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## Choosing IED detection method calls for objectivity

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Naval Postgraduate School, Monterey, California

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# Choosing IED detection method calls for objectivity

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[Download the paper: "Paper: Explosive Detection Technologies for Commercial Ferries"](#)

U.S. Coast Guard Cmdr. Rob McLellan wrote his course paper in Technology on Homeland Security on the array of technologies available to ferry operators in detecting Improvised Explosive Devices (IED). That variety can make choosing a detection method a daunting challenge.

"By identifying the common characteristics of modern commercial ferry operations and contrasting them with the operational capabilities of existing explosive detection technologies, the most suitable explosive detection technologies can be identified for use in screening passengers and vehicles for IEDs prior to embarkation onto commercial ferries," McLellan wrote

1) The primary purpose of McLellan's technology course project was to research and evaluate existing bulk and trace explosive detection technologies available to commercial ferry operators for screening passengers and vehicles for explosives prior to embarkation. One of the greatest threats to commercial passenger ferries is the introduction of an Improvised Explosive Device (IED) by a passenger or IED carried in a vehicle (VBIED). Physically searching all passengers, baggage, and vehicles for IEDs would require a significant workforce and result in unbearable delays to ferry operations. Consequently, ferry operators must rely on existing explosive technologies to screen passengers and/or vehicles for explosive materials. There is a diverse variety of trace and bulk explosive detection systems available on the open market which makes it difficult for ferry operators to select the most appropriate explosive detection technology to meet the unique characteristics of their ferry operation. By identifying the common characteristics of modern commercial ferry operations and contrasting them with the operational capabilities of existing explosive detection technologies, the most suitable explosive detection technologies can be identified for use in screening passengers and vehicles for IEDs prior to embarkation onto commercial ferries.

2) McLellan's thesis focused on tailoring screening technology to prevent or deter terrorists from attacking commercial ferries with IEDs. Research gathered from my technology course project provided the foundation for my thesis by revealing the specific operational characteristics and limitations of various explosive detection technologies as well as the potential applicability of the technologies evaluated to screening passengers and/or vehicles at commercial ferry terminals. In order to validate and amplify on the findings and conclusions identified during my course project, McLellan interviewed several ferry operators and explosive detection technology manufacturers. Their input provided clarity to current passenger/vehicle screening operations as well as the actual operational characteristics of current explosive detection technologies. By analyzing the interview data as well as the information obtained from the technology course project, numerous findings were identified to enhance passenger/vehicle screening processes at commercial ferry terminals. These findings resulted in the development of several recommendations to improve ferry security.

3) McLellan hopes that his research will result in future security enhancements that will not only improve ferry security but also benefit other modes of mass transit security such as passenger rail or busses. The goal of his research was to reduce the impact of federal security mandates on ferry operators while improving the security of ferry operations throughout the United States by incorporating value innovation into the security policy development process. Most ferry operators throughout the United States, as with most mass transportation operations, have severe budget constraints that must be considered prior to the imposition of security requirements. Developing cost effective security policies and systems coupled with additional federal grant programs for commercial ferry operators are essential to improving ferry security and deterring terrorists from targeting ferries.

Associated file: [Paper: Explosive Detection Technologies for Commercial Ferries](#)

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