

U.S. NAVY Mine Warfare Programs



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Captain Danielle George
Major Program Manager

17 January 2019



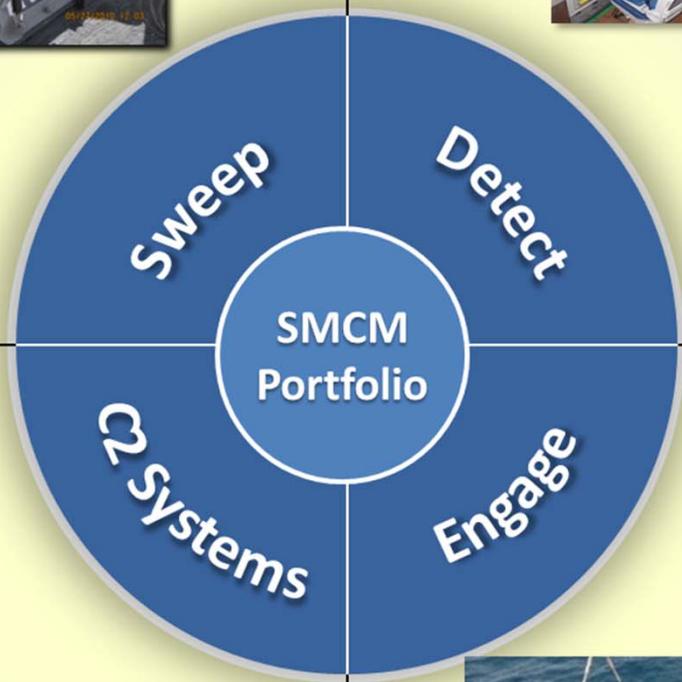
PMS 495 Program Portfolio



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Current Surface MCM (SMCM) Platforms- MCM-1 Class Ships



AAG/IAAG



AN/SLQ-37/38 Minesweeping System



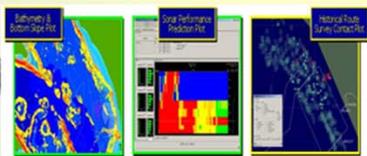
AN/SQQ-32 (V)4
MSS/ VDS



OK-520 Winch



AN/SSN-2(V)5 PINS



MEDAL



AN/SLQ-48 MNS



AN/SLQ-60 SeaFox MNS

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SMCM Legacy Systems Highlights



- **SLQ-37/38 Minesweep Systems**

- Utilizing forward deployed Mobile Cable Repair Unit to sustain mine sweeping capabilities to end of service life
- Overhauling Advanced Acoustic Generators (AAGs) and Infrasonic Advanced Acoustic Generators (IAAGs)



AN/SLQ-37/38

- **SLQ-48 Mine Neutralization Vehicle**

- Overhaul and recondition fleet inventory of AN/SLQ-48 mine neutralization vehicles, sustain through end of service life
- Innovating engineering solutions to maintain aging ordnance inventory



AN/SLQ-48 MNV

- **SLQ-60 SeaFox Mine Neutralization System**

- Delivering new and refurbished neutralizer rounds to the 5th Fleet AOR



AN/SLQ-60 SeaFox
Neutralizer

- **SSQ-94 Trainer (Mine Countermeasures Trainer)**

- All MCM ships will be outfitted with AN/SQQ-94 Mine Countermeasures Simulator (MCS) by end of 2019



AN/SSQ-94 Trainer

- **SQQ-32(V)4 Sonar**

- AN/SQQ-32 (V)4 Through The Sensor (TTS) software upgrade on all ships by 2019



SQQ-32(V)4 Sonar

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Current Airborne MCM (AMCM) Platforms



MK-104 Mod 3



MK-105 Mod 4

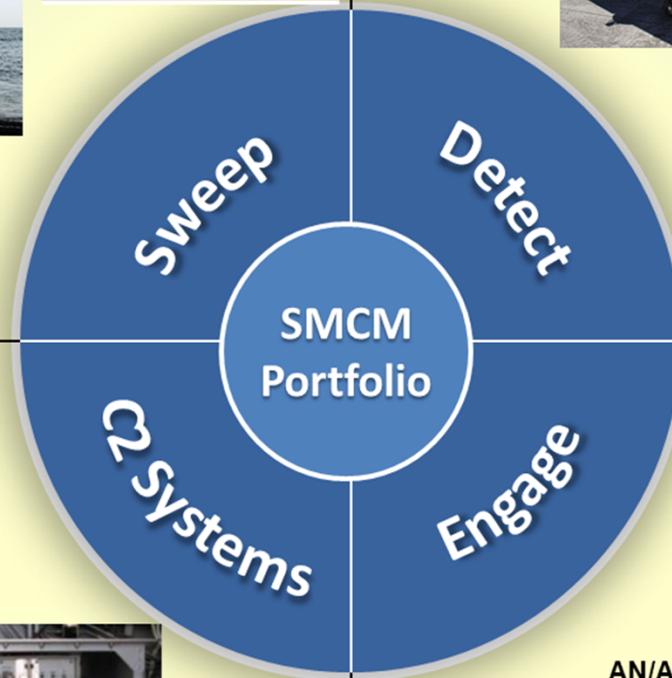


MK-103 Mod 2



AN/AQS-24B

AN/SPU-1/W



AN/ASQ-232A



Precision Navigation System (PNS)



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AMCM Legacy Systems Highlights



- **AQS-24B High Speed Synthetic Aperture Sonar**
 - Fielding to operational squadrons completed June 2018
 - A to B Conversions: 25 of 27 total units completed; Two remaining conversions for NSWC PCD rotatable pool to be completed by June 2019
- **AQS-24C Volume Search Sonar**
 - First 2 delivered to Government for testing and training/logistics development
 - Performance Characterization (Pd/Pc): 20 Aug – 15 Sep 2018
 - Near Surface Data Collection: 21 Sep 2018
 - First production delivery expected in 1QFY20



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AMCM Systems That Recently Achieved IOC



- **Coastal Battlefield Reconnaissance and Analysis System (COBRA) (AN-DVS-1) Block I**
 - Production contract awarded 27 Sep 2018.
 - Order for four COBRA systems for delivery by July 2021.
 - Ready for Training (RFT) planned for Sept 2019.
- **Airborne Laser Mine Detection System (ALMDS) (AN/AES-1)**
 - Vessel of Opportunity (VOO) exercise with Royal Navy planned for 2QFY19.
 - HSC 21 MIW HARP Assessment participation (Key West) – 2QFY19.
 - ALMDS Mission Simulation System (AMSS) tested Dec 2018, provides a cost effective solution to reduce flight testing requirements for software changes.
- **Airborne Mine Neutralization System –Archerfish (AMNS) (AN/ASQ-235)**
 - HSC 21 MIW HARP Assessment participation (Key West) – 2QFY19.



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Barracuda Program



The Barracuda mine neutralizer provides a low-cost mine clearance capability in an A-size sonobuoy form factor in the near surface.

- Mission: Provide rapid reacquisition, identification, and neutralization capability against near surface sea mines
- Platform: MCM USV
- Employment: This semi-autonomous capability performs reacquisition, identification, and neutralization of near surface mines previously located by other mine countermeasure assets

Program Status

- Milestone B – April 2018
- Contract Award – April 2018
- Milestone C – Q3 FY23
- Initial Operational Capability – Q4 FY24



Barracuda, Major Subassemblies for Assembly Operations



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Maritime Mining



MK 62



MK 63



MK 65



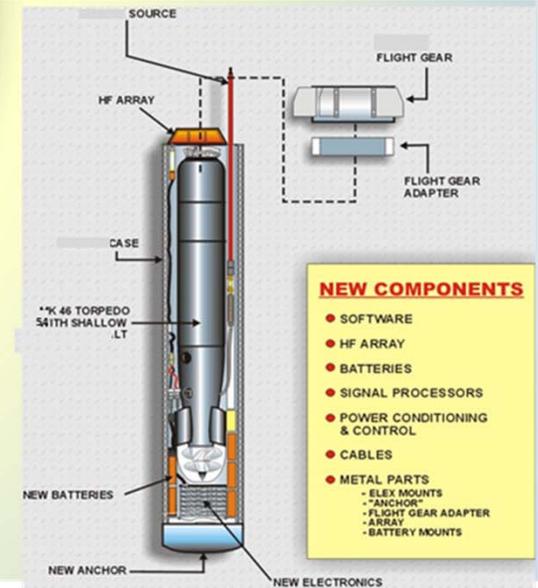
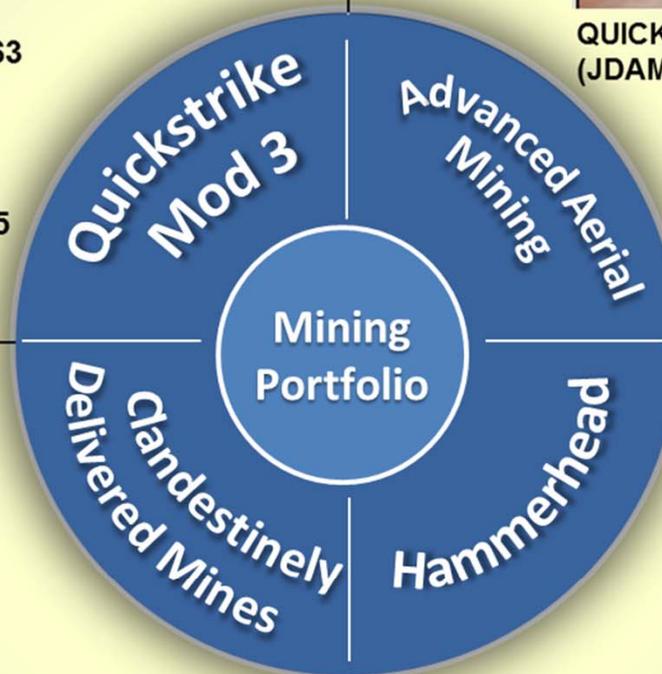
QUICKSTRIKE Joint Direct Attack Munition (JDAM)



QUICKSTRIKE Extended Range (ER)



Clandestine Delivered Mine (CDM)



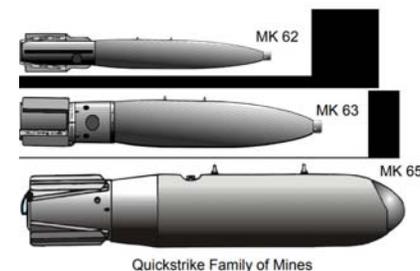
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Mines Highlights



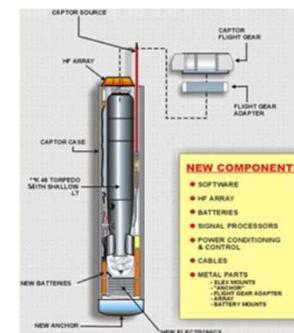
- **Quickstrike MK 62/MK63/MK65**
 - Target Detection Device and Adapters contract competitively awarded to SECHAN 4QFY18
- **Quickstrike Joint Direct Attack Munition (JDAM)/Quickstrike Extended Range (ER)**
 - Aerial Delivery Improvement: increased standoff, precision safety
 - Operational Demo during Valiant Shield 18
 - Operational Demonstration #2 planned for 3QYFY19
- **Clandestine Delivered Mine (CDM)**
 - Conducting prototype testing
 - End-to-end testing 2QFY19
 - Initial delivery FY20
- **Hammerhead**
 - New Program-started in 2018
 - Prepositioned, encapsulated torpedo
 - Modular architecture approach to allow for future technology insertions
 - Classified Request For Information release expected FY19



Quickstrike Extended Range (ER)



Clandestine Delivered Mine (CDM)



HAMMERHEAD (Encapsulated Effector)

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QUESTIONS?

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