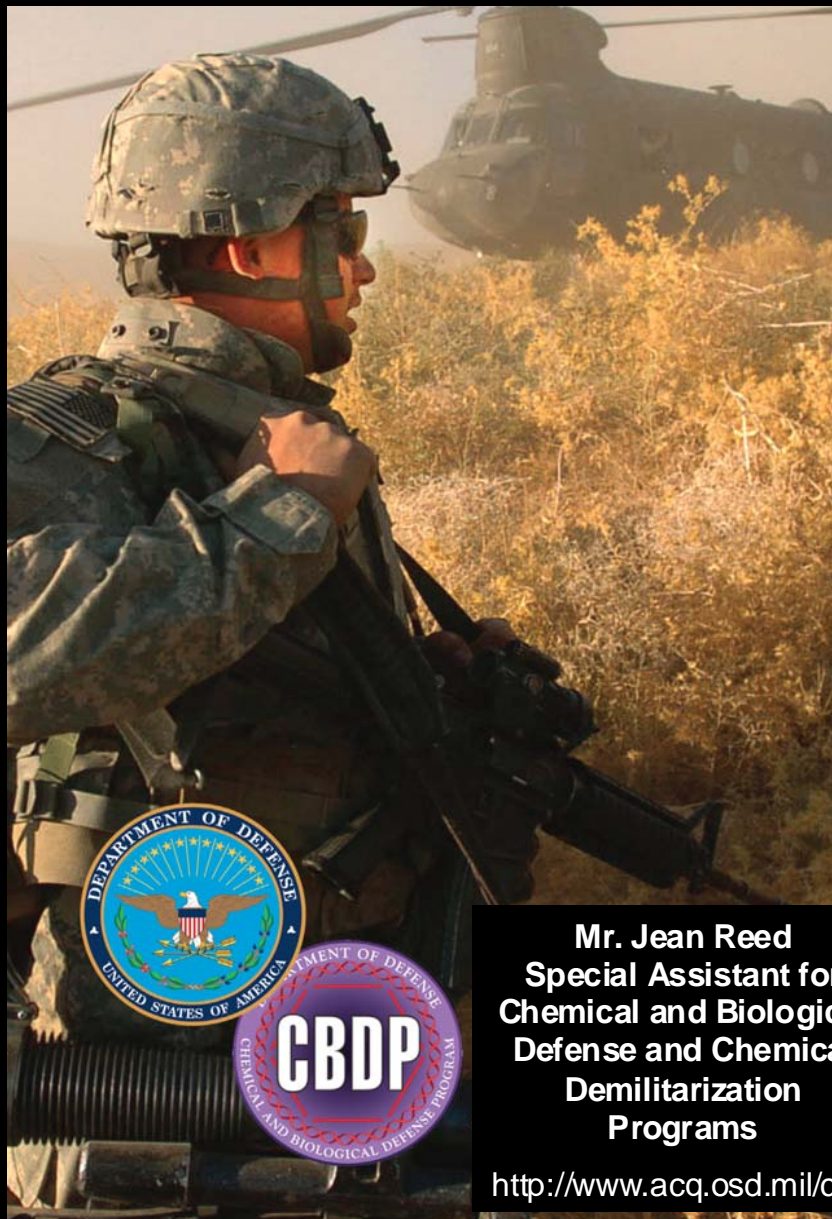


Department of Defense Chemical and Biological Defense Program



Mr. Jean Reed
Special Assistant for
Chemical and Biological
Defense and Chemical
Demilitarization
Programs

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





Introduction



“It’s clear the United States and our allies will continue to be threatened by violent extremists, almost always operating in countries with whom we are not at war. The ambition of these networks to acquire chemical, biological, and nuclear weapons is real, as is their desire to launch more attacks on our country and on our interests around the world.”

*Robert M. Gates,
United States Secretary of Defense
18 July 2007*



Chemical and Biological Defense Program (CBDP) Overview



- **Vision and Mission**
- **Background**
- **Key Strategic Guidance**
- **Organization**
- **Budget**
- **High Visibility Programs and Initiatives**
 - **Transformational Medical Technologies Initiative (TMTI)**
 - **International Cooperation**
 - **Doctrine, Training, Leadership and Education (DTL&E)**
 - **Installation Protection (IP)**
- **Way Ahead**





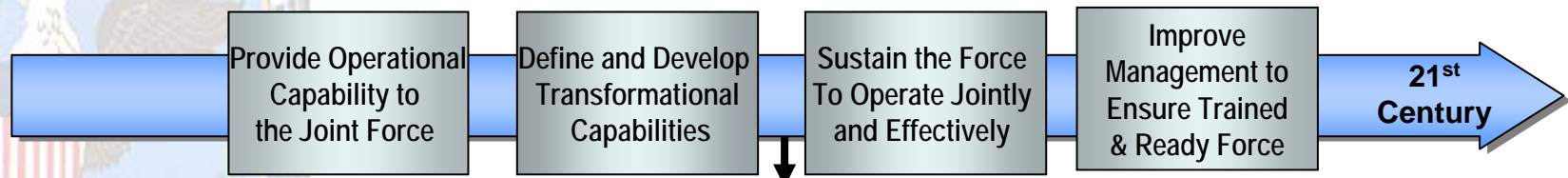
Chemical-Biological Defense Program

CBDP Strategic Context:
A Nation at War
Four Challenges: Traditional, Irregular, Catastrophic, Disruptive
Expanding Risks from a World in Conflict

Vision: Ensure DoD Operations are unconstrained by Chemical and Biological effects

Mission: Provide Chemical-Biological Defense capabilities in support of the national military strategies

Four Overarching, Interrelated Goals



Current CBD Capabilities & Business Processes

External Risk: An adaptive enemy pursuing Chem-Bio WMD as Asymmetric weapons to deter or directly attack the U.S. and our allies

Future CBD Capabilities & Business Processes

Internal Risk: Limited resources, only the CBD program can provide our warfighters with the best CBRN Defense capability and support in the world

Conclusion: Resource Vision and Mission for Warfighter



DoD CBDP Background

- **Established by Congress- 1994 National Defense Authorization Act, Public Law 103-160**
- **Consolidates all DoD CB defense efforts into defense-wide funding accounts overseen by a single office within the Office of the Secretary of Defense**
- **Closely coordinates with Defense Advanced Research Projects Agency (DARPA) Chemical and Biological (CB) Defense Efforts**
- **Program Re-organized in April 22, 2003**

ATSD(NCB) Provides Oversight of the Program



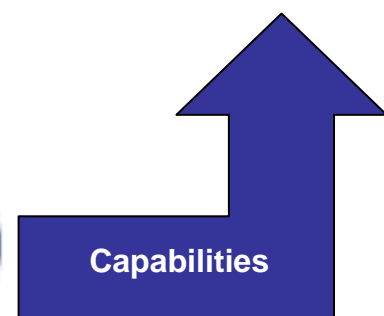
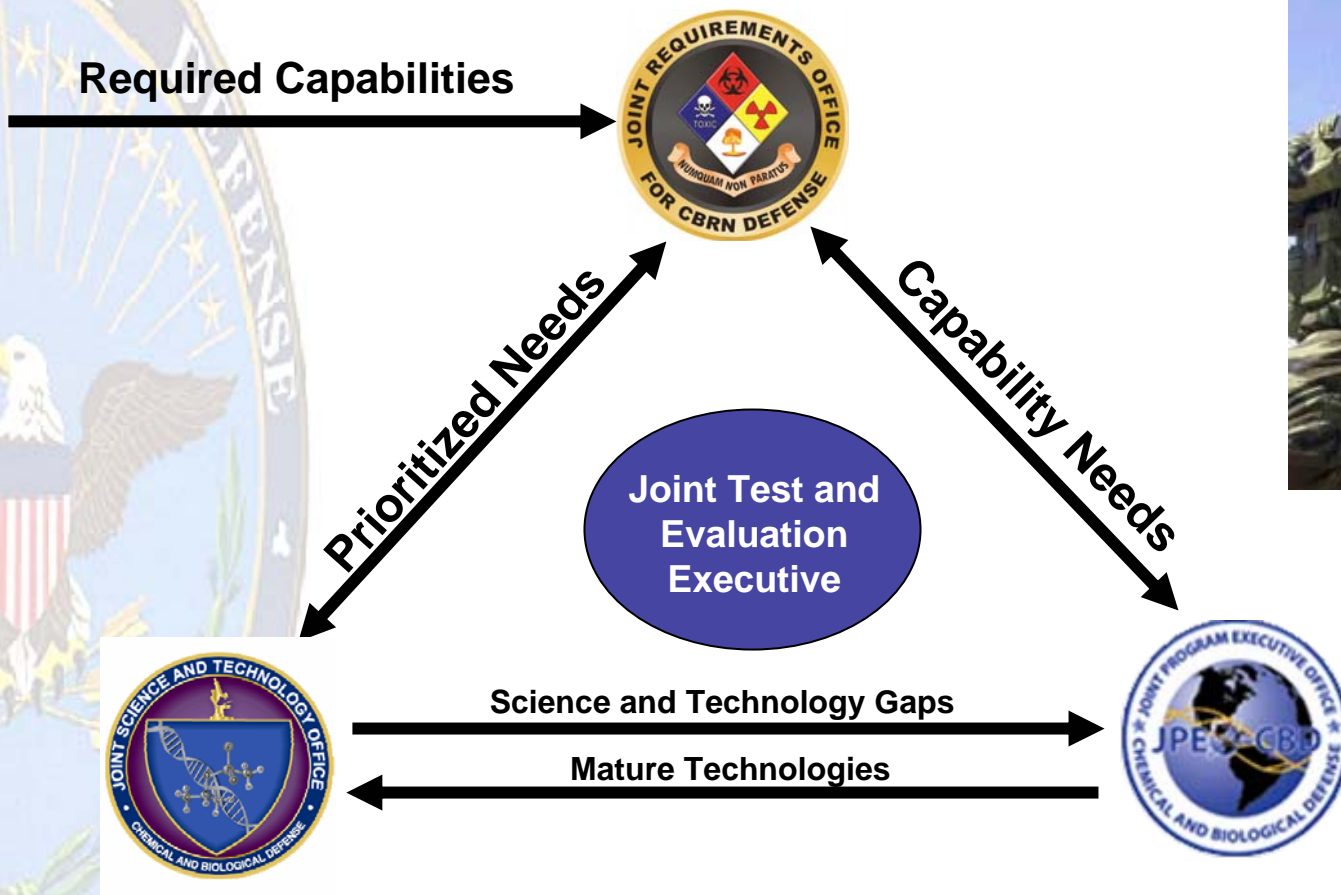
CBDP Process and Oversight



Warfighter- All Missions



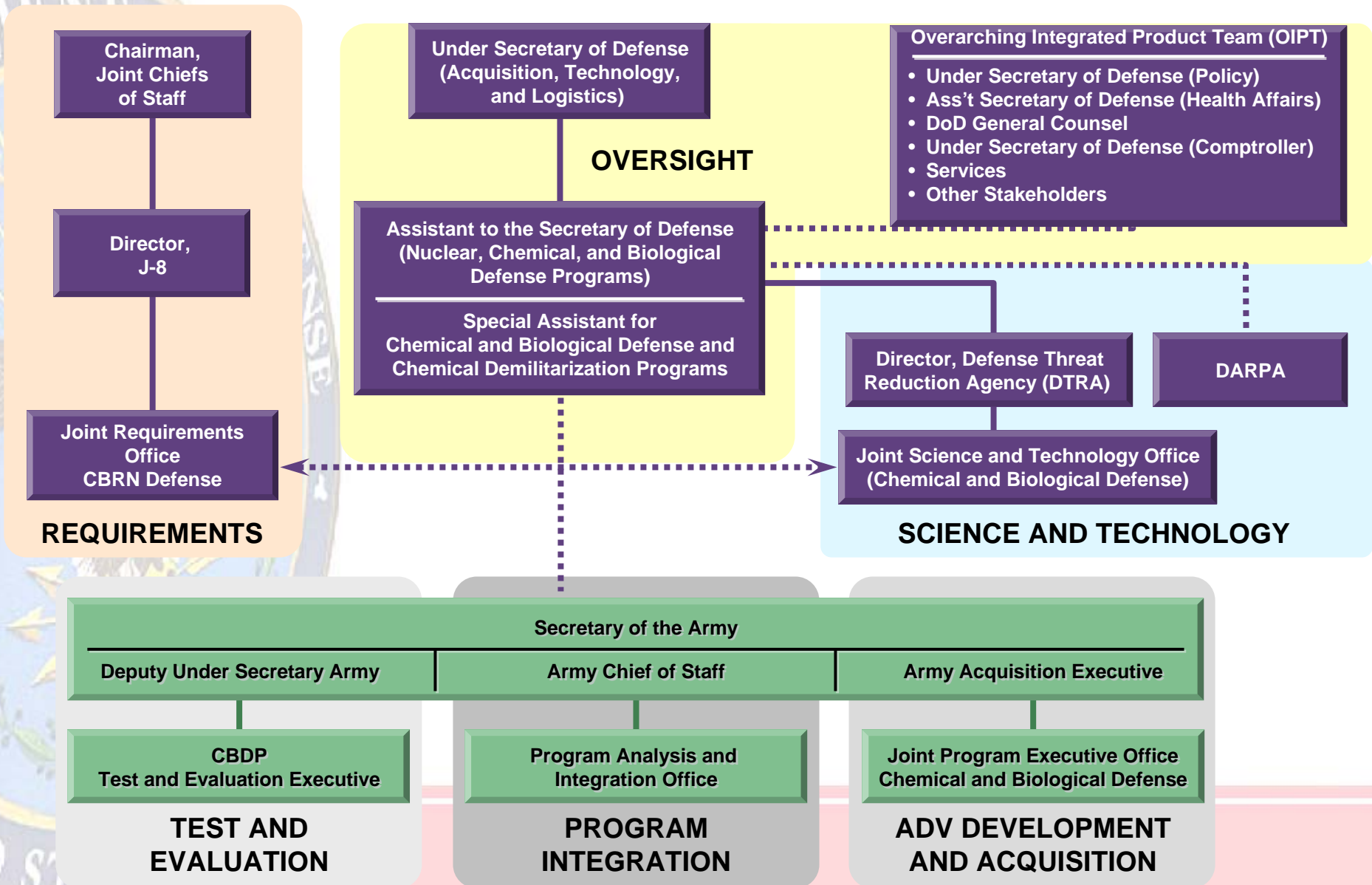
Services and Combatant Commands



Process Based on Managing Total Program Risk



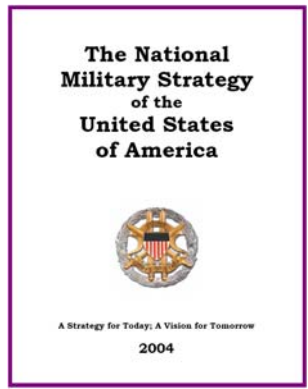
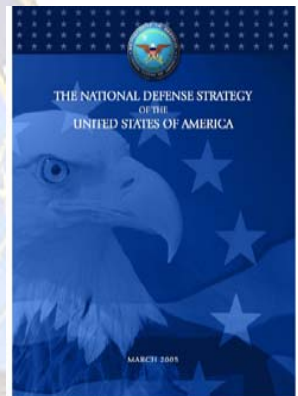
CBDP Organization



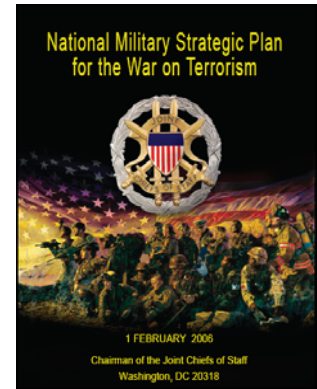


CBDP Provides Key Capabilities Supporting Multiple National Strategies

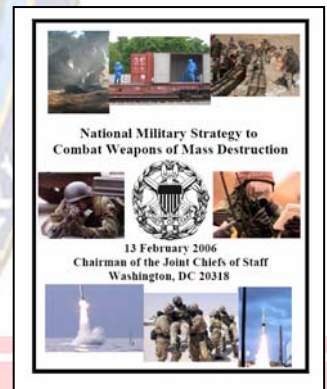
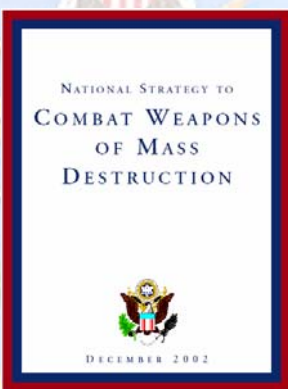
National Security



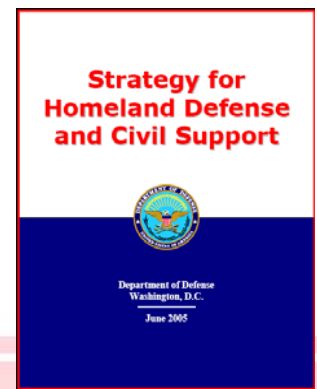
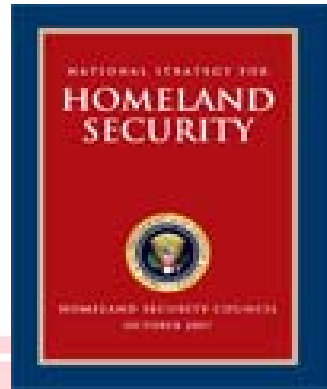
Combating Terrorism



Combating WMD



Homeland Security/Defense





Eight Mission Areas for Combating WMD

Strategic Goal

Military Strategic Objectives



Interdiction

**Threat
Reduction
Cooperation**

**Security
Cooperation
and Partnership
Activities**

**Active
Defense**

Elimination

**Passive
Defense**

**Offensive
Operations**

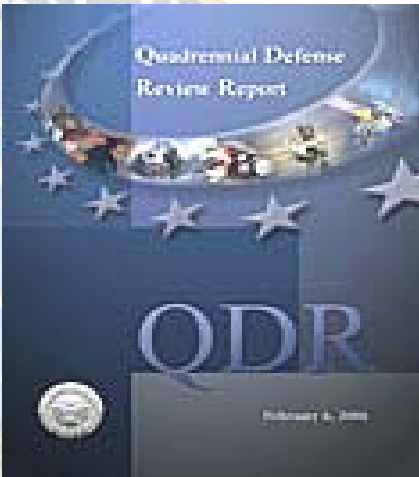
**WMD
Consequence
Management**

Strategic Enablers

Guiding Principles



2006 Quadrennial Defense Review



Future force organized, trained, equipped, and resourced to deal with all aspects of WMD

SENSE

SHAPE

SHIELD

SUSTAIN

Anticipate new WMD threats

genetically engineered biological pathogens

next generation chemical agents



Joint CBRN Defense Functional Concept – Operational Attributes



Joint Vaccine Acquisition Program (JVAP)



Joint Bio Agent Identification & Diagnostic System (JBAIDS)



JSLIST



Joint Warning and Reporting Network (JWARN)

Antidote Treatment, Nerve Agent Autoinjector (ATNAA)



JSGPM



SUSTAIN



Joint Effects Model (JEM)

SHAPE

Joint Operational Effects Federation (JOEF)

Joint Service Transportable Decon System



CB Protective Shelter

SENSE

Joint Bio Point Detection System (JBPDS)



Joint Bio Standoff Detection System (JBSDS)



NBCRV



JCAD





CB Defense Program Senior Leadership




Chairman, Joint Chiefs of Staff




Admiral Mike Mullen

Under Secretary of Defense (Acquisition, Technology and Logistics)




Mr. John Y. Young Jr.

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




Vice Admiral P. Stephen Stanley

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



Mr. Fred S. Celec

Director, Defense Threat Reduction Agency




Dr. James A. Tegnella

Director, Joint Requirements Office CBRN Defense




Major General Larry New

Special Assistant for Chemical and Biological Defense and Chemical Demilitarization Programs



Mr. Jean Reed

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




Dr. Darrell Galloway

Joint Combat Developer



Colonel (Promotable) Les Smith

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



Mr. Dean Popps

Joint Test and Evaluation Executive



Ms. Janet Garber

Joint Program Executive Office for Chemical and Biological Defense

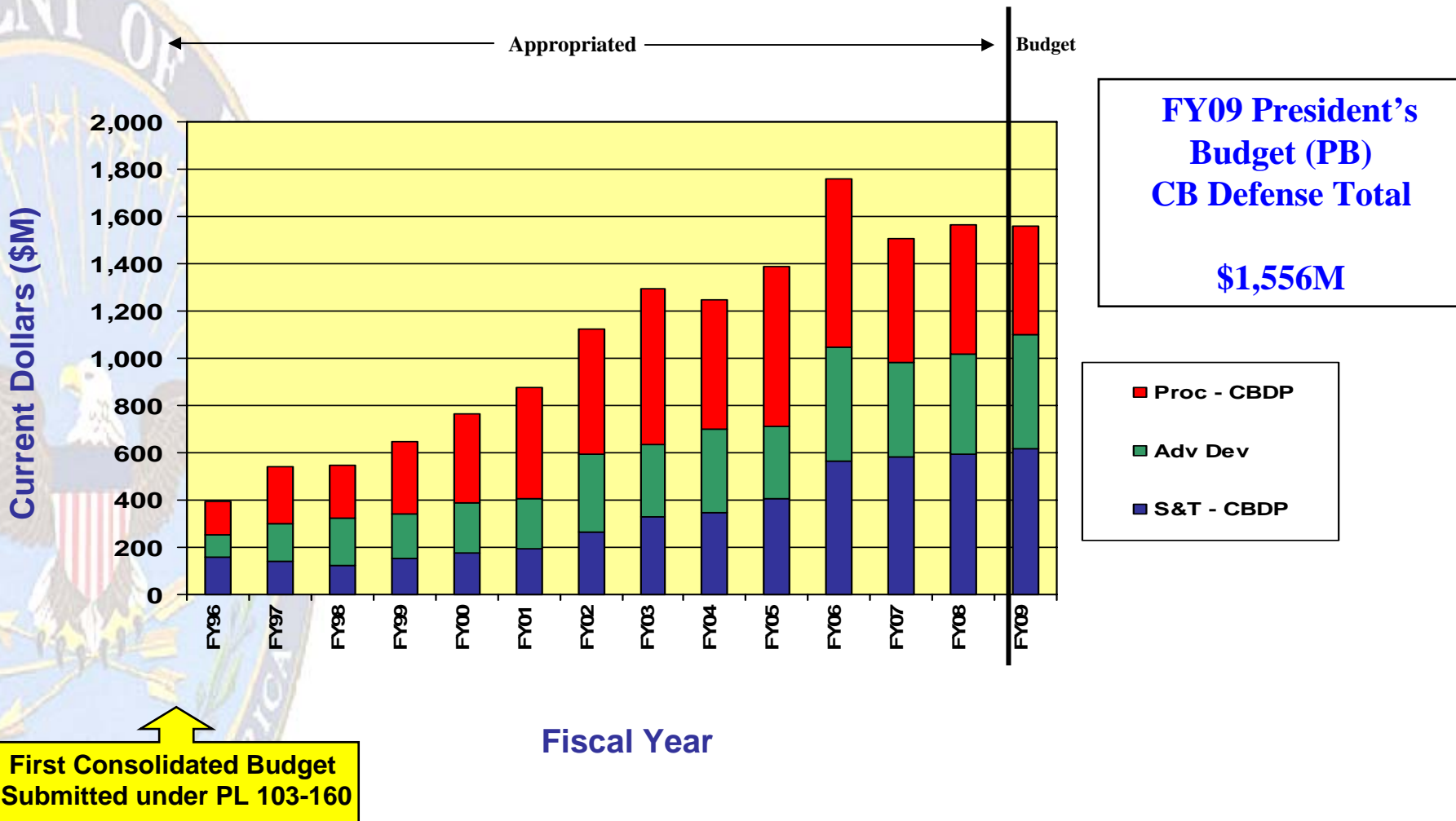


MG Stephen Reeves

oversight



CBDP Funding (FY1996-2009)



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.



CBDP Joint Priority List



Capability
(1) Respiratory and Ocular Protection
(2) Integrated Early Warning
(3) NBC Reconnaissance
(4) Biological Standoff Detection
(5) Percutaneous Protection
(6) Chemical Standoff Detection
(7) Biological Prophylaxis
(8) Biological Point Detection
(9) Individual Decontamination
(10) Chemical Point Detection
(11) Chemical Prophylaxis
(12) Medical Surveillance (M&S)
(13) Radiological Standoff Detection
(14) Battle Mgmt Systems

Capability
(15) Transportable Collective Protect.
(16) Medical Diagnosis
(17) Equipment Decontamination
(18) Radiological Point Detection
(19) Battle Analysis
(20) Medical Therapeutics Biological
(21) Medical Therapeutics Chemical
(22) Human Factors and Interfaces
(23) Mobile Collective Protection
(24) Medical Therapeutics Radiological
(25) Sensitive Equipment Decon
(26) Radiological Prophylaxis
(27) Fixed Site Collective Protection
(28) Modeling and Simulation Support
(29) Fixed Site Decontamination



NOTE: (#) equates to the Joint Priority List rankings



Physical S&T Area



Medical S&T Area



Adv Develop



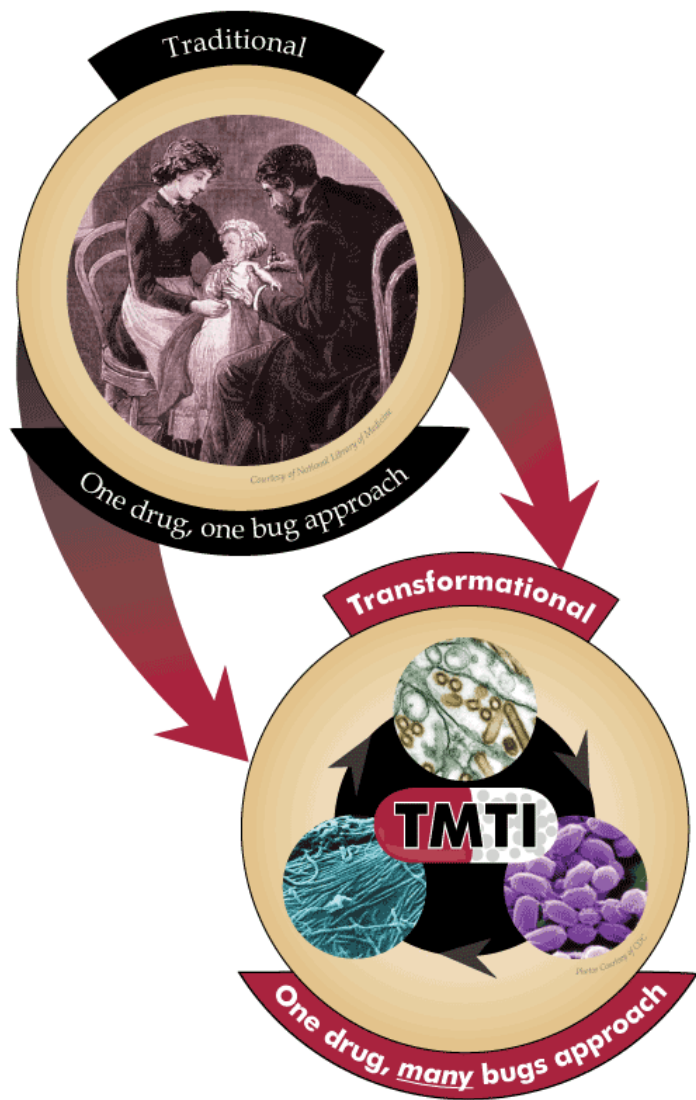
High Visibility Programs and Initiatives

- **Transformational Medical Technologies Initiative (TMTI)**
- **International Cooperation**
- **Doctrine, Training, Leadership and Education (DTL&E)**
- **Installation Protection (IP)**





Transformational Medical Technologies Initiative (TMTI) Overview



TMTI's Innovative Approach:

- Developing broad-spectrum countermeasures and novel technology platforms (one drug, many bugs)
- Pursuing novel medical countermeasures that target common disease pathways or enhance the immune system
- Integrating the 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 TMTI’s mission



Transformational Medical Technologies Initiative (TMTI)

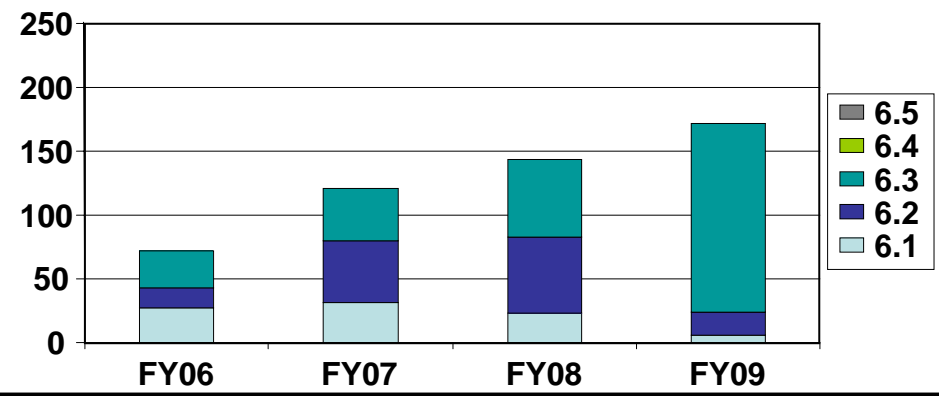
Purpose Accelerate broad-spectrum defense against bacterial pathogens, viral hemorrhagic fevers, and counter emerging biological threats

Stakeholders ATSD(NCB), JPEO-CBD, JSTO

Background and Purpose

- Directed by Quadrennial Defense Review
- TMTI must deliver:
 - Two or more broad-spectrum therapeutic Investigational New Drugs (INDs)
 - Two new technology platforms for rapid response
 - Genetic sequences for pertinent threat

Funding (\$M)



Success

- Submitted two pre-IND packages to U.S. Food and Drug Administration (FDA)
 - Marburg and Ebola Treatments
 - On schedule to deliver 2 INDs in 2010
- Capability to identify pathogenic bacteria and modified bacteria within 24 hours
- Toxin Knowledge Base established and growing

Way Ahead

- Identification and use of animal models for approval (i.e., "2-animal rule")
- Funding cuts early in TMTI severely limit the ability to deliver platform technologies and INDs due to much greater costs associated with later stage drug development.



Leveraging Interagency and International Activities are Key to Achieving National Strategies



Interagency

International



Department of Defense

**Coordination
Cooperation
Integration**





CBDP in the Next 5-10 years



Future Vision

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

- **Consistent resources** for the overall program to ensure that, year after year, we are able to field improved defensive capabilities essential to ensuring our military can operate in any environment, unconstrained by CBRN threats
- **Adequate funding** for the Transformational Medical Technologies Initiative (TMTI) to counter successfully future genetically engineered biological weapons and any newly emergent or bioengineered pathogen
- **Adequate far-term investment** in the Research, Development, Testing, and Evaluation (RDT&E) infrastructure to enhance our RDT&E capabilities, including the modernization and construction



CBDP: The Way Ahead



Need to build on current strengths...

while recognizing a changing environment...

...and planning for the future.





Chemical and Biological Defense Summary



An Integrated System of-Systems, across the DOTMLPF Spectrum

- *SENSE - CB Contamination Avoidance*
- *SHAPE – Battle Management*
- *SHIELD – Protection*
- *SUSTAIN - Restoration*

An integrated response to the threat is required – There will be no silver bullet!





Questions