

Naval Sea Systems Command

# Coastal Systems Station

The leader in littoral warfare









Participating in the War on Terrorism"

Dr. David P. Skinner Executive Director CAPT A. A. (Fred) Shutt, USN Commanding Officer



# The Coastal Systems Station Strategic Perspective

Littoral Warfare RDT&E Laboratory

Core Mission Areas Leadership

#### **Thrusts**

**Unmanned Systems** 

**Maritime Security/Force Protect** 

**Littoral Combat Ship** 

**Joint Training, T&E** 

**Expeditionary Combat Sys tems** 

# National Security Landscape

#### Core

**Special Warfare** 

**Science and Technology** 

**Mine Warfare** 

**Expeditionary Maneuver Warfare** 

**Diving & Life Support Systems** 

**Coastal Operations** 

# Foundational Areas Develop A World Class Work Force

**Enhance Excellence In Technical Functions** 

**Develop Mutually Beneficial Partnerships** 

**Implement Business & Process Management** 



### **Mission**

# Provide research, development, test and evaluation, engineering and fleet support for:



**Operations in Extreme Environments** 

**Maritime Special Operations** 

And other Naval missions that take place in coastal regions



#### Unmanned Systems Strategic Initiative



#### FY 03 Priorities

Unmanned Systems
Common Control



Unmanned Systems Joint / Homeland Defense Applications



**Unmanned Systems for Littoral Warfare** 









## **Coastal & Maritime Security**



OPNAV N34
Force Protection







OPNAV 757 Mobile Security Force

DOD/PSEAG Waterside/Landside Decision Support Tool





Center for Coastal & Maritime Security (CCMS)

Homeland Defense





## **Core Expertise Applied to LCS**



#### LCS MISSIONS = ASSURED ACCESS TO THE LITTORALS

#### The Leader In Littoral Warfare

CSS Core Mission Areas and Technical Capabilities Aligned With Missions of LCS.

Our Expertise in These Mission Areas Will Help Make the Vision of This Revolutionary Combatant a Reality in the Years to Come.

LCS Will Be the Surface Navy's Kingpin to Fight the War on Terrorism in the Littorals Both in Homeland Defense and Abroad.

#### <u>UNMANNED SYSTEMS</u>

- Remote/Autonomous Control Logic
- Systems Integration
- Multi-vehicle Coordination / Common C<sup>2</sup>
- Data Fusion To Knowledge



"The MIW Community Is Way Ahead of All Other Mission Areas in the Application and Use of Unmanned Systems"

CDR Carl Carlson (NWC 9/19/02)

Long History Developing

**UNMANNED** 

**MISSION** 

**SYSTEMS** 

#### MISSION SYSTEMS

- Mine Warfare
- Special Warfare
- Maritime Interdiction
- Homeland Defense
- Littoral ASW w/ MIW Sensors
- ISR

Modular Mission Packages

Modular Mission Packages

Standard Interfaces

Common Handling

Common L&F

Common L&F

#### <u>LCS FACILITIES COMPLEX</u>

- Prototype Testing In a Realistic Environment
- Integrate, Test, and Certify LCS Production Systems
- Train/Cross-Train LCS Fleet Personnel to Operate, Maintain At-sea and Deploy/Recover Multiple Mission Packages for All LCS Warfare Areas

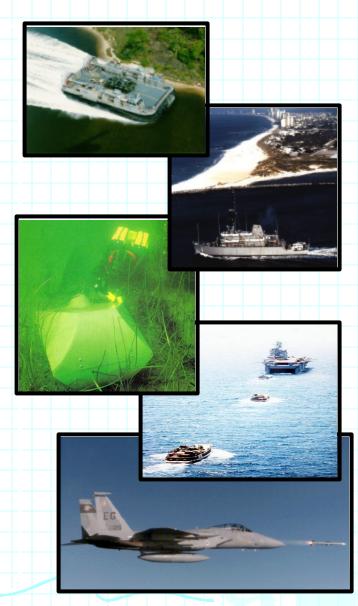






## Joint Training, Test and Evaluation

- CSS as Stakeholder in the Joint Gulf Range Complex - preparing a World Class Test and Training Area to enable 21st Century Warfighters
- Support of Carrier Battlegroup Training
  - Support for Mine Warfare Training and Exercises
  - Support MEU and MEB Level Amphibious Training
- Perform Developmental and Operational Testing in Support of Littoral Warfare RDT&E
- Support of Fleet Battle Experiments
- Current Initiatives
  - New Beach Site Building
  - Underwater Tracking System
  - Enhanced Overwater Impact Scoring for Naval Guns
  - Underwater Fiber Optic Sensor Field Upgrade
  - Fiber Optic Connectivity Between Joint Gulf Range Complex Service Partners





# EXPEDITIONARY WARFARE STRATEGIC THRUST

- System Engineering Analysis of Environment and Warfare System
   Requirements
  - EXW Mission Requirements Implications for EXW Combat Capability
  - Augment Current Combat Capability Requirements with EXW
  - Transformation of Sea Basing, Sea Shield, & Sea Strike Requirements
  - Combat System Capabilities Layout Legacy and Developmental
  - Identifying Key System Performance Parameters
  - Exploit Multi-site Collaborative Process
  - Facilities for Experimentation and Demonstration
- Engineering Roadmap Development
- Installations and Operational Deployment Support (ESG deployment planning, testing, analysis)











## **Major Contractors**

- Lockheed Martin
- Northrop Grumman
- Gryphon Technologies, L.L.C.
- Dynamic Engineering
- Averstar, Inc.
- Arinc, Inc.
- Caterpillar, Inc.
- Nortel Network
- Mevatec Corp.
- Presearch Inc.
- Titan

- Raytheon Systems
- Sikorsky Aircraft Corp.
- Analysis & Technology
- Rolls Royce America
- Harris Corp.
- L3 Communication
- Delphinus Engineering
- Outboard Marine
- Applied Research Inc
- KPMG