



# SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

## Maritime Systems

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**Program Executive Office**

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Maritime



## PEO Maritime Portfolio

### UNDERSEA SYSTEMS



UOES 2



UOES 3

Shallow Water Combat Submersible

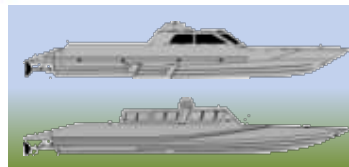


SEAL Delivery Vehicle



Dry Deck Shelter

### SURFACE SYSTEMS



Combatant Craft Medium Mark 1 (CCM Mk 1) (Conceptual)



SEALION (CCH)



Special Operations Craft - Riverine



Security Force Assistance



Combatant Craft Assault



Combatant Craft Forward Looking Infrared



MCADS

# Technology/Capability Areas of Interest

- Undersea Vehicle Energy Storage Systems
- Advanced Surface Craft Power Systems
- Combat Swimmer Thermal Protection Systems
- Lightweight, Small Volume, CO2 Removal Technology for Underwater Breathing Apparatus and Undersea Platforms
- Secure Wireless Intercom System
- High Speed Communications

WIN THE CURRENT FIGHT  
THE GLOBAL SOF NETWORK  
THE FORCE AND FAMILIES  
RESPONSIVE RESOURCING

# Dry Deck Shelter (DDS)



Certified Diving System That Attaches to Modified Host Submarines and Supports SDV, Combat Rubber Raiding Craft and Mass Diver Lock In/Out Operations While Submerged



## Technology Upgrades/Current Efforts:

- Service Life Extension Study
- Next-Generation DDS AoA
- Improved Track and Cradle System
  - **Modifications to Support Shallow Water Combat Submersible (SWCS)**

## SWCS System Description

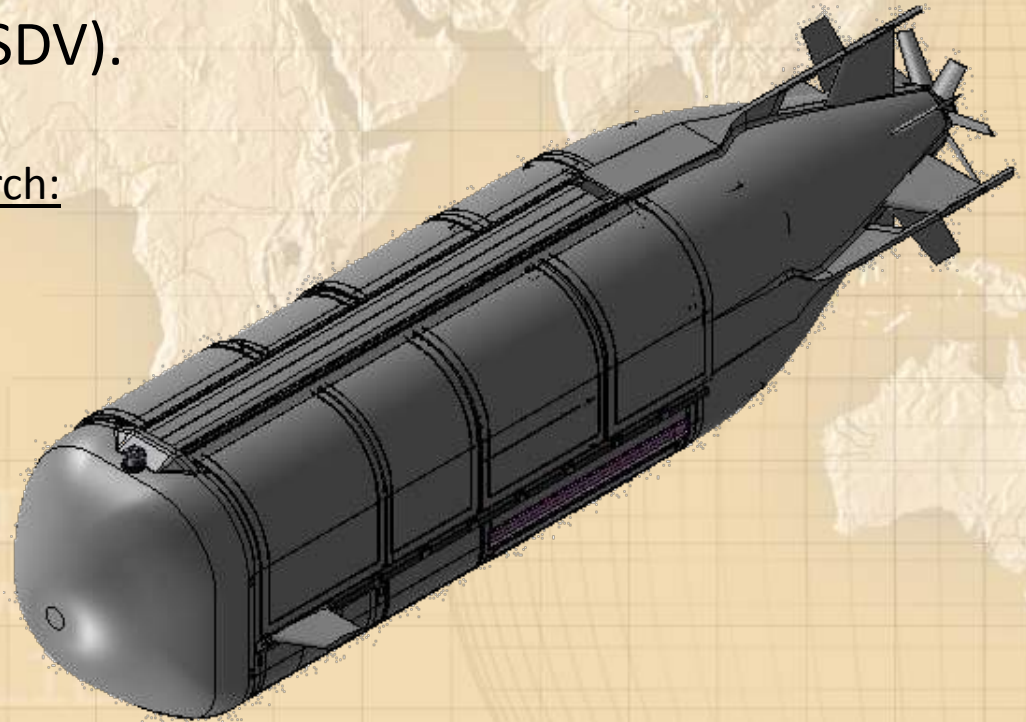
- SWCS is a free-flooding combat submersible with enhanced capabilities to provide clandestine access into SOF mission areas.
- SWCS (MK 11 SDV) will replace the current MK 8 Mod 1 SEAL Delivery Vehicle (SDV).

### Small Business Innovation Research:

- 360 Periscope
- Dive Suits
- CO2 Removal Technology For UBA

### Needs:

- Integrated Mast
- P&E Solutions



## SEAL Delivery Vehicle (SDV MK8 Mod 1)

Wet Submersible Capable of Clandestine Operations and Insertion/Extraction of 6 SEALs and Mission Equipment in a Hostile and/or Denied Environment



### Technology Upgrades/Current Efforts:

- Integrated Precision Underwater Mapping (IPUMA)
- Umbilical Management
- **Baseline Software Upgrade**
- **Pilot Assist**

# UOES2 Exterior And Interior Views



## Estimated General Characteristics:

- Cargo & Crew: 8 SOF Pax, 2 SOF Pilots
- Length: 12 m; Beam: 2.2 m; Height: 2.5 m; Weight: 26,000 kg
- Range With Low-energy Battery: 66 NM @ 5 Knots
- Range With High-energy Battery: 120 NM @ 5 Knots
- Operating Depth: 60M (T), 125M (O)
- Lockout Depth: 30M (T), 50M (O)



## UOES3 (Button 5.60)

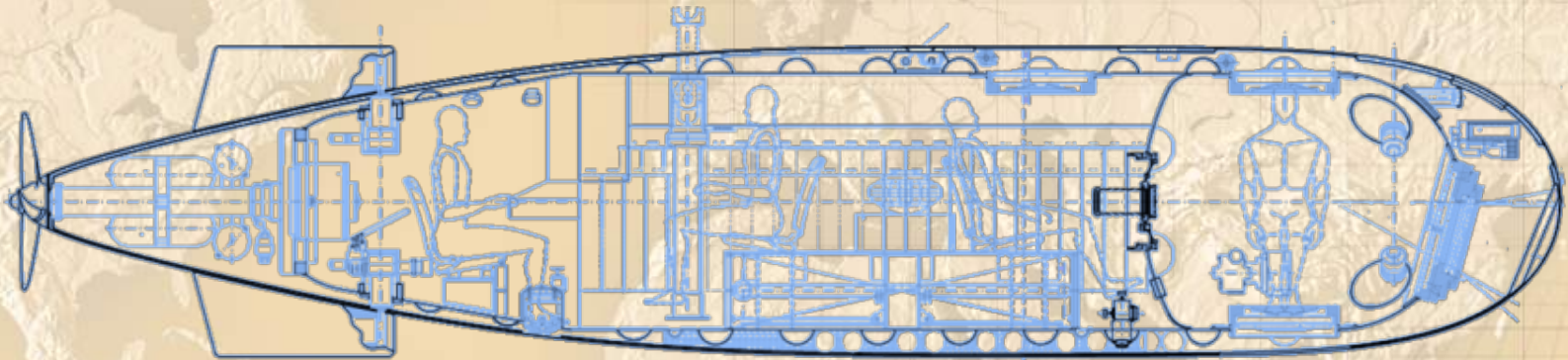


### Estimated General Characteristics:

- Cargo & Crew: 4 SOF Pax, 2 SOF Pilots
- Length: 9.7m; Beam: 1.9m; Height: 1.9m
- Range: 60 NM @ 5 Knots
- Operating Depth: 190 FSW
- Lockout Depth: 120 FSW



## UOES3 General Arrangement



### Approximate Description

- Length: 9.7 M, Beam 1.9m, Height: 1.9 M,
- Weight: 17,700 Kg

### Transportability

- Inside A 40 Foot High-cube Shipping Container
- Sized To Fit Into A DDSX Extended

### Builder

- General Dynamics/Electric Boat, Groton, Ct
- Giunio Santi Engineering, Trieste, Italy

## Combatant Craft Assault (CCA)

Medium Range Maritime Interdiction Operations in Medium/High Threat Environment. Supports Coastal Patrol and SOF Insertion Extraction Operations. Serves as an interim bridge between NSW RIB and CCM.

### Technology Upgrades/Current Efforts

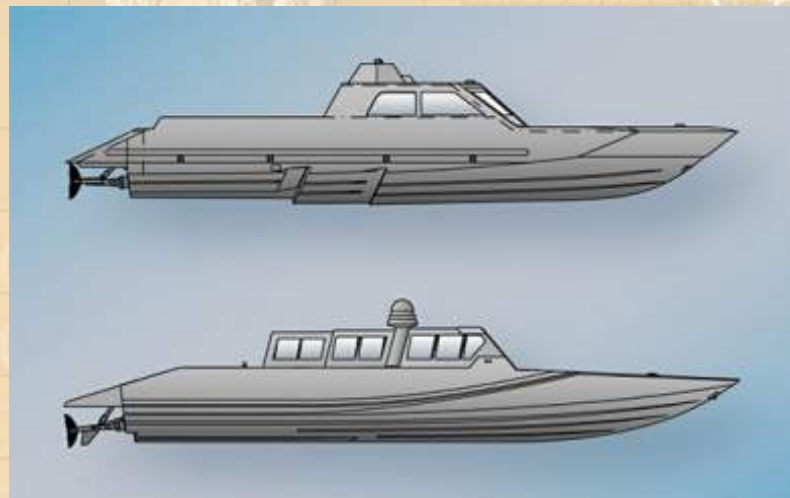
- Use of SPRINT Composite
- Technology
- High Performance Diesel Engines
- Reduction of Logistical
- Footprint/parts tracking



## Combatant Craft Medium Mk1

- The CCM MK1 is the replacement for the MK V Special Operations Craft and NSW RIB. It will serve as a multi-role surface combatant craft with the primary mission of insertion and extraction SOF in low-to-medium threat environments. CCM MK1 is an essential step in providing a modern, clandestine, agile, adaptive, and operationally capable maritime craft as a force multiplier within the SOF structure.

- Down select to two vendors: USMI, OIW
- Schedule: Test Article Delivery (May 2013)



## Combatant Craft Heavy (CCH)

- The SEAL Insertion Observation Neutralization (SEALION) Craft Was Developed Under A Contract Funded By An Advanced Technology Demonstration (ATD) Project Under The Direction Of NAVSEA's Future Concepts And Surface Ship Design Group (SEA 05D1) To Provide A Clandestine Maritime Insertion Capability In A Medium To High Threat Environment.

### Technology Upgrades/Current Efforts

- SEALION I: OCONUS LOE
- SEALION II: Refurbishment Ongoing
  - RW
  - Engines
  - C2/C4I
- F&DR: FY14



## Maritime Craft Aerial Delivery System (MCADS)

- Worldwide capability extending the range of the NSW RIB
- Certified for air drop from C-130, C-17 and C-5
- SOCEUR/SOCPAC Scenario

### Technology Upgrades/Current Efforts

- Looking At Options for MCADS Block 2 (CCA)



## Naval Small Craft Instruction and Technical Training School (NAVSCIATTS)

**Mission:** “NAVSCIATTS Conducts Foreign Internal Defense (FID) In Support Of Combatant Commanders IAW Commander, US Special Operations Command Priorities Using In-resident Training And Mobile Training Teams (MTTs) To Prepare Partner Nation Forces To Conduct Small Craft Operations In Riverine Or Littoral Environments.”



## Security Force Assistance (SFA) Family of Craft

- Current procurement is for a SFA-Large (38 foot) Craft that Will Enable NSW to Train Partner Nations in Patrol Coastal Operations. Craft will be stationed in CONUS and not deploy.
- Previous procurement was for a SFA-Small (25 foot) Craft to train with Partner Nations in Coastal Line Patrol Operations. SFA will be used in a Low and Permissive Threat Environment.



## Special Operations Craft Riverine



Short Range Insertion and Extraction of SOF and Waterborne Special Reconnaissance in a Riverine and/or Littoral Environment

### Technology Upgrades/Current Efforts:

- Lightweight Armor Protection
- Engine Monitoring





## Special Operations Craft Riverine - *Next*



SOCR Replacement Will Use Present Technology In Terms Of Hull Structure, Power Train, On-board/Off-board Sensors, And Armor To Increase Current Capabilities

### Technology Upgrades:

- Lightweight Armor Protection
- Engine Monitoring
- Extend Length To Support Over the Horizon insertion for threats In Littorals



## Combatant Craft Forward Looking Infrared



Ruggedized, Marinized, Light Weight, Gyro Stabilized, Cryogenically Cooled, Color & Infrared Camera, Laser Range Finder & Pointer

### (CCFLIR NEXTGEN)

- CCFLIR Next Generation Will Be Used On
- All SOF Family Of Mobility Systems Legacy
- And Future Crafts



## Competitive Acquisitions

### Near Term:

- Dry Combat Submersibles
  - Fill the Requirement for a Dry, One Atmosphere, Diver Lock-In/Lock-Out Submersible
- Combatant Craft Medium (CC-M)
  - Partial Replacement for Naval Special Warfare Rigid Inflatable Boat and MK V SOC

### Mid-Term:

- Special Operations Craft Riverine Next
  - Replaces Existing Riverine Craft
- Combatant Craft Forward Looking Infrared (CCFLIR) System - Next Gen
  - Replaces Existing CCFLIR System
- Security Forces Assistance (SFA) Craft
- Combatant Craft Assault (CCA)

# Maritime Systems





## BACK-UP SLIDES


WIN THE CURRENT FIGHT  
THE GLOBAL SOF NETWORK  
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RESPONSIVE RESOURCING

# NAVSCIATTS Chain of Command




**United States Special Operations Command (USSOCOM)**  
Tampa, Florida

**Defense Security Cooperation Agency (DSCA)**  
Washington, DC




**Naval Special Warfare Command (NAVSPECWARCOM)**  
Coronado, California

**Navy International Programs Office (NAVY IPO)**  
Washington, DC



**Naval Special Warfare Group Four (NSWG 4)**  
Norfolk, Virginia

**Naval Education and Training Security Assistance Field Activity (NETSAFA)**  
Pensacola, Florida



**Naval Small Craft Instruction and Technical Training School (NAVSCIATTS)**  
Stennis Space Center, Mississippi

