JPEO-CBD

Collective Protection Contribution To Installation Protection

June 22, 2005

Joint Program Manager Guardian

Briefing Purpose

- Provide an Overview of JPM Guardian's Mission and Organization
- Present Details on the CBRN Installation Protection Program (IPP)
- Collective Protection's Contribution to Installation Protection

IPP Mission

- Provide an Effective CBRN Protection, Detection, Identification and Warning System for Installation Protection
- Provide a Capability that will Allow for Rapid Restoration of Critical Missions
- Protect DoD Civilians, Contractors and Other Persons Working or Living on U.S. Military Installations and Facilities

Installation Protection – A National View

Homeland Security Presidential Directives
National Security Strategy

Department of Homeland Security

Department of Defense

Installation Protection Program

Bridging the Gap

-National Response Plan
-National Incident Management System
-All Hazards
-BioWatch
-BioNet

Civil Community

Military Community

-Instructions
-Directives
-Homeland Defense Strategy
-Anti Terrorism / Force Protection Policy
-All Hazards

IPP Program Objectives

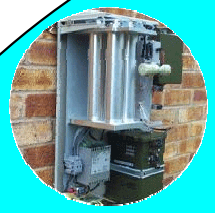
- Provide Installations an Integrated and Effective CBRN Installation Protection Capability Consisting of
  - Detection
    - Chemical
    - Biological
    - Radiological
  - Identification
  - Warning
  - Protection
  - Decontamination
  - CBRN Information Management
  - Medical Protection, Surveillance and Response
  - Emergency First Responders
- Leverage Existing Physical Security, Logistics, Sustainment, Maintenance and Command and Control Capabilities to Maximize Effectiveness while Reducing the Resource Impact (Time, Funding and Personnel) on the Installation

Assumptions & Operational Context

- Physical Security at Installations is Robust and Improving
- Adversary Attacks will Focus on Critical Mission Areas
  - Strategic Targets
  - Not Mass Attack or General Population
- Radiological Detection Capability Supports a Deterrent and Containment Strategy – Stop at Entry Portals to Limit Exposure
- IPP Augments Existing Force Protection Activities/Procedures
- All FoS Components Required to Support All Potential Hazards – Local Vulnerability may Heighten Components Importance (TIC, Nuclear Plant Location, etc)
- FoS Protection Timeframe is Pre-Event to 12 Hours After Agent Identification
- Equipment and CONOPS Provides Actionable Information Quickly to the Decision Maker – Not the Means to Report Events

Family of Systems Capabilities

Mission Assurance

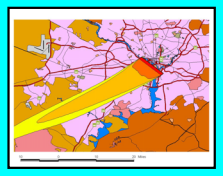



Chemical Point Detection

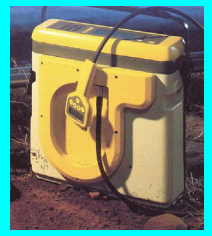
Biological Point Detection

Collective Protection

Rad Portal Monitors



Information Management & Warning



TIC Survey


Chemical / Biological Survey

Radiological Survey

Continuation of Critical Mission Functions & Operations

Consequence Management

Medical Response & Surveillance

Restoration

Individual Protection

Protect Public Health, Restore Essential Services, & Provide Emergency Relief

IPP CONUS
Operational Sites by FY06

FY04 = white
FY05 = red
FY06 = black

ALASKA
- Elmendorf AFB

WASHINGTON
-Naval Station Bangor
-Everett NAS
-Bremerton NAS
-Whidbey Island NAS
-McChord AFB

CALIFORNIA
-Naval Station San Diego
-MCB Camp Pendleton
-NB Coronado
-Naval Weapons Base Seal Beach
-Sierra Army Depot

ARIZONA
-Davis-Monthan AFB
-Luke AFB

NEW MEXICO
-Holloman AFB
-Kirtland AFB

COLORADO
- Peterson AFB

NEBRASKA
- Offutt AFB

KANSAS
-Ft. Riley

OKLAHOMA
-Tinker AFB

TEXAS
-Ft. Hood
-Red River Army Depot

MISSOURI
-NIMA Arnold

ILLINOIS
-Rock Island Arsenal

OHIO
-Wright-Patterson AFB

KENTUCKY
-Ft. Campbell

ALABAMA
-Anniston Army Depot
-Redstone Arsenal

LOUISIANA
-Barksdale AFB

HAWAII
-Ft. Shafter
-Hickam AFB
-Schofield Barracks & Wheeler AFB
-Commander Naval Station Pearl Harbor

CONNECTICUT
- N Sub Base New London

NEW YORK
-Ft. Drum

New Jersey
-Ft. Dix
-Naval Weapons Station Earle
-McGuire AFB

MARYLAND
-Andrews AFB
-Ft. Meade

WEST VA
-NSGA Sugar Grove

WASH, DC
-GSA Naval Yard
-DISA-WHCA
-NavalDistrict

NORTH CAROLINA
-Ft. Bragg
-MCB Camp Lejeune
-Pope AFB

VIRGINIA
-Langley AFB
-Nav Station Norfolk
-Fort Lewis
-Pentagon
-Ft. Eustis
-Oceana Naval Air
-Ft. Belvoir
-Amphibious Base Little Creek

GEORGIA
-Ft. Gordon
-Robins AFB
-Kings Bay Naval Base
-Ft. Benning
•Ft. Stewart

FLORIDA
-Hurlburt Field
-NAS Mayport
-MacDill AFB
-NAS Jacksonville

S. CAROLINA
-MCAS Beaufort
-Shaw AFB

Indicates Proposed BRAC Closure

Future Year Defense Plan (FYDP) Affordability

200 Installations With Reduced Col Pro Square Footage	FY2004-2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	Total
Procurement								
IPP Budget	**176,003**	**143,793**	**184,981**	**203,957**	**217,646**	**152,347**	**148,234**	1,226,961
28% Reduction in Col Pro	172,760	143,944	183,554	205,591	217,815	149,085	154,085	1,226,833
Operations and Support	**4,747**	**15,866**	**28,635**	**48,731**	**87,303**	**114,837**	**349,896**	**650,014**
Fielding Schedule	22	24	32	36	35	22	29	200

- **Major Changes from Program Go Decision, Dec 03**
  - **Loss of $200M in FYDP in Jan 05**
  - **Installation Equipment Quantities and cost Based on Design Process Knowledge and Actual Costs**
  - **Supports Regional Laboratory Operations and Overhead FY05-FY10**
  - **Radiological Portal Detection Added**
- **Current Strategy Provides 200 Installations Within the POM with Reduced ColPro**
- **Working Fielding and Purchasing Strategies to Reduce Costs and Regain Schedule**

COLPRO Team Includes JPMG, JPMCP, ECBC and SAIC

Operational Facility Impacts of 28% ColPro Reduction

Installation Size	Original Estimated Sq Ft	Reduced Collective Protection Sq Ft	Impacts
Small	15,000	10,875	Loss of Medium Size Structure
Medium	20,000	14,500	Loss of Large Size Structure
Large	25,000	18,125	Loss of a Small and Large Structure
Supersize	30,000	21,750	Loss of a Medium and Large Structure

- **Small Structures Include:**
  - Small C2 and EOC Facilities (2-4 people)
  - Installation Dispatch Facilities
  - Aircrew Alert Facilities
- **Medium Structures Include:**
  - Communications Facilities
  - Integrated Emergency Operations Centers
  - Real-Time Software Update Centers
  - Nuclear Weapons Response Center
- **Large Structures Include:**
  - Fleet/Strategic Command and Control Centers
  - Strategic Planning Facilities
  - Joint Intelligence Centers
  - Port Operations Facilities
  - Air Operations Facilities

Each Installations has a Unique mix of Critical Mission Facilities (Service and Joint) that must Be Protected

IPP Family of Systems (FoS)

CBRN CONOPS IPT

CBRN Installation CONOPS

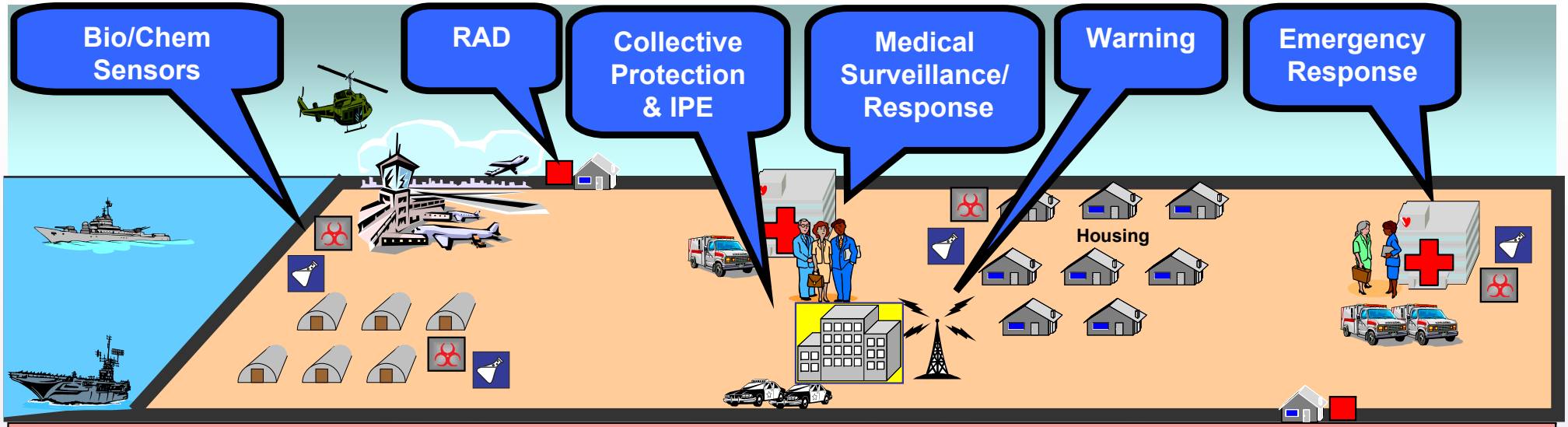
- JSIPP, RestOps, CASPOD, UNWD ConOps
- NORTHCOM CONOPS
- Services CONOPS

- National Response Plan
- DoDI 2000.12
- DoDI 2000.16
- DoDI 2000.18
- DoD Homeland Security Joint Operating Concept

Service Specific Directives, Instructions and Operating Concepts

Installation Unique Constraints

1. Installation Critical Mission(s)
2. Tenant Support Requirements
3. Community – Mutual Aid Agreements
4. Local Community Emergency Operations
5. Installation Unique Terrain and Weather Conditions



Service Specific **Antiterrorism** (AT) / **Force Protection** (FP) Layer

Medical	Critical Infrastructure Protection (CIP)	CBRNE	Physical Security (PS) / Access Control (AC)

Installation CBRN Defense

Collective Protection Contribution

Collective Protection Assumptions

- Collective protection is divided up into two cases:
  Case 1(with): All buildings with collective protection on Norfolk (8))
  Case 2 (without): No CM buildings with collective protection

- All other CONOPS and systems in the FOS are included in each of these runs including:
  - ACADAs
  - Internal Voice
  - Radiological portal monitors
  - Dry filter units & labs

- Collective protection provides only limited protection to mission critical personnel during biological events, since warning occurs after several CM shifts have come and gone.

- 100 liters of sarin, aerosol dissemination over 18 min.
- 5000 kilograms of chlorine, release over 10 min.
- 100 liters of mustard explosive dissemination

Collective Protection Summary

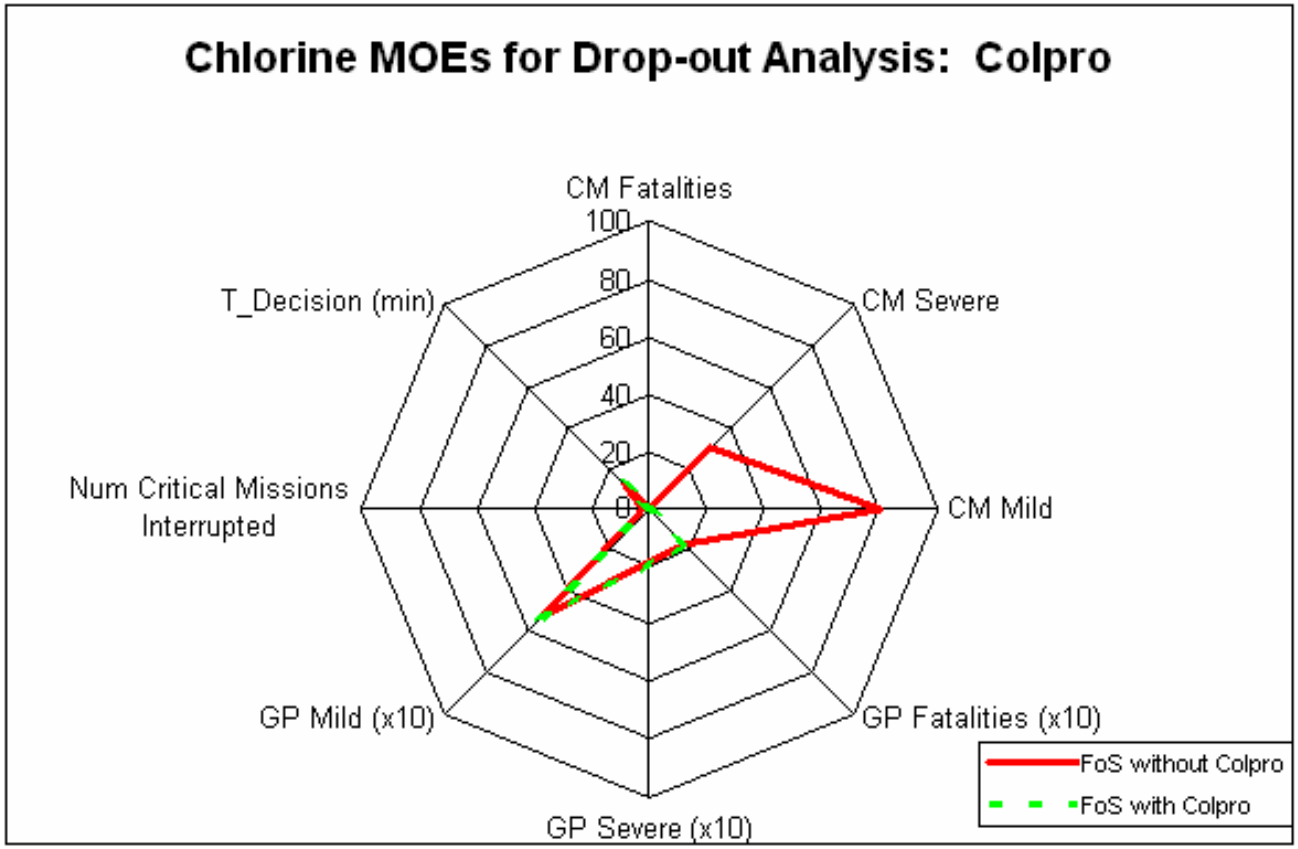
MOEs	Chemical Agent (Sarin)	TIC Agent (Chlorine)	Persistent Chemical Agent (Mustard)	Radiological Agent (Cesium-137)	Biological Agent (Anthrax)
CM Fatalities	0/2	0/0	0/1	0/0	<157/157
CM Severe Casualties	0/0	0/30	0/26	0/0	--**
CM Mild Casualties	0/84	0/80	0/46	0/0	<523/523
CM Interrupted	0/1.9	0/2	0/1	0/2.3	0/8

FoS with Collective Protection / FoS without Collective Protection

- Collective Protection is the only FoS component that will keep a critical mission facility operational after a threat release (with the exception of a few TICs)
- Collective Protection will eliminate all casualties at these sites in the sarin, mustard and chlorine cases
- Collective protection does not have an effect on fatalities or casualty MOEs in the radiological case, since the threat doesn't produce prompt casualties
- Collective protection is the only Guardian FoS component that will ensure that a critical mission will remain operational in the event of an attack on that building (excluding some biological and certain TICs)
- Collective protection will significantly reduce the amount of Anthrax in a critical mission facility, however, little data exists on Anthrax cross-contamination

*Guardian IPP design calls for 2 ColPro facilities

Collective Protection (Chlorine)



MOE	Without Colpro	With Colpro
CM Fatalities	0	0
CM Severe Casualties	30	0
CM Mild Casualties	80	0
GP Fatalities	170	170
GP Severe Casualties	186	186
GP Mild Casualties	529	529
Num Critical Missions Interrupted	2.0	0.0
T_Decision (min)	11	11

Future Requirements

- Future Requirements and Capabilities are Being Defined as a we Build our RDA Plan
- Near Term Goals Include:
  - Smaller more Efficient Filtration Systems
  - Enhanced System Diagnostic Capabilities
  - Rapidly Deployable Limited-use Capabilities
  - Improved Information Management
- Far Term Goals Include:
  - Automated Activation
  - Integrated Personnel Monitoring Technologies
  - Fully Integrated Sensor/Information Management

Summary

- The Installation Protection Program Directly Supports the National Consequence Management Strategy
  - MOU FOR Coordinated Monitoring of Biological Threat Agents with DHS, DoD, DHHS and DoJ
    - Develop and Implement a plan for an Integrated National Monitoring System for Biological Threat Agents.
- The Program Supports DoD Mission Assurance

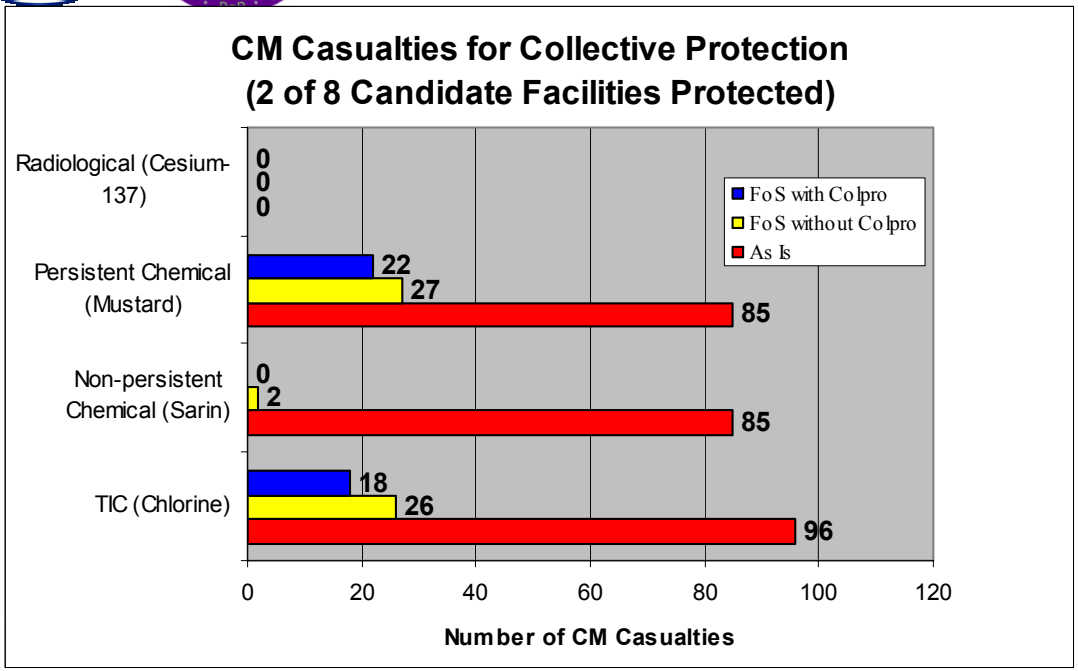
- Solutions Focused on Available Commodities/Components Tailored to Meet Each Installation's Unique Missions

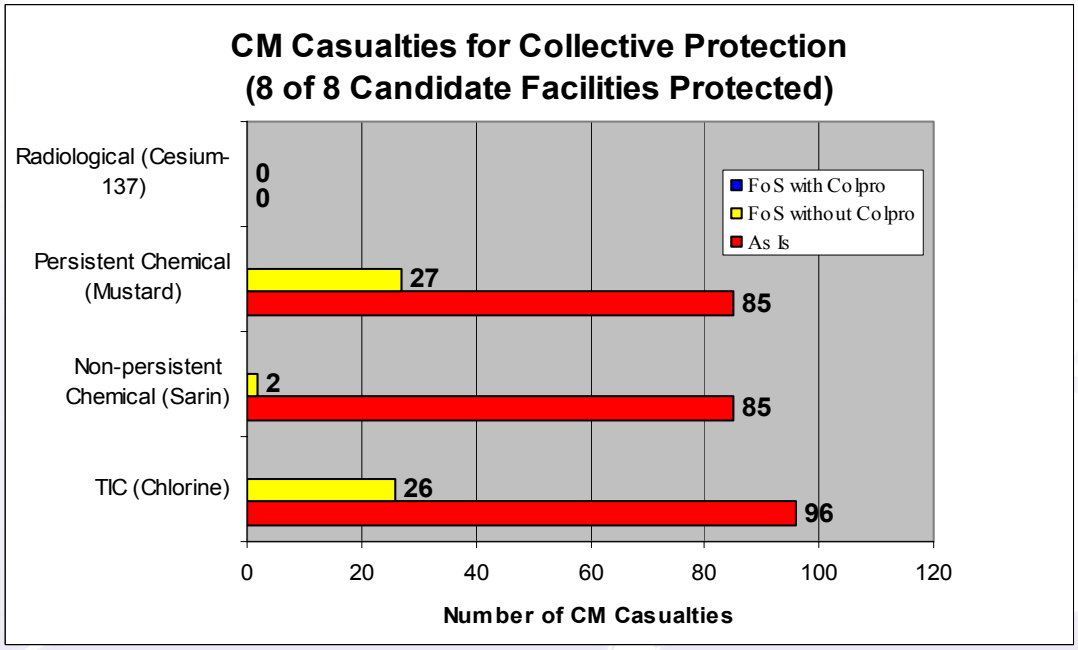
- Collective Protection is a key Enabler – Opportunity Exists to Increase Contribution

Program is a Critical Component of the National Defense Strategy

BACKUP SLIDES

Contribution of Collective Protection to FoS Effectiveness





Collective Protection Case	Critical Missions Vulnerable (All Threats)
As Is	8
2 of 8 Facilities Collectively Protected	6
8 of 8 Facilities Collectively Protected	0

Component Contribution

Collective Protection

Mission Assurance:

- **Collective Protection is the only FoS component that can ensure a critical mission will be operable in event of the CBR attack**

Casualty Reduction:

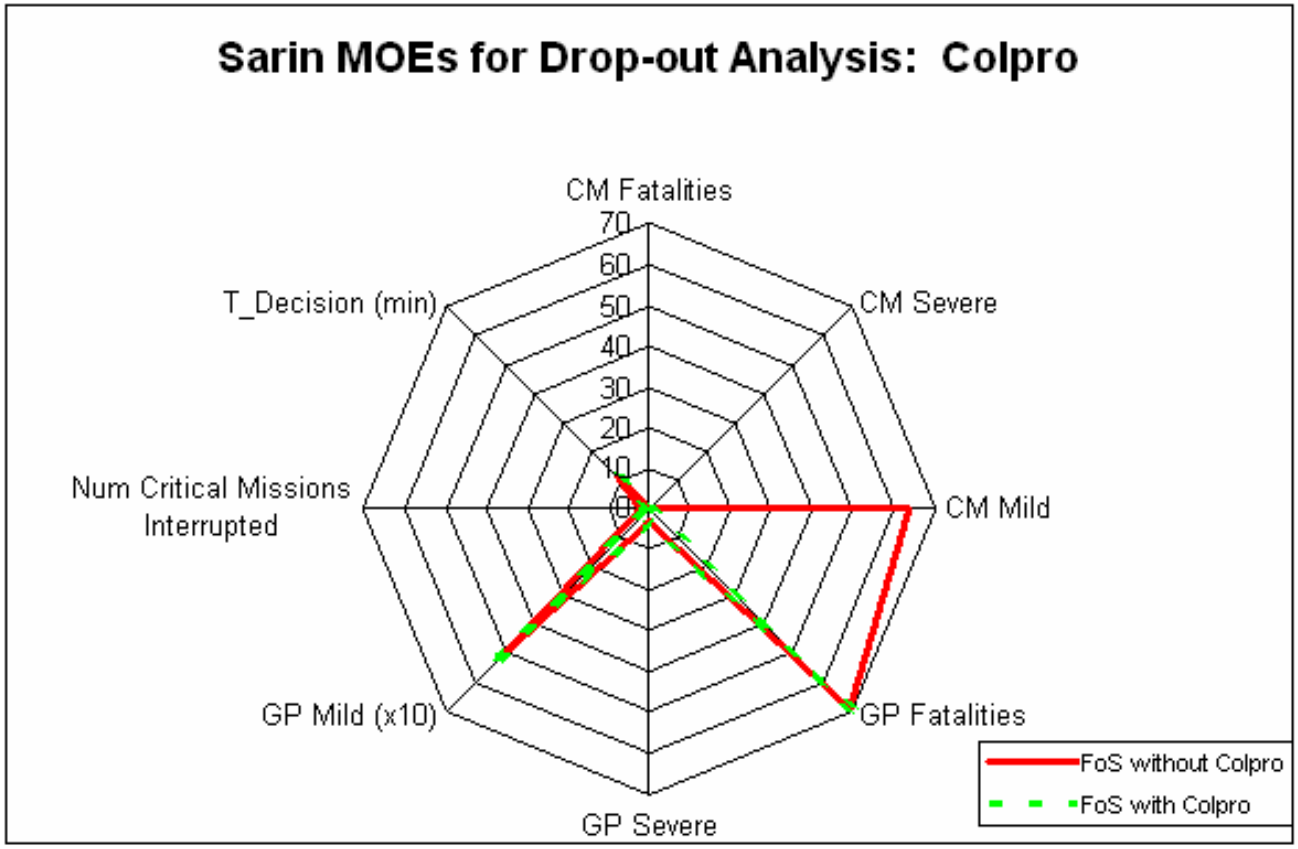
- Collective protection will prevent any casualties from occurring within the collectively protected area with the exception of the biological case where casualties will be reduced

Total Cost* for Component on Super-size Installation

2 Collectively Protected Critical Missions (19500 ft² x $60/ft²)	$1.17M
8 Collectively Protected Critical Missions (90750 ft² x $60/ft²)	$5.45M

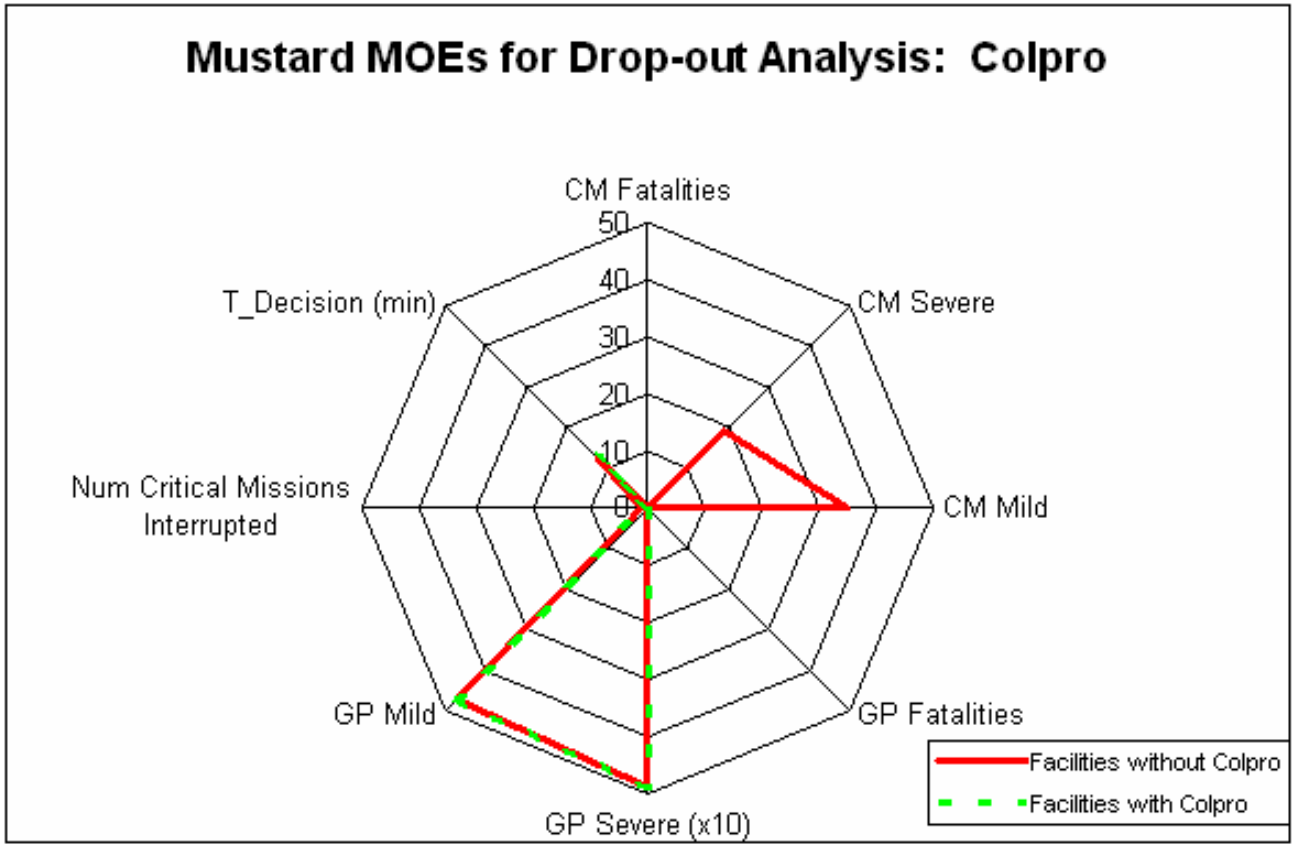
*Cost stated is H/W Procurement + installation + 1 year CLS

Collective Protection (Sarin)



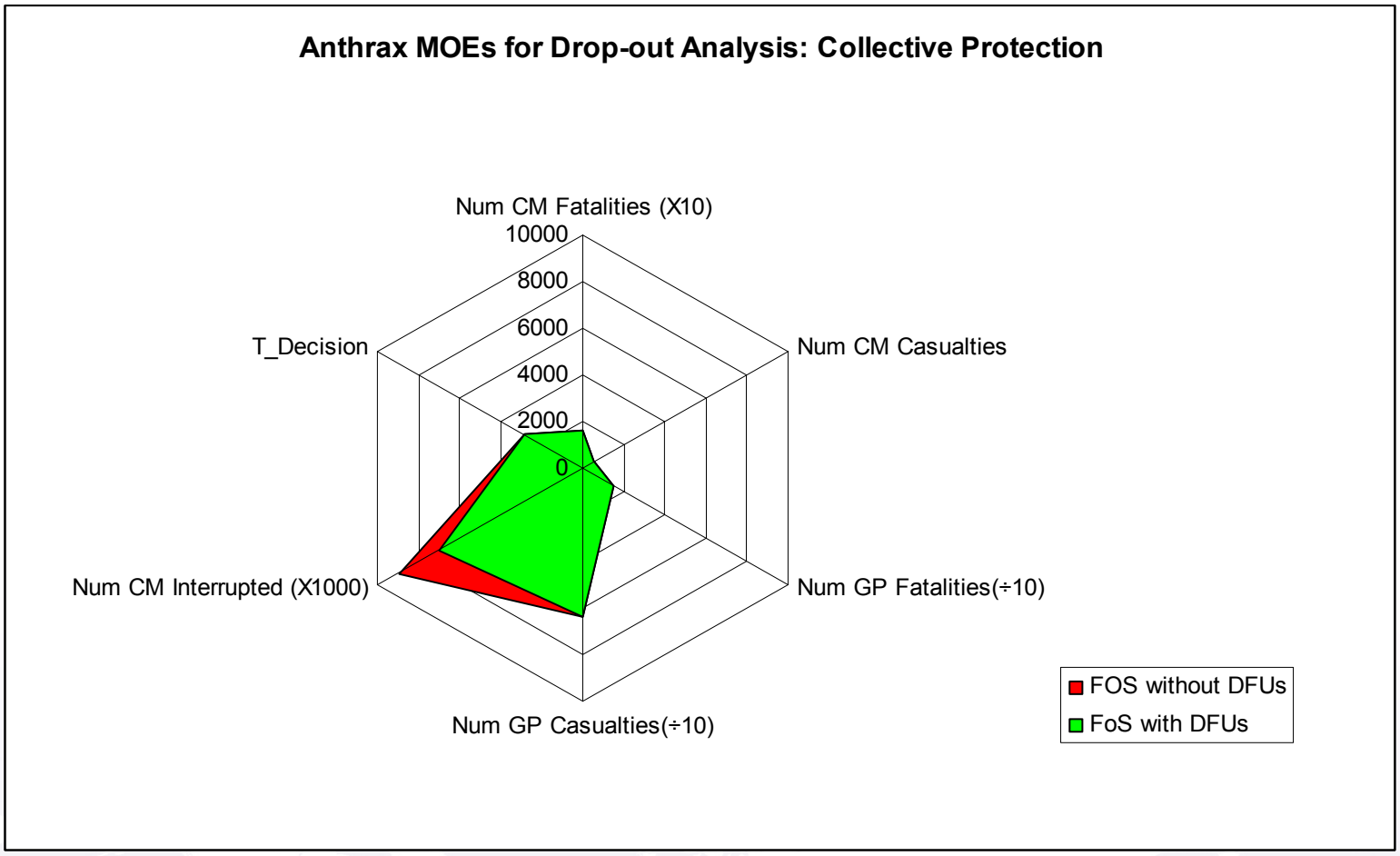
MOE	Without Colpro	With Colpro
CM Fatalities	0	0
CM Severe Casualties	0	0
CM Mild Casualties	64	0
GP Fatalities	69	69
GP Severe Casualties	3	3
GP Mild Casualties	516	516
Num Critical Missions Interrupted	2.0	0.0
T_Decision (min)	11	11

Collective Protection (Mustard)



MOE	Without Colpro	With Colpro
CM Fatalities	0	0
CM Severe Casualties	19	0
CM Mild Casualties	35	0
GP Fatalities	0	0
GP Severe Casualties	487	487
GP Mild Casualties	47	47
Num Critical Missions Interrupted	1.0	0.0
T_Decision (min)	13	13

Collective Protection (Anthrax)



MOEs	FoS without ColPro	FoS with ColPro
CM Fatalities	338	160
CM Casualties	342	520
GP Fatalities	23353	15326
GP Casualties	62665	63468
CM Interrupted	7	7
T_Decision (min)	5100	2880