Special Operations Forces



Industry Conference

CAPT Tim Kelly

Program Executive Office Maritime

MARITIME SYSTEMS



Technology/Capability Areas of Interest

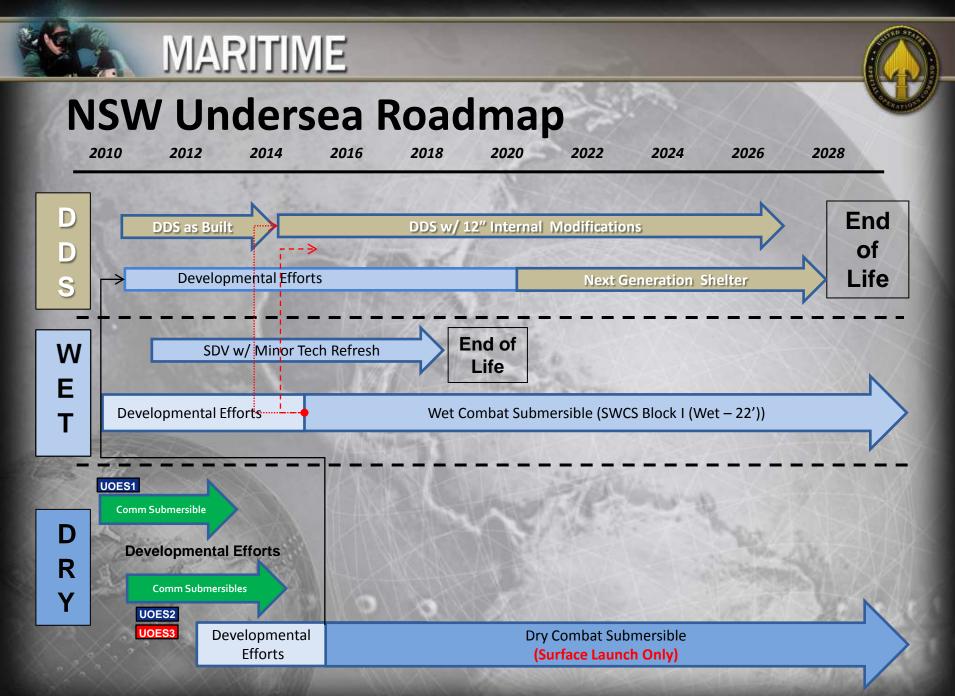
- Undersea Vehicle Energy Storage Systems
- Advanced Surface Craft Power Systems
- Combat Swimmer Thermal Protection Systems
- Lightweight, Small Volume, CO2 Removal Technology for Underwater Breathing Apparatus and Undersea Platforms
- Secure Wireless Intercom System
 - **High Speed Communications**





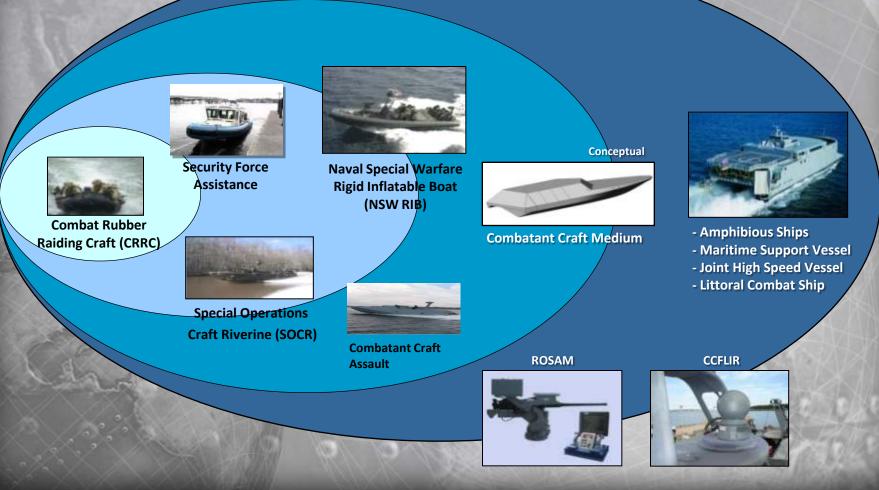
Undersea Mobility Systems

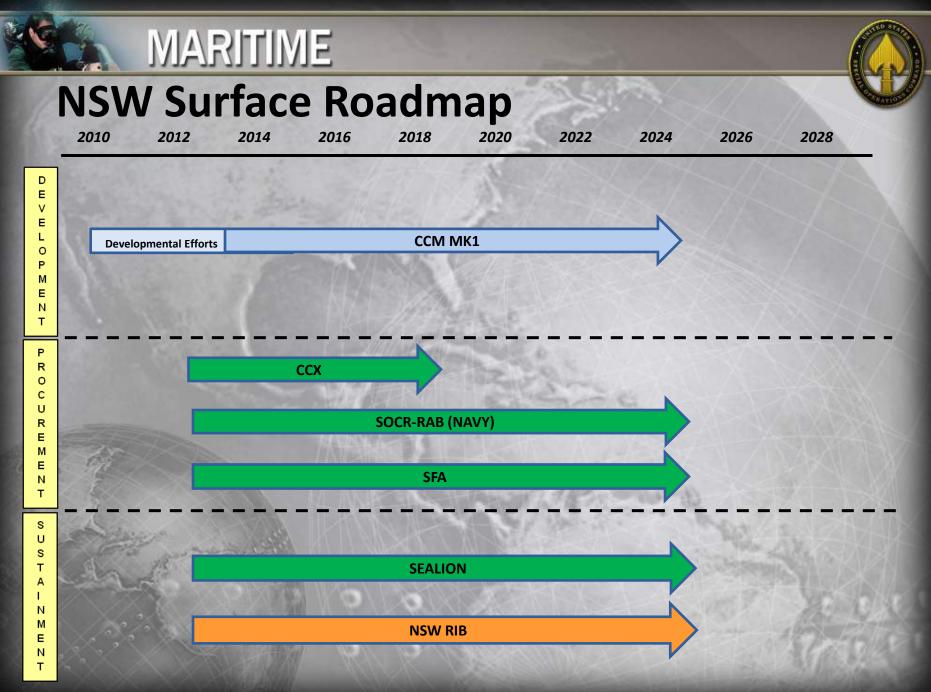






Surface Mobility Systems







SEAL Delivery Vehicle (SDV MK8)

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

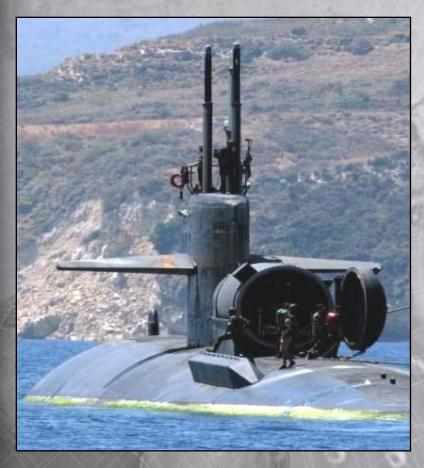


<u>Technology Upgrades/Current</u> <u>Efforts:</u>

- Improved Onboard Computer
 Systems
- Increase Sonar Capability
- Increased Battery Endurance
- Diver Thermal Protection



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





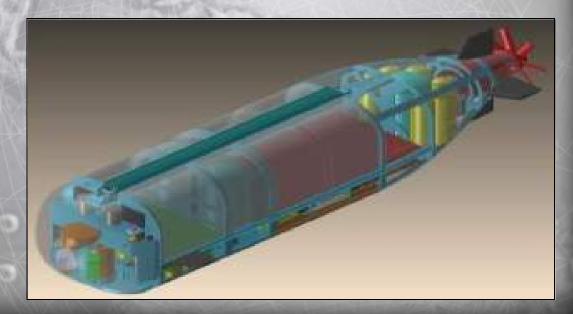
Technology Upgrades/Current Efforts:

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



Shallow Water Combat Submersible (SWCS)

- Manned Submersibles with Enhanced Capabilities to Conduct SOF Insertion and Extraction in Hostile and/ or Denied Environments
- SWCS is a Wet Combat Submersible that will Replace the SEAL Delivery Vehicle Mk VIII Mod 1







Combatant Craft Assault (CCA)

Medium Range Maritime Interdiction of SOF in Medium/High Threat Environment. Also Supports Coastal Patrol and 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

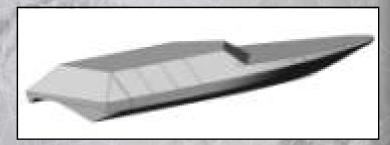




Combatant Craft Medium Mk1

The CCM MK1 is the replacement for the MK V Special Operations Craft and NSW RIB. The CCM MK1 will be a multi-role surface combatant craft with the primary mission of inserting and extracting SOF in low-to-medium threat environments. CCM MK1 is envisioned as 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: To be discussed at kick-off meetings







Naval Special Warfare Rigid Inflatable Boat



Short Range, Ship-to-Shore Insertion/Extraction of SOF Personnel in a Low to Medium Threat Environment

Technology Upgrades/Current Efforts:

- Currently in Sustainment
- AFT Lifting Body (S&T Effort)
- Integrated Bridge System (IBS) (S&T)
 - Mobile Distributed Common Architecture (MDCA)







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: – Advanced Lightweight Armor Protection







Combatant Craft Forward Looking Infrared



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

Technology Upgrades/Current Efforts:

- Software Upgraded to Reduce Display Clutter/ Enabled all Output Protocols/Improved Tracker Function
- Implementation of Joy Stick Control Unit (All NSW Craft)
- R&D Efforts: 360 Degree Situational Awareness/Larger Focal Plane Arrays/Multispectral Arrays
- Integration with Stabilize Small Arms Mount (SSAM) to Improve User Interface



Competitive Acquisitions

Near Term:

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

Mid-Term:

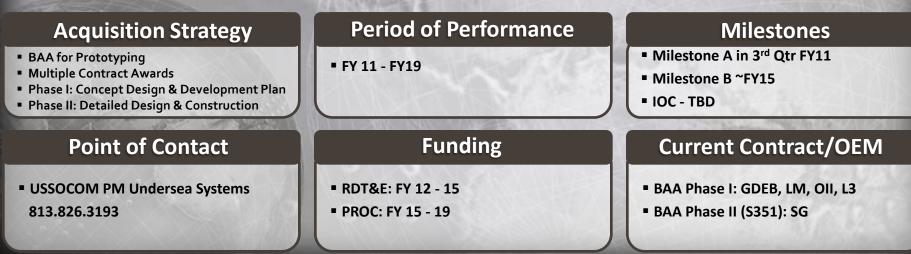
- Special Operations Craft Riverine Next
 - Replaces Existing Riverine Craft
- Combatant Craft Forward Looking Infrared (CCFLIR) System – Next Gen
 - Replaces Existing CCFLIR System
- Security Forces Assistance (SFA) Craft
- Combatant Craft Assault (CCA)





Dry Combat Submersibles (DCS)

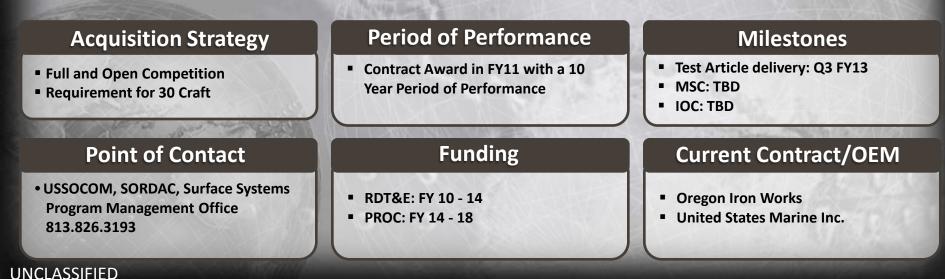
- Investigate the Applicability of Low-Cost Commercial Technologies & Processes and Classing of These Types of Submersible Vehicles For Use in Harsh Special Operations Environments While Reducing Technical Risk
 - Will Leverage Proven Sub-Systems and Equipment from SDV and SWCS
- Develop a Preliminary Technical Design that Conforms to Government Objectives
- Prototyping to Refine Technical Requirements and Reduce Risk





Combatant Craft Medium (CCM)

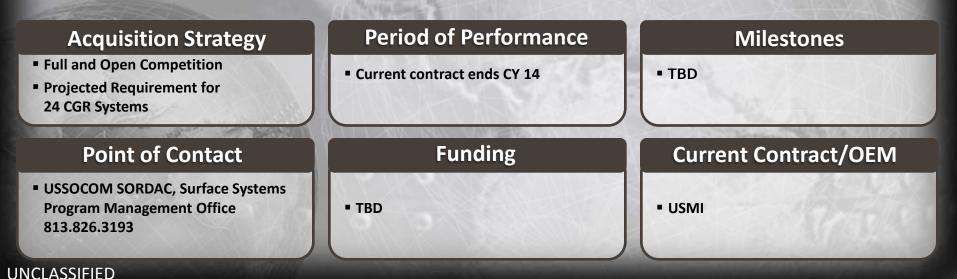
- Multi-Role Surface Combatant Craft with the Primary Mission to Insert and Extract SOF in Medium Threat Environment
- USAF C-17 Transportable, Crew of 4 and Capable of Transporting 14-19 Passengers
- Partially Replaces Naval Special Warfare Rigid Inflatable Boat Capabilities and Approaches the Payload and Range of MK V Special Operations Craft





Special Operations Craft Riverine Next (SOCR)

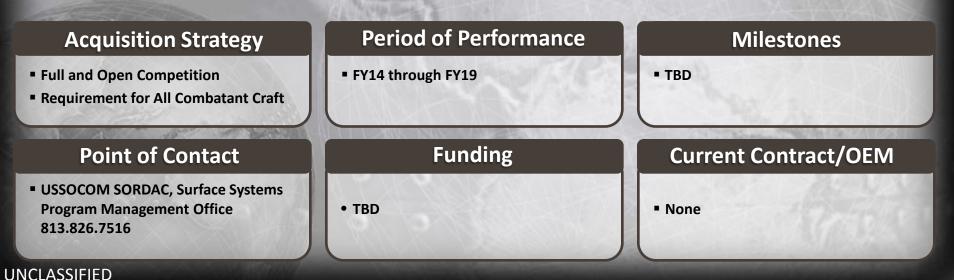
- Riverine Surface Craft with the Primary Mission to Insert and Extract SOF Forces
- Secondary Mission of Reconnaissance and Surveillance
- SOCR Replacement will Use Present Technology in Terms of Hull Structure, Power Train, On-Board/Off-Board Sensors, and Armor to Increase Current Capabilities





Combatant Craft Forward Looking Infrared Replacement - NextGen

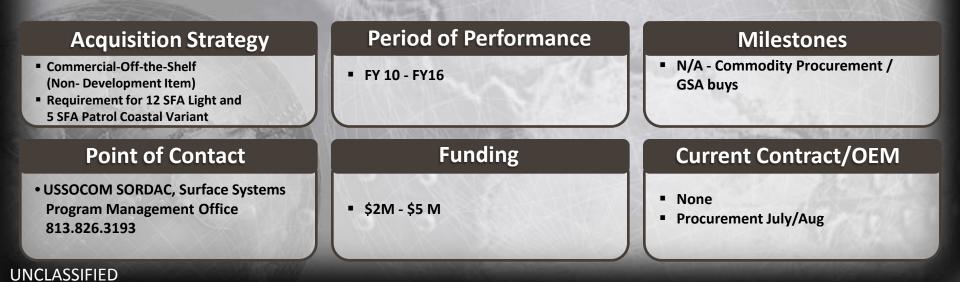
- Situational Awareness System That Will Expand on the Capabilities of the Current CCFLIR by Using Additional Sensors to Provide Better Situational Picture
- CCFLIR Next Generation Will Be Used on All SOF Family of Mobility Systems legacy and future crafts





Security Forces Assistance Craft (SFA)

- SFA Will Be Used in a Low and Permissive Threat Environment
- Used for Joint Training with Partner Nations
- Commercial-Off-The-Shelf Procurement







Combatant Craft Assault

- Open Ocean Craft with the Primary Mission to perform medium/high threat Maritime Interdiction Operations
- Secondary Mission of Insertion/Extraction of SOF
- CCA uses state of the art technology to for performance, stealth and crew situational awareness

