



PMS 408
Expeditionary Missions
EOD • CREW • ATA



2017 DoD Non-Lethal Weapons (NLW) Summit Advanced Planning Brief to Industry on Navy NLW Programs



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PMS 408 Program Overview

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PROCESSES
SEA 06 Acquisition
and Commonality Directorate
PARTS
PEOPLE



HALLTS Hailing Acoustic Laser & Light Tactical System



- Body Armor
- ECP Equipment
- Combat Helmets
- SU-255/U Long Range Sight
- SU-250/U Monocular
- AN/PV-15CD Goggle
- SU-252/U Multipurpose Thermal Sight
- SU-232/U Night Vision Thermal Device
- AN/PES-2 Laser Rangefinder



- Marine Mammal
- MK 1 DHINS Diver Hull Imaging & Navigation System
- MK 12 Acoustic Firing System
- MK 15 Underwater Imaging System
- MK 16 UBA
- MK 18 Mod 1 / 2 UUV
- MK 52 METRES
- MOTS ROV

JCREW ECM (Mounted/ Dismounted/ Fixed)

- AN/PLT-5 EOD ECM
- AN/PLT-4 EOD ECM
- Symphony ECM



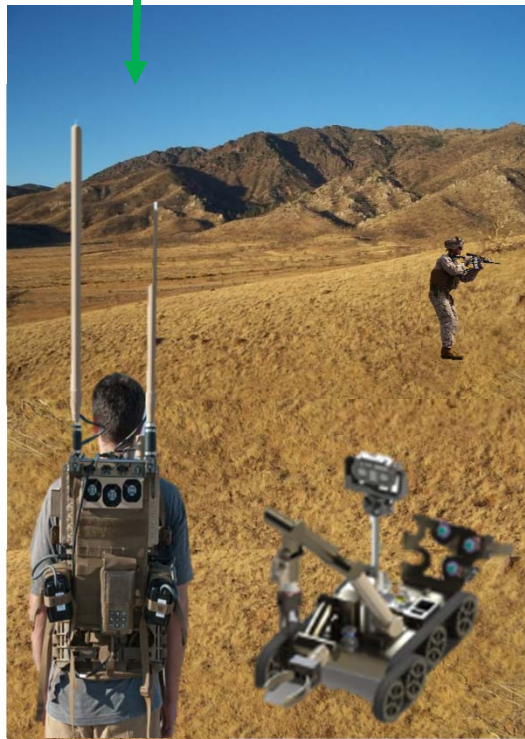
AN/GJQ-34 Fuze Disassembly System (FDS)



AN/GSQ-275 Radiographic Imaging System (RISEOD)



Decision Support System (DSS)



AEODRS-1/2/3

Sponsors:

- OPNAV N83, N95, N96, N98

Ashore and Afloat Missions:

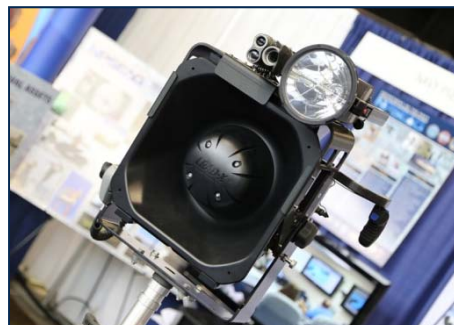
- Anti-Terrorism
- Force Protection

ACAT Programs:

- AN/PYX-1 Identity Dominance System (IDS) (ACAT IVT)
- Maritime Vessel Stopper (MVS) (pre-ACAT III)

Non-ACAT Programs:

- Allowance Equipage List (AEL) and Table of Allowance (TOA) items
- Visual Augmentation Systems (VAS)
- Navy Non-Lethal Effects (NNLE)
 - Long Range Ocular Interrupter (LROI)
 - Hailing, Acoustic, Laser, & Light Tactical System (HALLTS)
 - LA-9/P
 - Acoustic Hailing Device (AHD)



HALLTS (Front)



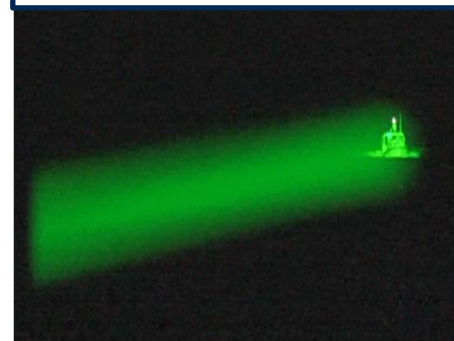
HALLTS (Rear)



LROI



MVS Occlusion



LROI (Beam)



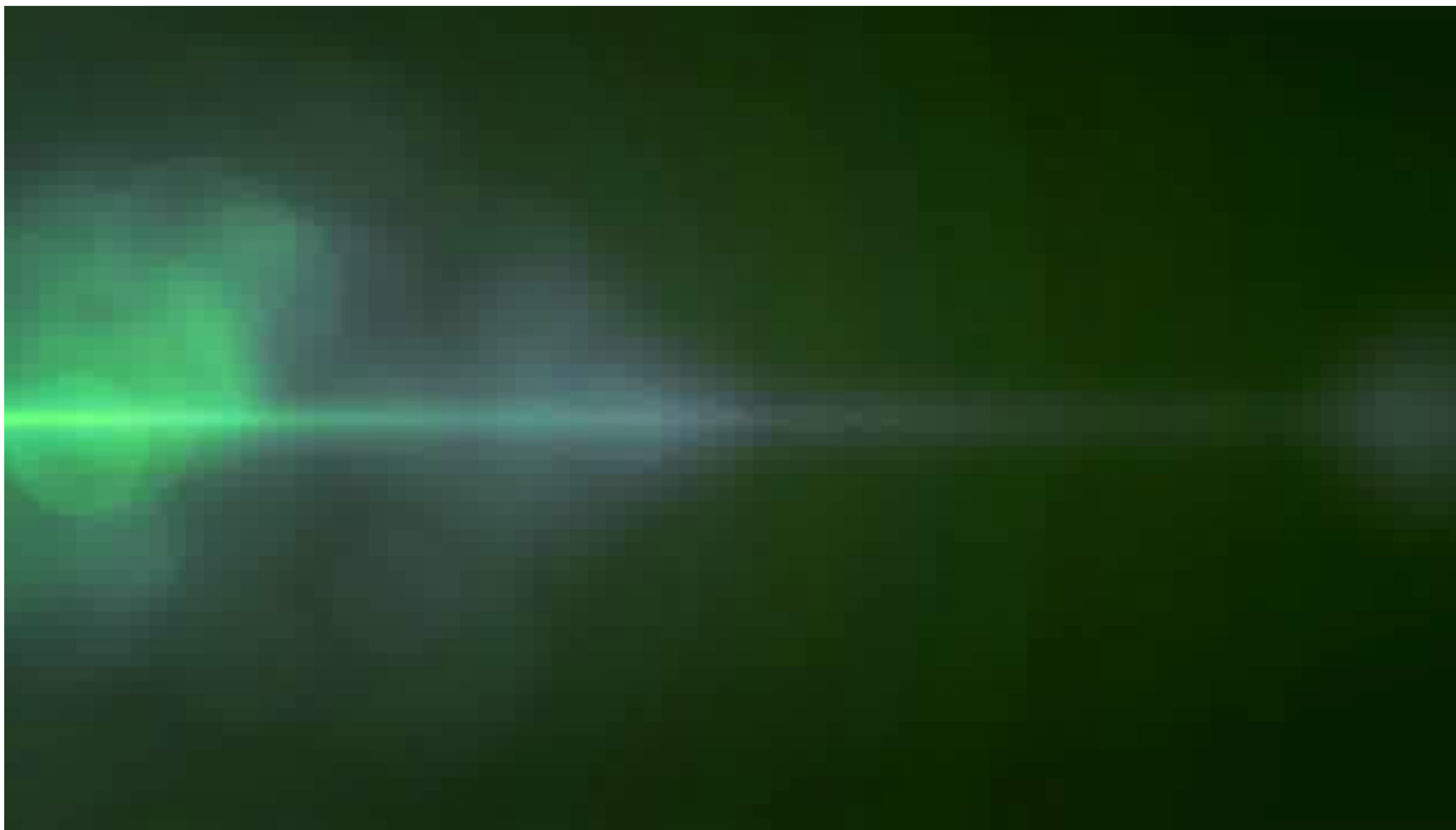
HOTI Laser Dazzler



Visual Hail/ Warn/ Suppress

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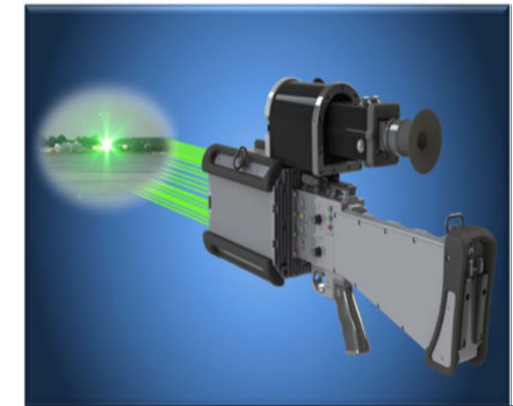
LROI Letter of Requirement signed by Navy Expeditionary Combat Command 1 August 2017

Desired Visual Effects Specifications:

- Hailing range capability from 100 m - 2000 m, while maintaining safe power output not to violate Nominal Ocular Hazard Distance (NOHD) at any range
- Suppress range capability from 100 m - 1500 m, while maintaining safe power output not to violate NOHD at any range (Suppression is a controlled, precise action inducing a contact to terminate approach)
- Sighting capability to maintain laser on target to a minimum of 1500 m
- Integrated laser range finder providing distance to target
- Adjustable beam spot size at range of 100 m - 2000 m for a radius of 15 m while power is controlled by the system not to exceed the NOHD at any range
- Ability to be mounted on Crew Served Weapons
- Single person portable
- Weight not greater 15 pounds, ideally 7.5 pounds
- Meet requirements of OPNAVINST 5100.27B for Laser Safety Review Board approval

Battery:

- Minimum power duration lasting four hours under continuous use
- A battery that can be swapped out



**Current LROI
Prototype**

Developing Government TDP to decrease unit size of initial Rapid Development Capability prototype for a planned RFP release in FY19

Coordinating with Navy Expeditionary Combat Command (NECC) and OPNAV N95 to formalize audible requirements for the HALLTS design and fielding

Desired Audible Specifications:

- Ability to project sound and understandable messages to a distance of 1500 meters
- Ability to project a signal, which causes personnel to cover ears and leave/evade the sound emission to a distance of 1000 meters
- Ability to use pre-recorded, simplified, and shortened messages in multiple languages, plug and play design for USB devices

Unit:

- One person portability
- Easy set-up and ready to operate in less than 15 minutes
- Have a self-powering source (battery) and the ability for AC/DC
- Battery provide minimum of one hour continuous use capability
- Versatility in mounting the system (i.e. bulwark of a vessel, vehicles, and armor shielding)
- Maneuverability while mounted
- Remote operation
- Manual operation
- Safe zone behind the system where an operator, or others, within 180 degrees of system will not be affected to permit radio communications and voice commands



Current HALLTS Build

Currently in EMD Phase with COTS components and developing government TDP for planned RFP release late FY18/FY19

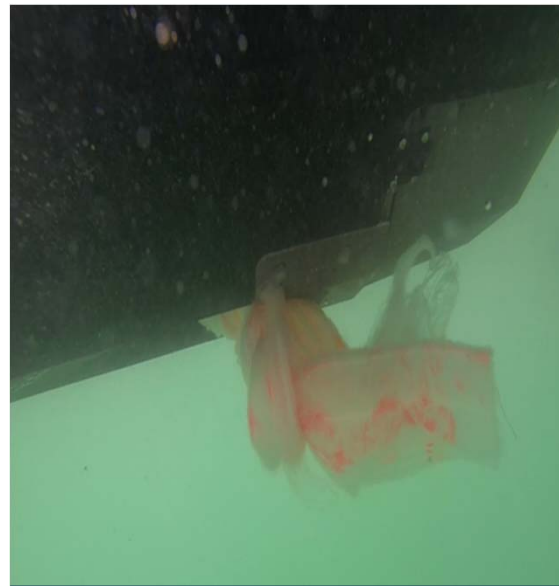
The MVS Capability Development Document (CDD), approved June 2017, identifies vessel slowing/ stopping requirements in assessing hostile intent

Vessel Slowing/ Stopping Requirements:

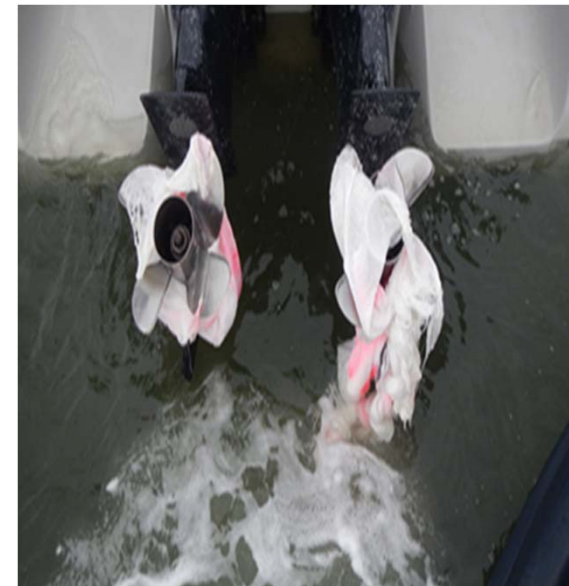
- System delivers measures to affect propulsion/mechanical workings of a vessel to slow or stop advancement of target
- System achieves immediate target response
- System has reversible affects (i.e. correctable on site / no depot level maintenance)
- System does not directly cause personnel injury



Occluded Propulsor



Occluded Propeller



Occluded Propeller



Vessel Slowing/ Stopping Goals

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Goal #1: Successful Engagement

Successful engagement is defined as the probability that the MVS system will take effect (i.e., entangle, occlude, or cause an engine stall), and achieve MVS Effectiveness (stop or significantly slow) after proper placement or direction.

Goal #2: Persistence

Persistence is the duration of the effect, the minimum period of time the applied technology will remain effective. It is measured from moment of onset, to the moment propulsion/movement capability is restored. Repetitive employment of effect (i.e., pulsed or cyclic intervals) shall provide cumulative effect to meet duration specified. The targeted vessel shall not incur long-term or permanent damage from employment of vessel stopping means. Persistence values are based on user inputs representing a worst case scenario for interdiction of a disabled target.



Vessel Slowing/ Stopping Goals (Cont.)

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Goal #3: Material Availability

The DoD Reliability, Availability, Maintainability, and Cost (RAM-C) Rationale Report Manual defines materiel availability as the percentage of the total inventory of a system that is operationally capable (ready for tasking) of performing an assigned mission at a given time, based on materiel condition. MVS unit population density is expected to be low. The system is non-critical, and with the exception of Directed Energy Weapon/ High Powered Radio Frequency (DEW/HPRF), low-complexity. Therefore it is expected to be simple to operate. Organizational/unit level maintenance shall be limited to condition-based cleaning, inspection, and preparation for operation. Depot level/Original Equipment Manufacturer (OEM) repair consists of detailed diagnostics and repair, and requires basic skills.

Goal #4: Operational Availability

MVS system shall not degrade the A_o of the overall unit's capability and readiness given equipment failures. MVS system shall support the specified Mean Time Between Failures (MTBF), Mean Time To Repair (MTTR), and Mean Logistic Delay Time (MLDT) shown.