Mission Statement:
To provide Mine Warfare Capability to the Fleet, when they want it, at reduced cost
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**Organic Mine Countermeasure**

- **RMS** - Detect, classify, ID & localize
- **AN/AQS-20A** – EOID sensor & volume search sonar
- **ALMDS** - Detect, classify, & localize floating and near surface moored mines
- **OASIS** - High speed magnetic/acoustic influence sweep
- **AMNS** - Explosively neutralize unburied bottom & moored mines
- **RAMICS** – Reacquire & neutralize near-surface & surface moored mines

**Shallow Water MCM**

- **COBRA** - UAV payload & ground processing station for reconnaissance
- **JDAM JABS** - Neutralize surface and buried mines and obstacles

**SMCM and AMCM In-Service**

- **SQQ-32, OK-520 Winch, AN/SLQ-48**
- **MK105 Mod4**
- **AN/AQS-14 and 24**

**Mining**

- **Quickstrike Mod 3**
- **MK 56**
- **VEMS**
- **Exercise & Training**
- **Mine Shapes**

**MCM Modernization**

- **Phase 1**
  - OK-520 Winch
  - Comm Modernization
  - AAG/IAAG, BSP
  - Mag Cables
  - MEDAL & GCCS-M
  - SQQ-32 Sonar Data Recorder
  - NAVC2
- **Phase 2**
  - EMNS
  - HFWB
AN/WLD-1 Remote Minehunting System (RMS)

The RMS is a diesel powered semi-submersible vehicle (23’ long, 4’ diameter, 13klbs) that tows a variable depth sensor, the AN/AQS-20A. It will operate from the DDG 91-96 and LCS. The system determines the presence or absence of mines to an acceptable level of confidence to enable ships to operate in or avoid specific areas.

- Milestone C 6 Jul 05; RMS in production
- ACAT IC Designation 25 Apr 06
- Over 1,000 hours of Off-shore vehicle operations
- Operational Assessment (OA) completed Aug 06
- LRIP #2 Decision Milestone Sep 06
- DT IIC LCS Crew Training Aug – Oct 06
- Delivery to DDG 96 Jan 07

» TECHEVAL Feb 07
» OPEVAL Jun 07
The AN/AQS-20A program integrates an existing Electro-Optic Identification Device (EOID) sensor into the AN/AQS-20 baseline system and provides for identification of bottom mines and detection, localization, and classification of bottom, close tethered, and volume mines.

- Milestone C 28 Apr 05 - in production
- Mature, reliable system with over 1,600 tow hours demonstrated performance on 3 platforms.
- Commenced MH-60S DT Dec 06
- Meeting or exceeding KPP thresholds
  » OPEVAL 3rd Qtr 07
The AN/AES-1 ALMDS is a laser-based AMCM high area coverage system that uses Streak Tube Imaging LIDAR to detect, classify, and localize floating and near surface moored mines. One ALMDS system to be provided for each LCS Mine Warfare Mission Package.

- Milestone C May 05; ALMDS in LRIP production
- Completed over 150 flight test hours demonstrating extremely high operational availability
- First high-speed, wide area search MCM system for surface and near surface mines; fills capability gap
- DT-IID commences Jan 07
- LRIP Lot 1 unit delivery Jan 07
- » Contract award for LRIP Lot 2, Jun 07
The AMNS will be employed by the MH-60S helicopters to positively identify and explosively neutralize unburied bottom and moored sea mines that are impractical or unsafe to counter using existing minesweeping.

- CT/DT Athena Test Dec 05 – Apr 06
- Completed MH-53E Platform
  CT/DT testing Aug 06
- Commenced MH-60 CT Nov 06
  - Live Fire Ground Testing Mar 07
  - MS C Jun 07
  - MH-60 DT 4th Qtr 07
Unmanned Surface Sweep System (US3)

» Modular, influence sweep package for LCS-based unmanned surface vehicles

» COTS micro-turbine powered magnetic influence via towed cable

» Modified Mk-104 acoustic signal generator towed on magnetic cable

» Sweep System Components
   Power Pack
   Deploy and Retrieve System
   Magnetic Sweep
   Acoustic Sweep

» FY07 Transition from ONR

» MS B 1st Qtr FY08
**Organic Airborne and Surface Influence Sweep**

OASIS will provide organic, high speed magnetic/acoustic influence minesweeping capability where minehunting is not feasible (adverse environmental conditions), where mines are undetectable (buried), and avoidance of the area is not an option.

- First rapid response minesweeping capability
- Towed body hydrodynamic stability and control validated
- Completed CT on Athena with common console 4th Qtr 06
- Commenced MH-53E CT Dec 06
- Completed electrical ground test on MH-60 and MH-53
  - MH-60 CT 4th Qtr 07
  - MS C 3rd Qtr 08

**OASIS Delivers with MIW Mission Package (MP) #3**
Littoral and Mine Warfare

Rapid Airborne Mine Clearance System

RAMICS is capable of reacquiring and neutralizing near-surface and surface (floating) moored mines. The RAMICS Mission Kit consists of a Targeting Sensor Subsystem, a Gun Subsystem, a Fire Control Subsystem, a Munition Subsystem, the Carriage Stream Tow & Recovery System, and the Common Console.

- Pod Housing delivered Nov 05
- Laser Receiver Assembly acceptance testing completed Jan 06
- Gun subsystem delivery Oct 06
  » EDM ground test Apr/May 07
  » MH-60S ground test 4th Qtr 07
  » MS C 4th Qtr 08

RAMICS Delivers with MIW MP #4
Littoral and Mine Warfare

AQS-20A In Production, MH-60S Integration Underway

MCM Ship Modernization Underway

ALMDS LRIP #1 Delivery Jan 07

EMNS Development Underway

AMNS MS C Jun 07

OASIS In Testing

RMS PRR Nov 06

QUESTIONS?

JABS Fielded Capability Jun 07

Live-Live Far Term Demo Nov 06

ALMDS LRIP #1 Delivery Jan 07