



EXPANDING THE COMPETITIVE SPACE

SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

CAPT Kate Dolloff, Program Executive Officer – Maritime

PEO PORTFOLIO REVIEW



Program Executive Office – Maritime

- 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



Organizational Chart

CAPTAIN ROCKY RUSSELL



CCA
CCH
CCM
CCFLIR
SOCR
MPE

CAPTAIN KATE DOLLOFF



CAPTAIN KEITH BARAVIK



DDS
DCS
Technical Support



DCS



Combat Diving



SDV
UUV

COMMANDER SCOTT DELWICHE

CAPTAIN BRIAN O'LAVIN

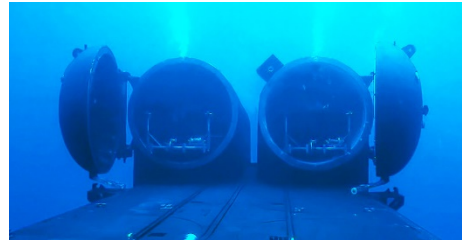
MR JIM KNUDSON

Program Executive Office Maritime (M)

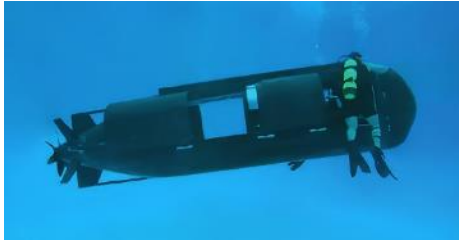
UNDERSEA SYSTEMS



SEAL Delivery Vehicle MK 8



Dry Deck Shelter



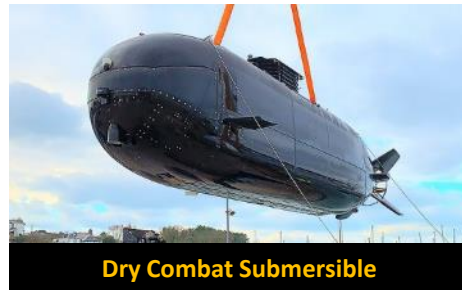
SEAL Delivery Vehicle MK 11



Unmanned Underwater Vehicle



SOF Combat Diving



Dry Combat Submersible

SURFACE SYSTEMS



Combatant Craft Assault



Combatant Craft Heavy



Special Operations Craft - Riverine

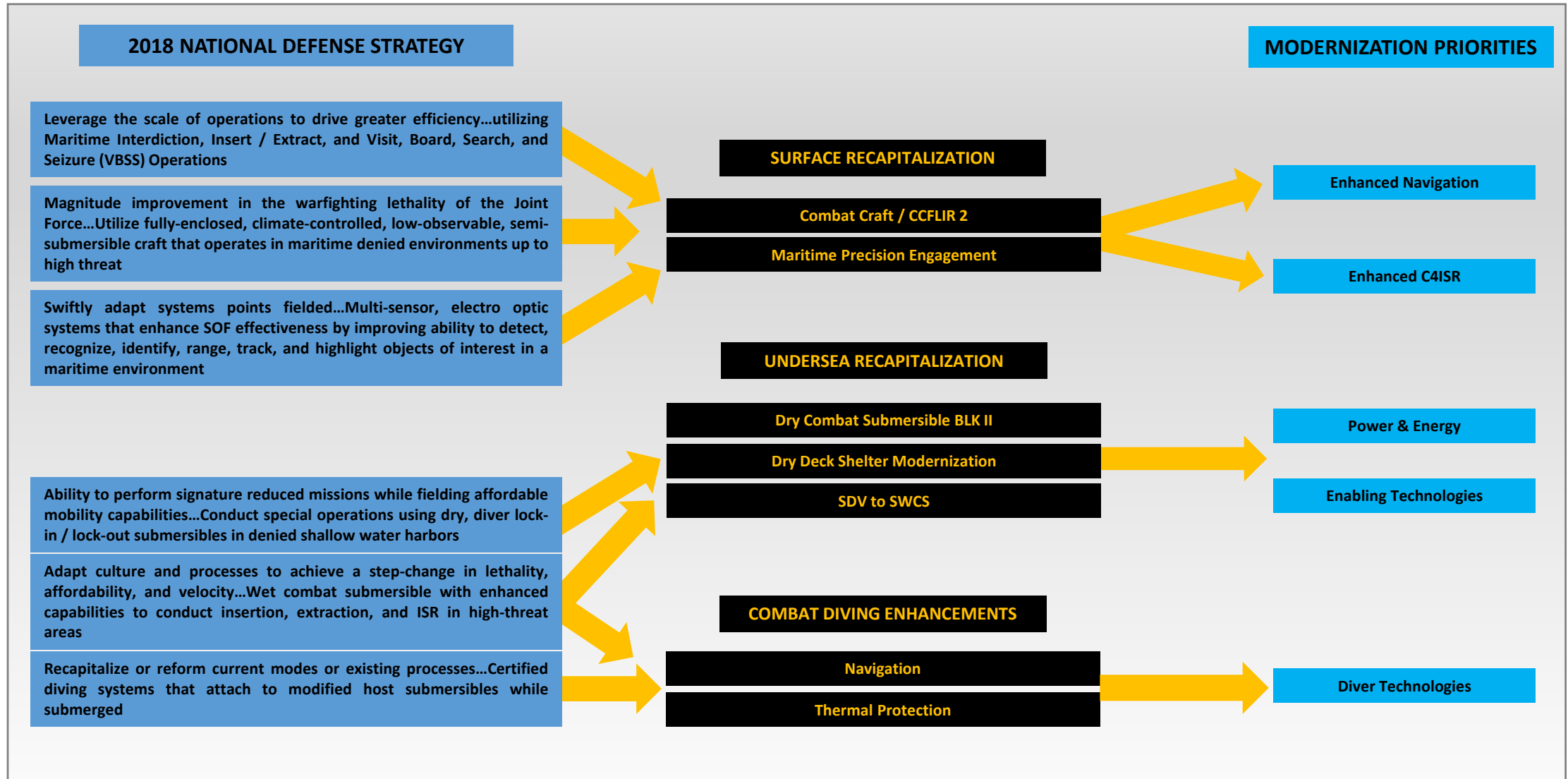


Combatant Craft Medium



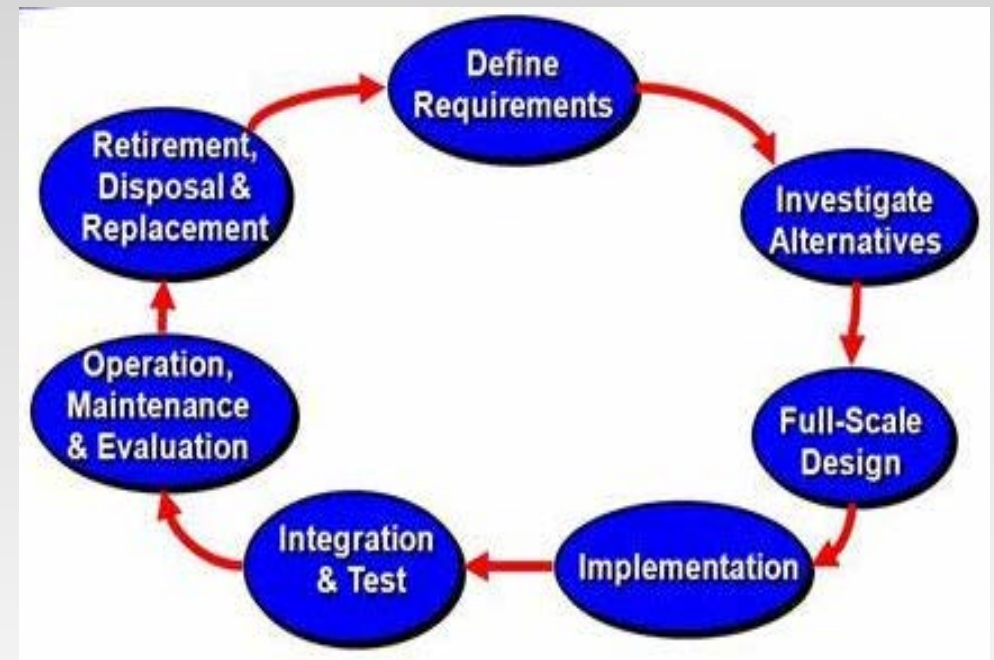
Next Gen CCFLIR2

Capability Focus Areas Alignment to NDS and Procurement Priorities

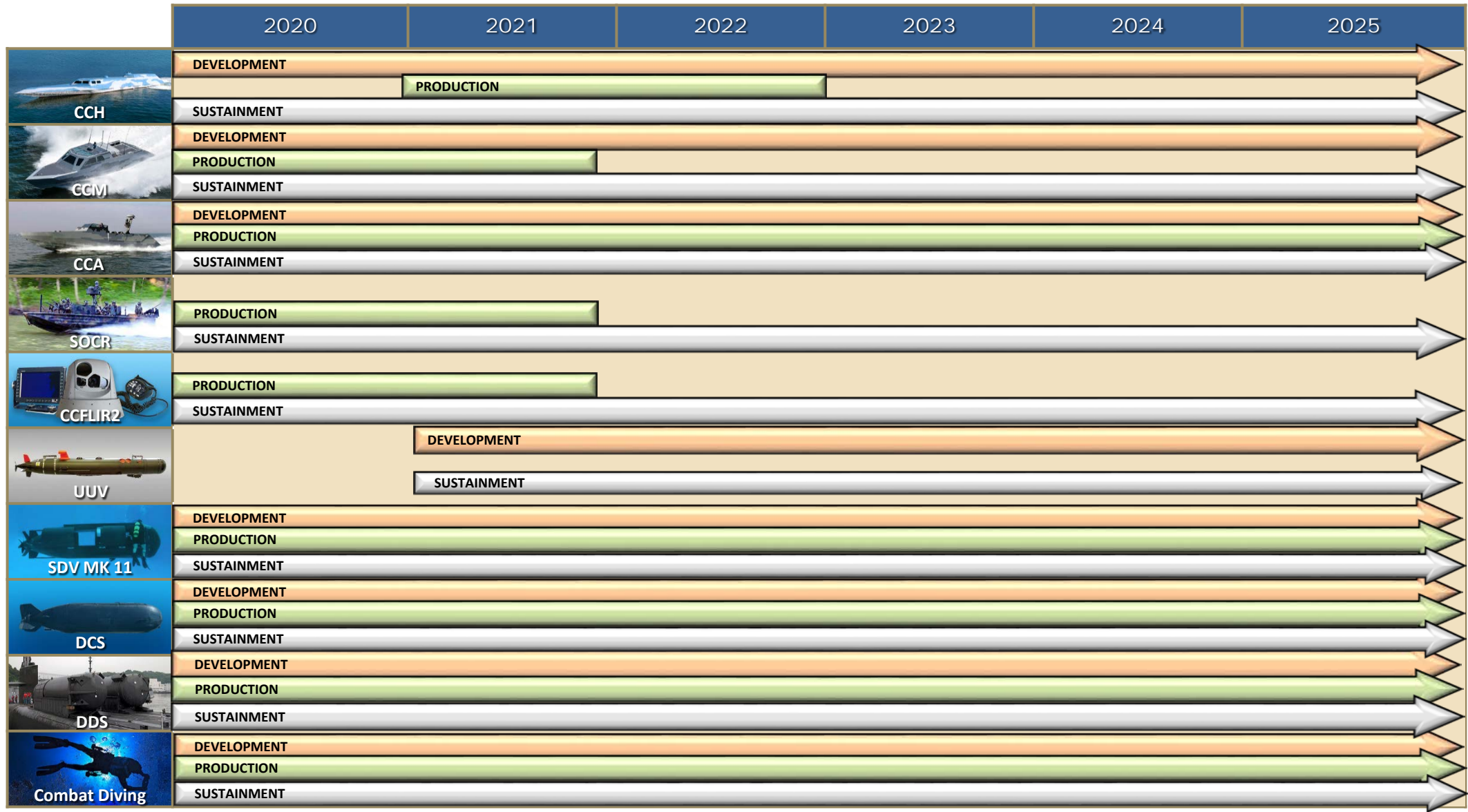


Why PEO Maritime is Unique

- 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



NSW Craft Roadmap



Program Executive Office – Maritime

- **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



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

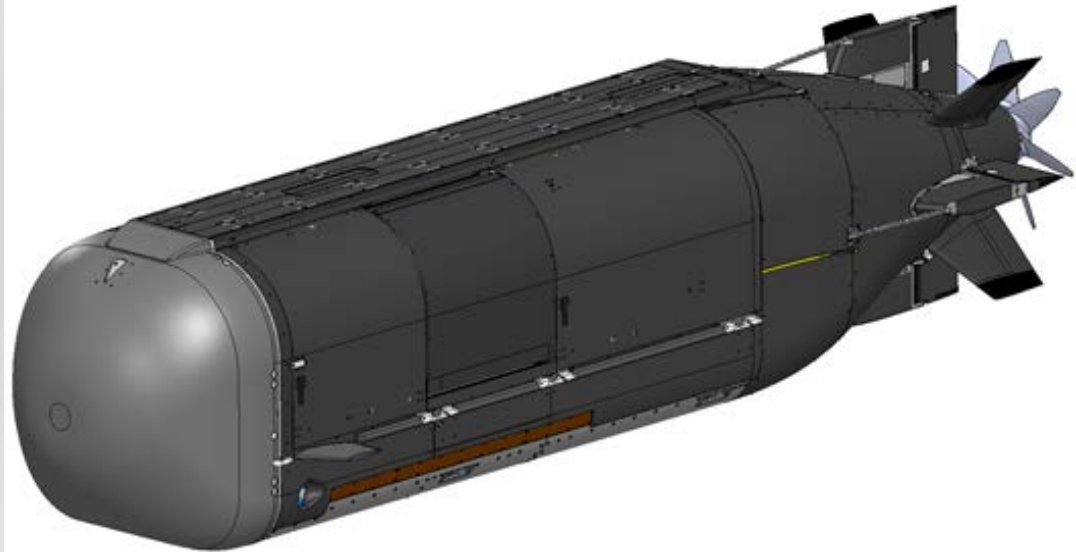
CAPT Brian O'Lavin, Program Manager Naval Special Warfare

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



ACQUISITION STRATEGY

- Full and open competition
- Contract awarded in 2011
- Follow-On Production Contract awarded in 2019

PERIOD OF PERFORMANCE

- FY11 through FY20
- FY19 through FY24

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 FY19 through FY25
- PROC FY19 through FY25
- O&M FY19 through FY25

CURRENT CONTRACT/OEM

- Teledyne Brown Engineering, Huntsville, AL

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	PERIOD OF PERFORMANCE	MILESTONES
<ul style="list-style-type: none"> ▪ Procure <i>Service Common (MFP-2)</i> man-portable UUV PoR and augment it with purpose built, modular, plug-and-play sensors / payloads to meet SOF-Peculiar requirements (MFP-11). 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • IOC: Planned for FY20 • FOC: Planned for FY22
POINT OF CONTACT	FUNDING	CURRENT CONTRACT/OEM
<ul style="list-style-type: none"> • USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482 	<ul style="list-style-type: none"> • RDT&E FY20 through FY26 • O&M FY20 through FY26 	<ul style="list-style-type: none"> • Hydroid, Pocasset, MA



EXPANDING THE COMPETITIVE SPACE

SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

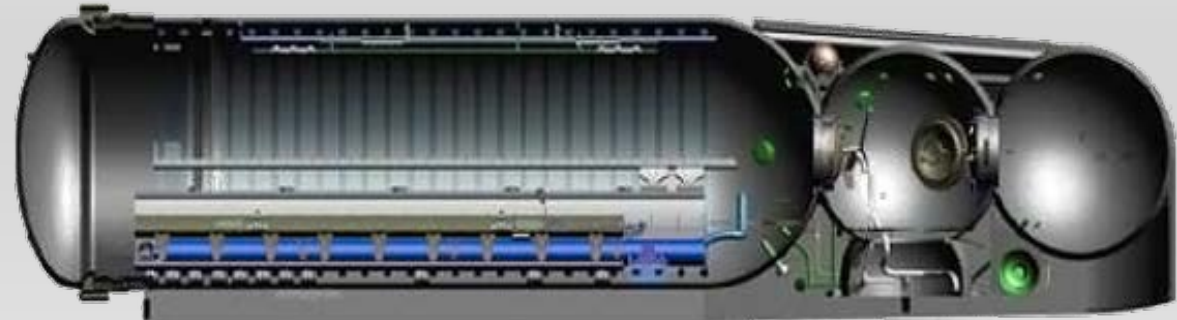
CAPT Keith Baravik, Program Manager SOF Undersea Mobility

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



ACQUISITION STRATEGY

- DDS Maintenance Contract (open competition)
- Contract awarded in 2018

PERIOD OF PERFORMANCE

- Sep 2018 through Sep 2023

MILESTONES

- 6 DDS retire from 2042 through 2051

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

- Oceaneering International Inc. – Marine Services Division (OII-MSD)

Dry Deck Shelter

Dry Deck Shelter Modernization Project

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

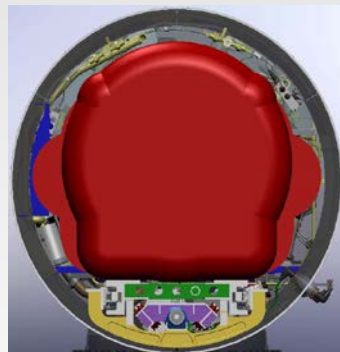
- Preliminary Design Review completed Sep 2016
- Critical Design Review completed Dec 2017
- Technical Data Package approval by Jul 2019
- Tech Demonstrator Production – ECD Jan 2020

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))



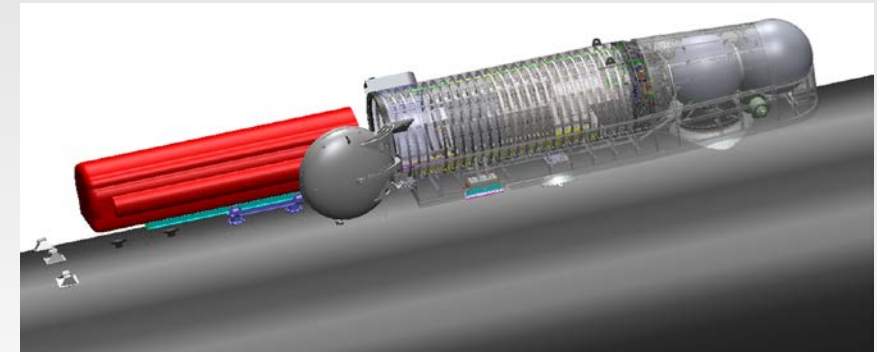
Legacy DDS
with SWCS



Mod DDS w/
Notional Payload



Mod DDS P-LARS
Prototype



Mod DDS w/
Notional Payload

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)



DCS 1 Assembly in WPB, FL



DCS 1 Preparing for an Underway



DCS 2 Pressure Hull

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

MILESTONES

- IOC: 2Q FY21
- FOC: 2Q FY22

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

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



ACQUISITION STRATEGY

- Two tech demonstrators transferred from USN
- SEALION III sole source award

PERIOD OF PERFORMANCE

- FY16 through FY21

MILESTONES

- IOC: FY14
- FOC: FY21

POINT OF CONTACT

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

FUNDING

- RDT&E FY19 through FY25
- PROC FY22 through FY23
- O&M FY19 through FY25

CURRENT CONTRACT/OEM

- Vigor Works, LLC (OEM)
- SOFSA / Lockheed Martin (CLS)

Combatant Craft Medium (CCM) MK 1

- 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)

Combatant Craft Forward Looking Infrared (CCFLIR)

- 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



ACQUISITION STRATEGY

- Full and Open Competition completed FY15
- Modified GOTS technology

PERIOD OF PERFORMANCE

- FY15 through FY24

MILESTONES

- IOC: FY18
- FOC: FY24

POINT OF CONTACT

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

FUNDING

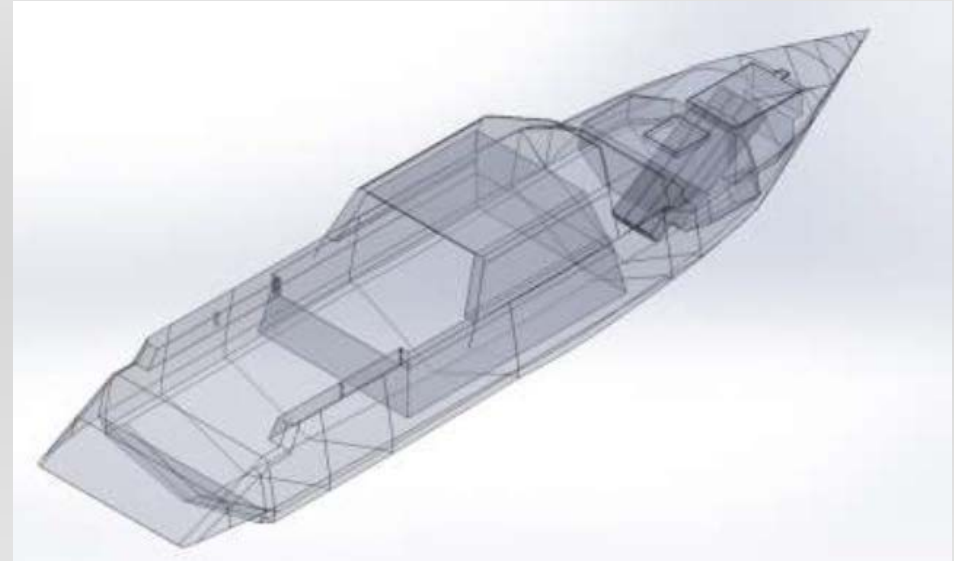
- RDT&E None
- PROC FY18 through FY21
- O&M FY19 through FY25

CURRENT CONTRACT/OEM

- FLIR Systems, Inc. (OEM)
- NSWC Crane – Sustainment

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



<p style="text-align: center;">ACQUISITION STRATEGY</p> <ul style="list-style-type: none"> • Government design effort 	<p style="text-align: center;">PERIOD OF PERFORMANCE</p> <ul style="list-style-type: none"> • TBD 	<p style="text-align: center;">MILESTONES</p> <ul style="list-style-type: none"> • Continual assessment of design safety and suitability • Candidate munition(s) availability for testing
<p style="text-align: center;">POINT OF CONTACT</p> <ul style="list-style-type: none"> • USSOCOM SOF AT&L, Technology & Industry Liaison Office (TILO) (813) 826-9482 	<p style="text-align: center;">FUNDING</p> <ul style="list-style-type: none"> • RDT&E FY19 through FY25 • PROC FY22 through FY25 • O&M FY22 through FY25 	<p style="text-align: center;">CURRENT CONTRACT/OEM</p> <ul style="list-style-type: none"> • OEM - TBD • NSWC Dahlgren – System Development • NSWC Carderock – Craft Integration

Combatant Craft Mission Equipment (CCME)

- 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 (C5ISR Integration)



EXPANDING THE COMPETITIVE SPACE

SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

Mr. John Bailey, Maritime Chief Engineer

PORTFOLIO REVIEW



S&T / R&D Opportunities for Industry

- 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

POTENTIAL FY20 ENGAGEMENT OPPORTUNITIES

- TE Events – SOF Combat Diving, Surface Systems
- SOCOM S&T BAA
- OTAs
- SOFWERX Engagements

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

POINT OF CONTACT

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

FUNDING

- RDT&E FY21 through FY25

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?