Special Operations Forces

Industry Conference

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Dry Combat Submersible

MARITIME SYSTEMS

Dry Combat Submersible Objective & Approach

- Objective: To Develop Affordable Dry Combat Submersibles (DCS) to Satisfy Maritime Mobility Requirements
- Approach: Leverage Existing Technology, Practices and Standards Used by the International Commercial/Research Submersible Industry
  - In order to reduce Dry Combat Submersible Technical and Cost Risks by Prototyping and Integrated Testing

Technical Challenges

- Design Submersibles That are Small Enough to be Strategically Transportable, Yet Large Enough to Meet Minimum Requirements for Cargo, Range, Speed and Endurance
- Develop and Implement High Quality Processes, Procedures, Safe Equipment and Material to Ensure USSOCOM Safety Certification of Submersibles
- Reduce and Control Design, Manufacturing, and Certification Costs to Enable the Construction of Affordable SOF Submersibles
- Reduce and Control Prototype Design and Manufacturing Time to Enable the Rapid Completion of Prototypes and Their Testing

DCS Attributes

- Transportable by C-17 & C-5 Aircraft, Cargo/Host Ships
- Sustained Speeds to (≥ 5 kts)
- Shallow Operating Depth
- Shallow Lock-In/Lock-Out of Combat Swimmers
- Two pilots (Pilot/Co-Pilot or Pilot/Relief Pilot)
- Pilots/Combat Swimmers Maintained in Dry, 1 Atm Environment
- Much Greater Endurance Than Wet Submersibles
  - ≥ 24 Hrs Normal Life Spt, ≥ 72 Hrs Reserve Life Spt
- Common Sonars, Radios, Electronics w/Wet Submersibles
- Design to Cost Goal

What's Changed Since SOFIC 2011

- FY13 PB unfunded DDS-X
- FY13 PB unfunded DCSL
- Conduct an Analysis of Alternatives for Next Generation Submersible Shelter to Accommodate a Family of Combat Submersibles
- DCSL BAA
  - Awarded Phase I - Concept Design: GDEB, LM, OII, L3
- SORDAC -T BAA
  - Negotiating contract modification for detailed design and construction with Submergence Group
  - Continued Contract with Submergence Group to Develop Technology Demonstrator Prototype (UOES 2)

What Hasn't Changed Since SOFIC 2011

- Requirement is still valid
- Technology Development Phase Funding in Place
- DCS M Acquisition Program MS B (~FY15/16)
  - KPPs, KSAs TBD

DCS Technology Development

DCS UOES 1

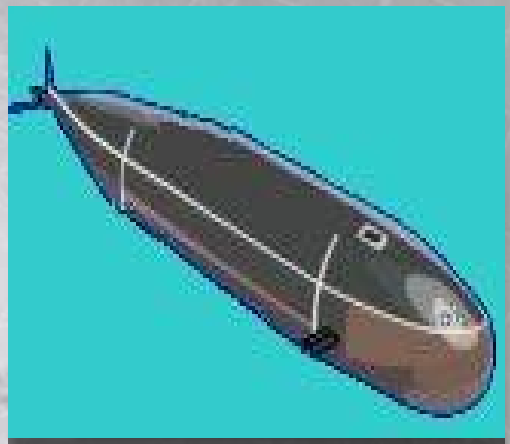
- ★ Demonstrate Attainment of KPPs and KSAs
  - ★ Prove the Possible

2009-2011

UOES 2 & 3

- ★ Define KPPs & KSAs
- ★ Reduce Risk
- ★ Commercial Design & Construction
- ★ Commercial Classing Processes

2012-2016



DCS

- ★ Acquisition Program

2016

DCS Acquisition Strategy

- FY 15/16 What Happens
  - Prototype Testing Complete ~FY15
  - Market Survey
  - Draft RFP DCS Lead Ship
    - Releasing Prototype Design, Technical, Performance Data (Government Rights)

Safety Certification

- **USSOCOM Safety Certification Authority Inherent in Acquisition Authority**

  Confirmed by USSOCOM-NAVSEA MOA (March 2011)

  - **Submersibles Operating With Submarines**
    - **NAVSEA 05 is Technical Authority**
    - **NAVSEA 07 is Certification Authority**
- **Submersibles Not Operating With Submarines**
  - **USSOCOM is Technical & Certification Authority**
  - **Certification Processes Under Development**
    - **IACS Class Minimum Baseline**
  - **UOES Projects are Pathfinders for Certification Processes**
  - **Preliminary Draft Directive**
  - **Policy Memorandum: SOF Embarkation on IACS Classed Submersibles for Assessment**