## "Mircea cel Batran" Naval Academy Scientific Bulletin, Volume XVI – 2014 – Issue 1 Published by "Mircea cel Batran" Naval Academy Press, Constanta, Romania

# ABSTRACT

## NAUTICAL AND MANAGEMENT SCIENCE

#### COSMIN KATONA, ALECUTOMA Naval Academy, Constanta, Romania NAVIGATION EQUIPMENT INTEGRATION IN THE SIMPLIFIED VOYAGE DATA RECORDER JRC JCY-1850

Abstract: Ship accident represents a major marine disaster since the historic days. Even in the age of modern ship building technology and innovative navigation equipment, ship accidents are an important area of maritime concern, including the loss of lives and huge financial implications. Nowadays international regulations regarding the safety of ships at sea agist the modern vessels to be equipped with a Voyage Data Recorder or atleast a Simplified Voyage Data Recorder to be able to investigate and reconstruct the maritime accidents. Like the black boxes carried on aircraft, VDRs enable accident investigators to review procedures and instructions in the moments before an incident, having access to the stored data in the protected unit. The article deals with the integration of the navigation equipment in the SVDR JRC JCY-1850 and describe the utility of the navigation sensors to describe the recovery information needed for the investigation.

#### FILIP NISTOR, CATALIN POPA

Naval Academy, Constanta, Romania / Higher Colleges of Technology, Abu Dhabi, United Arab Emirates DISTINCTIVE CHARACTERISTICS OF HUMAN CAPITAL IN SHIPPING

**Abstract:** In the globalized world economy increases the role and importance of training and exploitation of knowledge, professional skills and cultural values and the shipping companies are aware that only transform into priority investment in human capital may submit their competitiveness to meet the new circumstances dynamics of the world economy. The concept of human capital in shipping is identified through its own specific content of the work on board ship. In the presented paperwork the authors distinguish the main characteristics of human capital in naval transport, underlying the importance of knowing this in pursuing the competitive advantage by shipping companies.

### **IONUT-CRISTIAN SCURTU**

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MINIMUM DECK HEIGHT OF A SEMI-SUBMERSIBLE PLATFORM ACCORDING TO BLACK SEA ENVIRONMENT

**Abstract:** The fast evolution of oil/gas offshore industry will need in a near future new oil deposits. The Rumanian shelf is unexplored for water depths higher that 100m. According to this study a semi-submersible platform will be placed in Black Sea for prospection and extraction. The minimum deck height is determined using averaged data about wind and waves from INCDM, and will consider the formation Mechanism of Extreme Storm Waves in the Black Sea.

The minimum deck height of a semi-submersible platform will be plotted according to heave and pitch simulation in Ansys Fluent CFD environment. Results will be plotted and analised. The numerical results indicate that the Extreme Storm Waves are the most important sources for slamming effects and the extreme edges of the platform will experience the minimal air gap due to the platform heave and pitch motion.

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#### CONTROLLED DRAFT MODEL FOR OFFSHORE APPLICATIONS

**Abstract:** This paper presents a new way to control depth and manage stability for offshore applications. According to theoretical presumption a simple box shaped model with a open bottom tank is modeled using Autoship. The results plotted are initial stability, static stability curve and expected behavior on transverse waves according to draft. Offshore field is continuously developing and this controlled draft model could be a new way in offshore construction because of its technical simplicity.