



# **Department of Defense Chemical Biological Defense Program**

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**<http://www.acq.osd.mil/cp/>**



# **Chemical Biological Defense Program (CBDP) Overview**



- **Background**
- **Organization**
- **Global Security Environment**
- **Strategic Priorities**
- **CBDP Funding**
- **Major Thrust Areas**
- **Way Ahead**
- **Measures of Success**



# Chemical-Biological Defense Program

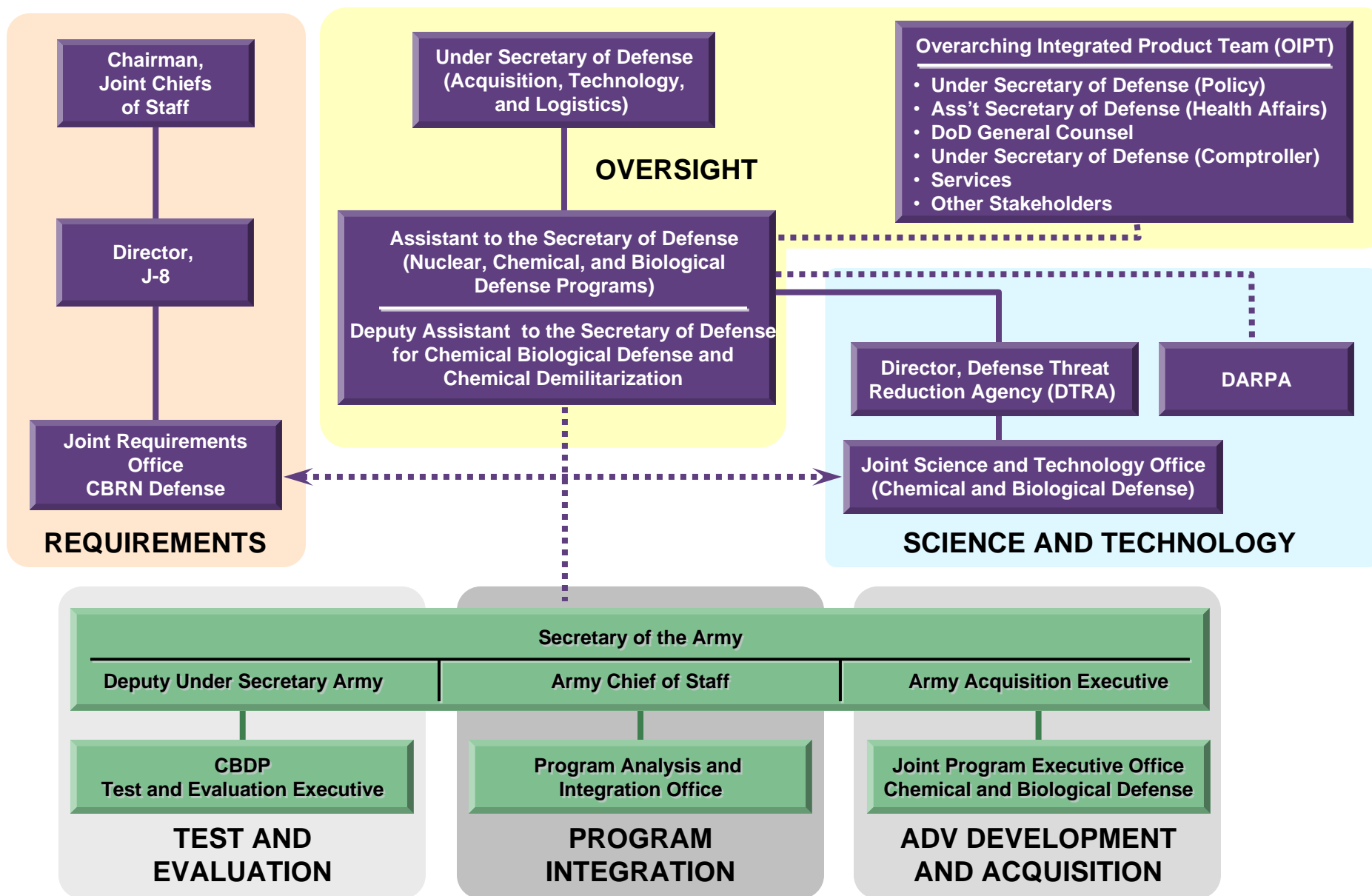


- Established by Congress in 1994, Re-organized in 2003
- Consolidated all DoD CB defense efforts into defense-wide funding accounts overseen by a single office - ATSD(NCB) – within the Office of the Secretary of Defense
- **Vision:** to ensure DoD operations are unconstrained by Chemical, Biological, Radiological, and Nuclear (CBRN) effects
- **Mission:** to provide CBRN Defense capabilities in support of the National Military Strategies

**Realizing the vision and mission of the CBDP will ensure we sustain our competitive advantage**



# CBDP Organization







# CB Defense Program Senior Leadership




**Chairman, Joint Chiefs of Staff**




**Admiral Mike Mullen**

**Under Secretary of Defense (Acquisition, Technology and Logistics)**




**Dr. Ashton Carter**

**Director for Force Structure, Resources and Assessment, J8 The Joint Staff**




**Vice Admiral P. Stephen Stanley**

**Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs)**




**Hon. Andrew C. Weber**

**Acting Director, Defense Threat Reduction Agency**




**MG Randy Manner**

**Director, Joint Requirements Office CBRN Defense**




**RADM Archer M. Macy, Jr.**

**Deputy Assistant to the Secretary of Defense for Chemical and Biological Defense/Chemical Demilitarization**



**Mr. Jean D. Reed**

**Director, Joint Science and Technology Office for Chemical and Biological Defense**



**Dr. Darrell Galloway**

**Joint Combat Developer**




**COL (Promotable) Les Smith**

**Acting Assistant Secretary of the Army for Acquisition, Logistics and Technology**



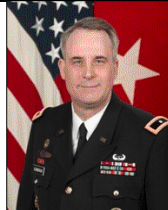
**Mr. Dean Popps**

**CBDP Test and Evaluation Executive**



**Mr. James C. Cooke**

**Joint Program Executive Officer for Chemical and Biological Defense**



**BG Jess Scarbrough**



# DoD Lead for Interagency Chemical and Biological Defense Activities



## CBDP Coordinates Continuously With:



Counterproliferation Program  
Review Committee (CPRC)



Technical  
Support Working  
Group (TSWG)



U.S. Coast  
Guard



Centers for Disease  
Control (CDC)



National Institute  
of Allergies and Infectious  
Diseases (NIAID)



Department of  
Homeland Security  
(DHS), S&T  
Directorate

## CBDP Coordination/Cooperation Exists With:



U.S. Department of  
Agriculture (USDA)



Department of  
Health and Human  
Services (DHHS)



Office of Science  
& Technology  
Policy



Department  
of Justice



National Security  
Council (NSC)



# Global Security Environment



## **Threat**

- Pervasive
- All types of conflict
- Every Possible Region
- Asymmetric (seeks WMD)
- Adaptive

## **Overseas Contingency Operations:**

Priority to Maintaining Homeland  
Defense and Security

## **Major Challenges**

- Traditional
- Irregular
- Catastrophic
- Disruptive

## **Multitude of Stakeholders**

- Joint
- Interagency
- International

**Failure to address this  
environment with the right  
mix of CBRN capabilities  
will increase risk to the Force  
and the Homeland**



# DoD Strategic Priorities in CWMD



- **Increase barriers to WMD proliferation and use**
- **Develop layered integrated WMD defense**
- **Improve ability to identify and mitigate emergent WMD threats**
- **Neutralize WMD threats emanating from failing, fragile states**



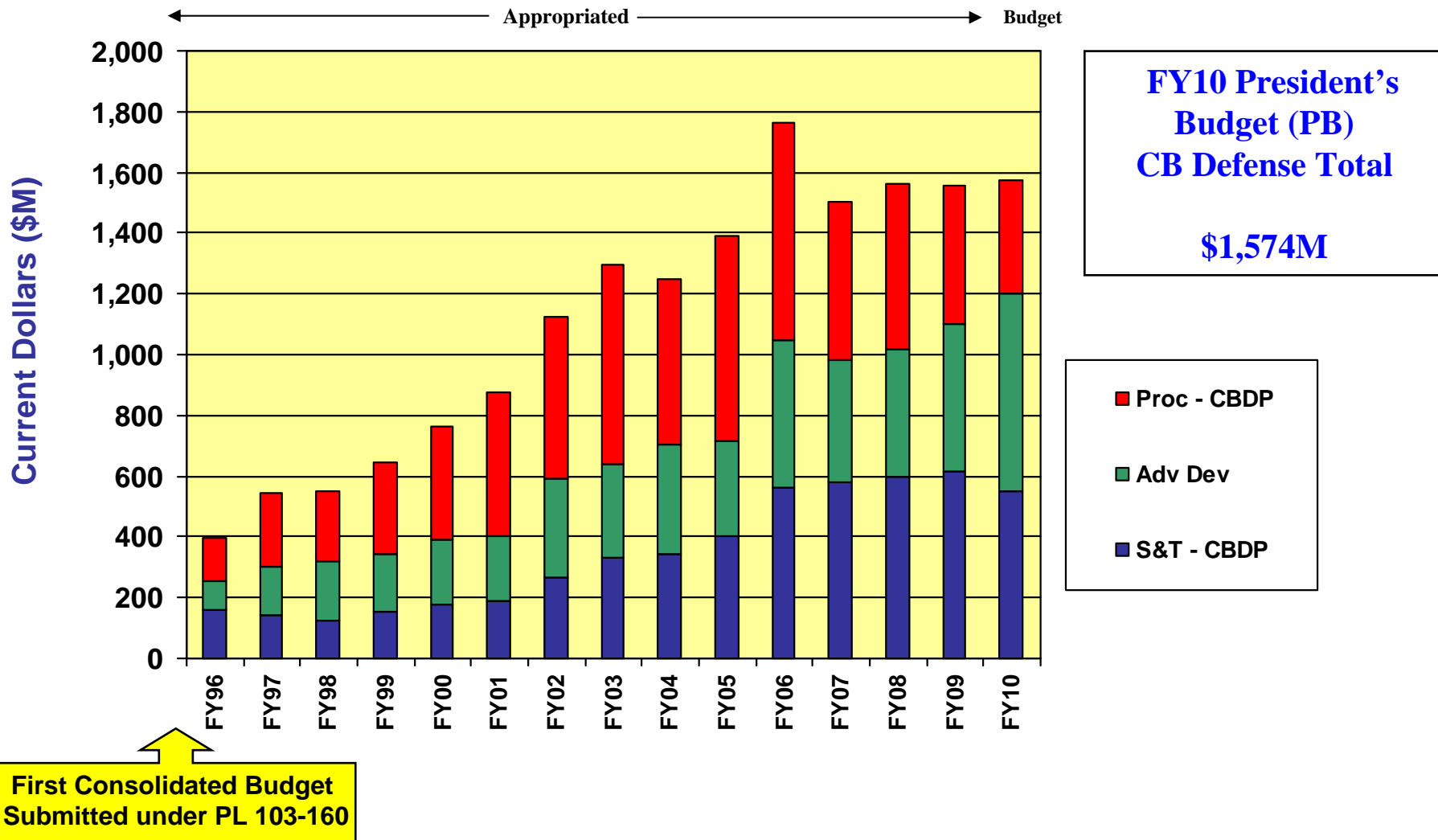


# ATSD(NCB)'s Strategic Guidance for the CBDP

- Provide a balanced CBDP to support National Military Strategies and Departmental objectives to improve CBRN Defense readiness and reduce operational risk.
- Build a comprehensive fiscal plan wherein *budgets* flow from programs, *programs* from capability needs, *capability needs* from missions, and *missions* from *national security objectives*.
- Provide operational capabilities to the Joint Force for CBRN defense.
- Define and develop capabilities to increase significantly our ability to dissuade, deter, defend, and defeat.
- Sustain the capability of the Joint Force to respond in any CBRN crisis.
- Improve management practices to fulfill enterprise strategic roles and missions.



# CBDP Funding (FY1996-2010)



## Trends:

- Total CBDP funding steadily increases from FY96, but begins to stabilize at approximately \$1.6M in FY08.
- In FY06, CBDP RDT&E funding increased significantly as a result of Program Budget Decision (PBD) 753/746.



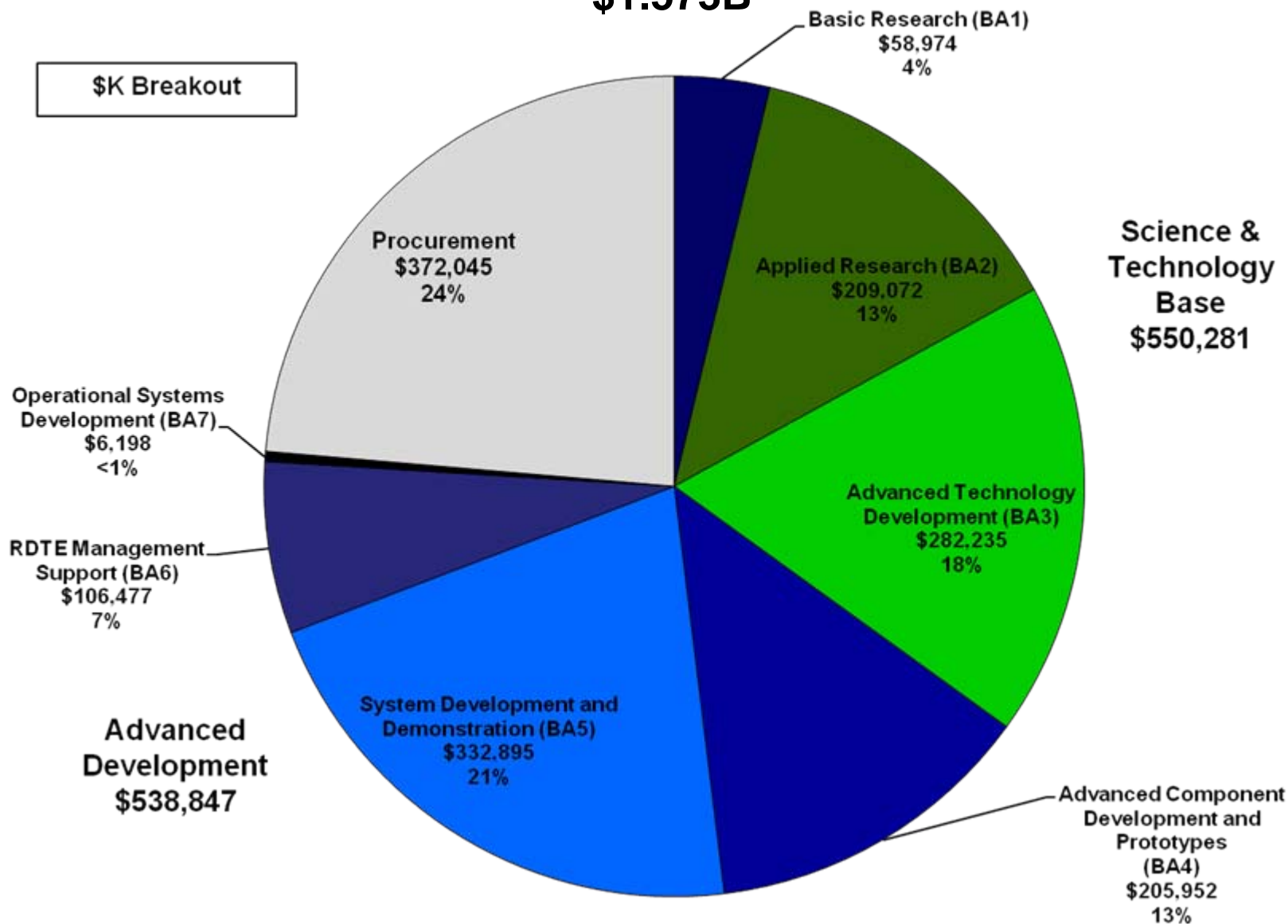
# Chemical Biological Defense Program

Based on FY10 PB Request

\$1.573B

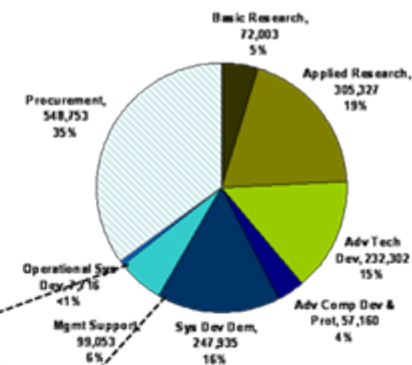
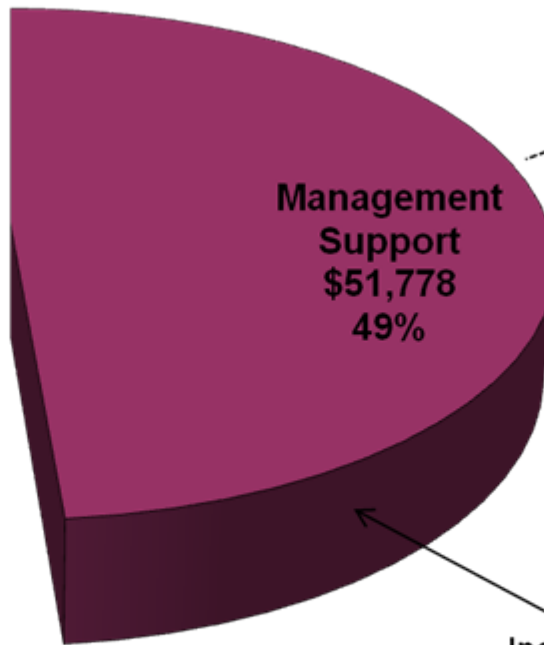
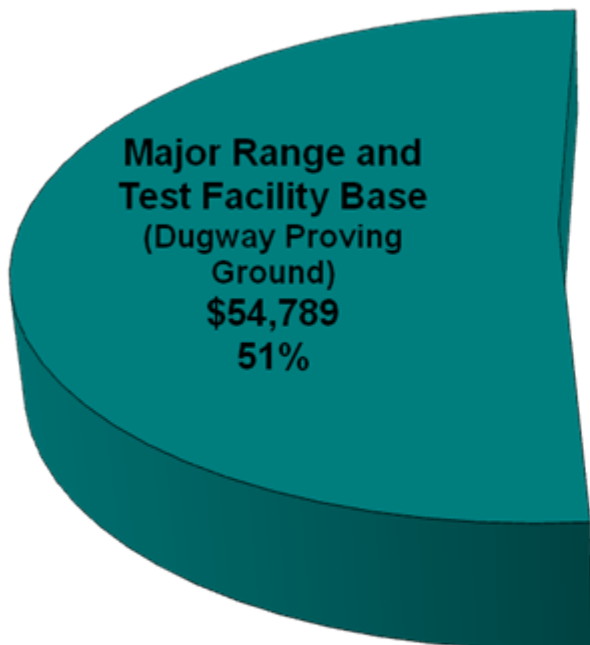


\$K Breakout





# FY10 RDT&E Management Support (\$106.4M)



Includes:

- Joint Requirements
- Joint Concept Development & Experimentation Program
- Joint Doctrine & Training Support
- Information Systems
- RDT&E Management Support
- Laboratory Support



# CBDP Thrust Areas

- Emerging Chemical Threats
- Emerging Biological Threats
- TMTI
- Consequence Management
- Preparedness
- Training





# Chemical

Threat

## Traditional Threats

- Traditional chemical warfare threats (nerve, blood, and blister)
- Agents designed for military operations/applications

## Enhanced Threats

- Small levels of CBRN hazards, not necessarily weaponized, caused by a terrorist incident that may cause mass casualties.
- Next generation agents

## Emerging Threats

- Nontraditional CBRN hazards
- Toxic industrial materials (TIM) hazards
- Toxic Industrial Chemicals (TIC)

## Advanced Threats

- Unforeseen CB agent threats
- Asymmetric applications and/or engagements





# Biological Threats

## Traditional Threats

- Intracellular bacterial pathogens
  - Anthrax
  - Plague
  - Tularemia
- Viral hemorrhagic fevers
  - Ebola
  - Marburg
  - Junin

## Emerging Threats

- Natural and emerging diseases:
  - H1N1
  - Cholera
  - Pandemic flu
  - SARS
  - Drug-resistant TB
  - Malaria
- Multi-drug and vaccine resistant pathogens



## Enhanced Threats

- “Bioprospecting” to find particularly virulent strains in nature
- Cultivating particularly virulent strains of pathogens in the laboratory

## Advanced Threats

- Adding, deleting or mutating genes to engineer pathogens that are more resistant, transmissible and virulent
- Creating viruses *de novo*

Threat



# Transformational Medical Technologies Initiative (TMTI)



Accomplishments



Provides innovative solutions to the Warfighter by:

- Developing broad-spectrum countermeasures and novel technology platforms (*one drug, many bugs*)
- Pursuing countermeasures targeting common disease pathways or enhance the host's immune system
- Integrating best efforts within government, academia, DoD, biotech industry, and small and large pharmaceutical corporations
- Providing seamless “end-to-end” product development
- Eliminating capability gaps by adding promising candidate technologies to the pipeline
- Using milestone-driven management to select the highest-quality performers with the best value products aligned with the program mission

Images courtesy of the CDC



# Bringing Homeland Security & Defense Together

Department of  
Homeland  
Security

Homeland Security Presidential Directives  
National Security Strategy

Department of  
Defense (DoD)

National Response Plan

Installation Protection Steering Group  
NORTHCOM Force Protection Working Group/J34  
Integrated Unit Base Installation Protection (IUBIP) CBA

- National Incident Management System
- All Hazards
- BioWatch
- Grant Programs

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

**Civil Community**

**Military Community**

Integration of Policy, Guidance and Capability Solutions

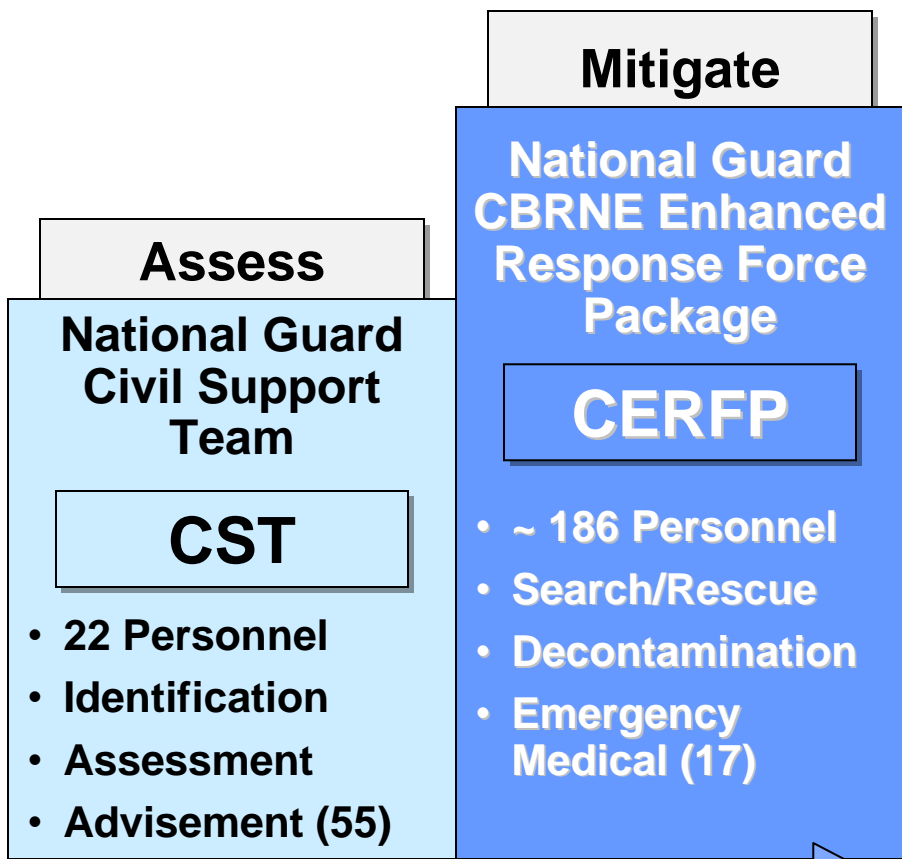
Fielding at 37 Installations in FY2010-FY2011



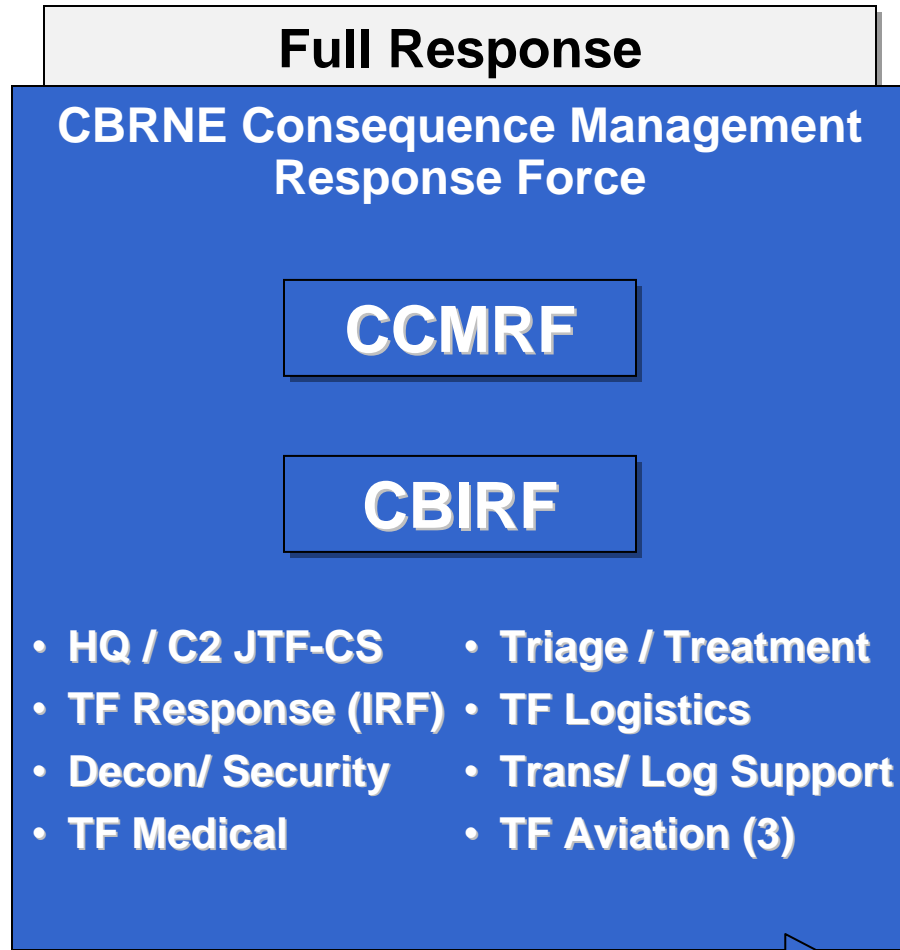
# Domestic CM Response Forces

## State Response (Title 32)

## Federal Response (Title 10)



*Employable first 24-48 hours after incident*



*48+ hours after incident*





# Consequence Management/Homeland Defense

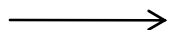
Fielding improved Analytical and Incident Management capabilities to NGB / CSTs



- Expanded TIC/TIM detection capability
- Broader range of sample matrixes
- Improved communication capabilities including secure video, satellite communications, and secure VTC



Equipping and Fielding 20<sup>th</sup> Support Command WMD CE, TEU, Nuclear Disablement Teams, and Mobile Laboratories



- Provided 20<sup>th</sup> with advanced mobile Chemical, Biological, Radiological and Explosive identification capability for short-term and extended missions, supporting DHS and contingency operations



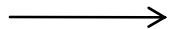
Fielded 81 Chemical / Biological Incident Response trailers to the U.S. Army Reserve Reconnaissance / Decontamination Platoons



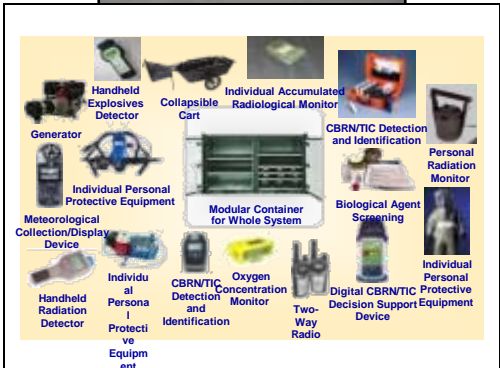
- Providing rapid deployability for Army Reserves to support civilian authorities in response to a CBRN event



Fielded 12 DRSKO interim systems to NORTHCOM and Army Units in response to a Joint Urgent Operation Needs Statement (JUONS)



- Providing Dismounted Reconnaissance Sets, Kits and Outfits
- Providing Monitor and Survey Sets, Kits and Outfits

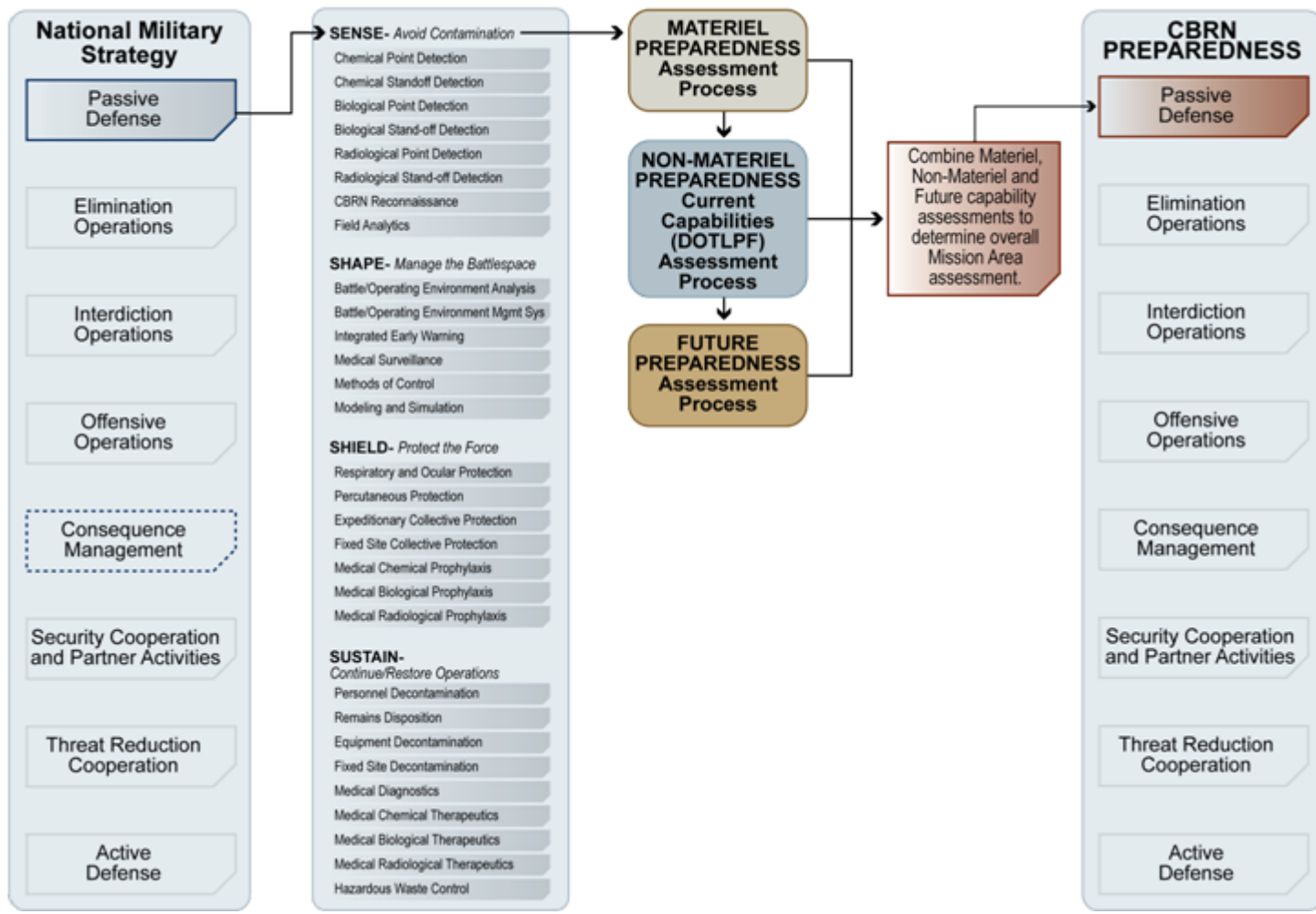


## Enhancing Domestic Response and Reserve Capability



# Preparedness Assessment – Process Strategies & Linkages

## CBRN Defense Preparedness Strategy



Integrated capabilities based assessment with metrics aligned to core capabilities



# Training



- DoD CBRN Doctrine, Training, Leadership, and Education (DTL&E) Strategic Plan (Dec 2008)
- DoD CBRN Doctrine, Training, Leadership, and Education (DTL&E) Implementation Plan (May 2009)
- Establishes Four Objectives:
  - *Improved, Integrated, and Unified CBRN Defense Operations*
  - *Sustained Adaptive and Innovative Environment*
  - *Aligned CBRN Defensive Training Infrastructure*
  - *Established Performance-Based Management Process*
- *Way Ahead:*
  - *Develop & Execute a mitigation strategy for validated CBRN defense gaps and shortfalls.*
  - *Initiate changes to policy, authority, and guidance documents, as appropriate.*
  - *Coordinate DoD-wide CBRN defense preparation and submission of the President's Budget and POM resource decisions.*
  - *Continue assessments to identify required policy, authority, guidance, and direction to enhance Joint operations.*



# Way-Ahead: CBDP in the Next 5-10 years



To execute effectively for the next 5 to 10 years, the CBDP depends on continued Congressional support in three priority areas:

- **Consistent resources for the overall program to ensure that, year after year, the CBDP is able to field improved defensive capabilities essential to ensuring our military can operate in any environment, unconstrained by CBRN threats.**
- **Adequate funding for the TMTI to exploit fully the advanced S&T innovation necessary to counter successfully future genetically engineered biological weapons and any newly emergent or bioengineered pathogen. This will improve the nation's military health infrastructure to deal with changing and emerging threats.**
- **Adequate far-term investment in the RDT&E infrastructure to enhance our RDT&E capabilities, including the modernization and construction of laboratories and test facilities needed to ensure the efficient and effective development of advanced countermeasures against current and emerging CBRN threats. These threats include both traditional military threat agents and emerging chemical threats.**

*Future Vision*



# Our Measure of Success

Our Soldiers, Marines, Sailors, and Airmen continue to lead the world in CBRN defense capabilities:

- *Obtain* the necessary DOTMLPF integrated solutions for components, systems, and systems-of-systems
- *Continue to develop* new defensive capabilities in anticipation of the continued evolution of WMD threats
- *Provide* CBRN Defense capabilities in support of the National Military Strategies
- *Realize* the vision to ensure that DoD operations are unconstrained by CBRN effects through that same integration

Inherent responsibility of the CBDP Enterprise is to create a **Joint Force** with Warfighters better organized, trained, equipped, and resourced than in the past to deal with the WMD threat





# Questions

<http://www.acq.osd.mil/cp/>