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Nota di contenuto	Part I. Problems of planning vessel voyages in ice -- Chapter 1. Introduction -- Part II. Overcoming ice and speed of a vessel -- Chapter 2. The ability to overcome ice and speed of vessel navigating independently in ice -- Part III. Dangerous phenomena and hazards to shipping -- Chapter 3. Dangerous hydro-meteorological phenomena occurring on the NSR -- Part IV. Suggested routes and voyage dates -- Chapter 4. Routes outside ice-covered zones on the NSR for vessels without ice strengthening -- Chapter 5. Dates of opening and closing of the seas for ice-free navigation -- Part V. Models of decision-making systems -- Chapter 6. Decision-making system of initial voyage planning -- Chapter 7. Operational voyage planning and verification of the initial voyage planning system -- Chapter 8. Summary and conclusions -- Appendices.
Sommario/riassunto	This book explains vessels' ability to overcome ice on the Northern Sea Route, as well as the criteria of safe speed and maneuvering of vessels on ice. It provides a successful long-term forecast of ice navigation and reveals the dangers of sailing on the Northern Sea Route. It includes tips on how to plan and schedule voyages in the Russian Arctic. The book

develops a set of suggested routes for the period of opening and closing of the transit ice-free zone through the NSR based on the last eleven navigation seasons. It presents a method for determining the date for beginning a voyage of a vessel without ice strengthening through the NSR. It also develops a model of initial (long-term) and operational decision-making support system for vessel voyage planning and scheduling. The main audience for the book are officers at operational and management level of competency, people planning voyages on the Northern Sea Route in the office of ship operator and in chartering department or consulting company, and participants of Ice Navigator IMO Model Courses at basic and advanced level of competency.
