, titled ‘Main Stages of Northern Sea Navigation and Vessel Development’, describes the historical development of the NSR in accordance with the following division of eras: the era of wooden sailing ships (from the twelfth century to the mid nineteenth century), the era of wooden and metal vessels with steam engines (from the late nineteenth century to the mid-1940s), and the era of nuclear-powered linear icebreakers (from the 1960s to today). The transition to market relations and privatization of maritime shipping companies and ports, due to the Russian reforms starting in the late 1980s, have caused a drastic decrease in traffic volume and transport activity. There is great hope with Russia’s transport strategy, as development of the NSR associated with the extraction of rich hydrocarbon deposits in the near future from Russia’s Arctic sea shelves will be a ‘matter of survival for northerners’ and also bring ‘enormous opportunities for entrepreneurship and social improvements to the Russian North’ (p. 25).

Chapter 3 examines thirty-one accidents (including six shipwrecks) since 1900 caused by severe ice conditions in the Kara Sea in light of its geographical features and navigational conditions. Dr Marchenko summarises that the Kara Sea had the largest number of accidents ‘partly due to the relatively high intensity of navigation and not because it sustained worse ice conditions’ (p. 88) than those of other seas, and that most of the accidents occurred because the ships were not well equipped to cope with the severe ice.

Considering seventeen accidents (including two shipwrecks) in the Laptev Sea since 1900, Chapter 4 attributes their cause to massive ice conditions. Dr Marchenko concludes that the reduced amount of navigation in the Laptev and the East Siberian Seas, rather than sea ice conditions, accounts for the larger number of accidents in the Kara and the Chukchi Seas. Poorly equipped ships seemed to encounter the accidents in this sea. '[C]oincidences and the skill and selfless work of the crew' (p. 134) may have been of great help in rescuing the vessels from grave danger.

Chapter 5 deals with twenty-one accidents (including four shipwrecks) in the East Siberian Sea since 1900 and concludes that the easier navigation, rather than the better sea ice conditions, is likely to account for the relatively smaller number of incidents. The accidents also depended on the ships' preparedness for icy conditions. Dr Marchenko stresses that 'navigation in the Arctic seas is unpredictable and demands special care, skill and constant use of the most up-to-date instruments and hard-earned experience gained over many years' (p. 188).

In Chapter 6, in which twenty-five accidents (including six shipwrecks) in the Chukchi Sea are examined, Dr Marchenko concludes that having 'powerful icebreakers for mastering the Arctic Ocean' in order 'to ensure sustainability and ice resistance' (pp. 250-251) is necessary.

The great use of this bilingual book can also be ascertained by the following two features. First, the book entertains the readers with the illustration of fifty-two colourful maps (to indicate coastal-types, surface currents, main recommended routes, the location of accidents, etc.), fifty-seven photos (including satellite images of ice conditions and some portraits of the ships, captains, and crew), and four chronological tables of accidents in the four seas examined. Second, the book contains a list of recommended Web sites with brief explanations and detailed bilingual references, both to original Russian materials with English translation and to others printed in English and non-Russian languages with Russian translation.

It has been said, from time to time, that the Russian maritime authorities take unfair advantages in imposing burdensome toll charges upon foreign users of the Russian NSR and in implementing unreasonable regulations on them. As Dr Marchenko concludes, however, the readers will necessarily sense that, in light of the records and data concerning the accidents considered in this book, the users of the NSR are required to utilize the Russian transportation system with well-equipped icebreakers and well-trained and skilful crews. With the recent construction of Russian military bases begun in its Arctic region to implement the 'Russian Arctic Strategy for the Period up to 2020' signed by President Putin in 2013, more people will be interested in Russian activities for Arctic development and will be eager to read up-to-date books<sup>1</sup> which, like the one under review, clarify the intentions behind and capabilities of Russian Arctic strategy and policy.

---

1 See, for example, Willy Østreng, Karl Magnus Eger, Brit Fløistad, Arnfinn Jørgensen-Dahl, Lars Lothe, Morten Mejlænder-Larsen & Tor Wegeland, *Shipping in Arctic Waters: A Comparison of the Northeast, Northwest and Trans Polar Passages*, Springer, 2013.