Product Director Mobile Collective Protection Systems (PD-MCPS)
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Agenda

• PD-MCPS ROLE AND MISSION
• CAPABILITIES
• CURRENT ACTIVITIES
• GOALS
• CHALLENGES/NEEDS
• SUMMARY
Joint Program Executive Office for Chemical and Biological Defense

Product Director- Mobile Collective Protection Systems (PD-MCPS)

• Serve as the JPM-CP’s PD-MCPS

“If it moves and doesn’t float, we support it”

Definition: Providing Collective Protection for systems that are on the move

Mission: Serve as the Joint Project Management for Collective Protection focal point by providing overall direction and guidance for research, design, development, test, procure, field, and provide life cycle oversight for Collective Protection equipment and systems for Mobile Platforms that provide contamination free areas to protect personnel and equipment against Chemical, Biological, Radiological, and Toxic Industrial Material threats.
Mobile PD Focus Areas

- Wheeled Platforms
- Tracked Platforms
- Aircraft
- Vehicle Mounted Shelters
PD-MCPS Capabilities

• Programmatic
  - Extensive knowledge base exists regarding ColPro systems integration onto mobile platforms
  - Access to current Government Supply System/Databases
  - Understanding of the developmental life cycle
  - Serve as “honest” ColPro technology broker

• Technical
  - Knowledge of current technologies in the ColPro area
  - Understanding of the Systems Engineering approach
  - Knowledge of future trends in ColPro
    - Advanced filtration (Advanced sorbent, regenerable, CatOx)
    - Egress/Entry
Current Activities

• Developing a database of platforms and and their current ColPro capabilities

• Answering current user questions regarding ColPro capabilities

• Assisting future platforms with ColPro system information and systems integration expertise

• Identifying data/capability gaps

• Executing ColPro advanced technology transitions efforts
  - Design, fabrication, and evaluation of a full scale (300 cfm) integrated regenerable filtration system
  - Design, fabrication, and evaluation of a full scale Catalytic Oxidation air purification system
Systems Engineering

- ColPro systems will become part of the platform
- Must use the systems engineering approach to achieve an optimal ColPro systems integration concept

SOME INTEGRATION FACTORS TO CONSIDER

Source Air
- Power
- Weight
- Space
- Sensors
- Agent Effects

Threat Mission Needs

Product Air Interfaces
- ECU Interface
- Distribution System
- Overpressure Requirements
- Personnel Requirements

Platform Interfaces
- Space Claim
- Maintainability
- Noise
- Armor Protection
- Structural Supports
- Electronic Interface
- Air Leakage
- Egress/Entry
- Signature
- Cost
- Logistics

CBRN Filter/Purifier
PD MCPS Effort Execution Flow

MDAP ID and Info Gathering
*(Program Status/ColPro Requirements)*

JRO Recognize Requirements

JPEO-CBD FAD

Define/Execute Specific MDAP support

Monitoring

Sustainment Support

Provide Technical Support

Identify Technology Transition
PD-MCPS Goals

NEAR TERM

- Identify legacy platforms and their current ColPro capabilities and deficiencies.

- Effectively communicate to PMs our applications expertise

- Establish relationships with the PMs and industry

- Provide Life Cycle Support to fielded Mobile Applications

- Conduct technology tradeoffs to determine optimal ColPro technology to meet specific mobile platform needs
PD-MCPS Goals

MID TERM

• Identify future mobile applications Collective Protection requirements

• Continue to effectively communicate to PMs our application expertise and support as required

• Maintain and continue to establish relationships with PMs and industry/academia to address ColPro needs

• Continue to conduct technology studies/evaluations to investigate optimal ColPro technologies to meet mobile platform needs:
  - ColPro air purification
  - Egress/Entry
  - Tentage Interface
  - Open Hatch operations

• Be the DOD wide recognized preferred provider of ColPro expertise for all mobile applications
Challenges/Needs

• Flexible and efficient ColPro technology solutions for a wide range of mobile applications

• Reduced size, weight, and power requirements for Advanced CBRN filtration systems to make more attractive for mobile applications use

• Improved Egress/Entry and hatch cover technologies and techniques

• Establishing partnerships with industry/academia/others to develop innovative ColPro technology solutions
Summary

- Extensive knowledge base exists within the PD-MCPS regarding ColPro systems integration onto mobile platforms
- The PD-MCPS understands the life cycle
- Will tailor our support services to meet the Program Manager's needs
- The PD-MCPS is ready to assist, not hinder
- Need the best technology solutions for the warfighter