



# **Naval Sea Systems Command Homeland & Force Protection Product Area**

**Presented to 2006 NDIA  
Strike, Land Attack & Air Defense Annual Symposium  
25-26 April 2006**

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# CNO Guidance for 2006



CNO Guidance for 2006

## *Meeting the Challenge of a New Era*

### I. Introduction

We are a nation and a Navy at war. Whether providing sovereign deck space from which to launch strikes in Afghanistan, continuing to support ground operations in Iraq, patrolling the seas to interdict terrorists, or shaping the maritime domain through swift humanitarian action in Indonesia and on our own Gulf Coast, we are contributing to joint and combined operations in ways no one could have imagined a few short years ago.

We live on the cusp of a new era. It is an era plagued by uncertainty and change and unrestricted warfare, an era of shifting global threats and challenging new opportunities. It is an era that calls for new skill sets, deeper partnerships, mutual understanding and -- with the great majority of international commerce still moving on the world's oceans -- a firm commitment to the incredible power resident in the sea itself.

Harnessing sea power in the 21<sup>st</sup> century will demand much more of us than simply putting ordnance on target -- though clearly that remains a core capability. It will demand the ability to aggregate and disaggregate forces quickly; it will demand highly sophisticated networks, connectivity and stealth; it will demand better joint, allied and coalition interoperability; and it will demand that we build for the future a new fleet of ships, aircraft and submarines to wield that power across the spectrum of conflict.

It is with my firm belief in our ability to meet these challenges that I have crafted my Guidance for 2006. Rooted in the framework of Sea Power 21, this document articulates our vision, reiterates our mission, establishes the guiding principles that will underpin our actions and restates my top three priorities (supporting each with specific objectives, desired effects and tasking). Please distribute it and share it widely.

### II. Vision

The vision we seek is: **Americans secure** at home and abroad; **sea and air lanes open and free** for the peaceful, productive movement of international commerce; **enduring national and international naval relationships** that remain strong and true; **steadily deepening cooperation** among the maritime forces of emerging partner nations; and a **combat-ready Navy -- forward-deployed, rotational and surge capable -- large enough, agile enough, and lethal enough** to deter any threat and defeat any foe in support of the Joint Force.

“Develop closer working relationships with the U.S. Coast Guard and other governmental and non-governmental organizations to support national security policy, enhance homeland defense and improve maritime domain awareness.”



# Warfare Centers Product Areas

## FORCE LEVEL WARFARE SYSTEMS

- Warfare Systems Analysis, Architecture and Requirements
- Warfare Systems Engineering, Integration, T&E and Assessment

## SHIPS & SHIP SYSTEMS

- Ship Integration and Design
- Hull Forms and Propulsion
- Machinery Systems and Components
- Structures and Materials
- Environmental Quality Systems
- Vulnerability and Survivability Systems
- Signature and Silencing Systems

## SURFACE SHIP COMBAT SYSTEMS

- Air and Surface Surveillance and Detection Systems
- Combat Control Systems
- Engagement Systems
- Electronic Warfare Systems
- Combat Systems Engr, Integration, T&E & Assessment

## LITTORAL WARFARE SYSTEMS

- Mine Warfare Systems
- Amphibious Warfare Systems
- Special Warfare Systems
- Diving and Life Support Systems

## NAVY STRATEGIC WEAPON SYSTEMS

- Targeting and Shipboard Subsystems
- Missile and Re-entry Systems
- Weapons System Level Analysis, Testing & Evaluation
- Non-Nuclear Strategic Weapons Systems

## ORDNANCE

- Warheads, Rockets, Ammunition & Other Ordnance Systems
- Energetic Materials
- Ordnance Safety, Logistics & Environmental Technology
- Cartridge Actuated, Pyrotechnic, & Specialty Devices

## USW COMMAND & CONTROL SYSTEMS

- Submarine Combat Systems
- Submarine Sonar Systems
- Submarine Imaging and Electronic Warfare Systems
- Submarine Communications Systems
- Surface USW Systems

## USW WEAPON & VEHICLE SYSTEMS

- Torpedoes
- Unmanned Undersea Vehicles
- Platform Defensive Systems
- USW Launchers
- Submarine Missile Launcher Integration

## USW ANALYSIS & ASSESSMENT

- USW Ranges
- USW Analysis
- USW Operational Assessment

## USW FLEET MATERIAL READINESS

- USW Depot
- Obsolescence Engineering Solutions

## HOMELAND & FORCE PROTECTION

- Homeland Security and Measured Response Options
- Force Protection and Chemical/Biological Defense Systems
- Mission Assurance Capabilities

## SURFACE WARFARE LOGISTICS & MAINTENANCE

- Performance Based Logistics
- Maintenance Engineering
- Fleet Material Management



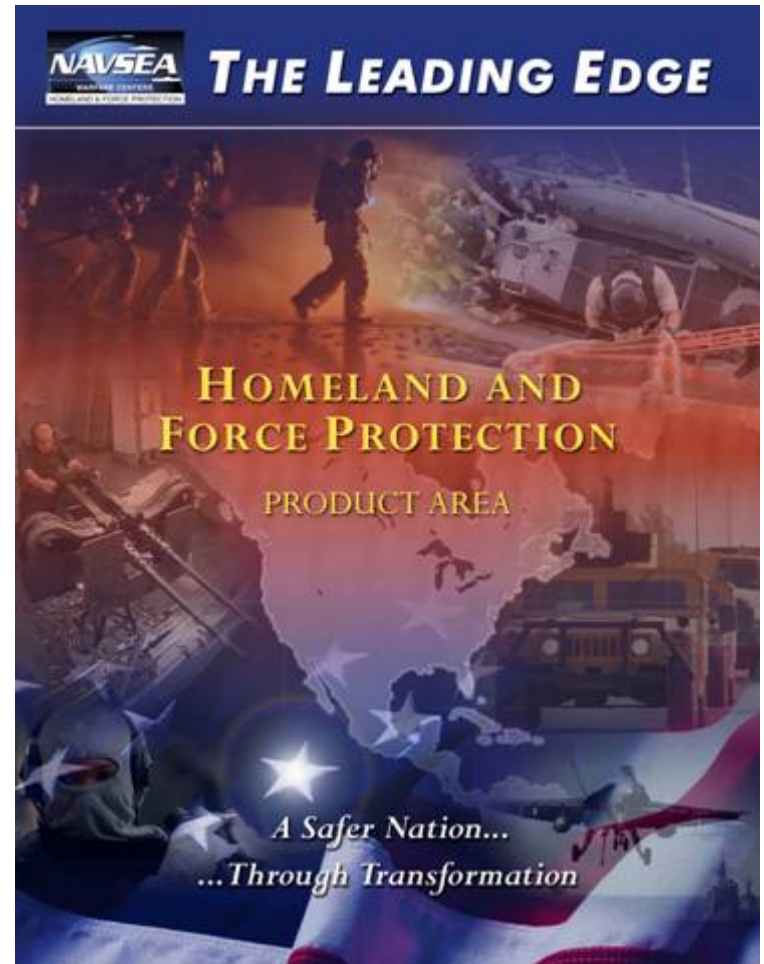


# *Discussion Items*

Product Area Overview

Technology Areas

Where You Can Help



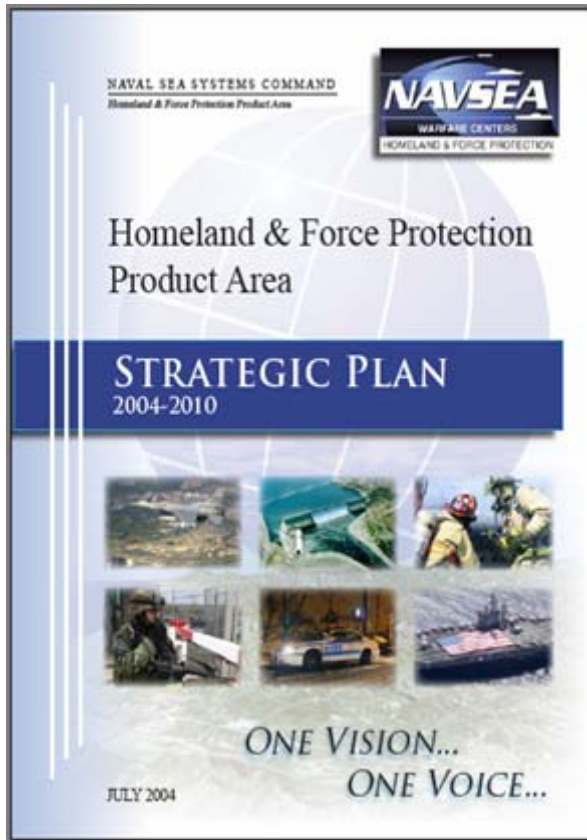


# *Mission*

*Provide the Navy, the DoD, and the Nation  
with Unsurpassed Technical Expertise and  
Capabilities for Timely, Cost-Effective  
Homeland and Force Protection  
Solutions to  
Win the Global War on Terror*

# Vision

## *A Safer Nation Through Transformation*



Achieve missions and mission effectiveness while

- Collaboratively producing leading edge products and services
- Employing the most efficient, effective, and economical means possible
- Planning and executing in a coordinated fashion across the entire enterprise
- United as one, leading the way in linking Navy, DoD, and National efforts

*In Alignment with National Military Strategy*

*In Support of Sea Power 21*

*In Synergy with related Product Areas*

***Transforming ...Products ... Processes ... Partnerships***





# Homeland and Force Protection Product Area



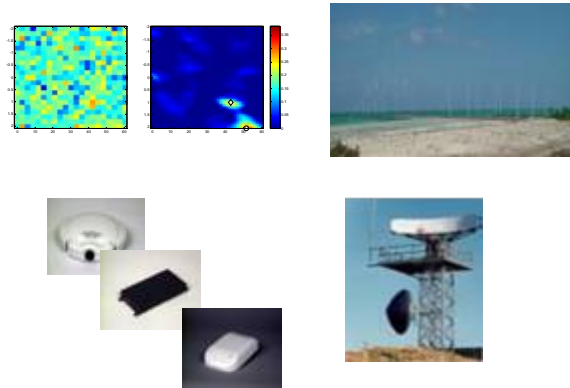
- Mission Assurance
- Counter Narco-Terrorism
- Counter Terrorism
- CBRN Defense
- Night Vision Electro-Opt.
- Physical Security
- Counter-Explosives
- AT/FP
- Domain Awareness
- Homeland Defense / Security

# Counter-Narcoterrorism

## Wide Area Surveillance

## Interdiction & Analysis

## Special Projects



- OTH radar enhancements (ROTHR and CODAR)
- Declutter for radar systems
- HFSWR evaluation
- Maritime microwave radar with EO/IR fusion
- Maritime drug marking systems
- Hand emplaced unattended ground sensors
- Coalition technical support



- Web-based analytic tool suite
- Counter-trafficking integrated display system
- Commercial imagery detection capability
- Small craft running gear entanglement system
- Personnel disablement technology



- Aircraft upgrades & training
- Surveillance deployment support
- Boats
- Night Vision Goggles



# CBR Defense

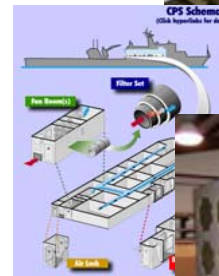
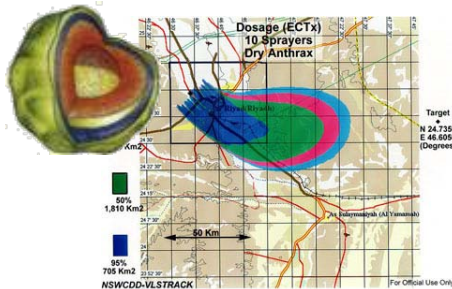
## S&T

## M&S

## Detection

## Protection

## Decontamination



- Advanced Research
- BSL Level 3 Facilities
- Transport and dispersion M&S
  - Interior and Exterior

- Chemical Detectors
- Biological Detectors
  - Emplaced
  - Handheld
  - Standoff
- Radiological Detectors
- Detector Networks

- Individual Protective Equipment
- Collective Protection Systems
  - Facilities
  - Shipboard

- Decon Systems
- Decon Methods
- Decon Solutions
  - Equipment
  - Platforms
  - Personnel

# Anti-Terrorism / Force Protection

## Detect



- Night Vision, Laser, and Electro-Optic Sensor System
- RF Sensor Systems
- Acoustic, Seismic, and Video Sensor Systems

## Assess



- Sensor Fusion Capabilities
- Common Operational Picture Display Systems
- Advanced Video Processing
- Unambiguous Warning Devices
- Unmanned Systems

## Defend

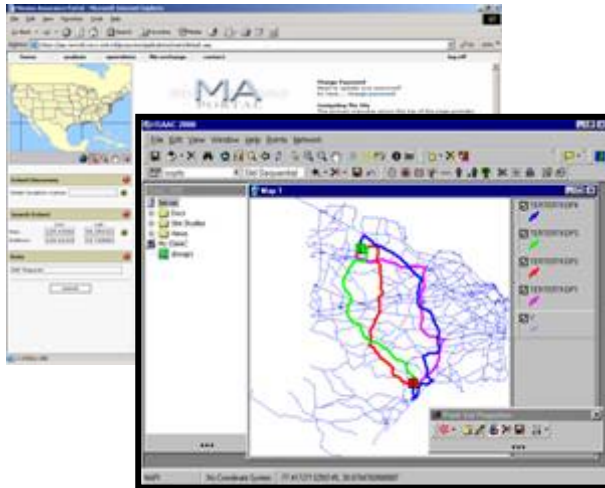


- Non-lethal
- Lethal
  - Manned
  - Remote



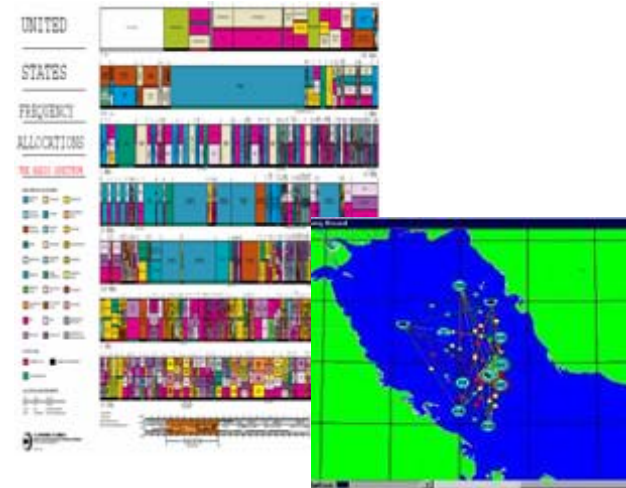
# Mission Assurance

## Critical Infrastructure Protection



- Vulnerability Assessment Methodologies
- Commercial Network Analysis Tools
- On-line Infrastructure Assessment Portal

## Spectrum Management

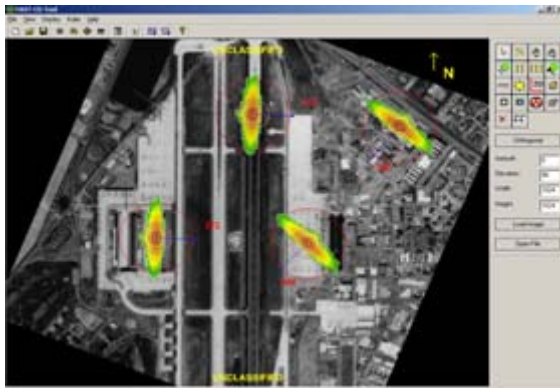


- EMI Analysis Tools and Capabilities
- Planning tools to identify and mitigate interference
  - Navy
  - Joint
  - Civilian



# Counter-Terrorism

## Modeling & Simulation



- Collateral Damage Assessment
- Aim Point Designation

## Technology Development



- VBSS / EMIO Equipment
- Counter-Sniper, Counter-RPG Systems
- Enhanced Munitions
- Urban Operations Systems

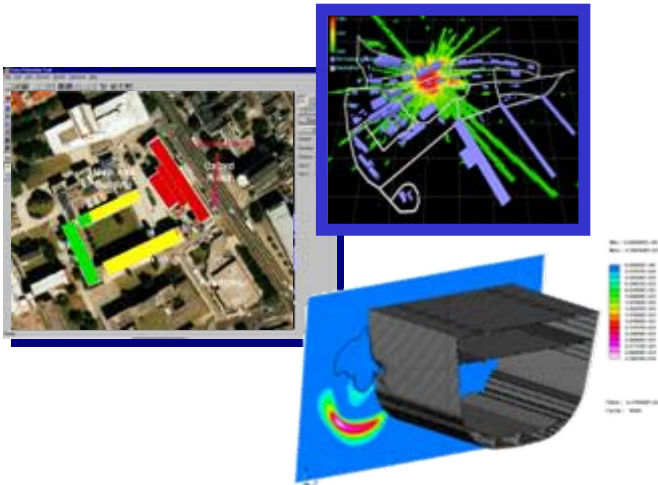
## Operational Support



- SOF Systems and Equipment

# Counter-Explosives

## Modeling & Simulation



- Blast effects
  - Platforms
  - Buildings
  - Equipment
  - Personnel
  - Infrastructure
- Safe Stand-off Ranges
- Materials Analysis

## Detection



- Cargo and Container Inspection Systems
- Handheld Detectors
- Portal Inspection Systems

## Neutralization / Mitigation



- RF, HPM, and Electrostatic Neutralization Systems
- Blast Containment Systems
- Advanced Armor Systems and Materials
  - Equipment
  - Personnel



# *Test and Evaluation*

## Laboratories



- Full Spectrum R,D,T & E science, engineering, analysis, and computational laboratories and facilities

## Ranges



- Controlled and instrumented ranges in multiple environments

## Unique Assets



- Unique operational facilities and assets

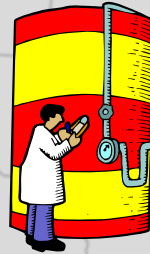


# World-Class Partners

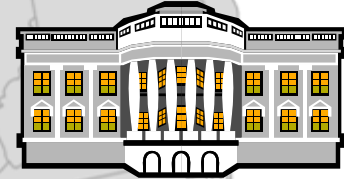
**National Labs**



**Industry**



**Government**



**Intelligence**



**Academia**



**Contractors**



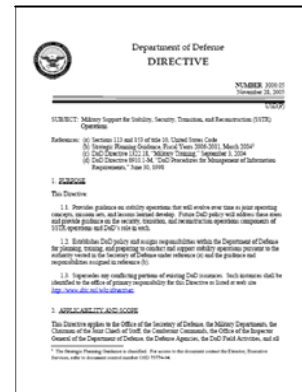
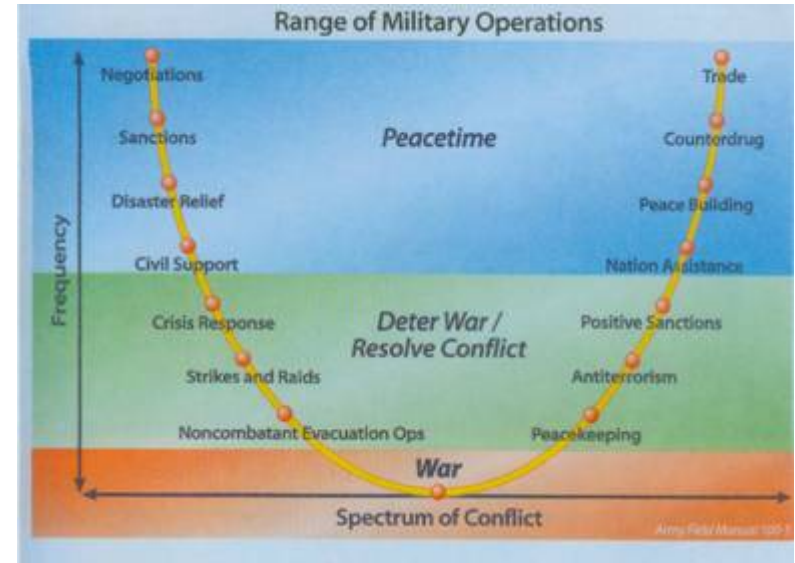
# *Where You Can Help*



- **Counter Improvised Explosive Devices**
- **Determination of Intent**
- **Ship Stopping**
- **Non-Intrusive Inspection**
- **Stand-Off Detection**
- **Information Management Standards**

# Complex Systems Engineering

- Across the spectrum of conflict
- Risk - Benefit tradeoffs
  - Good vs. Fast
  - Exploit vs. Invent
- Product development processes
  - Requirements analysis, AoAs, functional allocation, etc
- All systems are imbedded in something larger
  - Socio-technical “system”



Stability Operations further defined in DoD Directive 3000.05 November 28, 2005





# *Contact Information*

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