



# PEO LMW

Presentation to:



## 2010 GROUND ROBOTICS CAPABILITIES CONFERENCE

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18 March 2010

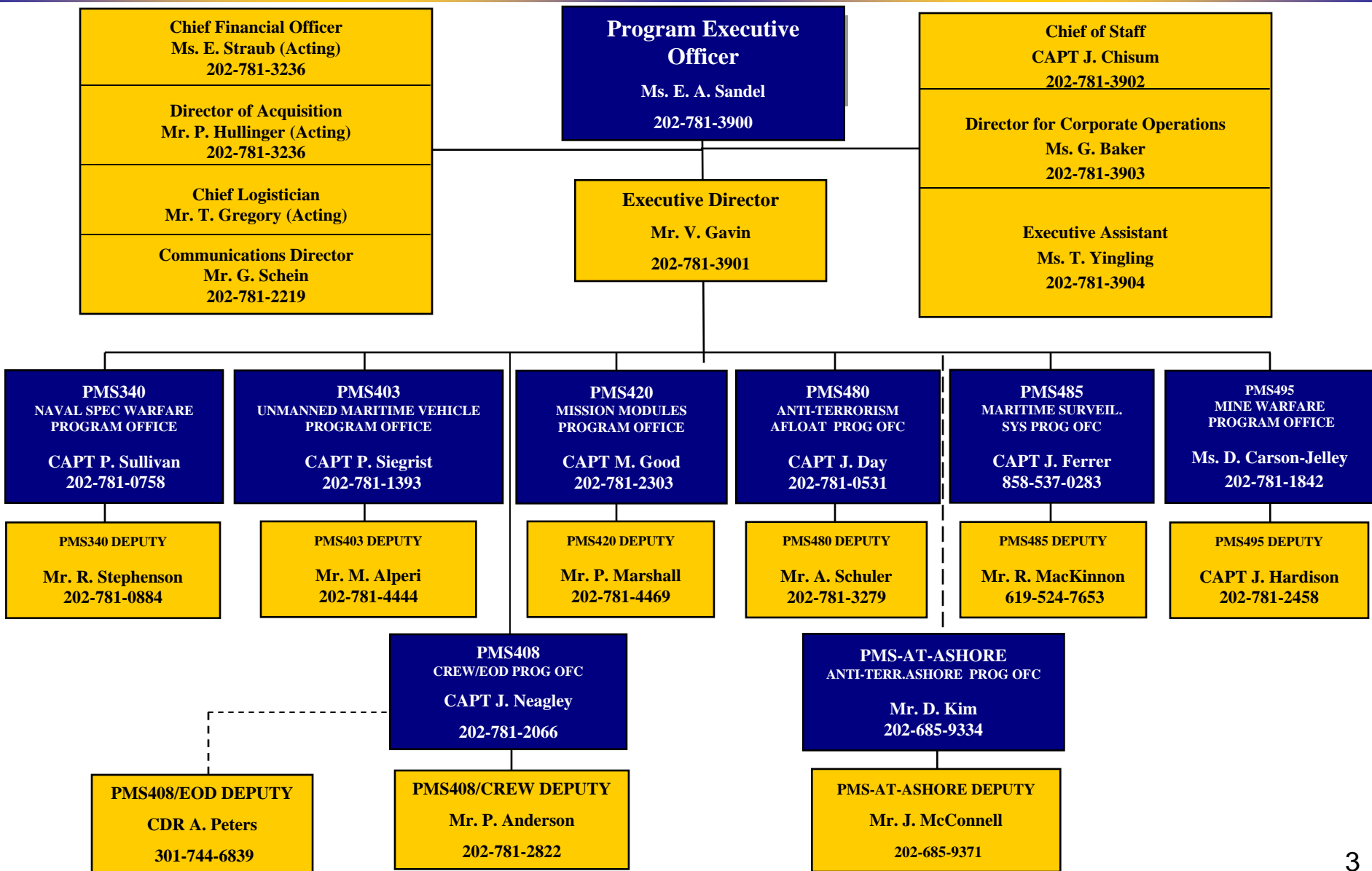


# Role of PEO Littoral & Mine Warfare

- ◆ Originally established in 1992 as PEO Mine Warfare (PEO MIW)  

- ◆ Realigned as *PEO Littoral and Mine Warfare (PEO LMW)* **OCT 2002** assigning increased responsibility for Undersea and Littoral Warfare programs
- ◆ PEO LMW designs, delivers and maintains the systems, equipment and weapons needed by the warfighter to dominate the littoral battlespace and provide the *Warfighter Assured Access!*  

- ◆ PEO LMW is comprised of 165 civilians and 35 military supplemented by Field Activities and other personnel responsible for the *development, acquisition, and life-cycle support of more than 220 systems.*

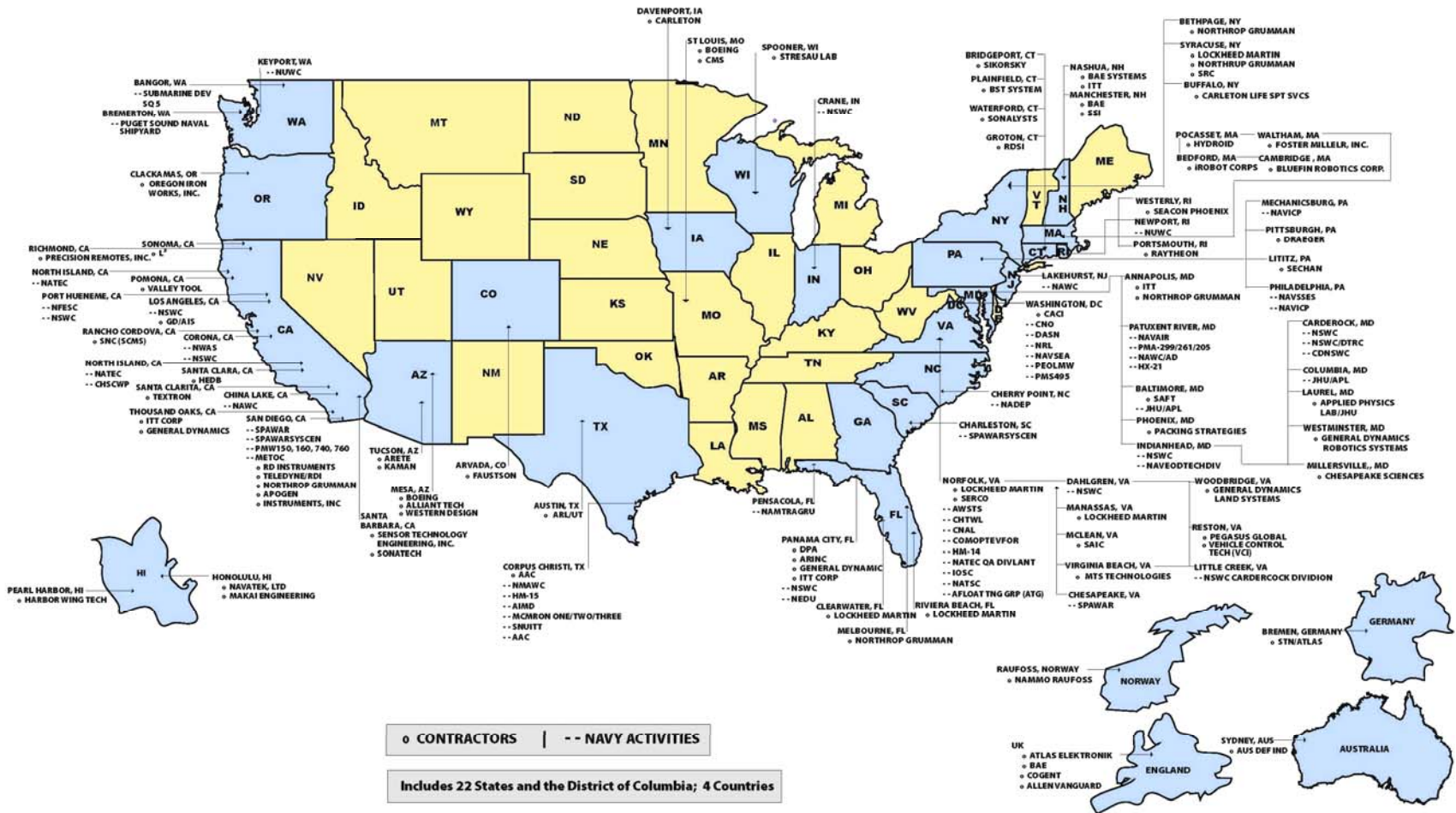


# Program Executive Officer Littoral and Mine Warfare





# PEO LMW Industrial & Government Partners





# MK 1 & MK 2 Explosive Ordnance Disposal (EOD) ROBOTS



## ■ Mission

- Complement/augment the EOD technician when performing reconnaissance, render safe, and disposal during EOD missions
- Indoor/outdoor
- Improvised Explosive Devices (IEDs) and Unexploded Ordnance (UXO)

## ■ Characteristics

- Easily transportable and quick set-up
- Indoor operation - stairs, doorways
- Outdoor operation - slopes, mud, high grass, rubble
- 2 hr endurance
- Range - 800m (wireless), 200m (tethered)
- Interoperable with EOD tools

## ■ Full Life-Cycle Support for both configurations

## ■ Systems fielded:

- 1,868 MK 1 & MK 2 EOD Robots

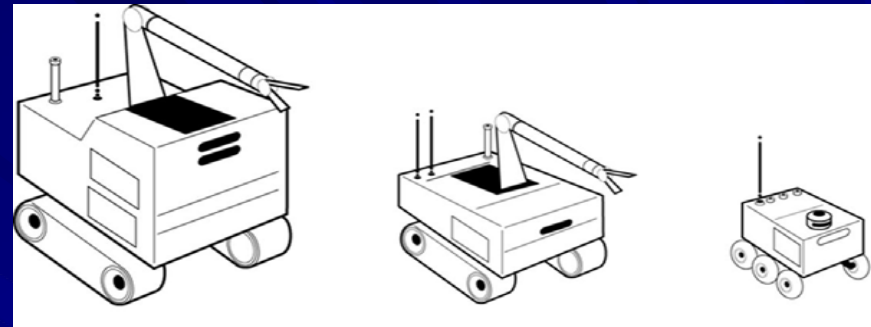




# ADVANCED EOD ROBOTIC SYSTEM (AEODRS)

- **Family of robotic systems composed of three variants:**

- Dismounted Operations
- Tactical Operations
- Base/Infrastructure Operations



- **Family is characterized by the interoperability of its subsystems via Government-controlled logical, electrical, and physical interfaces and the commonality of its Operator Control Unit (OCU)**
- **Family is also characterized by the interchangeability of its initial subsystems with future subsystems that can be procured using full and open competition**
- **DoD Modular Open Systems Approach (MOSA) Policy**
- **Draft Capability Development Document (CDD) in review / approval process**
- **Milestone B planned for September 2010**



# AEODRS SELECTED PRELIMINARY REQUIREMENTS

- **Dismounted Operations**
  - **Back-packable, 35 lbs including backpack**
  - **100 meter range**
  - **Low Degree-of-Freedom manipulator, 5 lbs lift at full extension**
  - **Able to travel through 18 inch culvert**
- **Tactical Operations**
  - **Vehicle two-man transportable for short distances – no greater than 164 lbs**
  - **1000 meter range**
  - **Dual Arm Manipulator – Lift 44 lbs at full extension, 110 lbs close-up**
- **Base/Infrastructure Operations**
  - **System weight – 750 lbs**
  - **1200 meter range**
  - **Dual Arm Manipulator – Lift 75 lbs at full extension, 300 lbs close-up**
- **Autonomy**
  - **Point and Click navigation with obstacle detection and obstacle avoidance**
  - **Automatic end effector changeout**
  - **Point and Click end effector positioning**



# SUMMARY

- **AEODRS is the fourth generation of military EOD robots**
- **AEODRS is being developed as a family of systems using a modular open systems approach**
- **The up-front focus on subsystem interoperability and interchangeability will enable faster acquisition with demonstrated technology, provide continued access to state-of-the-art technologies, and prevent being locked into a proprietary system**





# PMS 408 (EOD) POCs for Joint Service EOD Robotics

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