



Joint Expeditionary Collective Protection (JECP)

22 June 2005



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JECP Background

- **JRO identified expeditionary collective protection as highest priority within Shield capability area**
 - # 11 overall within CBD Program
- **Identified Gaps**
 - Size, Weight, Power, Quantity
- **Initial Capability Document (ICD) approved 15 April 2004**
 - DOTMLPF does not resolve capability gap
 - Materiel solution required
- **New acquisition program funded to start in FY06**



Current “Expeditionary” Systems

- **Chemically Biologically Protected Shelter System (CBPS)**
- **M20A1 Simplified Collective Protection Equipment (M20A1 SCPE)**
- **Collectively Protected Small Shelter System (CP-SSS)**
 - **All systems protect against known CBR agents. Limited TICS/TIMS. No FGAs or NTAs**
 - **All systems designed for single use (upon exposure) and have a 5 year extendable shelf life**
 - **Systems are designed to be effective against normal battlefield contaminants**



CBPS

- Dedicated Heavy (M1113) HMMWV
- All controls located within TFA
- 30 minute setup; 2 persons
- All weather
 - **Climate controlled by dedicated ECU**
- TALP & PE airlocks for entry/exit
- Components Include:
 - **Airbeam supported shelter with inherent CB protection**
 - **Unique ECU integrated with HMMWV**
 - **3 M48 100 CFM CBR filters**
- Supports max occupancy of 6 personnel
- Cost per system ~ \$500 – \$600K includes HMMWV





M20A1 SCPE

- 2 packages = 573 pounds; 72 cubic feet
- Controls located outside TFA
- 30 minutes setup & strike; 2 persons
- Deployed inside existing structures
 - No climate control; can integrate to ECUs
- PE airlock for single person entry/exit (5 minute purge)
- Components include:
 - **M28 CB Liner shell**
 - **M28 HSFC (Hermetically Sealed Filter Canister) & Blower**
 - **200 CFM CBR Filter**
- Supports max occupancy of 10 personnel
- Cost per system ~ \$12 - \$15K





CP-SSS

- **Single 32' shelter (2500 pounds; 334 cubic feet)**
- **Controls located outside TFA**
- **2 hours setup; 8 persons**
- **BTDA and PE for entry/exit points**
 - **Varies depending on version**
- **Currently fielded as Air Force ColPro Expeditionary Medical Shelter (CP-EMEDS)**
 - **Shelters are complexed together**
- **Components Include:**
 - **M28 CB Liner variant for ALASKA shelter system**
 - **Hunter Fan Filter Assembly (FFA-400)**
 - **2 M98 200 CFM CBR Filters**
- **Supports max occupancy of 20 personnel**
- **Cost per system ~ \$100K**





JECP Required Capabilities per ICD

- **Full range of protection against traditional CB agents, NTAs and TIC/TIMs**
- **Operational in all environments and climates**
- **Easily transportable**
- **Quick erect and strike**
- **Rapid ingress and egress**
- **Minimized power requirements and maintenance**
- **Support Rest & Relief (R2), Command & Control (C2) and medical Ops**
- **Allow for technology insertion**

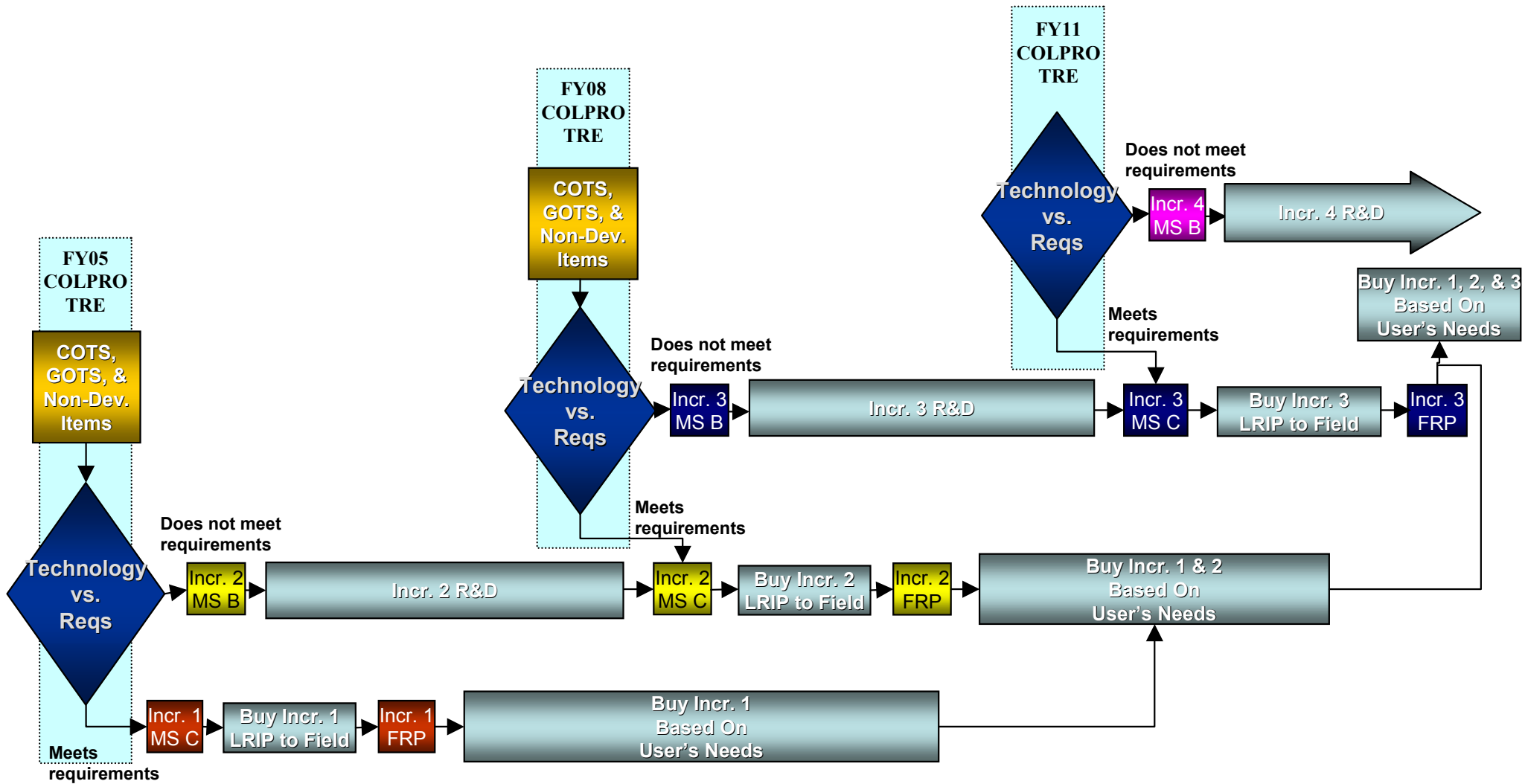


JECP Acquisition Approach

- **Evolutionary acquisition using incremental development**
- **Close coordination with JRO and users to support the JCIDS process**
- **Conduct a tailored Analysis of Alternatives (AoA) leveraging the ColPro TRE test results and market survey**
- **Enter acquisition process at Milestone C and/or B depending on technology maturity**
- **SOO and Performance Spec will be used to award an integration and/or development contract**
- **Procure end item equipment and deliver per service priorities**



JECP Technology Insertion





Possible Materiel Solutions

- **Transportable CP Shelter Kit**
 - Augment several types of existing shelters with a CP capability which is lightweight, easily maintained and easily erectable and disassembled
- **Fixed Site CP Structure Kit**
 - One or more approaches to render an enclosed area of opportunity collectively protected
- **New CP Shelter System**
 - Collectively Protected shelter system which is self contained, lightweight, easily transported, erected, and struck and available in various sizes to meet differing mission requirements



NOTIONAL Incremental Development **

JECP	Technologies				
	Air Purification	Barrier Mechanism	Ingress/Egress	Support Equipment	Other
1	<i>Increased TIC protection (Single Pass)</i>	<i>Improved Liner material and closures</i>	<i>Improved physical design</i>	<i>Overall reduced footprint & power consumption</i>	<i>Quick Erect technology</i>
2	<i>Reduced pressure drop (Single pass)</i>	<i>Affordable CB protective tent material</i>	<i>Rapid purge airlock</i>	<i>Integrated components</i>	
3	<i>Re-Gen / CatOx Limited NTA Protection</i>	<i>Quick seal coating Self detoxifying materials</i>	<i>Novel airlock technology</i>		<i>Residual Filter Life Indicator</i>

**** Increments will be defined in CDD**



JECP Design Goals

- **ColPro should be nearly transparent to user**
- **Minimize or eliminate the need for Military Handling Equipment**
- **Backward compatible with selected existing ColPro applications**
- **Component, subsystem, and interface standardization to the greatest extent possible**
- **Minimize application unique designs**
- **Modularity, flexibility, affordability**



Challenges

- **ConOps**
 - Definition of expeditionary
 - Employment of ColPro across the services
 - Should a Contamination Control Area be an inherent part of the ColPro system
- **Technical / Programmatic**
 - Tents
 - Contribution of non-cp components to size, weight and power consumption



Target Milestone Dates

- **Tailored AoA** 2Q06
- **MS-A Decision** 2Q06
- **CDD** 2Q06
- **SDD Contract RFP** 4Q06
- **MS-B Decision** 4Q06
- **SDD Contract Award** 2Q07
- **CPD** 2Q08
- **MS-C Decision** 3Q08

Assumes entry into acquisition process @ MS-B



Collective Protection

..... It's not just for
Chem-Bio

