

1. Record Nr.	UNINA9910838271803321
Autore	Olsen Alexander
Titolo	Ship Operations in Extreme Low Temperature Environments [[electronic resource] /] / by Alexander Olsen
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	3-031-52513-2
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (561 pages)
Collana	Springer Series on Naval Architecture, Marine Engineering, Shipbuilding and Shipping, , 2194-8453 ; ; 19
Disciplina	623.8
Soggetti	Marine engineering Transportation engineering Traffic engineering Oceanography Marine Engineering Transportation Technology and Traffic Engineering Ocean Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The Arctic environment -- Introduction -- The Arctic environment -- Arctic oceanography -- Preparing the vessel for Arctic operations -- Operating in Arctic conditions -- Arctic vessel requirements -- Arctic vessel hull structure materials, welding and coatings -- Arctic vessel hull construction and equipment -- Arctic vessel systems and machinery -- Arctic vessel safety systems -- Requirements for specific vessel types -- Polar class notations -- Structural requirements for polar class vessels -- Machinery requirements for polar class vessels -- Requirements for enhanced polar class notation -- Requirements for vessels intended for navigation in first-year ice -- Baltic ice class notation -- Crew health, safety and welfare -- Extreme low temperature safety -- Extreme low temperature training.
Sommario/riassunto	This book recognizes the fact that the vessels' intended operational profile may vary as some vessels are intended to operate with the assistance of an ice breaker and others are intended to operate independently. The guidance provided in this book is proposed to

apply to all vessels that are designed, equipped and intended to operate in low-temperature environments. Special attention is given to those vessels operating for extended periods in the Arctic regions, as this presents specific and unique challenges for vessels and crew members. The application of the guidance in this book is optional. When a vessel is designed, equipped, built and surveyed in accordance with the relevant class rules, and when found satisfactory during class notation survey, a classification notation may be granted which demonstrates the vessel's compliance with the appropriate class requirements for vessels operating in low-temperature environments. Those vessels that are designed to meet the requirements of an ice class are typically required to meet specific class rules around "strengthening for navigation in ice" or other equivalent and recognized ice class rules. Accordingly, this book also provides guidance related to the requirements which address the duration of emergency electrical power. This extended emergency power duration is expressed in hours and may be appended to the base optional class notations. To provide as much context as possible, this book refers to the most relevant international regulations and standards that are considered to be applicable. It is recommended that readers of this book refer to the most recent text of those regulations and standards when seeking to apply the guidance set out herein, as it is the intent of the book to remain consistent with the pertinent international regulations and standards developed by the global maritime industry.
