

Doctoral dissertation summary

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„Vessel management in terms of hazards in the Baltic sea area”

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The thesis aims at creating a comprehensive model (algorithm) for developing vessel management procedures in case of crisis. The objective has been met by presenting the main issues and concepts in the analysed area. The author has created a synthetic model that is an efficient tool to formulate procedures for an effective ship management system. In the early stage of "research diagnostics", the marine environment of crew management has been scrutinised, and the problem areas have been identified. On the grounds of literature, the author has determined characteristics of the decision-making process in management. Subsequently, a ship crisis status has been addressed in the later section. Defining the role of the captain as the most important manager of the unit in troublesome situations transpired to be crucial. The next part of the thesis is devoted to concepts related to quality management. The author described methods and techniques of quality management that can be successfully employed on vessels. The third part of the thesis is devoted to the Baltic Sea. This part is to present the Baltic transport market and the reactions taking place there. In the following part of the thesis, the author presents the survey results concerning preliminary market research. The last part focuses on building a model for developing vessel management procedures in hazardous conditions. The Unified Modeling Language (UML) was used to identify the hazards. Being a method of risk assessment, the presented model and the research fill the empirical and methodological gap.

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