

Using Risk Management to Strengthen our Nation's Maritime Security

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Our world may have been irrevocably changed by the events of September 11th, but there are tools available to assess and manage the changes that have been thrust upon us that are tried, tested, and effective.

The principles of risk management were developed in concert with the growth of the nuclear industry. They have subsequently been applied to a host of industries and activities, from the offshore sector to municipal utilities. As Washington focuses attention on the vulnerabilities of the nation's marine transportation system (MTS), particularly the ports through which our economic lifeblood of international trade flows so freely, those same principles provide a clear, logical, and highly effective method of dealing with the new threats against our nation's security.

Risk management is a scientific, systematic, decision making process that looks at the totality of risks inherent in a system. It addresses risks to the facility; it assesses operational risks; it considers catastrophic risk, including the consequences of terrorist action, and it covers business process risk. In the most simplistic terms, it poses and answers three basic questions:

- 1) What is the threat?
- 2) What is the potential damage?
- 3) What can be done about it?

From a risk perspective, these three questions are referred to as hazard identification, risk assessment, and risk management. The objective of a traditional risk management program is to determine which risks can be transferred, through appropriate insurance coverage for example, and which risks must be mitigated. The threat of terrorist action reduces this to just the latter. It is not possible to transfer such a risk. The entire focus must be on how to deal with it through response plans that may include hardening the facilities, and increasing training and greater awareness among a host of possible actions.

The U.S. Coast Guard, through the Department of

Transportation, has been charged by Congress with developing methodology of evaluating the security and assessing the vulnerability of the nation's ports to hostile action. The Port and Maritime Security Act of 2001 sets out the proposed requirements, including those for the development of a maritime facility security plan and vessel security plans.

ABS Consulting is the top ranked risk management specialist in the United States. The company has previously assisted the US Coast Guard in introducing risk based criteria into its decision making process. As an affiliate of ABS, one of the world's largest ship classification societies, ABS Consulting is also able to offer a unique, maritime informed approach to the evaluation of marine facility security. It is developing a series of proposals for the Coast Guard to consider, as it responds to the directive from Congress.

It could be counter-productive to publicly detail the types of specific risks from terrorist activity that have been identified, even though many can be imagined. However the macro-approach that should be taken is relatively straightforward. It begins with an identification of targets within the marine transportation system. These include vessels, shoreside facilities, and navigable waterways.

The process then considers the threats associated with each of these potential targets. Some of these threats are present at all times, such as those from natural disasters such as earthquakes or storms. Others relate to accidents that could occur through human error or equipment malfunction. Then, there are those threats specifically arising from terrorist attack or sabotage.

To be effective, the analysis must determine the vulnerability of each target to the specific threat. The vulnerability varies in the face of terrorist threats, natural disaster threats, and accidents.

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Again, it could be counter-productive to provide a public blueprint of these vulnerabilities, but the consequences have been widely discussed in the aftermath of the World Trade Center disaster. They would include human casualties, economic impact, environmental impact, and symbolic impact, among many others.

These steps address the first two questions of "What are the threats?" and "What is the potential damage?" mentioned above. They provide the framework upon which to build the preparedness and response plan that addresses the third question of "What can be done about it?"

Although this plan may address specific responses for individual components within the transportation system, such as an oil terminal or a cruise ship, for example, the strength of the risk management approach is in the totality of the analysis that considers the full spectrum of facilities, activities, and attendant risks. It demands a circular approach to the analysis that encourages continuous evaluation and improvement. It begins with awareness that leads to planning, prevention, and response. That response then demands renewed awareness of the changed environment.

There is a very wide range of risk control actions available to industry and government, when it consid-

ers potential threats against our maritime infrastructure. These range from limiting access to certain facilities, to strengthening facilities to better withstand blast and fire, to greater surveillance and improved detection. A detailed risk management program will evaluate each of these, identify what steps will be needed to implement the response, and what resources- financial, physical or human, must be allocated to make the response effective.

The development of Port Vulnerability Assessments has been assigned a high priority by the US Coast Guard, as it responds to the threat of previously unimagined, non-traditional attacks on this nation's infrastructure. Many of our ports are of critical strategic importance to our military and economy. It is not possible to eliminate the threats that could be made against them, nor to guarantee their integrity if attacked. But the careful application of risk management techniques can help to clearly identify what those threats are, the vulnerabilities that exist within our marine infrastructure, and provide practical responses that will mitigate the risk that such an attack could successfully disrupt our security.

-MarEx

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