

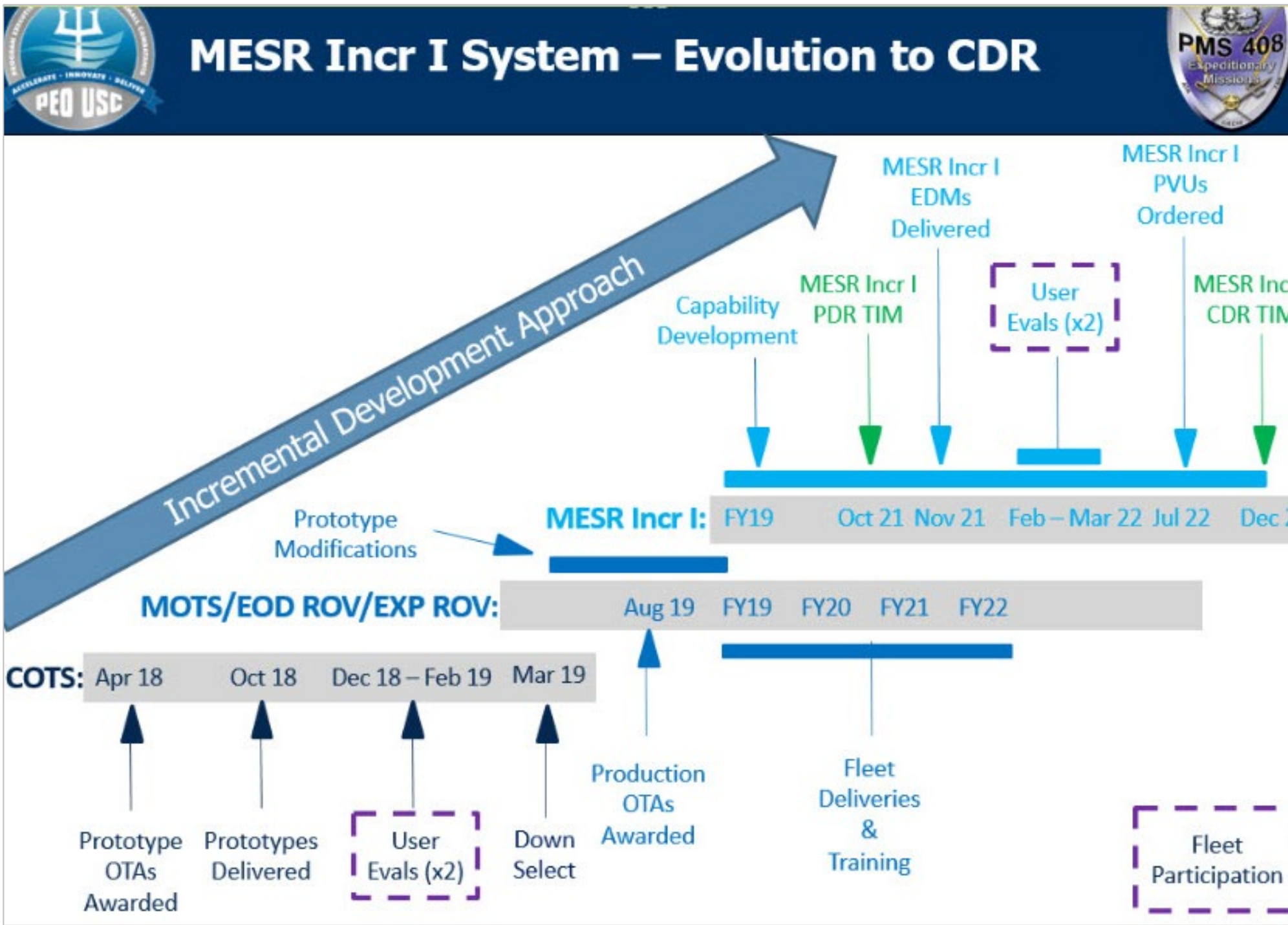
Navy Explosive Ordnance Disposal Maritime Expeditionary Standoff Response Case Study



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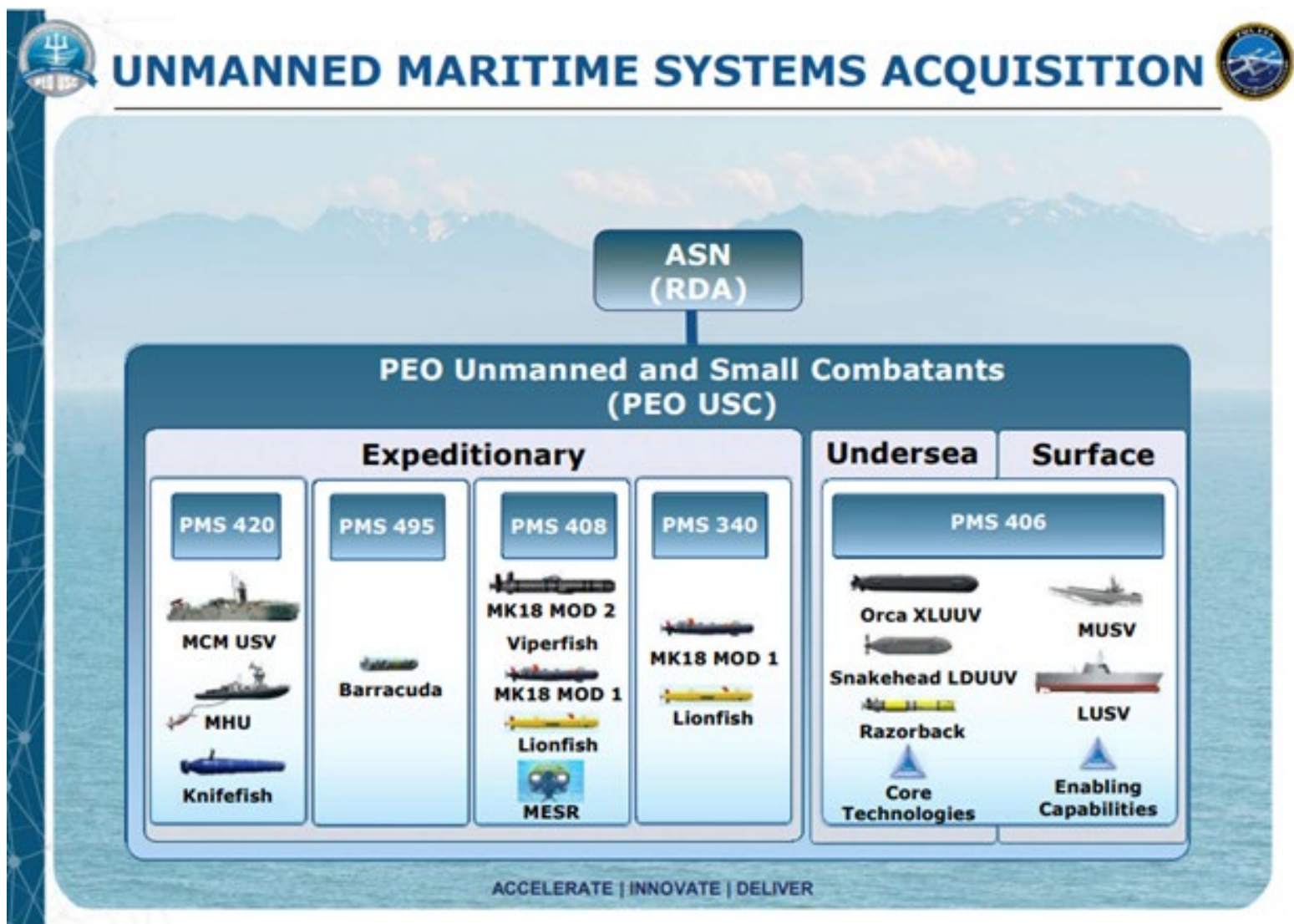
Abstract

- In 2018, PMS 408 awarded two prototype other transaction authorities for remote underwater vehicle (ROV) systems to support Navy EOD requirements for mine countermeasure (MCM), seabed, and subsea warfare (SSW) operations. The SRS Fusion and VideoRay Defender were fielded to the end user for a two-year user operational evaluation system (UOES) that would determine the material solution for the MESR program of record. VideoRay Defender was selected to become the baseline configuration for MESR with follow on iterative development and incremental delivery efforts. MESR Increments I-III focus on capabilities such as charge delivery system, autonomous navigation, automatic target recognition, enhanced manipulator capability, and enhanced imaging.
- This study highlights the successful adaptive middle tier acquisition utilized by PMS 408 with partners such as Defense Innovation Unit (DIU) and how this capability fits in the more significant DOD unmanned systems initiatives.



PMS 408 Incremental Development Approach

Methods

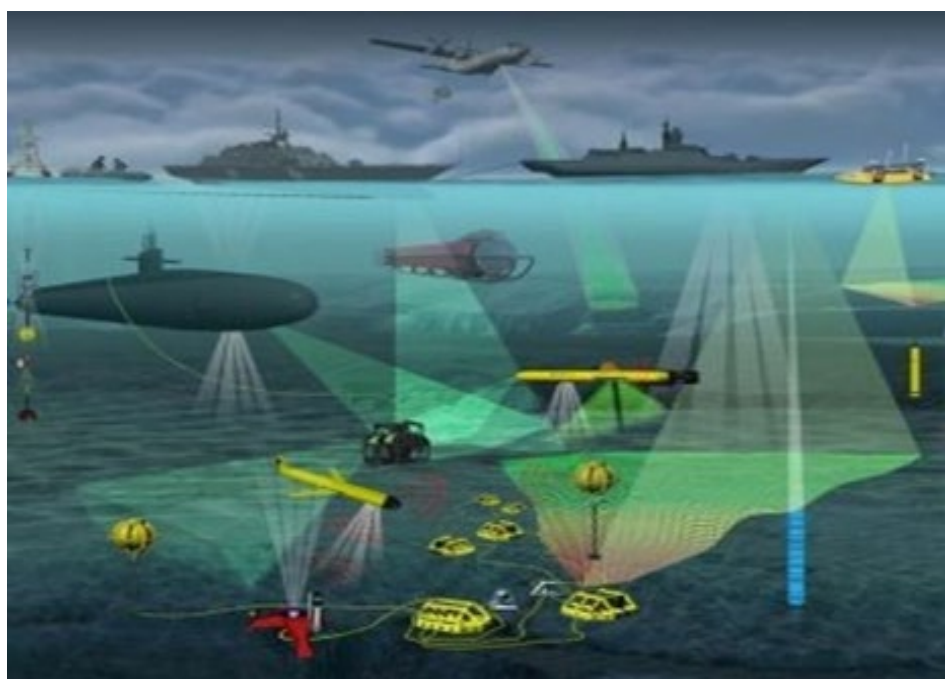


PEO Unmanned and Small Combatants Systems

- Case study approach highlighting:
 - Adaptive acquisition framework (AAF)
 - Middle tier of acquisition (MTA)
 - DOD unmanned systems initiative
 - VideoRay Defender and SRS Fusion capabilities and limitations
 - Iterative development and incremental delivery
 - Navy EOD requirements for ROV operations supporting MCM and SSW operations
 - PMS 408 acquisition strategies
 - Sustainability and interoperability

Results & Their Impact

- Successful COTS to POR example
- UOES utilizing multiple material solutions in real work operations allowing end user input directly to program office
- Total life-cycle management considerations for sustainability, training, and interoperability
- Critical high demand, low density capability fielded to Navy EOD supporting strategic to tactical level operations
- Open systems architecture, iterative development, and incremental delivery allow for incorporation of increased capabilities within each increment
- Navy EOD has highest number of unmanned systems in Navy and leading unmanned lines of effort



Unmanned Subsea and Seabed Warfare



DOD Unmanned Systems Lines of Effort



Navy EOD End User



VideoRay User Interface

