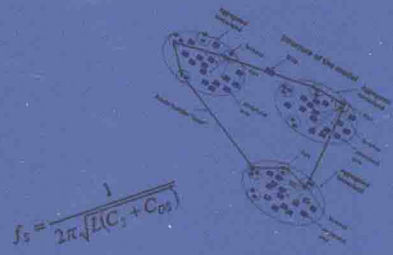
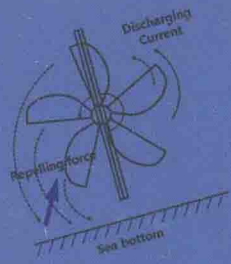


# SAFETY OF MARINE TRANSPORT



## MARINE NAVIGATION AND SAFETY OF SEA TRANSPORTATION

$$z_{cp} = \frac{F_{0s}(k_{0s} + 0.5LCF) + M_{0s}(LCF + 0.5)}{P_{0s}(k_{0s} - 2CF)}$$



**EDITED BY**  
**ADAM WEINTRIT**  
**TOMASZ NEUMANN**



# Safety of Marine Transport

## Marine Navigation and Safety of Sea Transportation

*Editors*

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*Gdynia Maritime University, Gdynia, Poland*



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# Safety of Marine Transport

## Introduction

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The contents of the book are partitioned into nine separate chapters: Human resource management and maritime crew manning (covering the subchapters 1.1 through 1.7), MET - Maritime Education and Training (covering the chapters 2.1 through 2.5), Sea ports and harbours (covering the chapters 3.1 through 3.6), Port facilities (covering the chapters 4.1 through 4.3), Ship's propulsion, main engine and power supply (covering the chapters 5.1 through 5.4), Maritime law and policy (covering the chapters 6.1 and 6.2), Piracy (covering the chapters 7.1 and 7.2), Ship's operations (covering the chapters 8.1 through 8.4), and Safety of transport (covering the chapters 9.1 through 9.5).

In each of them readers can find a few subchapters. Subchapters collected in the first chapter, titled 'Human resource management and maritime crew manning', describe: sample data from shipping companies: women in the Turkish seafarers registry and their employment situation, attractions, problems, challenges, issues and coping strategies of the seafaring career: MAAP seafarers perspectives, plights and concerns of Filipino seafarers on board vessels traversing Horn of Africa and Gulf of Aden: AMOSUP and other stakeholders responses, Swedish seafarers' occupational commitment in light of gender and family situation, web-based databank for assessment of seafarers' functional status during sea missions, implementation of CSR aspects in Human Resources Management (HRM) strategies of maritime supply chain's main involved parties, and analysis of factors influencing Latvian seafarers' outflow rate.

In the second chapter there are described problems related to Maritime Education and Training (MET): investigation of sea training conditions of deck cadets: a case study in Turkey, sleep quality, anxiety and depression among maritime students in Lithuania: cross-sectional questionnaire study, the use of the Portuguese Naval Academy navigation simulator in developing team leadership skills, paradigm shift in ship handling and

its training, and experimental research with neuroscience tool in Maritime Education and Training (met).

Third chapter is about vessel's sea ports and harbours development. The readers can find some information about trends in environmental policy instruments and best practices in port operations, decreasing air emissions in ports – case studies in ports, port in a city – effects of the port, the influence of internalizing the external cost on the competitiveness of sea ports in the same container loop, development of dry ports: significance of maritime logistics on improving the Iranian dry ports and transit, and a study on rapid left-turn of ship's head of laden cape-size ore carriers while using astern engine in harbour.

The fourth chapter deals with port facilities. The contents of the fourth chapter are partitioned into three subchapters: a geographical perspective on LNG facility development in the Eastern Baltic Sea; influence of "Suezmax" tankers size increase on mooring ropes at existing terminals; and the analysis of dredging project's effectiveness in the Port of Gdynia, based on the interference with vessel traffic.

The fifth chapter deals with ship's propulsion, main engine and power supply. The contents of the fifth chapter are partitioned into four: reliability of fuel oil system components versus main propulsion engine: an impact assessment study, impact of electricity generator on a small-bore internal combustion engine at low and medium loads, a comparative approach of electrical diesel propulsion systems, and method of determining operation region of single-transistor ZVS DC/DC converters.

In the sixth chapter there are described problems related to maritime law and policy: the implementation of a new maritime labour policy: the Maritime Labour Convention (MLC, 2006), and a new international law to protect abandoned seafarers: amendments to MLC, 2006.

The seventh chapter deals with piracy problem. The contents of the seventh chapter concerns



effectiveness of measures undertaken in the Gulf of Guinea Region to fight maritime piracy, and counter piracy training competencies model.

Eighth chapter is about ship's operations. The readers can find some information about experimental study for the development of a ship hull cleaning robot, assessment of variations of ship's deck elevation due to containers loading in various locations on board, Tworty box to reduce empty container positioning, and consideration on dynamic modelling of ship squat.

The ninth chapter deals with safety in transport in general. The contents of the ninth chapter are partitioned into five: state of safety in the Polish

land transport, surveys of the influence of telematics on the land transport safety, approaches and regulations regarding significant modifications in transportation and nuclear safety, optimization of the transport service of fishing vessels at ocean fishing grounds, and selected transport problems of dangerous goods in the European Union and Poland.

Each chapter was reviewed at least by three independent reviewers. The Editor would like to express his gratitude to distinguished authors and reviewers of chapters for their great contribution for expected success of the publication. He congratulates the authors and reviewers for their excellent work.