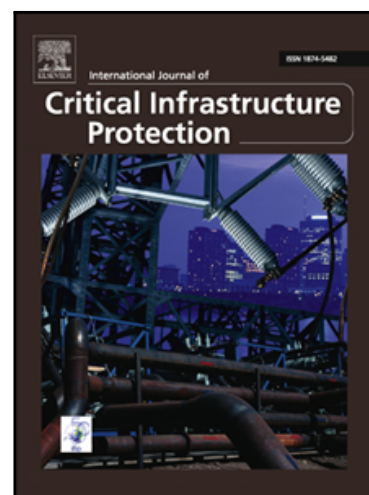


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Risk assessment of critical infrastructures – New parameters for commercial ports

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Abstract

Risk assessment of critical infrastructures is an important topic, but the available methodologies do not enable the proper scoring of the risks to commercial port infrastructures, which is vital to formulating effective and realistic security plans. Developing a comprehensive risk assessment methodology for commercial ports is a long-term project. However, this paper focuses on the first mandatory step of analyzing the different types of risks faced by a commercial port infrastructure. The number of potential risks is large – information technology risks, operational risks, labor risks, etc. Therefore, the emphasis is on the risks associated with threats to people, infrastructure, services and goods, which include terrorism, sabotage, criminal activities involving contraband goods and human trafficking, and labor conflicts.

This paper presents a methodology for improving the scoring of the risks to commercial ports and understanding their real scope. This is accomplished by examining the key methodologies related to infrastructures in general and commercial ports in particular. After comparing the characteristics of the selected methodologies, the paper discusses the results of a survey of experts at Spanish ports and an analysis of almost two years of security statistics, the goal being to obtain realistic information about the importance of the various risks in order to specify suitable countermeasures and evaluate their costs. The results have enabled the identification of several new parameters that must be considered when assessing the risks to commercial ports, as well as

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