

USES

- Characterize a unit's comprehensive security risk profile
- Inform operational planning & resource allocation processes for local and regional area of responsibility
- Supply Commandant's GIS, which portrays the comprehensive national strategic security risk picture for planning and budgeting purposes
- Streamline the DHS security assessment process by prioritizing sector targets and reducing the resources necessary to complete the evaluation
- Enable risk-based evaluation of Port Security Grants proposals for DHS Office of Grants and Training

GAO RISK MANAGEMENT CYCLE

MSRAM supports all five phases of the risk management cycle, including assessment and change case capabilities for the evaluation of alternatives and long-term tracking to support implementation and monitoring.



LONG-TERM DEVELOPMENT POSSIBILITIES

- Objective, higher-certainty assessments supported by modeling and simulation
- Portrayal and assessment of the layered protection strategy against the array of possible attack scenarios
- Refined characterization of the relationships between risk, activities, and competencies within USCG risk management
- Integration with the planned multi-mission, enterprise-wide, risk-based management system
- Intermodal functional connectivity of critical infrastructure and key resources



Maritime Security Risk Analysis Model

“What should drive our intelligence, policies, operations, preparedness plans, and the way we are organized is the strategic matrix of threat, vulnerability and consequence. And so, we’ll be looking at everything through that prism and adjusting structure, operations and policies to execute this strategy.”

– Secretary Chertoff

Combating Maritime Terrorism Mission Support	
Mission	MSRAM Assessment Role
Prevent terrorist attacks within the United States.	Assess terrorist intent and capability to focus resources to deter and interdict attacks.
Reduce America's vulnerability to terrorism.	Assess ability of owner/operator, local law enforcement, and USCG forces to protect targets.
Minimize the resulting damage if prevention fails.	Assess ability of owner/operator, local first responders, and USCG forces to respond to attacks that do happen.
Recover from attacks that do occur. Insure economic security.	Estimate the primary and secondary economic impacts of the scenario considering the recoverability and redundancy of the system.



MSRAM
UNITED STATES COAST GUARD



MSRAM Program Manager:
Domestic Port Security Evaluation Division CG-3PCE-2
(202) 372-1173

MSRAM Help Desk:
MSRAMhelp@uscg.mil

INTRODUCTION

MSRAM is a terrorism risk analysis tool used by every Coast Guard unit. It enables federal maritime security coordinators (FMSC) and area maritime security committees to perform detailed scenario risk assessments on all of their critical infrastructure and key resources (CI/KR). MSRAM combines these assessments and provides analysis to support risk management decisions. The tool's underlying methodology is designed to capture the security risk facing different types of targets spanning every DHS CI/KR industry sector, allowing comparison between different targets and geographic areas at the local, regional, and national levels.

METHODOLOGY

MSRAM assesses risk based on scenarios – a combination of target and attack mode – in terms of threat, vulnerability, and consequence.

FACTORS

Threat – The specific intent and capability of terrorists to deliver the attack on the specific type of target.

Vulnerability – The probability of a successful attack based on the following factors:

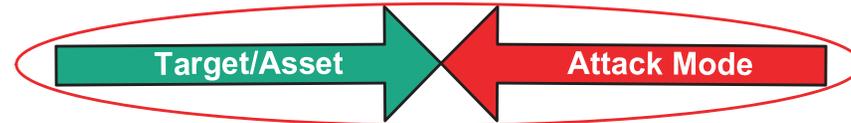
- Attack difficulty
- Ability of the owner/operator, local law enforcement, and the USCG to interdict an attack
- Ability of the target to withstand the attack

Consequence – The negative impact of a successful attack on the United States in terms of:

- Deaths/injuries
- Primary economic impact
- Environment
- National security impacts
- Symbolic impacts
- Secondary impacts to the US economy

MSRAM also considers the response capability of the owner/operator, local first responders, and the USCG and other Federal Agencies to mitigate the consequences of an attack.

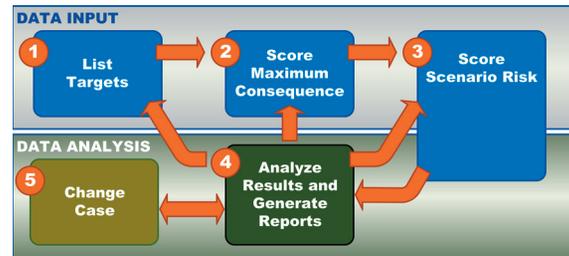
MSRAM Risk Model Scenario



Threat Attack Probability				Scenario Consequence								Vulnerability					
				Primary Consequence +					Secondary Economic Impact								
Intentions & Confidence	Capability & Confidence	Geographic Threat (to be developed)		Death/Injury	Primary Economic Impact	Symbolic Effect	National Security	Environment Impact	Response Capability	Recoverability	Redundancy	Secondary Economic Impact	Achievability	System Security – Owner/Operator	System Security – Law Enforcement	System Security – USCG	Target Hardness

KEY FEATURES AND CUSTOMER BENEFITS INCLUDE:

1. Powerful and user-friendly interface



2. Phased process to maximize efficiency
3. Exhaustive hierarchical target classes for categorization of targets
4. Required scenarios for each target class to ensure consistent analysis nationwide
5. Optional and user defined scenarios to support national and local planning
6. Incorporation of strategic threat information from intelligence community
7. Target-relevant benchmark examples and recommended ranges for each vulnerability and consequence factor
8. Job aids to help users assess the ability of owner/operator, local law enforcement, and USCG forces to intervene

9. Separate evaluations of primary and secondary economic impacts of an attack to improve the understanding of the effect of response and recovery capabilities
10. Dynamic analysis and reporting center to assist in review of assessment results
11. Change case module to assess and compare the impact of alternate risk-reduction strategies
12. Three-tiered (local, regional, and national) review of the Coast Guard and area maritime security committee's risk assessments to ensure consistent and accurate evaluation of scenarios between USCG sectors; this informs the national security risk profile

MSRAM Review Process

