



# **Small Vessel Threats Areas for Research**

**DHS University Programs Research Summit  
March 20, 2008**

**Charles Brownstein, Fellow  
Homeland Security Institute**

# Project Overview



**Sponsor:** S1 initiative; USCG

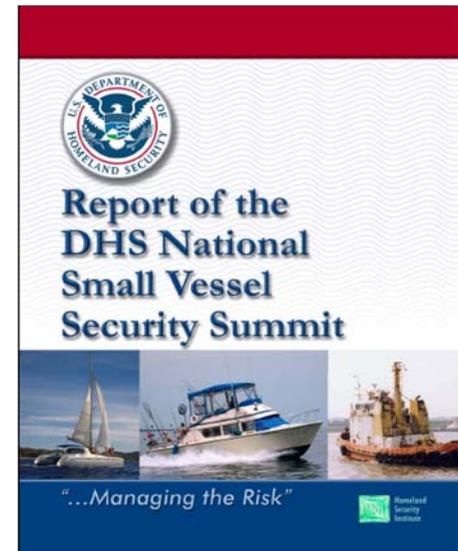
**Purpose:** Facilitate broad understanding of threats and risks related to small vessels and potential prevention and management strategies, policies and actions

[http://www.dhs.gov/xlibrary/assets/small\\_vessel\\_NSVSS\\_Report\\_HQ\\_508.pdf](http://www.dhs.gov/xlibrary/assets/small_vessel_NSVSS_Report_HQ_508.pdf)

## HSI:

- Developed issues and scenarios with DHS stakeholders
- Created scenario exercises
- Facilitated community stakeholder meeting
- Assessed issues and discussions, reported findings and recommendations

## Report:



# Focus

- Security Strategy for vessels <300 tons
  - Over 300 tons regulated
  - Most commercial vessels subject to *some* federal and state regs
  - Recreational vessels subject to *few* state regs
- Voluntary and regulatory methods to reduce risk
- Build the partnership

# Issues

**A large population**

**Broad, unfettered access**

**Routine operation**

**A complex maritime environment**

**Limited existing capabilities for identifying  
and monitoring**

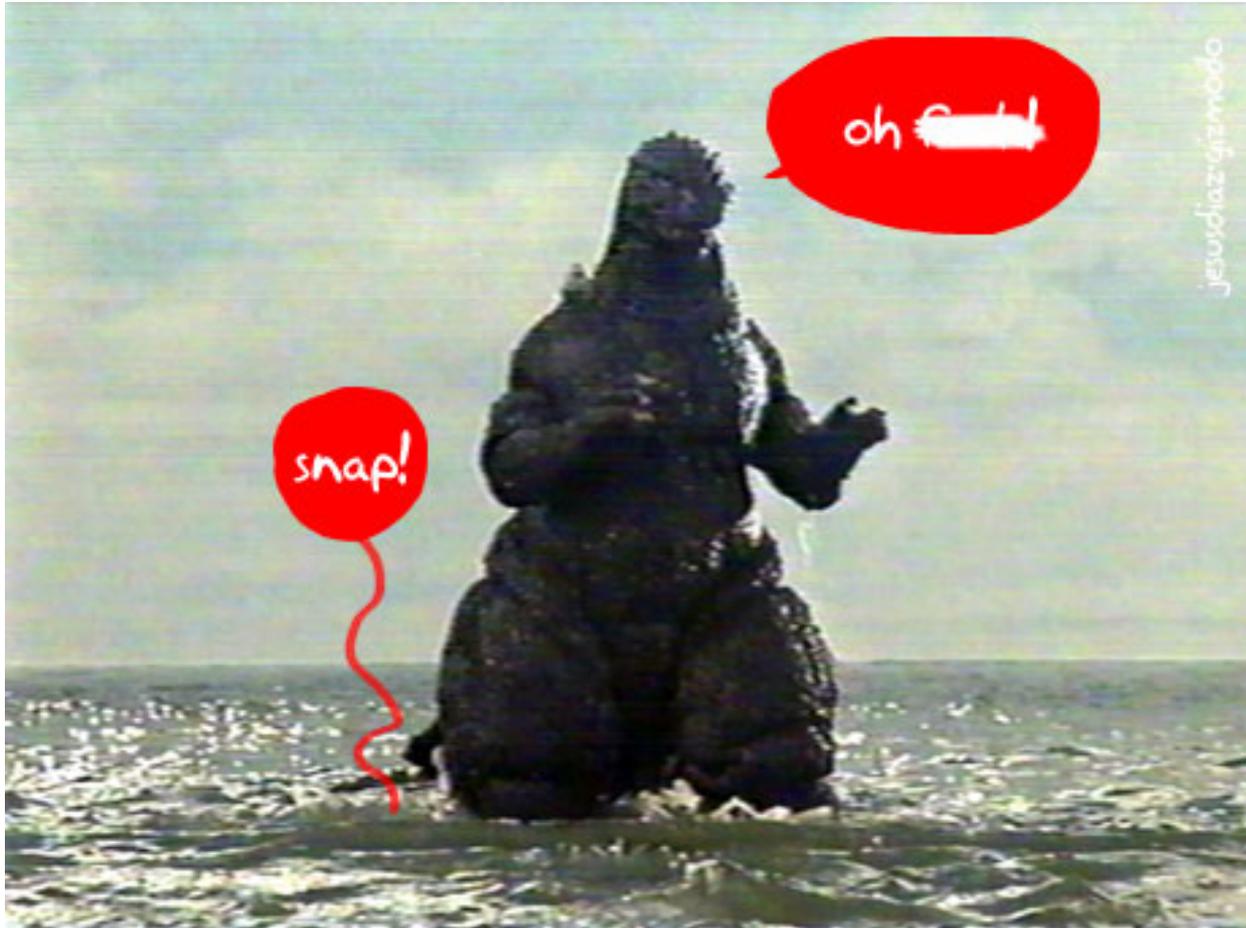
**Limited ability to screen small vessels for  
threats, especially weapons of mass destruction**

**Extending oversight approach to vessels under  
300 gross tons**

# Small Vessels as Threat Vectors

- ***WMD transport/delivery:***
  - Possible terrorist use to transport or deliver weapons of mass destruction.
- ***Conventional explosives delivery platform:***
  - Terrorist groups have demonstrated intent and ability to use small vessels to deliver waterborne improvised explosive devices (WBIED) in attacks against larger ships, as was the case in the attack on the USS COLE in 2000.
- ***Smuggling people and material:***
  - Terrorists and criminal organizations exploit small vessels to smuggle dangerous people and materials
- ***Platform for other weapon attack:***
  - Terrorists could use small vessels as platforms for standoff weapon (e.g., Man-Portable Air Defense Systems [MANPADS] or surface-to-surface missile platforms) attacks.

# Other Unanticipated Threats





## Speeches

**RDML Brian Salerno, USCG**

**Admiral Thad W. Allen, Commandant, USCG**

**W. Ralph Basham, Commissioner CBP**

**Vayl Oxford, Director DNDO**

**Dr. Christopher Merritt, USCG INTEL**

**Hon. Michael Chertoff, Secretary**

## Panels

**1: *Recreational Vessel Interests***

**2: *Commercial Vessel Interests***

**3: *State & Local Government***

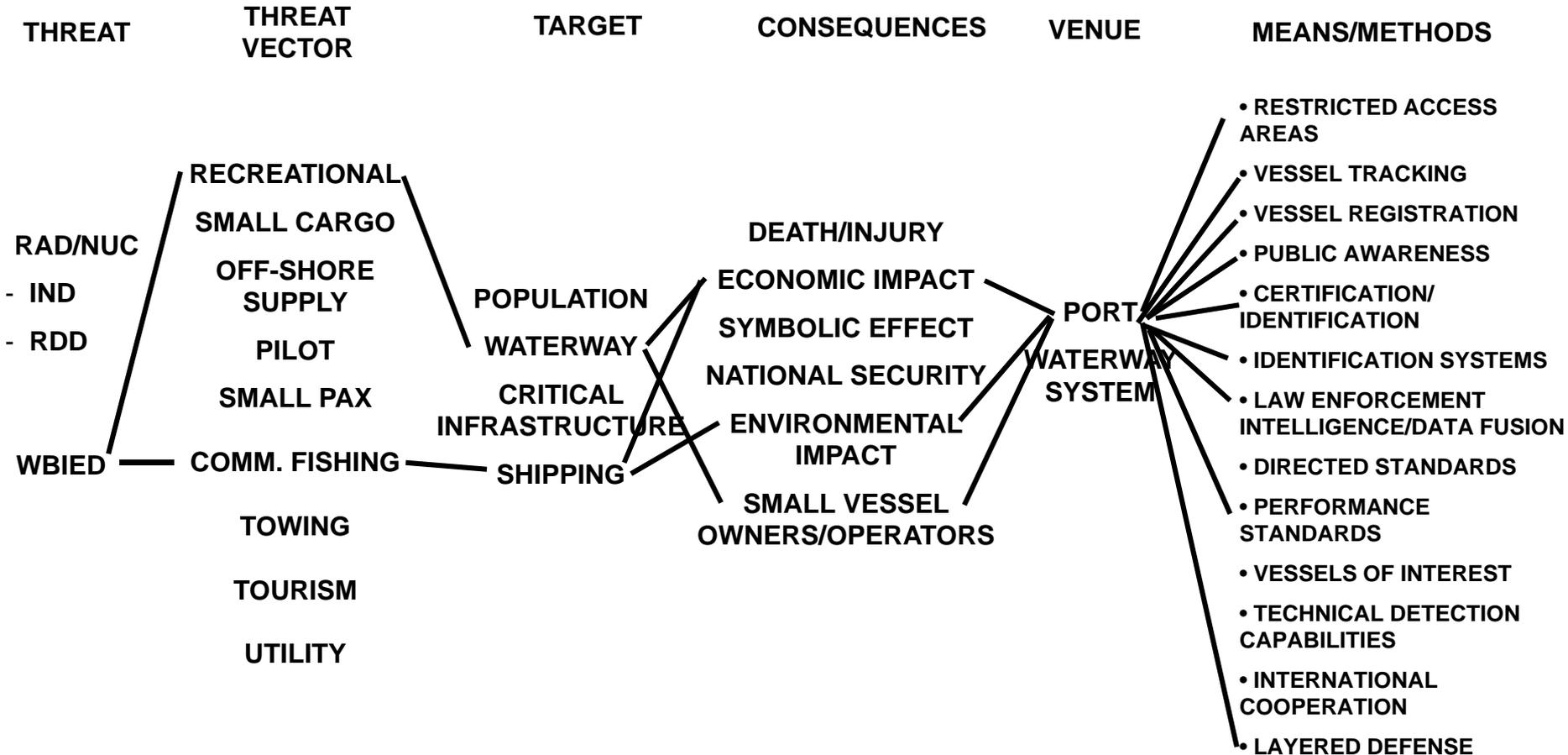
## HSI Facilitated Scenario Exercises

**200+ stakeholders through six exercises**

# Considerations

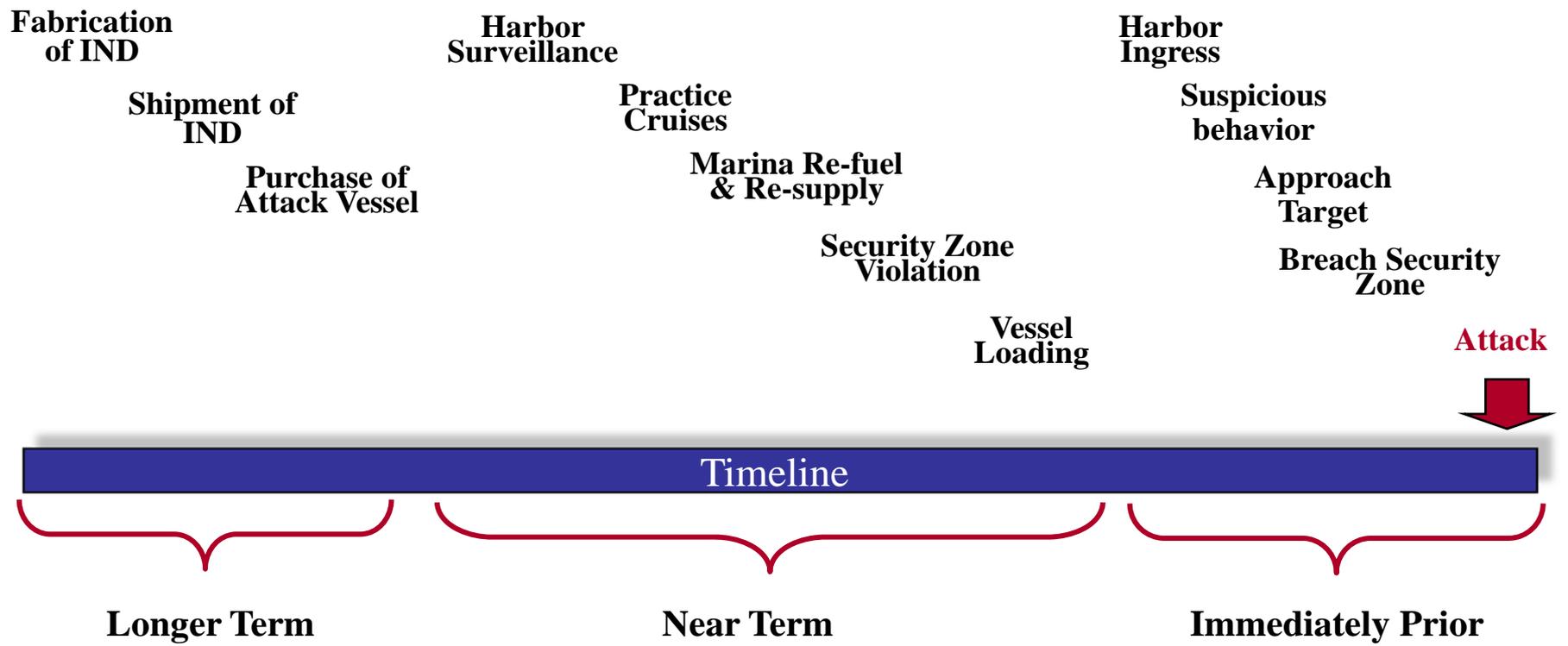
TYPES OF ATTACK	SMALL VESSEL STAKEHOLDERS	FOCUS of ATTACK	POTENTIAL CONSEQUENCES	ISSUES EXPOSED	REQUIRED STRATEGY ELEMENTS (“methods”)
<p>Nuclear</p> <p>Radiological</p> <p>Biological</p> <p>Chemical</p> <p>Conventional</p> <p>People Transfer</p>	<p>Recreation</p> <p>Cargo</p> <p>Supply/Service</p> <p>Pilot</p> <p>Transport</p> <p>Fishing</p> <p>Towing</p> <p>Tourism</p> <p>Waterside Industry, Infrastructure, Commerce, Residence</p>	<p>People</p> <p>Facilities, infrastructure, work/living spaces</p> <p>Subsurface</p> <p>Other Vessel</p> <p>Extended proximity</p> <p>Transfer of weapons or perpetrators for external exploitation</p>	<p>Death/Injury</p> <p>Physical Damage</p> <p>Economic, local and extended</p> <p>Symbolic</p> <p>Environmental</p> <p>National Security</p> <p>Stakeholder specific</p>	<p>Inadequate or untimely information for action</p> <p>Missed Threat Indicators</p> <p>Lack of public understanding about threats and responses</p> <p>Lack of communications among public and authorities</p> <p>Stove piped authorities</p> <p>Inadequate Information Sharing</p> <p>Inability to Identify and sort threats</p> <p>Not being prepared or capable of action</p> <p>Lack of Resiliency</p> <p>Locations Specific Characteristics (e.g., open spaces with close proximity of high value targets)</p>	<p>Exclusion Zones</p> <p>Vessel Registration</p> <p>Vessel ID systems</p> <p>Operator Licensing and Credentialing</p> <p>Public Awareness</p> <ul style="list-style-type: none"> <li>• Communications,</li> <li>• Participation in Suspicious Activity Reporting + Response</li> </ul> <p>Domain Awareness</p> <ul style="list-style-type: none"> <li>• LE-Intel/Data Sharing and Fusion</li> <li>• Common Operating Picture Sys</li> <li>• Vessel Tracking</li> <li>• Targeting – VOI</li> <li>• Notice of Arrival</li> <li>• Sensor Technologies</li> <li>• Visual/radar/AIS</li> </ul> <p>Security Regimes (statutory, regulatory, international. standards)</p> <p>Plans</p> <p>CONOPS</p> <p>Operational Capacity</p>

# Scenario Example





# What could we have done to prevent, deter, or lessen the attack and its effects?



# Capability Deficiencies Identified

**Inability to Identify and sort threats**

**Lack of public understanding about threats and responses**

**Inadequate or untimely information for action**

**Missed threat Indicators**

**Lack of communications among public and authorities**

**Stove piped authorities**

**Inadequate Information Sharing**

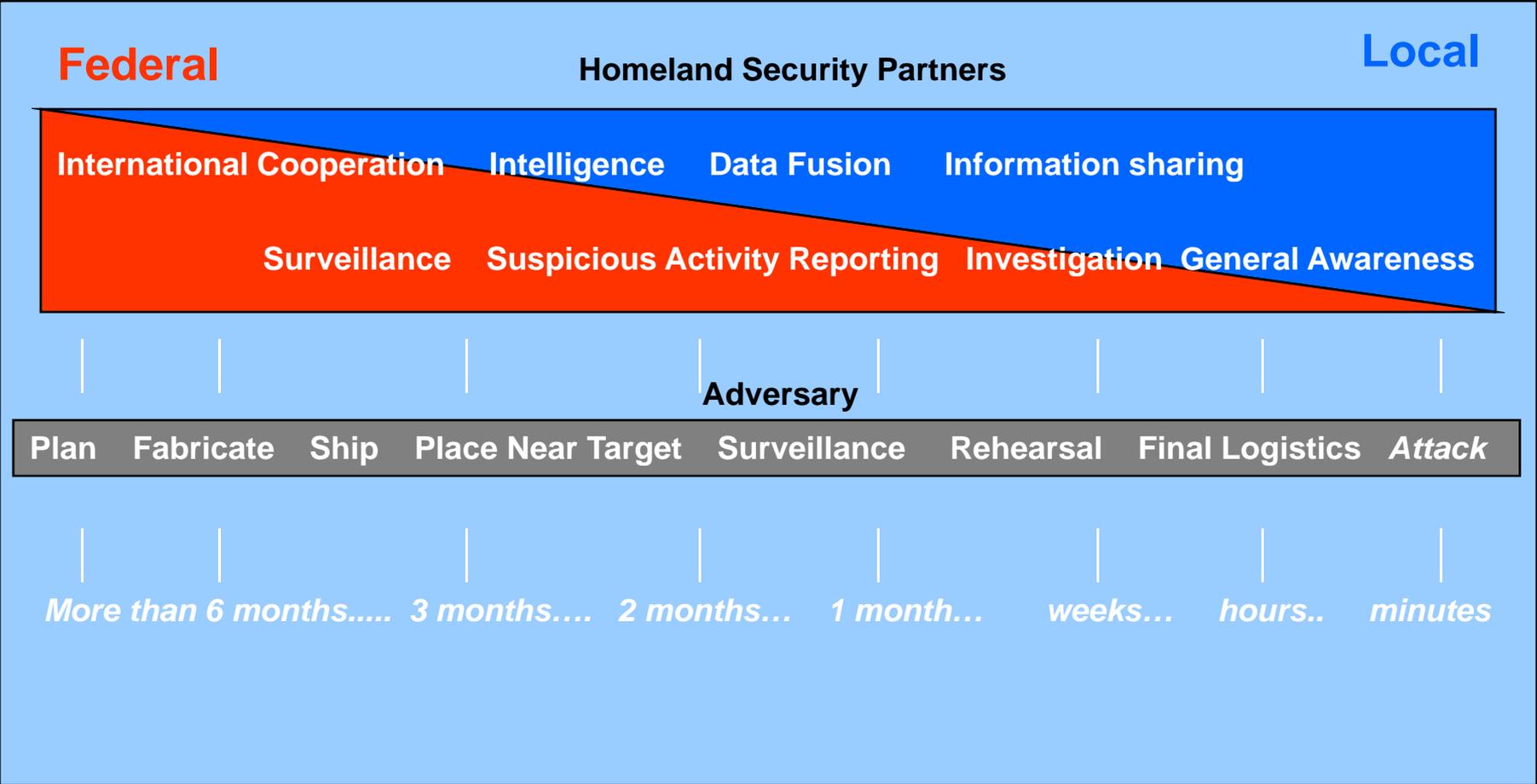
**Actors not being prepared or capable of action**

**Lack of Resiliency**

**Other Location Specific Characteristics**

**(e.g., open water/close proximity of high value targets)**

# Relationship of Partner Actions, Adversary Actions and Time





# Research Areas

Policies, Regulations, Programs, Operations, Supporting Technologies

1. Threat Analysis
2. Vessel Registration
3. Vessel ID systems
4. Operator Licensing and Credentialing
5. Public Awareness, Communications
6. Suspicious Activity Reporting/Response
7. Domain Awareness
8. LE-Intel/Data Sharing and Fusion
9. Common Operating Picture Systems
10. Vessel Tracking
11. Exclusion Zones
11. Targeting – Vessel Of Interest
12. Notice of Arrival
13. Sensor Technologies (exp/rad/bio)
14. Visual/radar/AIS
15. Regimes (statutory, regulatory, international)
16. Standards
17. Plans and Training
18. CONOPS at all levels
19. Operational Capacity Assessment
20. Doctrine, procedures and culture to realize the required partnership
21. Public – private partnership



For more

[www.dhs.gov/xlibrary/assets/small\\_vessel\\_NSVSS\\_Report\\_HQ\\_508.pdf](http://www.dhs.gov/xlibrary/assets/small_vessel_NSVSS_Report_HQ_508.pdf)

or search for: **NSVSS**