



# Joint Service Collective Protection

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## Commodity Area Overview

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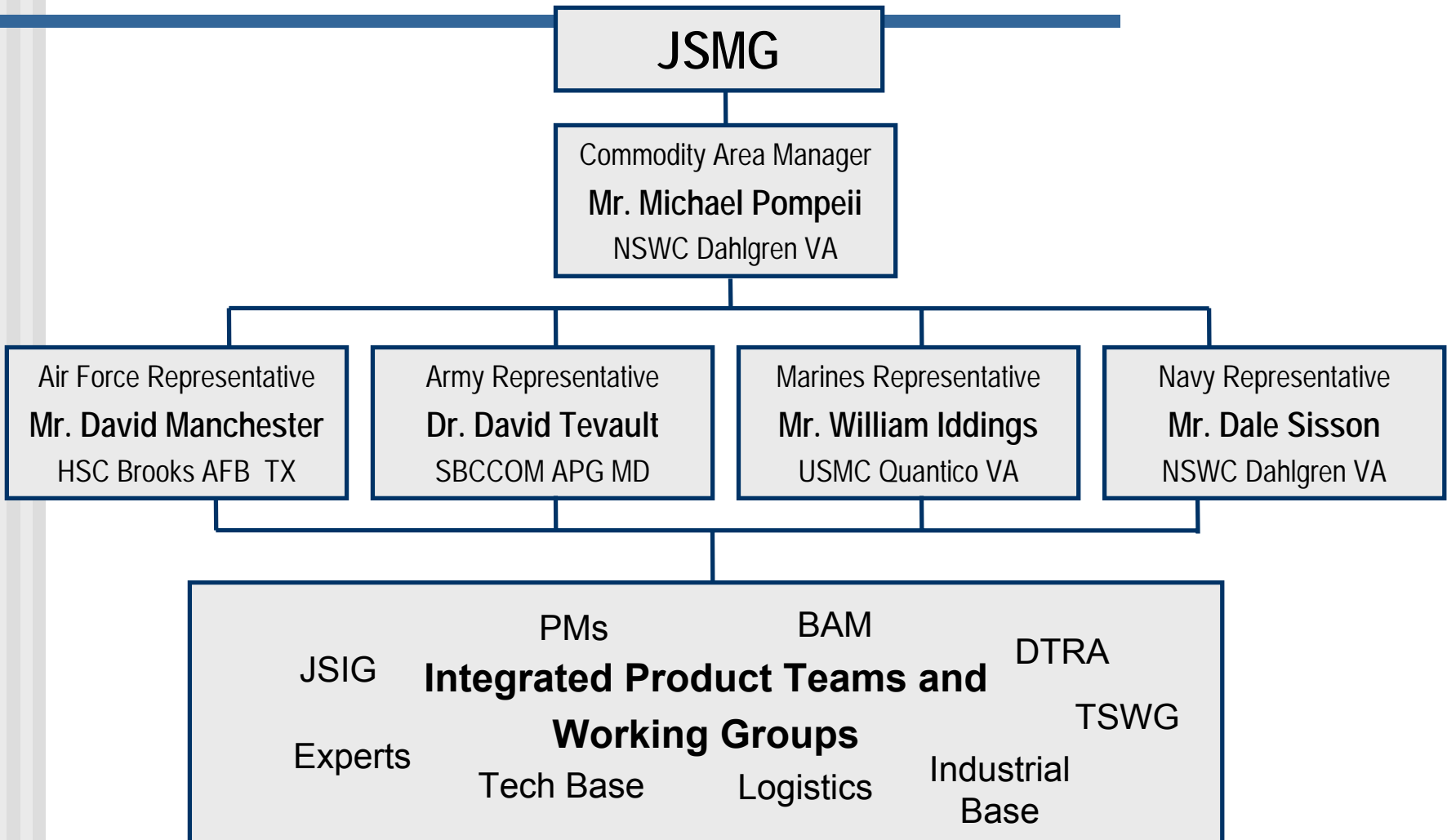
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# Agenda

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- Organization
- NBC Collective Protection (Colpro) Basics
- Colpro Mid- and Far-term Objectives
- Equipment and Program Info
- Industry Opportunities
- Summary

# Collective Protection Commodity Area Management



# ColPro Basics

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- Provide filtered air at slight overpressure.
- No need to wear cumbersome protective clothing and masks.
- Use airlock vestibules to enter/exit during routine operations.
- Use a Contamination Control Area (CCA) to enter during chem-bio-radiological (CBR) conditions.

# Colpro Basics

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- Where is colpro typically required?
  - Command/control areas
  - Medical areas
  - Rest/relief areas
- Colpro applications:
  - Mobile
    - Vehicles, ships, aircraft
  - Transportable
    - Portable shelters, tents, vans
  - Fixed Site
    - Buildings, permanent shelters
- Colpro applications can be permanent or temporary.

# Mid-term Collective Protection Objectives (2003-2007)

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- ❑ Increased number of shelters for command & control, medical, and rest/relief areas.
- ❑ Improved shipboard systems.
- ❑ Rapid insertion of technology improvements to existing equipment.
- ❑ Begin fielding new technology shelter system.

# Far-term Collective Protection Objectives (2008-2017)

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- ❑ Standardization of equipment.
- ❑ Fielding of technology improvements.
- ❑ Full integration of colpro into standard shelter systems.
- ❑ Fielding of novel filtration technologies.

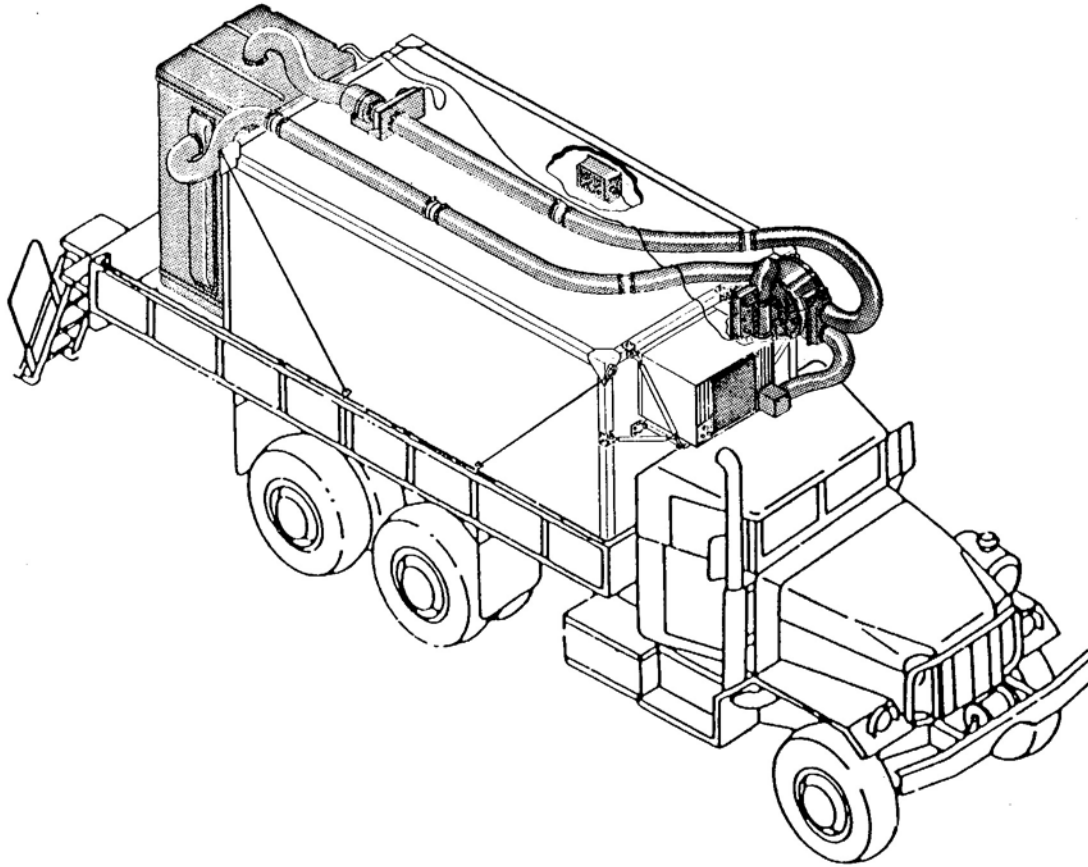


# Colpro Equipment and Program Info

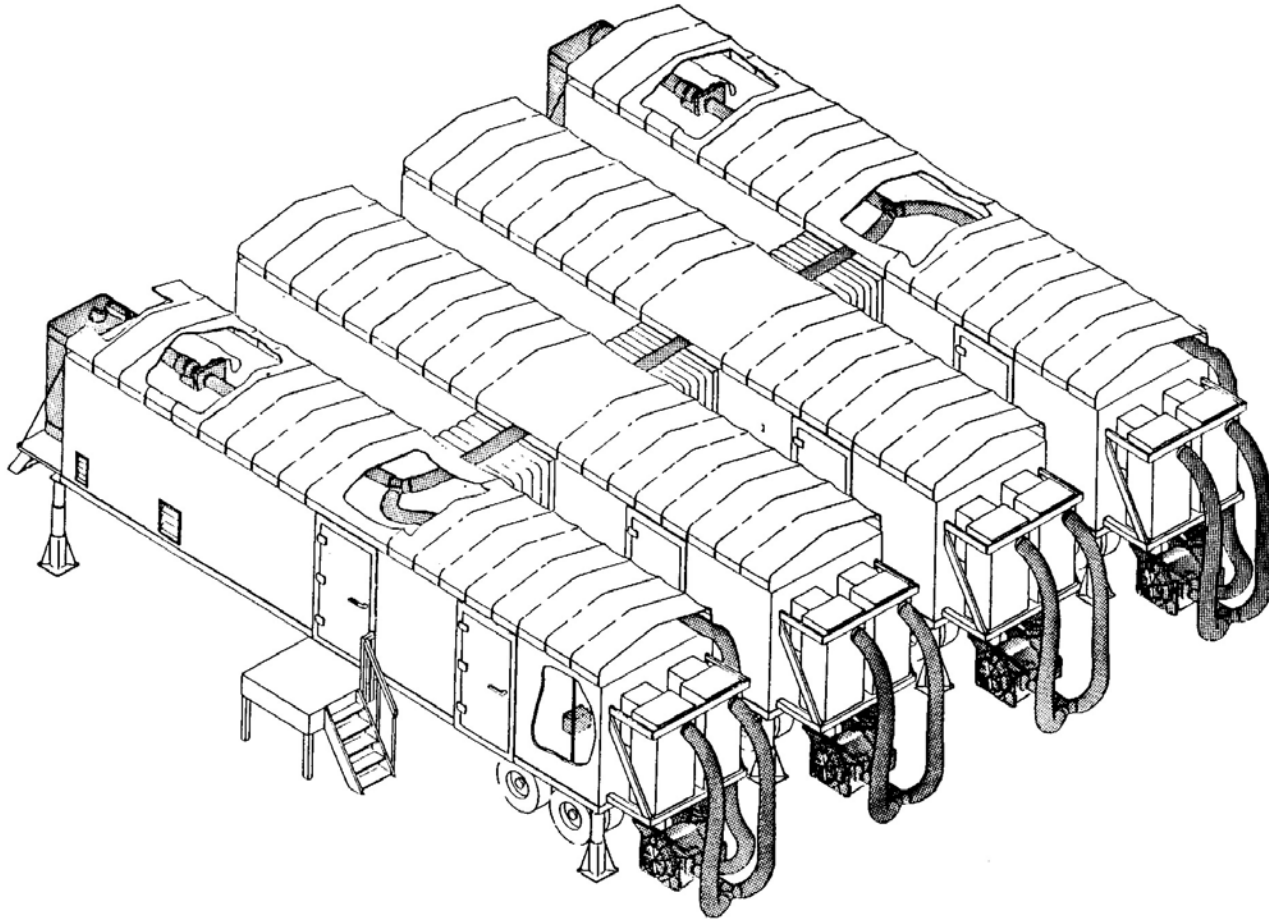
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- Modular Collective Protection Equipment (MCPE)
- M28 series tent equipment
- M20A1 room liners
- CPS Ship Backfit
- Chem-Bio Protective Shelter (CBPS)
- CP for Deployable Medical System (CP DEPMEDS)
- Joint Collective Protection Equipment (JCPE) Program
- Joint Transportable Collective Protection System (JTCOPS) Program
- Building Collective Protection
- Technology Base Program

**Example 1 of an MCPE application.**



## Example 2 of an MCPE application.



## M28 series Tent Liner & Equipment



# M20A1 Room Liner & Equipment



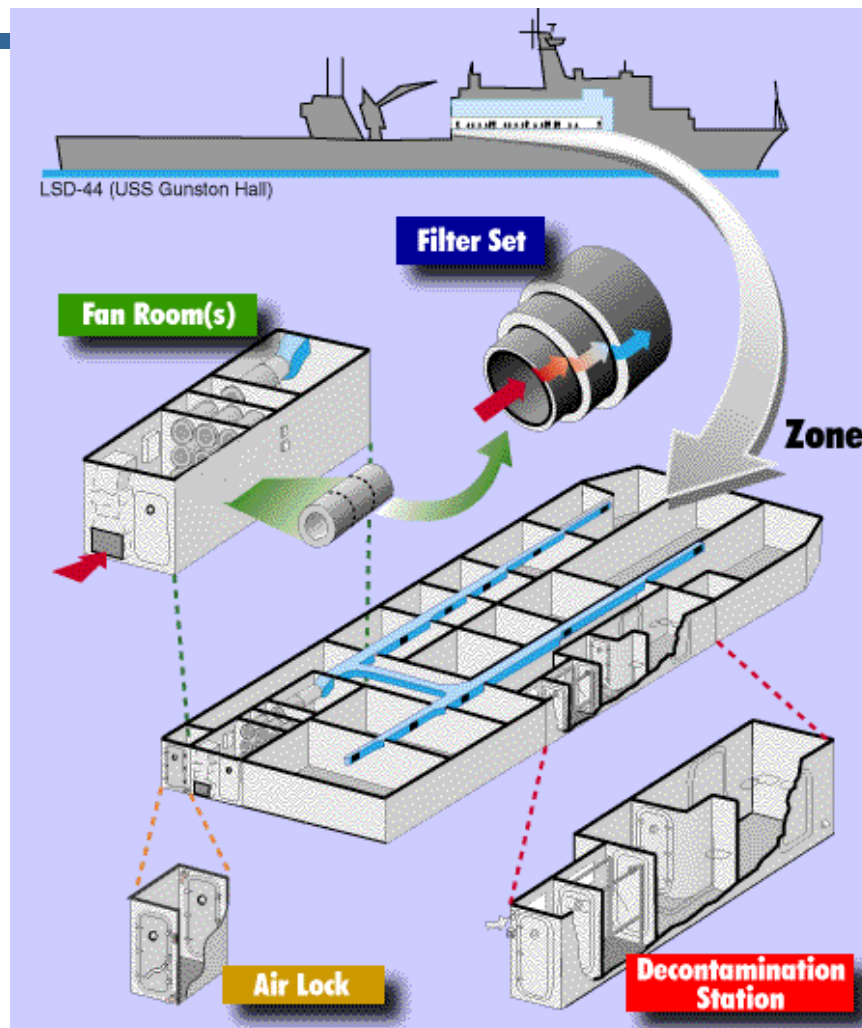


# CPS Backfit



Shipboard Collective Protection System

- Provides large, high value ships with colpro in critical shipboard spaces.
- Allows mission-critical operations in an NBC environment.
- Covers 15 Amphibious Class Ships:
  - Hospital areas (includes Casualty Decon Station)
  - Command/Control areas
  - Rest/relief areas
- CPS for new construction ships is covered by Navy shipbuilding funds.



# Chem Bio Protective Shelter (CBPS)

- Highly mobile, rapidly deployable, self-sustaining 300 sq ft system.
- Currently used by Army medics.
- Setup: 4 people, 20 min.
- Strike: 4 people, 40 min.
- Status: In production.



# CP DEPMEDS / CHATH



Collectively Protected Deployable Medical System (CP DEPMEDS)



Chemical Hardened Air Transportable Hospital (CHATH)

- Provide environmentally controlled collective protection kits to fielded Army DEPMEDS hospitals and USAF Air Transportable Hospitals (ATH).
- Perform medical treatment in a CB environment.
- Status: In production / fielded.



# Joint Collective Protection Equipment (JCPE) Program

- ❑ Provide needed improvements to currently fielded collective protection systems
  - ❑ Based on requirements of existing systems
  - ❑ Insert new technologies to reduce cost and logistics
- ❑ Provide cost saving standardization of equipment across Service lines



# Joint Collective Protection Equipment (JCPE)

## Shelter Backfit Kits

Provide collective protection kits using the latest technology and equipment to backfit these five tent systems, with availability starting in FY04:



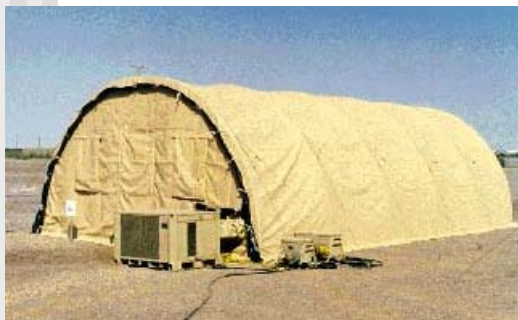
Tent, Extended, Modular, Personnel (TEMPER)



Modular General Purpose Tent System (MGPTS)



USAF Medium Shelter System (MSS)



USAF Small Shelter System (SSS)



Modular Command Post System (MCPS)

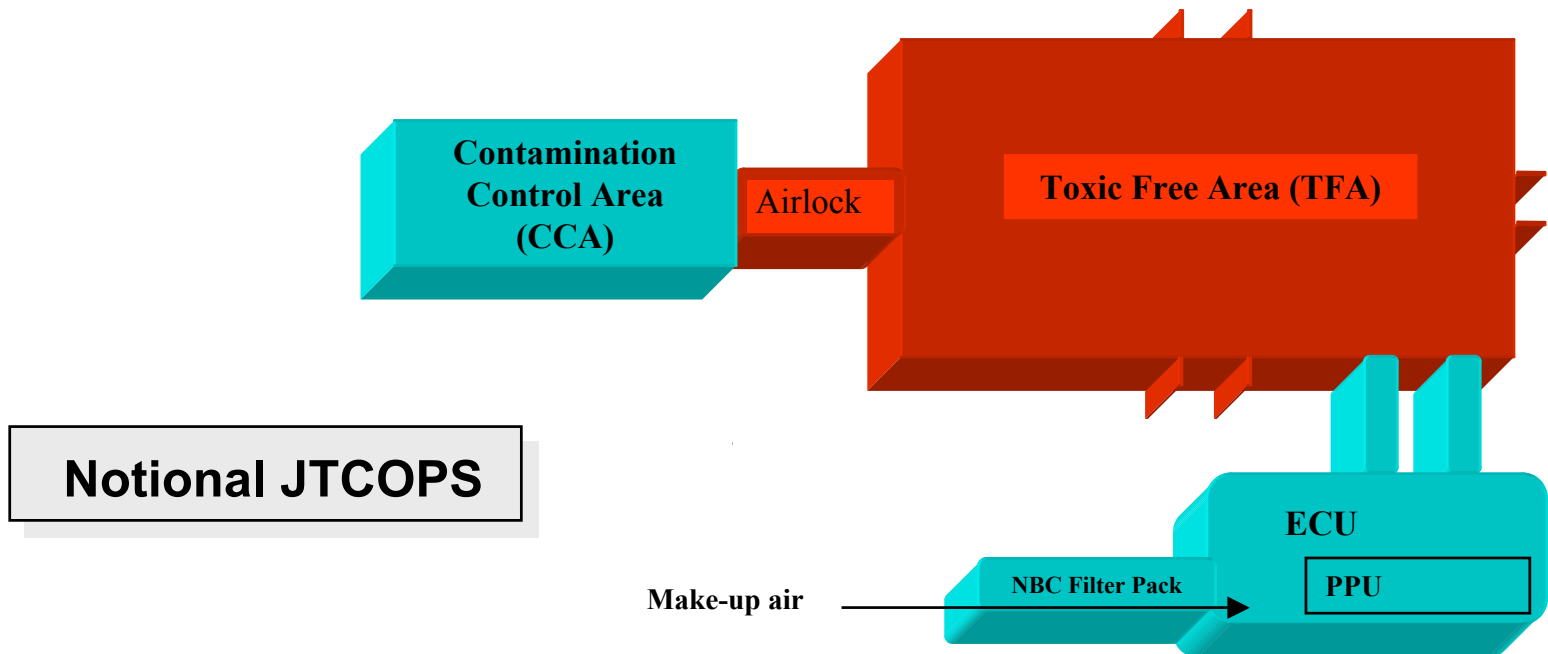
## JCPE Shelter Backfit Kits (cont.)

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- Improved liner seams, liner durability, and connections.
- NBC hardening kits for Environmental Control Units (ECUs).
- Correction of motor blower reliability, noise, heat load problems.
- Improved airlocks with greatly reduced purge times.
- Improved filtration performance, filter life, and filter maintenance.
- Improved latrine capability.
- System life cycle engineering of all components.
- Basic kits available in 2004.

# Joint Transportable Collective Protection System (JTCOPS)

- Provide a collective protection capability that is totally integrated with standard military tents and transparent to the user.
- RDT&E start scheduled for 2004. Initial production scheduled for 2008.



# Building Collective Protection

- Proven systems available now for new construction and/or backfit of buildings and/or selected areas of buildings.

6000 cfm modular system



200 cfm filter

600 cfm filter housing



# Colpro Technology Base

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Focusing on two major areas:

- New NBC Filtration Technology
  - Increased filter capacity and performance
  - Reduced logistics burden, reduced cost, weight, and power
  - Expanded protection capability (TICs, TIMs, new agents)
  
- Advanced NBC Tentage
  - Improved weight, volume, transportability (rapid deployability)
  - Reduced cost
  - Improved durability
  - Integration as standard tentage material

# Industry Opportunities

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- Commerce Business Daily (CBD) announcements
- Technology Base: Partner with a DoD lab (SBCCOM Edgewood or Natick, NSWC Dahlgren, AFRL Tyndall, HSC Brooks, USMC Quantico, etc.)
- Joint Collective Protection Equipment (JCPE) program
- Advanced Concept Technology Demonstrations (ACTDs)
- Other government agencies

# Summary

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- Increased CBR threat has heightened the need and importance of collective protection.
- Colpro must compete with other critical chem-bio programs for resources.
- DoD focus on future colpro equipment:
  - Rapid deployability
  - Cheaper
  - Easier to use
  - Reduced logistics burden
- Industry products and innovation are needed for future colpro equipment.