



JPM GUARDIAN

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Advanced Planning Briefing to Industry

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Outline

- **Guardian Program Overview**
- **Force Protection Systems (FPS)**
- **Consequence Management (CM)**
- **Installation Protection Program (IPP)**
- **Current Program Schedule**
- **Funding Schedule**
- **Potential Contracting Opportunities**
- **Contacts**



Integrating CBRN, Physical Security and Consequence Management

PM – Installation Protection Program



PM – Force Protection Systems



FY07 MISSION

- *Inter PM Demo's
- *Conv/ non conventional
- * Disparate Sensor Integration
- *Robotics Demo's
- * DSS-PMC Integration

FY08 JCTD

JPM

PM – Consequence Mgmt



Strategies

- Nested to MDAP Program
- Common COTS suite across Response Units
- Common DSS Architecture
- Detect to Protect
- COTS & Developmental
- Interoperability with Standard Items

Moving Smartly in Partnership Towards the Force Protection and Homeland Defense Mission



CAPO Mission Enablers

- **Studies** – Review processes, methods, and concepts of operation to determine military utility, achieve broader perspectives, determine capabilities gaps using current technologies, and leverage complementary efforts ongoing with other Federal Agencies and Allies
- **Demonstrations** – Establish demonstration and evaluation processes that support the migration of existing or emergent technologies into the JPMG Family of Systems (FoS). Demonstrations focus on a particular aspect of consequence management, protection, and/or detection technologies with outcomes intended to inform procurement, deployment, and sustainment actions
- **Equipment validation** – Generate system performance data to aid users in equipment selection, capability gap identification, and concept of operation development.





JPMG Investment Strategy

- **Leverage ongoing and Planned studies and demonstrations with both DoD and Interagency to support POM strategy which Minimizes costs and eliminates Duplication of Effort.**
- **Focus on Supporting R&D efforts Expected to Yield Results in the near term, i.e. in 2-3 Years.**
- **Expedite Procurement and Fielding of Emerging Force Protection, Mission Assurance, and Consequence Management Capabilities by Effectively Leveraging GOTS/COTS Technologies and Products.**
- **Institute a Modernization Strategy that Focuses on Rapid Insertion of Available Technologies and Development of Emerging Technologies to meet Unique Program Requirements.**
- **Participating in Concept Development (i.e. IUBIP and CM CBA) to Make Informed long term Investment Decisions.**

Demonstrations

Robotics Surveillance Demonstration

Goal: Determine the military utility of configuring and deploying the MARS and UGV systems for use in the installation protection program, using MDARS technologies developed.

Objectives

- Combine best available features and capabilities of MDARS and UGV on a single platform
- Provide capability to operate modified version remotely
- Conduct clearance, sampling, and forensic collection activities remotely (human in the loop)
- Recover unmanned ground vehicle from a hot zone, perform decontamination actions, and re-use
- Determine military utility for the tested unit based on DOTMLPF considerations

Participants

- **Sponsor:** JSTO and JPM Guardian
- **Stakeholders:** WMD-CST, Installation 1st Responders, IPP, other rapid response organizations within the DOD
- **Performers:** SPAWAR, San Diego and Industry
- **Venue:** Nevada Test Site; Dugway Proving Grounds

Schedule

- FY07:** Conduct and complete military utility assessment
- combine best features of MDARS and UGV to achieve operational test model
 - operate modified unit at Nevada Test Site, utilizing services of WMD-CST
 - provide recommendations to JPM G
 - close out project

Deliverables

- Compare/contrast the overall utility of unmanned ground vehicles in this type of military application
- Determine trade-off costs associated with using a modified version of MDARS/UGV for WMD-CST use, specifically measuring the savings in personnel, PPE, and other hand held devices
- Identify any specific training needs associated with the safe and efficient operation of the modified system
- Determine utility of decontamination protocols and other factors associated with the safe recovery and restoration of equipment after use in a hot zone
- Provide an assessment of operating limits for the modified system

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Unmanned Ground
Vehicle Candidate
System



Joint Lightweight NBC
Reconnaissance System

Demonstrations (continued)

Telecommunications Capabilities

Goal: Achieve Interoperable Telecommunications Capability using current state COTS solutions

Objectives

- demonstrate a COTS system for integrating disparate push-to-talk radio systems with other Voice, Video, and Data Networks
- solicit Industry to meet further JPMG requirements for expanded use with another installation
- expand telecommunications integration with civilian community
- demonstrate data security of solution set used
- provide basis to certify and accredit the system for acquisition

Outcomes

- Provide data and observations that support or non-support military utility in an operational environment
- Provide cost/benefit analyses that support or refute cost savings of using system
- Provide lessons learned and observations to JPM G for information; architecture, technology maturity, and alternative solutions readily available
- Make a recommendation (for or against) to include solution in JPM G Family of Systems (FoS)

Participants

- **Sponsor:** JSTO and JPM Guardian
- **Stakeholders:** Installation 1st Responders, IPP, other rapid response organizations within the DOD
- **Performers:** CISCO, DICE
- **Venue:** Ft Bragg, NC (DES command center)

Schedule

FY07: Conduct and complete military utility assessment

- utilize DICE venue to conduct demonstration
- operate system between DICE venue and Ft Bragg
- provide recommendations to JPM G
- close out project

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Guardian Initiatives

- **Integration of conventional & non conventional force protection:**
 - Joint Exercise illustrating integrated CBRN and Physical Security
 - Robotic surveillance Demonstration
 - Substantially supporting and participating in IUBIP & CFPI
 - Proposing establishment of a Joint Program Office for Force Protection
- **Strengthening Mil-Civ interaction in CBRN installation protection**
 - DHS
 - Leveraging Biowatch for IPP tiers
 - Conducting a collaborative detector integration pilot program
 - Working to strengthen installation level CONOPs
 - Potential Radiological Initiative with DNDO
 - DOD
 - Working closely with NORTHCOM on CONOPs/Exercises
 - Supporting chem & bio notification procedures
 - Strengthening Medical Role in IPP training and exercises
 - Emphasizing Mil/Civ interoperability
- **COTs Modernization**
 - Implementing a comprehensive program
 - Directly supports JPEO, JPM's, and requirements generation processes



COTS Total Life Cycle System Management Program



- **An enterprise integrated process to provide turn-key CBRN COTs capability and life cycle management for customers**
- **Development of an integrated data management system leveraging a single entry/management portal**
 - COTs management guidance and standardized test procedures
 - Develop COTS Enterprise Technology Roadmap
 - Establish Flexible Contracting
 - Virtual Long Term training products
 - ILS domain sustainment approach
- **Develop and implement standardized acquisition test processes and procedures**

**A solution to key COTs problems:
Provides Standardization, Training, Maintenance and Refreshment**

COTS List of Items

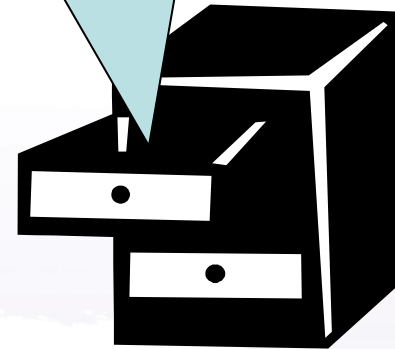
COTS menu

- AreaRae RAD
- DFU 2000**
- Ahura
- Radiac AN/UDR-14
- Gas Detector 4126
- PCR AB 7300
- Level A Suit, **ABC, Inc**
- 2020S Decon. Shower

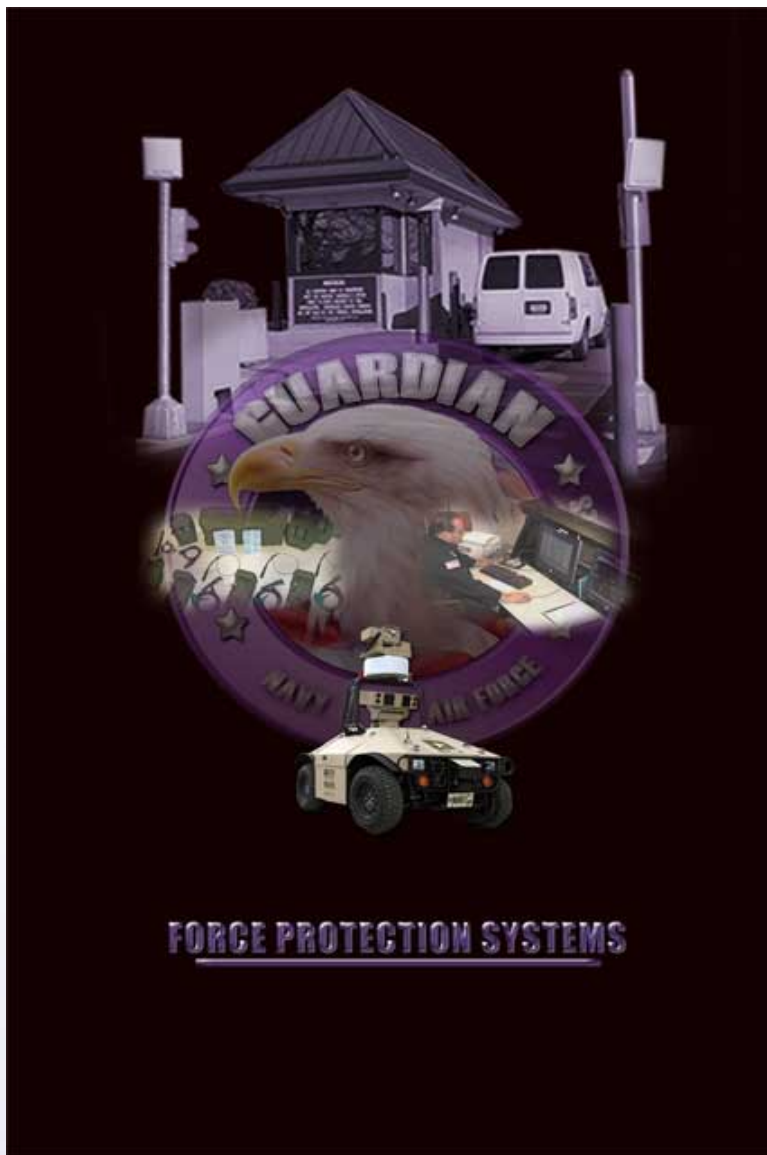
Standard & Non-standard equipment accepted for IM/CM users.



DOTMLPF – PG
Technical Manuals
New Equipment Trng
Inst. Sust. training
Supply Support
Vendor Support
Warranty Data



Force Protection Systems Mission



**Provide Affordable,
Modular, Scaleable
and Supportable
Tactical
Force Protection
Capabilities to
Forward Deployed
Forces While
Simultaneously
Providing State-of-
the-Art Physical
Security
Equipment to Army
Installations
Worldwide**

Force Protection Overview

- **Installation Based Systems:**

- Access Control Point (ACP)
- Integrated Commercial Intrusion Detection System (ICIDS)
- Mobile Detection and Response System (MDARS)
- Smart Gate



- **Tactical Based Systems:**

- Non Intrusion Inspection (NII)
- Battlefield Anti-Intrusion System (BAIS)
- Lighting Kit, Motion Detector (LKMD)
- Family of Integrated Rapid Response Equipment (FIRRE)
- Tactical Video Surveillance System (TVSS)



Remote Command/
Control Transceiver

Module

Rear (Control Panel)



Army TSWG Projects



FY08

Projects	Funded	Remarks
Tri-Fusion Camera	\$1.45M	Pending BAA process
Ultra-High Resolution Security Camera	\$1.1M	Pending BAA process

Note – BAA's expected to be released within the next 30-45 days

PM FPS Warfighter Needs

Installation: Requires Integrated Solutions Balancing Access, Security and Sustainment

- **Semi-Autonomous Detection and Assessment and Robotic Technology**

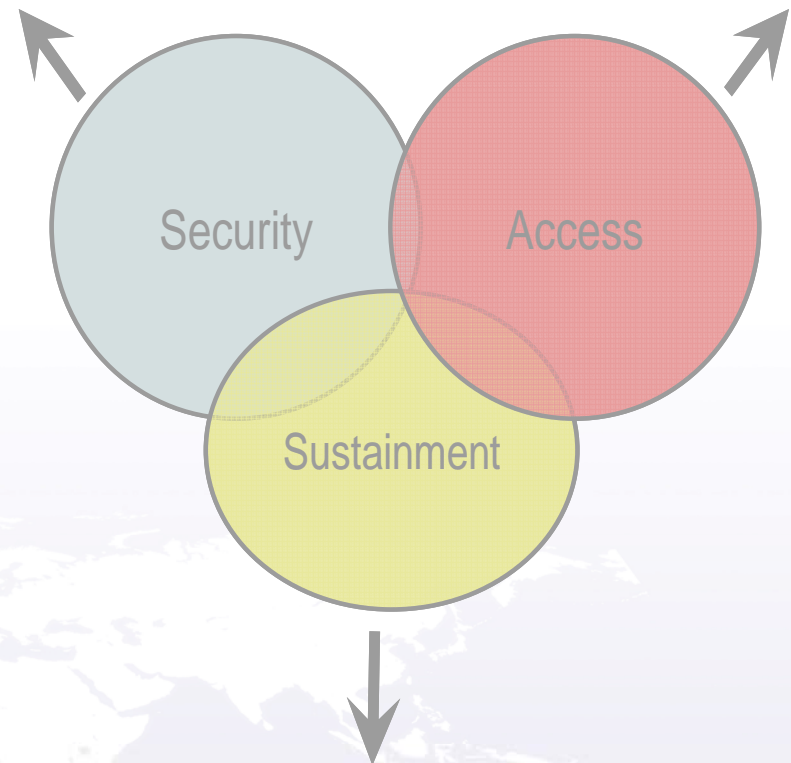
- Detection-on-the-Move
- Less-than-Lethal Response
- Secure, Wireless Network
- Assess in Sand, Dust, Fog, Precipitation
- Long-Range Passive RFID tags
- Integrated with Fixed IDS

- **Intrusion Detection and Assessment**

- Marking Signature Signal Processing
- Intelligent Decision Aid
- LPI/LPD Transceiver

- **Automated Installation Entry**

- Identification of Authorized Personnel
- Reduced Personnel (Guard) Requirements





PM FPS Warfighter Needs

Tactical

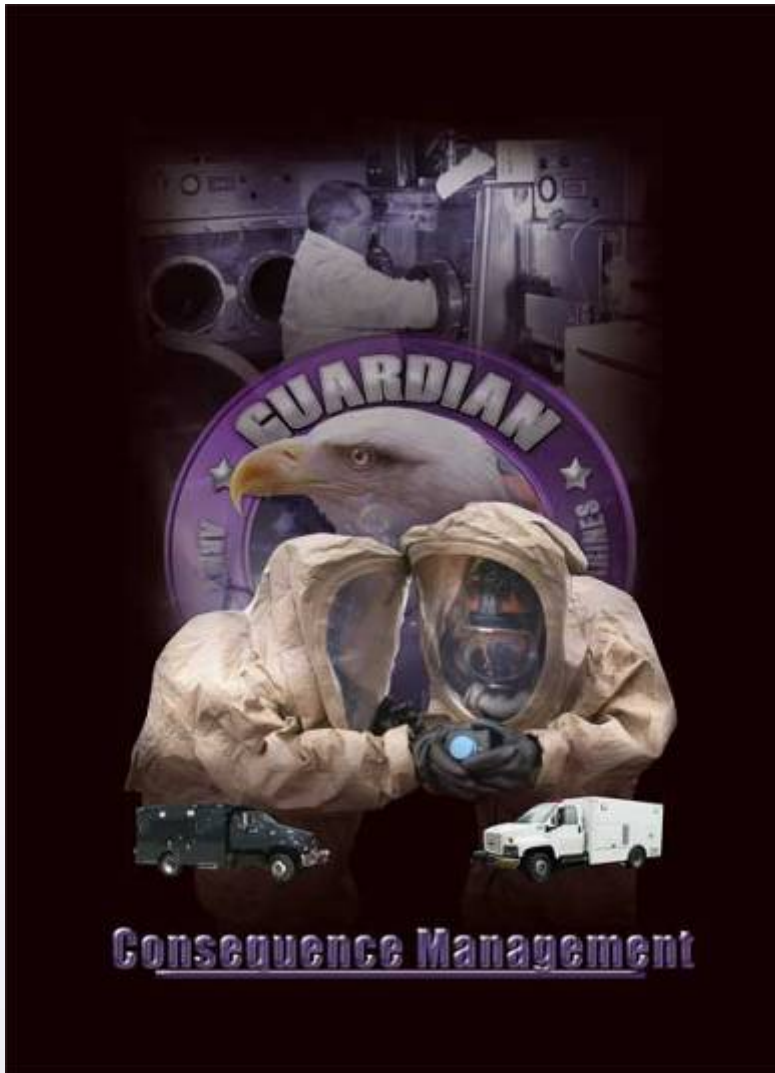
- **Force Protection: CBRN and Explosive Materials**
 - Early Assessment and Warning
 - Active Defense Against CBRN Threats
 - UGV/UAV Surveillance and Response Capabilities
 - Improved High Yield Explosive Detection
 - Vehicles
 - Personnel
 - Packages
 - Layered Critical Infrastructure Protection and Anti-Intrusion
 - Consequence/Incident Management
 - Expedient Intrusion Detection
 - Automatic Installation Security System
- **Sensors**
 - Light, Compact, Mobile, Low-Power Sensors
 - Light, Compact, All-Temperature, Mobile Power Sources
 - Light, Fast Re-charging Batteries and Chargers
 - Integrated Video/Video Displays
 - Integrated Audio/Voice
 - Integrated GPS



Technical Challenges

- **Advanced UGV/Robotics**
 - Payloads Multi Threat
 - Automated operations
- **Improved Non Intrusive Inspection Capabilities**
 - High Yield Explosive Detection (vehicles and personnel)
 - Nuclear Materials
 - Contraband
- **Next Generation Automated Access Control for Buildings/ Gates**
- **Intrusion Detection for Military/Government Installations**
- **Additional Capabilities to tag and Track high Value, Sensitive and Pilferable Assets**
- **Long Range Man-portable Video Detection/ Assessment System**

PM-CM Mission



**Provide CBRN Analytical,
Communications,
Protection, Response
And Survey Capabilities in
Support of Civil Support
Teams (CSTs) and
Reserve Reconnaissance
and Decontamination
Platoons in
Support of Homeland
Security Requirement**



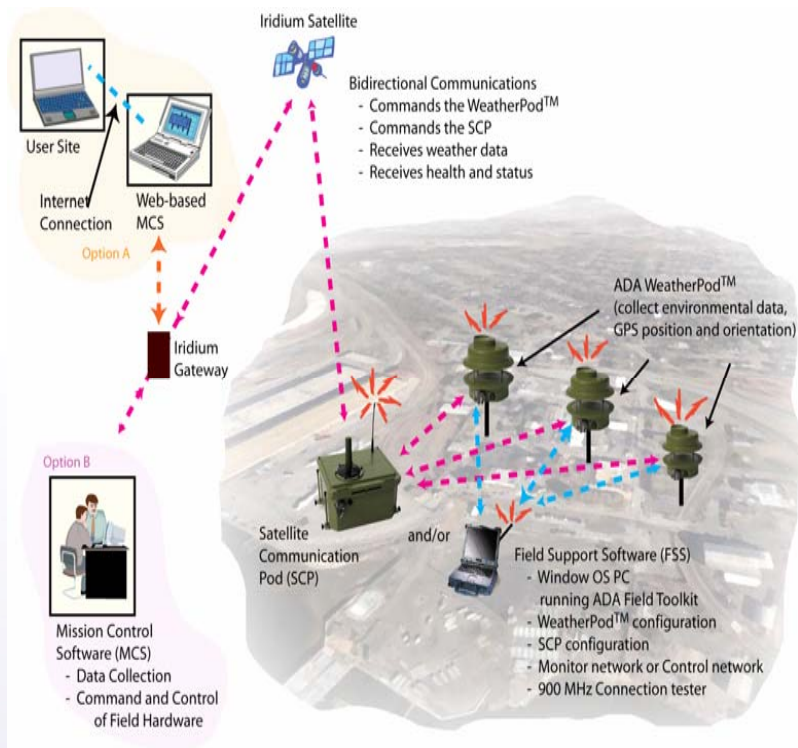
CM Overview

- **National Guard Bureau Civil Support Teams (CSTs)**
 - Supports 57 CSTs
 - Responsible for the Development, Procurement and Fielding of the Analytical Laboratory System (ALS) and the Unified Command Suite (UCS)
 - Provide Personnel Protective Equipment, Decontamination and Detection/Identification Equipment to CSTs
- **U.S. Army Reserve (USAR) Reconnaissance / Decontamination Platoons**
 - Provide Mission Capabilities to 81 Decon Platoons and 27 Recon Platoons
 - Provide Personnel Protective Equipment
- **20th Support Command**
 - Equipping and Refreshing WMD CE and TEU CBRN COTS equipment
 - Equipping and Refreshing Nuclear Disarmament Teams (NDTs)
 - Developing 20th SupCom Mobile Laboratories

**Focusing on Specialized WMD Units and Support to
Civilian Authorities Capabilities**

Demonstration

Met Station Equipment



Objective – identify a reliable and cost effective Met Station to support a rapidly deployable sensor system, and to provide more accurate CFD plume predictions for CBR incidents.

Description of Effort

- Bring Met Station System to Operational Readiness with a complete development for fully automated, turn key operation for Incident Commander and CST consequence management
- Develop adaptive observation functionality, urban modeling and sensors, and additional data processing algorithms
 - test system at two facilities for system test and verification
 - validate system performance

Benefits

- Provides Incident Commanders a valuable system for reliable are protection at decreased cost with increased effectiveness
- Brings the Sensor Placement System to turn key operational readiness for emergency response personnel
- Provides the U.S. with a valuable national security and defense asset



PM CM Warfighter Needs

- **Detection Capability**
 - Sensor Fusion
 - Expanded Spectral Libraries
 - Real-time BWA Detection / Identification
 - Automated Analysis Capability
 - Robotics –CBR Survey & Monitoring
- **Operational Tempo**
 - Integrated Command & Control Center
 - Integrated Incident Response Management System
 - Improved Individual Protection to Support Extended Mission Requirements
- **Supportability**
 - High Reliability of Equipment
 - Reagentless Sensors
- **Continuous Modernization**
 - Emerging Threat Detection and Identification
 - Be able to Meet or Exceed Emerging Standards



Technical Challenges

Command and Control:

- **Creation of Secure Wireless Communications Capability**
- **Advanced Modeling and Simulation Tools to Better Predict/ Characterize the CBRN Hazard/ Event**
 - **3-D Terrain Analysis**
 - **Building and Structure Modeling**
 - **Triangulate and Predict Contaminant Cloud Origination and Trajectory from Detecting Sensor**
 - **Integration of Disparate Sensor Networks**
- **Integrate 1st Responder Real Time Communications with C2 and DSS**
 - **Sample Identification**
 - **Hand Held Monitor Results**
 - **IPP – FPS – CSTs – USAR – Specialized Units**

IPP – FPS – CSTs – USAR – Specialized Units

PM IPP Mission



**Assist DoD in Preparing
For Preventing,
Responding to,
and Recovering from
CBRN Events by
Providing Effective
and Affordable
Capabilities**



PM IPP Warfighter Needs

- **Reduction of Life Cycle Management Costs**
- **Detection** – Improved Chemical and TIC Detection and Identification
- **Identification** – Rapid Identification of Biological Agents to Support Effective and Timely Decision making and Medical Treatment
- **Information Management** – A single integrated decision support Systems to support Tier 1 and Tier 2 requirements
- **Integration with Existing Installation Infrastructure / Capabilities**





Technical Challenges

CBR Personal Protection Equipment:

- **New Materials for Lighter and more Flexible Suits and Ensembles with Equal or Better Protection and Shelf Life**
- **Enhanced Masks with Greater Protection and Longer Stay Times**
- **Improved Internal Suit and/or Ensemble Environmental Control Without any Loss of Mobility**
- **Better Voice Communications Between Team Members and Local Command Personnel**

IPP 1st Responder – CSTs – USAR – Specialized Units



Technical Challenges

CBRN Detectors:

- Development of low cost, Reliable, Sustainable and Affordable RAD Portal and CBRN Standoff Detectors Operating 24/7
- More Effective and Versatile TIC Detection Capability
- Real Time BWA Identification Capability
- Portal Radiation Detectors with Increased Sourced Material Identification
- Better Hand Held Detectors
 - Integrated Communications/ Information Transfer Capability
 - Increased Programmability
 - Smaller and Lighter Packages
- Enhanced Sample Collection and Identification of Warfare Agents/ TICs

IPP 1st Responders – CSTs – USAR – Specialized Units



Current Program Schedule

Program	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
ICIDS	PRODUCTION							
MDARS	RDTE			PRODUCTION				
LKMD	RDTE				PRODUCTION			
BAIS	PRODUCTION							
	RDTE							
UCS	PRODUCTION Inc I				RDTE Inc II			
						Production Inc II		
ALS	PRODUCTION Inc I				RDTE Inc II			
						Production Inc II		
IPP	INSTALLATIONS							



S&T and Program Funding

	FY07	FY08	FY09	FY10	FY11	FY12	
CBDP	RDTE						
	PROC	85,795	86,418	88,748	62,300	60,070	0
ARMY	RDTE	17,200	15,800	14,500	9,400	5,700	3,875
	PROC	59,275	99,500	101,000	102,500	82,200	75,765



S&T Opportunities

- **Interagency – Biological Restoration Demonstration (I-BRD)**
- **Interoperable Telecommunications Demonstration**
- **Enhanced CBRNE Decision Support Systems**
- **Integration of JOEF into JPMG FoS**
- **Point and Stand off Detection technology evaluations**





Current Contracting Opportunities

• Installation Protection Program

- RFP Release – Apr 07
- Contract Award – Aug 07
- Link: www.jpeocbd.osd.mil
 - Click on heading “working with”
 - Click on FEDBIZOPS

• Integrated Commercial Intrusion Detection System

- Draft RFP Release – 23 Feb 07
- Contract Award – 26 Nov 07
- Small Business Set Aside
- Link: www.fbo.gov/spg/USA/SMDC/DASG60/USA%2DSNOTE%2D070202%2D001/listing.html



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