EXPANDING THE COMPETITIVE SPACE
SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

CAPT Kate Dolloff, Program Executive Officer – Maritime

PEO PORTFOLIO REVIEW
• PEO Opening Comments and Portfolio Overview
• PM Combat Diving
• PM Naval Special Warfare
• PM SOF Undersea Mobility
• PM Undersea Systems
• PM Surface Systems
• S&T and R&D Interests
• Open Forum Questions
Program Executive Office Maritime (M)

**UNDERSEA SYSTEMS**
- SEAL Delivery Vehicle MK 8
- Dry Deck Shelter
- SEAL Delivery Vehicle MK 11
- Unmanned Underwater Vehicle
- SOF Combat Diving
- Dry Combat Submersible

**SURFACE SYSTEMS**
- Combatant Craft Assault
- Combatant Craft Heavy
- Special Operations Craft -Riverine
- Combatant Craft Medium
- Next Gen CCFLIR2
2018 NATIONAL DEFENSE STRATEGY

Leverage the scale of operations to drive greater efficiency...utilizing Maritime Interdiction, Insert / Extract, and Visit, Board, Search, and Seizure (VBSS) Operations

Magnitude improvement in the warfighting lethality of the Joint Force...Utilize fully-enclosed, climate-controlled, low-observable, semi-submersible craft that operates in maritime denied environments up to high threat

Swiftly adapt systems points fielded...Multi-sensor, electro optic systems that enhance SOF effectiveness by improving ability to detect, recognize, identify, range, track, and highlight objects of interest in a maritime environment

Ability to perform signature reduced missions while fielding affordable mobility capabilities...Conduct special operations using dry, diver lock-in / lock-out submersibles in denied shallow water harbors

Adapt culture and processes to achieve a step-change in lethality, affordability, and velocity...Wet combat submersible with enhanced capabilities to conduct insertion, extraction, and ISR in high-threat areas

Recapitalize or reform current modes or existing processes...Certified diving systems that attach to modified host submersibles while submerged

MODERNIZATION PRIORITIES

SURFACE RECAPITALIZATION
- Enhanced Navigation
- Combat Craft / CCFLIR 2
- Maritime Precision Engagement

UNDERSEA RECAPITALIZATION
- Enhanced C4ISR
- Dry Combat Submersible BLK II
- Dry Deck Shelter Modernization
- SDV to SWCS

COMBAT DIVING ENHANCEMENTS
- Power & Energy
- Enabling Technologies
- Diver Technologies
- Enhanced Navigation
- Enhanced C4ISR
- Combat Craft / CCFLIR 2
- Maritime Precision Engagement
- Dry Combat Submersible BLK II
- Dry Deck Shelter Modernization
- SDV to SWCS
- Navigation
- Thermal Protection
- Power & Energy
- Enabling Technologies
- Diver Technologies
Why PEO Maritime is Unique

• Typically do not receive equipment from parent service
• Majority of platforms are SOF Peculiar, built specifically to meet NSW requirements
• Full Life Cycle System Management
• Cradle to Grave – Development to Divestiture with Two Exceptions
  – MK 18 MOD 1 – service common UUV with SOF Peculiar modifications
  – Combat Diving – modified COTS, in addition to specific builds
• Continue Fielding Enhanced Capability
  – Recapitalization / Upgrade of the Fleet
    ▪ Combatant Craft/CCFLIR2
    ▪ SDV MK 8 to SDV MK 11
    ▪ Dry Deck Shelter Modernization
  – New capabilities
    ▪ Dry Combat Submersible
    ▪ Maritime Precision Engagement
    ▪ SOF Combat Diving

• Areas of Interest
  – Maritime Communications
  – Power & Energy
  – Fleet Interoperability
  – Training and Operator Performance
  – Enhanced Navigation
  – Diver Thermal Protection
  – Diver Equipment Power
  – Unmanned Technologies
  – Survivability and Lethality
  – Payload Handling

• Reaching out to Industry Partners
  – Requests for Proposal
  – Requests for Information
  – Broad Area Announcements
  – SOFWERX Collaboration events
  – S&T Technical Experimentation events
  – Industry Days
EXPANDING THE COMPETITIVE SPACE
SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

Mr. Jim Knudson, Program Manager Special Operations Forces Combat Diving
PORTFOLIO REVIEW
SOF Combat Diving

- Supports the individual diver, as well as integration with all PEO-Maritime systems and platforms
- Current efforts target equipment in the areas of maritime environmental protection, diver propulsion, diver navigation, and underwater communication (diver-to-diver and diver-to-platform)
- Supports development of enhanced diving capabilities for operators using both wet and dry submersibles

**ACQUISITION STRATEGY**
- Utilization of existing contracts, other government agencies, and new contracts competitively selected

**PERIOD OF PERFORMANCE**
- Planned FY20 through FY26

**MILESTONES**
- Various Based on Projects

**POINT OF CONTACT**
- USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482

**FUNDING**
- RDT&E FY20 through FY26
- PROC FY20 through FY26
- O&M FY20 through FY26

**CURRENT CONTRACT/OEM**
- DLA Troop Support, Philadelphia, PA
- Advanced Diver Solutions, Virginia Beach, VA
- Aqua Lung, Vista, CA
- Rini Technologies, Oviedo, FL
SOF Combat Diving

- **Diver Propulsion**
- **Maritime Environmental Protection**
- **Diver Navigation**
- **Underwater Communication (Diver-to-Diver)**
- **Underwater Communication (Diver-to-Vehicle)**
SOF Combat Diving Requirement Areas

• Maritime Environmental Protection
  – Enhanced thermal regulation
    ▪ Heating and cooling
    ▪ Active and passive
  – Full face mask protection
    ▪ For use with closed-circuit rebreather
    ▪ Incorporates voice communications
  – O2 Underwater Breathing Apparatus (UBA)
  – Chemical, Biological, Radiological, and Nuclear or Explosive (CBRNE) protection

• Diver Navigation
  – Handheld and collective capabilities
    ▪ Situational awareness
    ▪ Navigational accuracy (positioning)

• Diver Propulsion
  – Individual, collective, and hands-free capabilities
    ▪ Compact size and reduced weight
    ▪ Flexible delivery options (ship, submarine, and UUV)
    ▪ Commonality

• Underwater Communication
  – Diver-to-diver and diver-to-vehicle
  – Android Tactical Applications Kit (ATAK)
  – Acoustic and Optical
    ▪ Text and data
    ▪ Voice (air and HeO2)
    ▪ Full motion video
EXPANDING THE COMPETITIVE SPACE
SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

CAPT Brian O’Lavin, Program Manager Naval Special Warfare
PORTFOLIO REVIEW
SEAL Delivery Vehicle MK 11

• Next generation free-flooding wet combat manned submersible to transport Special Operations Forces (SOF) personnel and equipment for a variety of missions

• SDV MK 11 replaces the current SDV MK 8, Mod 1 vehicle

<table>
<thead>
<tr>
<th>ACQUISITION STRATEGY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Full and open competition</td>
</tr>
<tr>
<td>• Contract awarded in 2011</td>
</tr>
<tr>
<td>• Follow-On Production Contract awarded in 2019</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PERIOD OF PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• FY11 through FY20</td>
</tr>
<tr>
<td>• FY19 through FY24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MILESTONES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• IOC: Planned for FY20</td>
</tr>
<tr>
<td>• FOC: Planned for FY22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POINT OF CONTACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• USSOCOM SOF AT&amp;L, Technology &amp; Industry Liaison Office (TILO) (813) 826-9482</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FUNDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>• RDT&amp;E FY19 through FY25</td>
</tr>
<tr>
<td>• PROC FY19 through FY25</td>
</tr>
<tr>
<td>• O&amp;M FY19 through FY25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CURRENT CONTRACT/OEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Teledyne Brown Engineering, Huntsville, AL</td>
</tr>
</tbody>
</table>

IOC: Planned for FY20
FOC: Planned for FY22
SEAL Delivery Vehicle MK 11

- SDV MK 11 vs SDV MK 8 Size / Weight Differences
  - SDV MK 11 is 12” longer, 6” taller and wider
  - SDV MK 11 is 4000lbs > SDV MK 8

- SDV MK 11 Enhancements over SDV MK 8
  - Intel Core i7 Processors, Secure SSD, GB Ethernet Backbone
  - Improved Software and User Interface
  - Higher Accuracy Navigation
  - Increased cargo and payload capacity

- Project Status
  - Boats 1 & 2: Delivered May & Jun 2018
  - Boats 3 & 4: Delivered Mar & Apr 2020
  - Boat 5: Planned Jun 2020
  - Boats 6 – 10: Planned FY21 through FY22
MK 18 Mod 1 UUV “Swordfish”

- MK 18 Mod 1 UUV enables access to high threat areas in the maritime domain, expands access and reach into littorals and reduces risk to personnel / manned platforms. Provides enhanced situational awareness and access & placement.

- Service Common Platform incorporating SO-P Modifications

### Acquisition Strategy
- Procure Service Common (MFP-2) man-portable UUV PoR and augment it with purpose built, modular, plug-and-play sensors / payloads to meet SOF-Peculiar requirements (MFP-11).

### Period of Performance
- N/A

### Milestones
- IOC: Planned for FY20
- FOC: Planned for FY22

### Point of Contact
- USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482

### Funding
- RDT&E FY20 through FY26
- O&M FY20 through FY26

### Current Contract/OEM
- Hydroid, Pocasset, MA
EXPANDING THE COMPETITIVE SPACE
SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

CAPT Keith Baravik, Program Manager SOF Undersea Mobility
PORTFOLIO REVIEW
Dry Deck Shelter

- The Dry Deck Shelter (DDS) is a certified diving system that attaches to modified Submarines. The program provides material safety certification, maintenance, modernization (Field Changes) and minor modifications for the DDS.

- Maintenance and modernization contract to include Restricted Availabilities (RAVs) Regular Overhauls (ROHs) and Configuration Changes.

<table>
<thead>
<tr>
<th>ACQUISITION STRATEGY</th>
<th>PERIOD OF PERFORMANCE</th>
<th>MILESTONES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS Maintenance Contract (open competition)</td>
<td>Sep 2018 through Sep 2023</td>
<td>6 DDS retire from 2042 through 2051</td>
</tr>
<tr>
<td>Contract awarded in 2018</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POINT OF CONTACT</th>
<th>FUNDING</th>
<th>CURRENT CONTRACT/OEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>USSOCOM SOF AT&amp;L, Technology &amp; Industry Liaison Office (TILO) (813) 826-9482</td>
<td>RDT&amp;E FY20 through FY26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PROC FY20 through FY26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O&amp;M FY20 through FY26</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oceaneering International Inc. – Marine Services Division (OII-MSD)</td>
<td></td>
</tr>
</tbody>
</table>
Mod DDS Configuration Changes

- Field Change (FC) 167 – Remotely Operated Hangar Outer Door
- FC 168 – Extend Shelter 50 inches
- FC 169 – Increased capacity Payload Launch and Recovery System
- FC 170 – Remote Control from the Host Submarine

Mod DDS Objectives

- Increase payload volume by 30%
- Increase weight capacity by 300%
- Remote hangar operation from Virginia Class host submarine
- Reduce risk to host submarine
- Reduce operator fatigue

Project Status

- Preliminary Design Review completed Sep 2016
- Critical Design Review completed Dec 2017
- Technical Data Package approval by Jul 2019
- Tech Demonstrator Production – ECD Jan 2020

Target Payloads

- Naval Special Warfare (NSW)
- SEAL Delivery Vehicle MK 11 (SDV MK 11)
- Future Dry Combat Submersible (DCS)
- Large Displacement Unmanned Undersea Vehicle (LDUUV)
- Littoral Battlespace Sensing – AUV, Submarine (LBS-AUV(S))
Dry Deck Shelter – Future Efforts

**DDS Enhancements**
- Increase Payload capability to support SDV MK 11
- Modifications of DDS to support SOF stowage
- SOF Carry-on Hardware approvals

**Host Sub (HOSUB) interoperability**
- Initial fit-up of DDS to VACL Hosts
- Cross Fit of DDS to support multiple VACL Hosts
- Improve services from Host to DDS in support of Carry-on Hardware
EXPANDING THE COMPETITIVE SPACE
SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

CDR Scott Delwiche, Program Manager Undersea Systems
PORTFOLIO REVIEW
### Dry Combat Submersible (DCS)

#### Acquisition Strategy
- Full and Open Competition for Production Representative System with options for up to two additional systems

#### Period of Performance
- Jul 2016 through May 2021

#### Point of Contact
- USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482

#### Funding
- **RDT&E** FY20 through FY26
- **PROC** FY20 through FY26
- **O&M** FY21 through FY26

#### Milestones
- **IOC:** 2Q FY21
- **FOC:** 2Q FY22

#### Current Contract/OEM
- Lockheed Martin RMS (Prime)
- Submergence Group, LLC (Major Subcontractor)
- MSubs Ltd. (Major Subcontractor)
# DCS Future Projects

**DCS Block II – Submarine Interoperable Dry Submersible**
- Hosted by US Navy Submarines

**Submarine Interoperability**
- Launch & recovery
- Internal / External attachment solutions
- Wet-Mate underwater connections (power, air, comms, etc.)
- Submerged Towing

**Market research including**
- DCMA Industrial Analysis
- Industry Days / Industry Visits
- Naval Sea Systems Command Enterprise Coordination / Collaboration
- Risk Reduction Studies
EXPANDING THE COMPETITIVE SPACE
SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

CAPT Rocky Russell, Program Manager Surface Systems

PORTFOLIO REVIEW
Combatant Craft Heavy (CCH): SEALION

- Provides long range insertion capabilities for SOF personnel. Supports limited coastal patrol and interdiction

- SEALION III Production on-going

- 2 of 3 Fielded

<table>
<thead>
<tr>
<th>ACQUISITION STRATEGY</th>
<th>PERIOD OF PERFORMANCE</th>
<th>MILESTONES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Two tech demonstrators transferred from USN</td>
<td>• FY16 through FY21</td>
<td>• IOC: FY14</td>
</tr>
<tr>
<td>• SEALION III sole source award</td>
<td></td>
<td>• FOC: FY21</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POINT OF CONTACT</th>
<th>FUNDING</th>
<th>CURRENT CONTRACT/OEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>• USSOCOM SOF AT&amp;L, Technology &amp; Industry Liaison Office (TILO) (813) 826-9482</td>
<td>• RDT&amp;E FY19 through FY25</td>
<td>• Vigor Works, LLC (OEM)</td>
</tr>
<tr>
<td></td>
<td>• PROC FY22 through FY23</td>
<td>• SOFSA / Lockheed Martin (CLS)</td>
</tr>
<tr>
<td></td>
<td>• O&amp;M FY19 through FY25</td>
<td></td>
</tr>
</tbody>
</table>
Multi-role surface combatant craft with the primary mission of inserting and extracting SOF in medium threat environments.

Began initial craft deliveries to East Coast operational unit.

27 of 30 Fielded

**ACQUISITION STRATEGY**
- Small business set aside using competitive prototyping

**PERIOD OF PERFORMANCE**
- FY15 through FY22

**MILESTONES**
- IOC: FY15
- FOC: FY20

**POINT OF CONTACT**
- USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482

**FUNDING**
- RDT&E FY19 through FY25
- PROC FY18 through FY25
- O&M FY19 through FY25

**CURRENT CONTRACT/OEM**
- Vigor Works, LLC (OEM)
- SOFSA / Lockheed Martin (CLS)
Combatant Craft Assault (CCA)

- Medium Range, maritime assault, interdiction, insertion and extraction platform. Provides expanded range, speed, and payload capacity over existing Naval Special Warfare Combatant craft of similar size
- Follow-on production contract being developed for Capital Equipment Replacement Program
- 32 of 32 Fielded

**ACQUISITION STRATEGY**
- New Production Contract in Development
- Post-production and contractor logistical support through SOFSA

**PERIOD OF PERFORMANCE**
- FY20 through FY24

**MILESTONES**
- FOC: FY20

**POINT OF CONTACT**
- USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482

**FUNDING**
- RDT&E FY20 through FY25
- PROC FY20 through FY25
- O&M FY20 through FY25

**CURRENT CONTRACT/OEM**
- US Marine Inc. (OEM)
- SOFSA / Lockheed Martin (CLS)
• Provides Special Operations Forces (SOF) with a multi-sensor, electro-optic system that enhances SOF effectiveness by improving their ability to detect, recognize, identify, range, track, and highlight objects of interest in a maritime environment

• Deployed initial LRIP

• Integration into CCA, CCM, and CCH platforms

• 21 of 58 Delivered
**Maritime Precision Engagement (MPE)**

- Pursuit of Standoff, Loitering, Man-in-the-loop Weapons Systems Deployed on Combatant Craft and Capable of Targeting Individuals, Groups, Vehicles, and Small Oceangoing Craft with Low Collateral Damage. The program consists of combatant craft alterations, launcher systems, and munitions
- System requirements document generated
- CCM bow mock-up completed
- Mk 50 RWS engineering testing

---

### ACQUISITION STRATEGY
- Government design effort

### PERIOD OF PERFORMANCE
- TBD

### MILESTONES
- Continual assessment of design safety and suitability
- Candidate munition(s) availability for testing

### POINT OF CONTACT
- USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482

### FUNDING
- RDT&E FY19 through FY25
- PROC FY22 through FY25
- O&M FY22 through FY25

### CURRENT CONTRACT/OEM
- OEM - TBD
- NSWC Dahlgren – System Development
- NSWC Carderock – Craft Integration
• Provides advanced technologies to correct system deficiencies, improve asset life, and augment mission requirements. It provides rapid response solutions to support SOF combatant craft systems, sub-systems, and their evolving requirements

• Continuing Maritime Tactical Mission Network project

**ACQUISITION STRATEGY**

- Integrate High TRL Technologies across the family of combatant craft through BAAs, SIBRs, and existing government contracts

**PERIOD OF PERFORMANCE**

- Varies per task

**MILESTONES**

- Varies per task

**POINT OF CONTACT**

- USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482

**FUNDING**

- RDT&E FY19 through FY25

**CURRENT CONTRACT/OEM**

- NIWC Atlantic
- NAVAIR
- NSWC – Carderock
- NAWC – Aircraft Division (CSISR Integration)
EXPANDING THE COMPETITIVE SPACE
SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

Mr. John Bailey, Maritime Chief Engineer
PORTFOLIO REVIEW
In FY21-25, PEO-M requested significant additional RDT&E funding to build capability in the areas listed below:

- PEO-M is actively seeking opportunities to invest in innovative technology development efforts and to partner with industry.

### ACQUISITION STRATEGY
- Leverage both existing and new contracts. Use IDIQ / RFP / BAA / SBIR / STTR / OTA
- Open architectures – maximize opportunity for rapid integration of new technology

### POINT OF CONTACT
- USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482

### POTENTIAL FY20 ENGAGEMENT OPPORTUNITIES
- TE Events – SOF Combat Diving, Surface Systems
- SOCOM S&T BAA
- OTAs
- SOFWERX Engagements

### FUNDING
- RDT&E FY21 through FY25

### FY20-FY24 TECHNOLOGY INTEREST AREAS
- Maritime Communications
- Power & Energy
- Enhanced Survivability
- Strategic Initiatives & Fleet Interoperability
- Unmanned Technologies
- Enhanced Navigation
- Improved C4ISR Capabilities
- Diver Technologies
- Surface Craft Lethality
- Training & Operator Performance
Opportunities

• Broad Agency Announcements (BAA) & Requests For Information (RFI)
  – USSOCOM Science & Technology (S&T) Directorate

• Office of the Secretary of Defense Programs
  – Small Business Innovation Research (SBIR)
  – Small Business Technology Transfer (STTR)
  – Foreign Comparative Test (FCT)

• Other Transaction Authorities
  – Undersea Technology Innovation Consortium (UTIC)

• Cooperative Research And Development Agreements (CRADAs)
Opportunities

• Collaborative Efforts with Government Laboratories, University Affiliated Research Centers, Federally Funded Research & Development Centers, Land Grant Universities, etc.

• USSOCOM S&T Technical Experimentation Events

• USSOCOM Acquisition Agility Events – SOFWERX

• USSOCOM S&T Technology Scouting
  – www.atlas-sof.com

• Technology & Industry Liaison Office (TILO)
QUESTIONS?