

UNCLASSIFIED

Support the Force

Improve Fielded Capabilities

Build the Future

PRESENTED TO:

Joint CBRN Conference Fort Leonard Wood, MO STEPHEN V. REEVES
Major General, USA
Joint Program Executive Officer
for Chemical and Biological Defense
(703) 681-9600



Toxic Industrial Chemical Detection and Protection Equipment Set (TIC PDE)

Commercial-Off-The-Shelf (COTS)

Sensitive Site Exploration (SSE)

Additional Training Sets Approved Under NSERP to Address User Needs







Sets include: HAZMAT ID, MultiRAE Plus

Meets CENTCOM Operational Needs Statement (ONS)



Joint Acquisition CBRN Knowledge System (JACKS) Information Response Center (IRC)

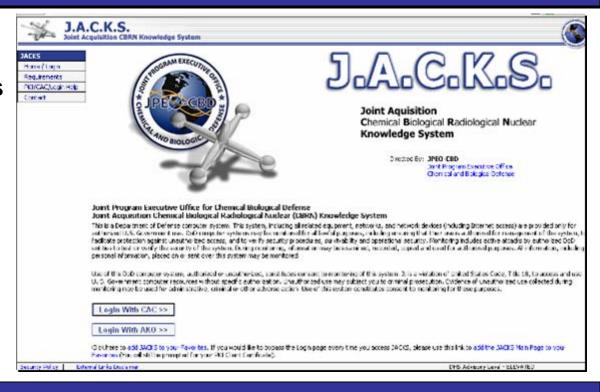
- Consolidates all CB Hotlines
- Operates on a 24/7/365 Basis
- Provides Single Entry Point for all CB Defense Equipment Information

"One-Stop-Shop" for CBRN Equipment Information

- Total Asset Visibility
- Specifications and Standards
- Fact Sheets
- Advisory Messages
- Shelf-Life Information
- New Equipment Training

1-800-831-4408

https://jacks.jpeocbd.osd.mil



Fully-Integrated CBDP Information Center



Improving Fielded Capability

15 New Capabilities

34 Capabilities Currently Fielding

PROTECTION









INFORMATION/ ANALYTICAL **SYSTEM**





MEDICAL











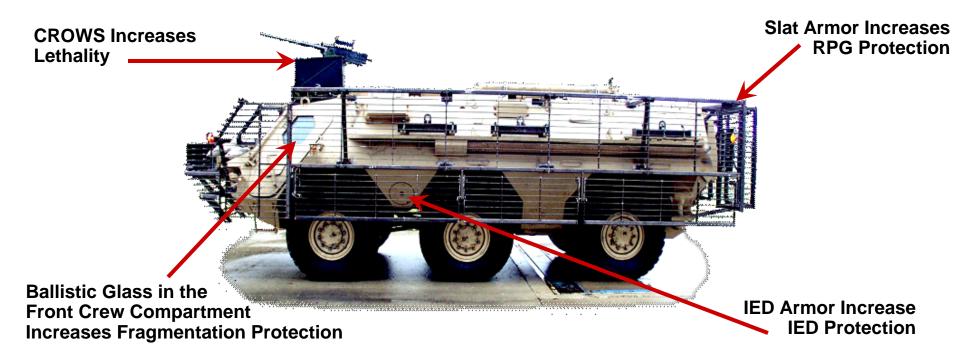




M93A1P1 FOX NBCRS Upgrade

- Improved RPG Protection: Slat Armor
- Improved IED Fragmentation Protection

- Up-Gun to M2 Machine Gun
- Common Remotely Operated Weapon System (CROWS)
- Enhanced Communications (VIC III)



Enhanced Survivability and Lethality



Individual Protection







JSLIST Block 2 Glove Upgrade (JB2GU) (24 hours of protection / up to 30 days of wear)



Universal Camouflage Pattern
 Type II: Most Application
 Type VII: Special Ops

Alternative Footwear System (AFS)





- Increased Durability
- Reduced Weight and Improved Fit
- Enhanced Suit Closures and Higher Confidence
- Reduced Heat Stress by 15%



Individual Protection Fieldings





Mask (JSGPM)

Improved Fit, Increased TIC Capability, Reduced Burden



Medical Treatments – Improved Nerve Agent Treatment System (INATS) / Advanced Anti-Convulsant System (AAS)



Faster Acting and Increased Efficacy Protects
Nerve Agent-Induced Seizures, Reduces
Neurological Damage and Prevent Seizure
Reoccurrence

AAS: Replaces Currently Fielded Convulsant Antidote for Nerve Agents

Enhanced Treatment Regimen Broad Spectrum of Nerve Agents

INATS: Replaces
Currently Fielded
Oxime

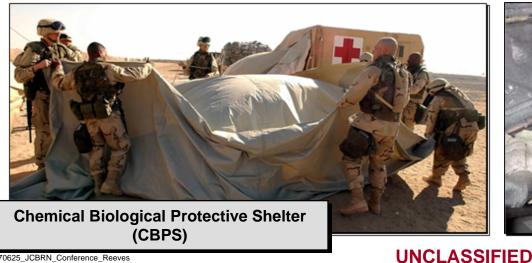


Collective Protection Fieldings (Ongoing and Upgrades)









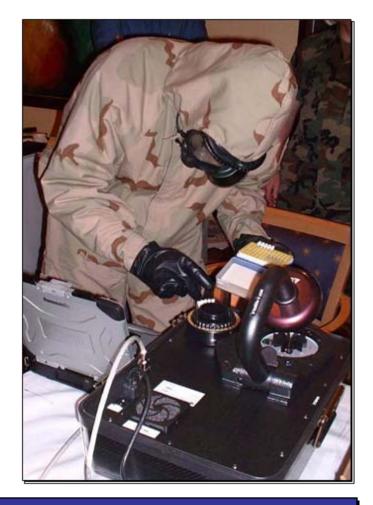




Chemical Biological Medical System Fielding

Joint Biological Agent Identification and Diagnostics System (JBAIDS)





Rapid Identification and Diagnostic Confirmation for BWA and Other Pathogens



Decontamination Fieldings



Lightweight Multipurpose Decontamination System (LMDS)



Army ONS – Modified COTS Interim Capability Prior to Joint Service Transportable Decontamination – Small Scale



Joint Service Personnel Decontamination System (JSPDS)



Reactive Skin Decontamination Solution (RSDL)

Improved Performance - Increased Capability for Current and Emerging Threats



Installation Protection Program (IPP)



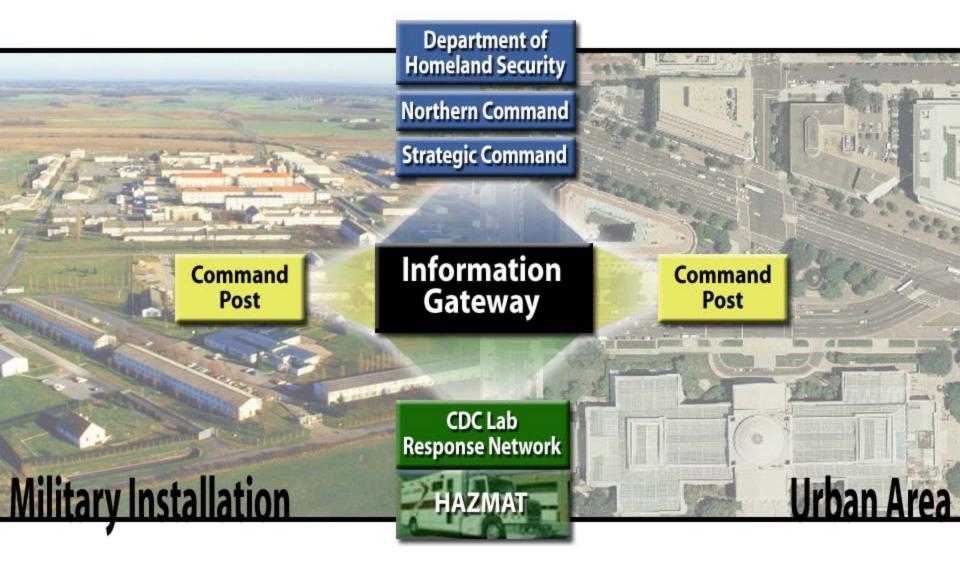
Capabilities:

- Integrated and Effective Protection
 - -Respond and Recover
 - Effective and Affordable
 - Detection
 - Warning
 - Decontamination
 - Information Management
 - Medical Protection, Surveillance, and Response

IPP Fielding: 44 Locations
First Responder Program: 32 Locations



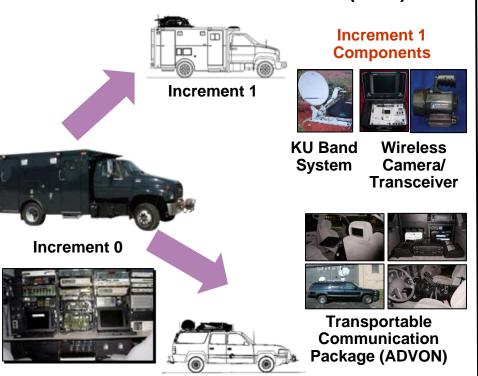
Civil-Military Network Integration





Supporting the National Guard: JPM Guardian Fieldings

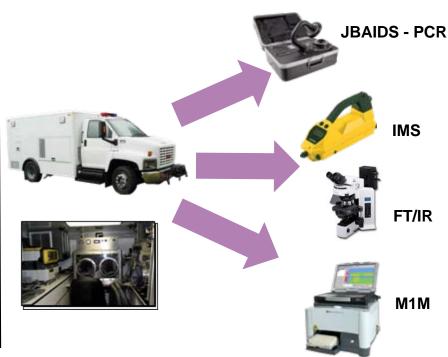
CST Unified Command Suite (UCS)



Commanders Vehicle

CST Analytical Laboratory System (ALS)

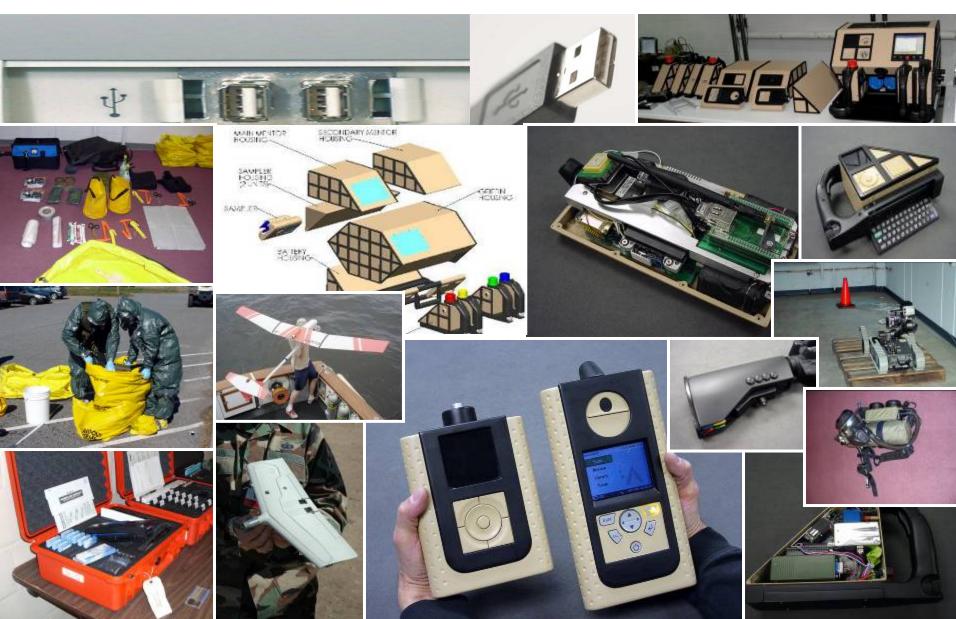
Increment 1 Analytical Upgrade
Chemical / Biological Agent Detection & Analysis



New JPM: Consequence Management Enhanced BW / CW and TIC Capability Increased Interoperability



Building the Future



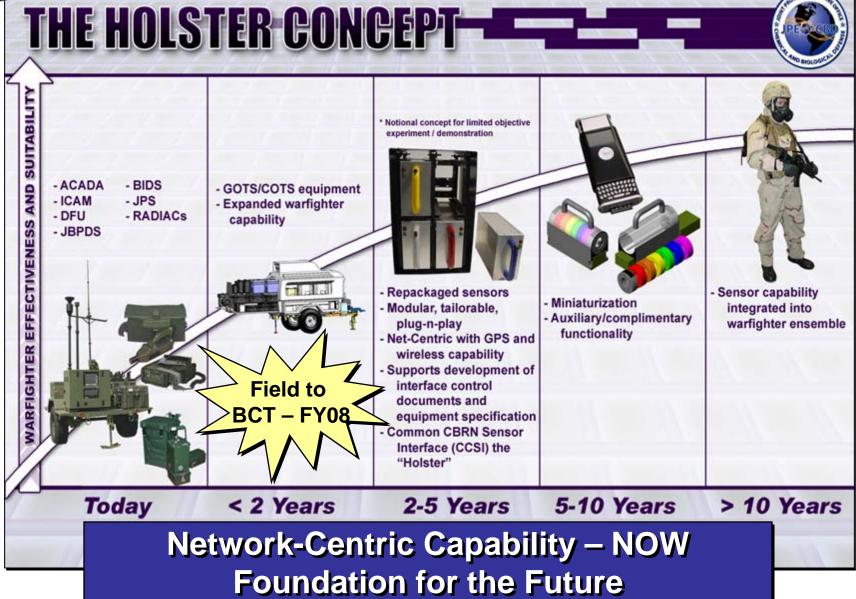


Joint Warfighter Experimentation



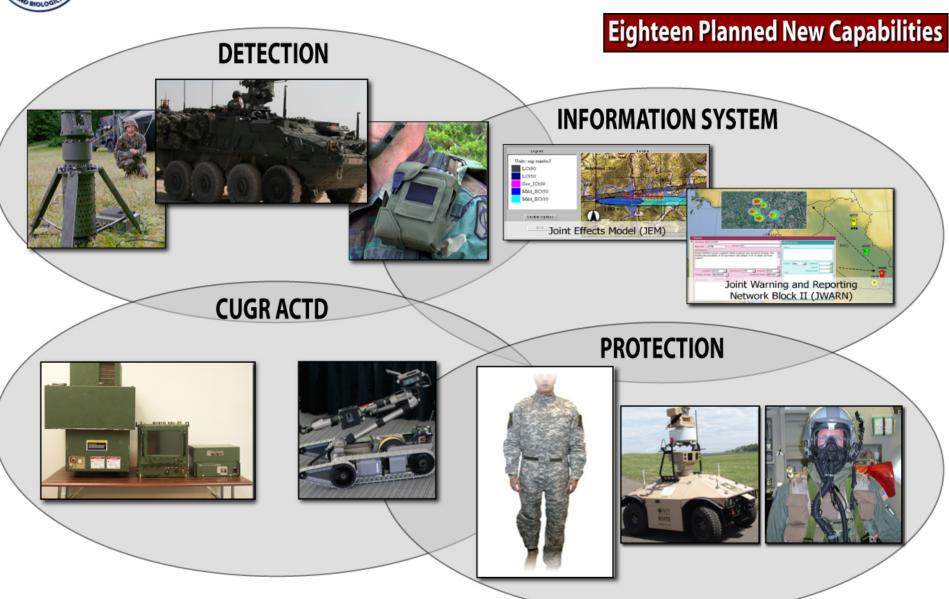


Building the Future - NOW





Major Future Fieldings





Major Defense Acquisition Program (MDAP) Chemical/Biological Defense Program Support



CBRN — REQUIREMENTS

CBR Detection
Battle Management
Integrated Early Warning
Collective Protection

Decontamination Individual Protection

OTHERS Bradley, THAAD, CFPI, UAV...

Expeditionary Fighting Vehicle



Stryker



Joint Strike Fighter

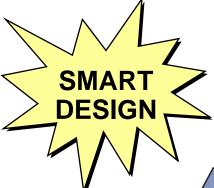




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Software Standardization



JPEO-CBD STANDARDS

- Common CBRN Sensor Interface (CCSI)
 - Common Modular Communications Interface
 - November 2007

JPEO-CBD Standards

CBRN Enterprise
Standards

- DDMS
- CBRN Data Model

ENTERPRISE STANDARDS

- CBRN Data Model Version 1.5
 - All Current CBRN
 Development Activities

Industry Standards

- WS-I Profiles
 UDDI
 SOAP
- OASIS Web Service Profiles WSDI
 - HTTP + XML/XSLT

INDUSTRY STANDARDS

Common Net-Centric
 Standards are Critical
 to Component
 Interoperability

Interoperability Built From The Bottom Up – Common Standards!

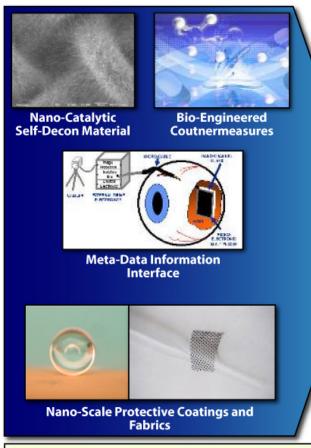


Integration of Advanced Materials and Concepts

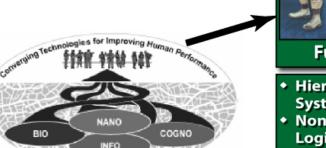


Integrated Cross-Cutting Technologies

Broad Spectrum Applications



- Broad Spectrum Defense for Hazardous Matierals
- Modular Design Concepts
- Interactive Digital Architecture



- Nanotechnology
- Biotechnology
- Information Technology
- Cognitive Sciences
- Materials Science



- **Future Combat Systems**
- Hierarchical System of Systems
- Non-Intrusive; Minimal Logistics



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An Integrated System Using Revolutionary Technologies Transparent to the User

Sustained

Combat Power

ntegrated

Medical

Capability



Medical System Integration

CB Event - Current Approach

Symptoms Doses

Absorbed

Agent

Doses on

Downwind Dispersa

Delivery Target*



Medical Pretreatment

Multi-agent

Vaccines

Medical Diagnostics

Medical **Therapeutics**

Transformational **Medical Technology Initiative**

Bioinformatics

Medical **Surveillance**

Broad Spectrum Therapeutics

Integrated System Using Revolutionary Technologies Transparent to the User

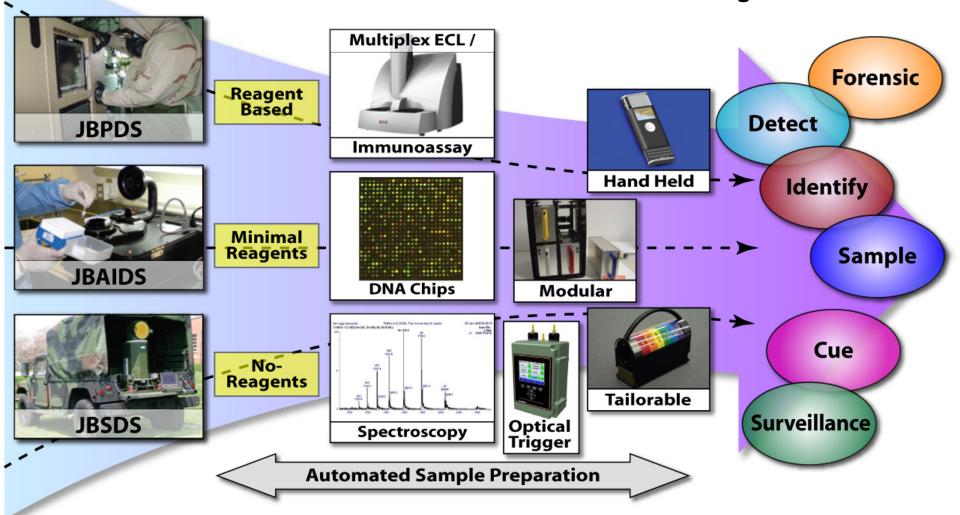


Bio-Sensing Vision

Develop and Field Advanced Bio Sensing Technologies

- Multi-Plex for Broad Range of Threats
- Tailorable for Threat/Mission

- Modular Across Sensing Modality
- No/Minimal Reagents





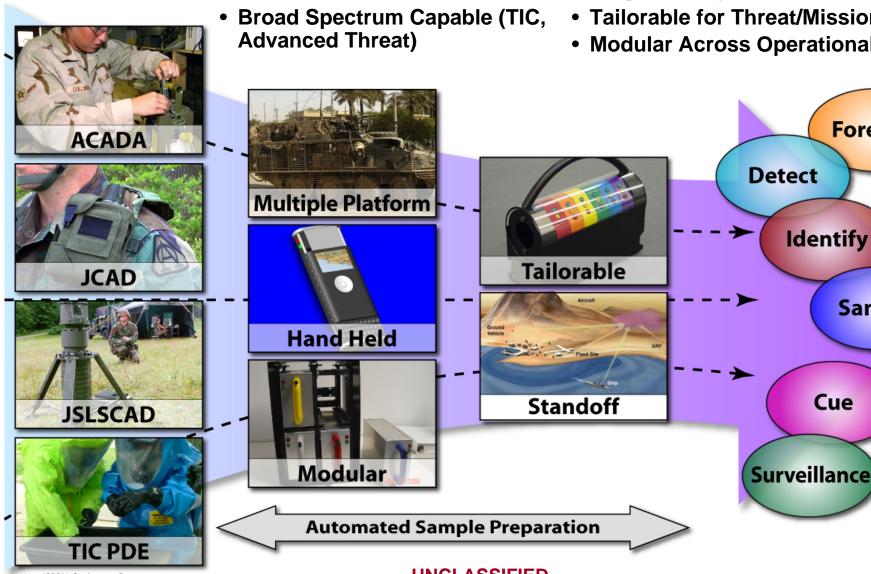
Chemical Detection Vision

Develop and Field Integrated Systems

- Tailorable for Threat/Mission
- Modular Across Operational Needs

Forensic

Sample



Surveillance

Cue



Decontamination Vision

Reduce Logistics Burden Eliminate Hazardous Material (CLO2, H2O2)

Today

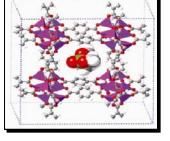




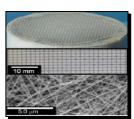
mVHP, Sensitive Equipment Decon







Advanced Chemistries



Nano-Fibers



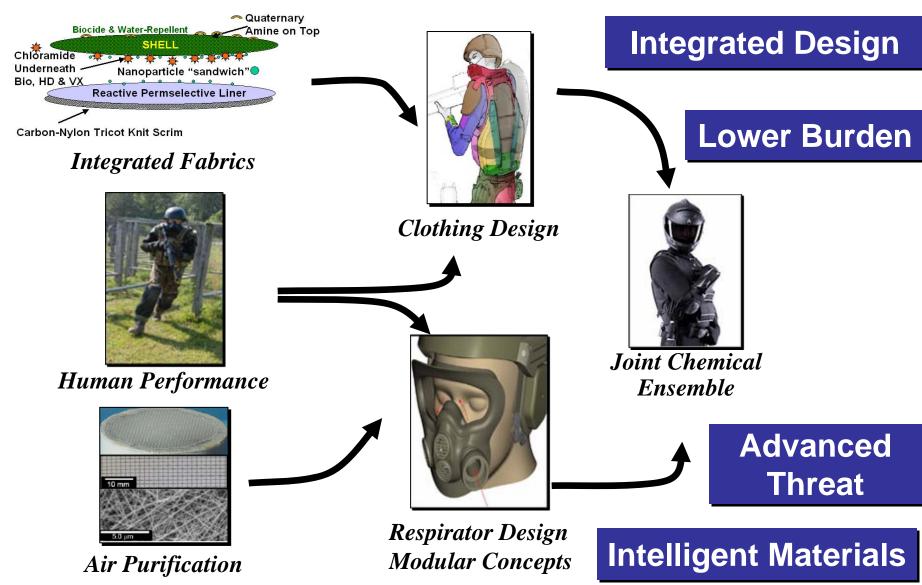


Integrated into Platforms

Strippable Barriers Self-Decontaminating Fabrics/Coatings



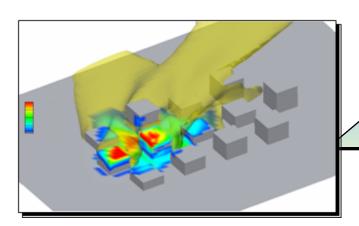
Individual CBRN Protection Vision



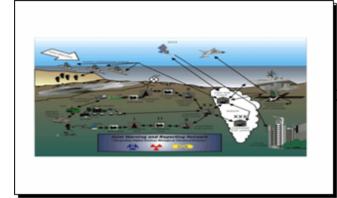


Joint CBRN Integrated Information System

Awareness

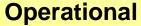


Joint Effects Model (JEM)



Joint Warning and Reporting Network (JWARN)











Information Systems Interoperability



Joint Operational Effects Federation (JOEF)

CBRN Data Services on Service-Oriented Architecture



The Bottom Line – Return on Investment



DELIVERING WARFIGHTING CAPABILITY

(Best Technology - Right Place and Time)





