



PMS 408

Expeditionary Missions

EOD • CREW • ATA



PMS 408 – *Unmanned Ground Vehicles*



CAPT Aaron S. Peters
Program Manager
Expeditionary Missions

NDIA Gold Coast 2016
San Diego, CA
23 August 2016



ATA



Identity Dominance System (IDS)



LA-9P Laser Dazzler



Long Range Acoustic Device (LRAD)



Long Range Ocular Interceptor (LROI)



HALLTS Hailing Acoustic Laser & Light Tactical System



Body Armor



ECP Eqmt



Combat Helmets



SU-255/U Long Range Sight



SU-250/U Monocular



AN/PV-15C Goggle



SU-252/U Multipurpose Thermal Sight



SU-232/U Night Vision Thermal Device



AN/PES-2 Laser Rangefinder

CREW/FMS



AN/PLT-5 EOD ECM



JCREW - Dismounted ECM



JCREW - Mounted ECM



Symphony ECM



Universal Test Set



JCREW - Fixed Site ECM

ACAT 2 (1)

– JCREW I1B1 (MS C)

ACAT 4 (4)

– Identity Dominance System

– AEODRS

– RISEOD

– MK 18 Mod 2

AAP (5)

– DHINS

– ROV

– AN/PLT-5

– Fuze Disassembly System

– METRES (Maritime EOD Training & Evaluation System)

Other Programs (20)

– Spectrum Reallocation

JSEOD/UWEOD



AEODRS-1



AEODRS-2



AEODRS-3

Advanced EOD Robotic System



AN/GJQ-34 Fuze Disassembly System (FDS)



AN/GSQ-275 Radiographic Imaging System (RISEOD)



MK 1 DHINS Diver Hull Imaging & Navigation System



Remotely Operated Vehicle (ROV)



MK 12 Acoustic Firing System



MK 18 Mod 1/2 UUV



MK 15 UIS



MK 16 UBA



MK 52 METRES



Marine Mammal

Features

- **Advanced EOD Robotics System (AEODRS)**
- **ACAT IV Program of Record**
- **Three Increments**
 - **1 – Dismounted Operations**
 - **2 – Tactical Operations**
 - **3 – Base/Infrastructure Operations**
- **Open Architecture Design**
- **System of Systems**
- **Common Hardware & Software**



Inc 1



Inc 2

Inc 3

Timelines

Inc 1

- Feb 16 – Critical Design Review
- Sep 17 – Milestone C
- 4QFY17 – Full Rate Production
- 1QFY19 – Initial Operating Capability
- 3QFY20 – Full Operating Capability

← Today

Inc 2/3

- Nov 15 – Milestone B
- 3QFY19 – Milestone C
- 3QFY20 – Initial Operating Capability

← Today



Autonomous Behavior -
Neya Systems, LLC (SB)



Manipulator -
HDT Global



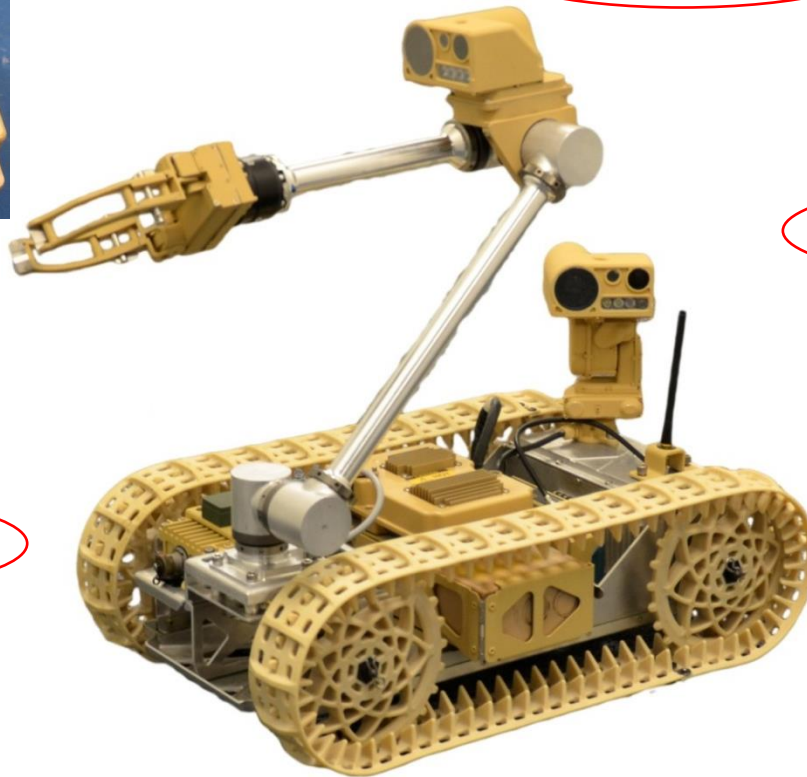
Power Module -
Carnegie Robotics® (SB)



Mobility (Mech. Surrogate) -
QinetiQ North America



Master Power -
QinetiQ North America



Prime System Integrator - *Northrup Grumman*



Handheld Operational Control Unit (HOCU) -
Bokam Engineering Inc (WOSB)



Visual Sensors -
Telefactor Robotics (WOSB)



COMMS Fiber Optic - *Harris*

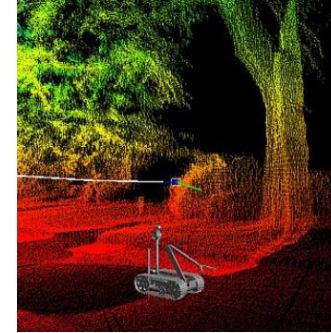


COMMS Radio Frequency - *Harris*



End Effector
Telefactor Robotics (WOSB)

- **Participate in Module Development**
- **Demo Capability on AEODRS Test Bed & Research Platform**
- **Develop Technology to Incrementally Insert at Lower Risk**
 - **Autonomous Behaviors**
(GPS Nav → Feature Base 3D Nav)
(Dual Manipulator → Highly Dexterous Manipulator)
 - **Improved Sensors**
(Visual Imaging → Flash LIDAR → Laser Buried Threat Detection)
 - **Communication**
(Legacy Comms → Cyber Secure Comms)
 - **Endurance**
(Power Supports: Two 3hr missions → Six 3hr missions)
 - **Weight**
(35 lbs → 25 lbs → 15 lbs modular capability)



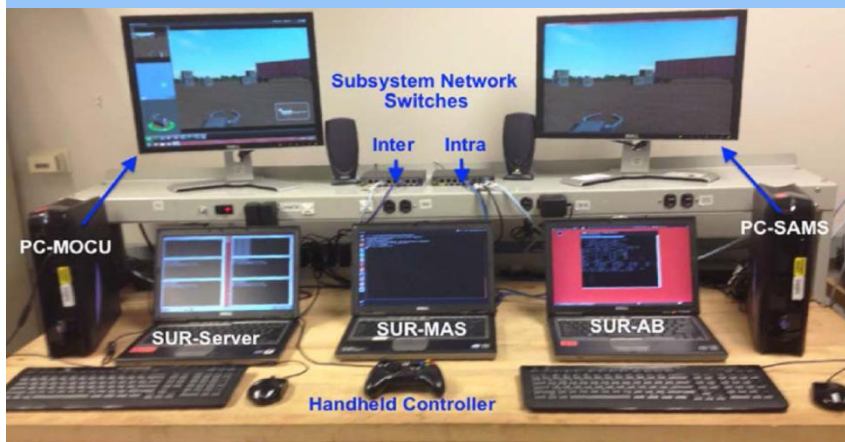
From What We Know ... to ... What We Have Not Thought About

- **Email a request for access to:**
AEODRS-STB-Support@jhuapl.edu
- **Include...**
 - First and last name, Company
 - Preferred email notification address
 - Telephone number
- **We will provide you with access...**
 - Username and Password via Phone
 - Site addresses and special access for CM-AB via email

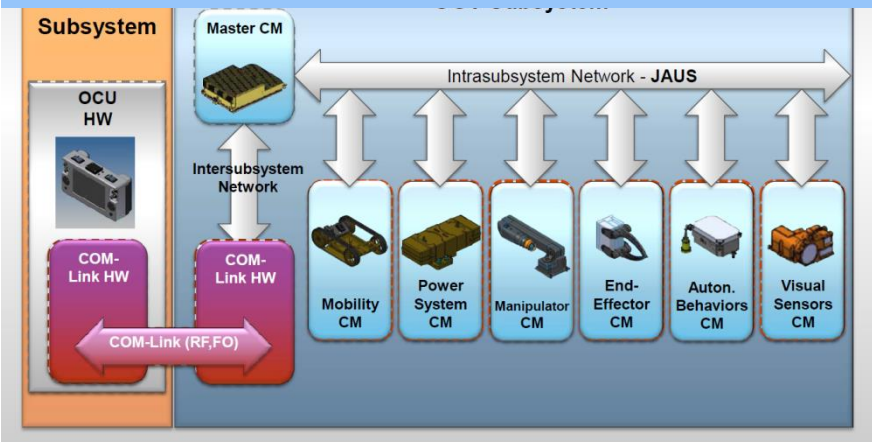


Research Platform

AEODRS System Test Bed



Virtual AEODRS System



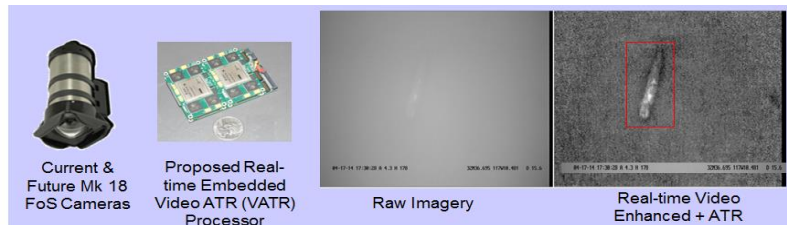
- **Small Business Innovative Research (SBIR)**
 - Identity Dominance System – SBIR to ACAT IV PoR
 - Fuel Cell Power for UUV – Lynntech Inc



- Chemical Sensor Underwater Detection – Spectrum Photonics Inc
- Magnetic Sensor on UUV – Polatomic Inc / White River Inc



- **Rapid Innovation Fund (RIF)**
 - Wide Field of View Night Vision Goggles – Kent Optronics Inc
 - Video Automated Target Recognition – Arete Associates Inc



- **Small Business Set-Aside / 8 (a) Set-Aside**
 - Professional Support Services – Cydecor (SDVOSB) / Alcyone (WOSB)

Questions