

A detailed painting of a battlefield scene. In the center, a large, bright orange and red explosion is occurring, with a massive plume of white smoke rising into a grey, overcast sky. The ground is a desolate, muddy landscape with scattered debris, including a large, charred tree stump in the foreground. In the mid-ground, a line of soldiers in olive drab uniforms and helmets is positioned behind a trench or bunker. Some soldiers are looking towards the explosion, while others are engaged in various activities. To the left, a soldier is crouched near a wooden structure, possibly a bunker entrance. In the background, a line of yellow sandbags or barriers stretches across the field. The overall atmosphere is one of intense conflict and destruction.

# The Changing Face of the Department of Defense's Chemical Biological Defense Program

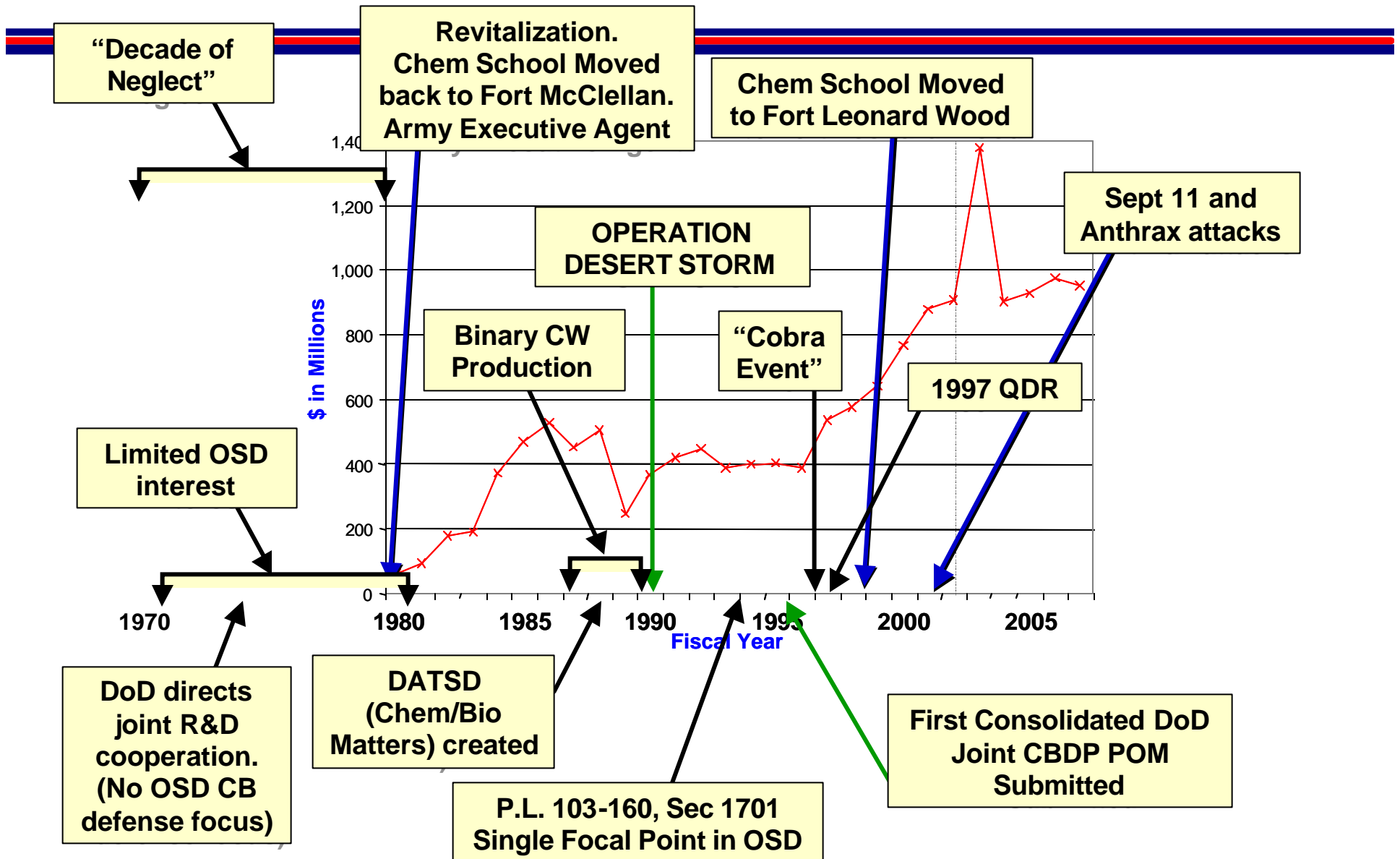
**Anna Johnson-Winegar, Ph.D.**  
**Deputy Assistant to the Secretary of Defense for  
Chemical and Biological Defense  
World-Wide Chemical Conference  
10 September 2002**

# Outline

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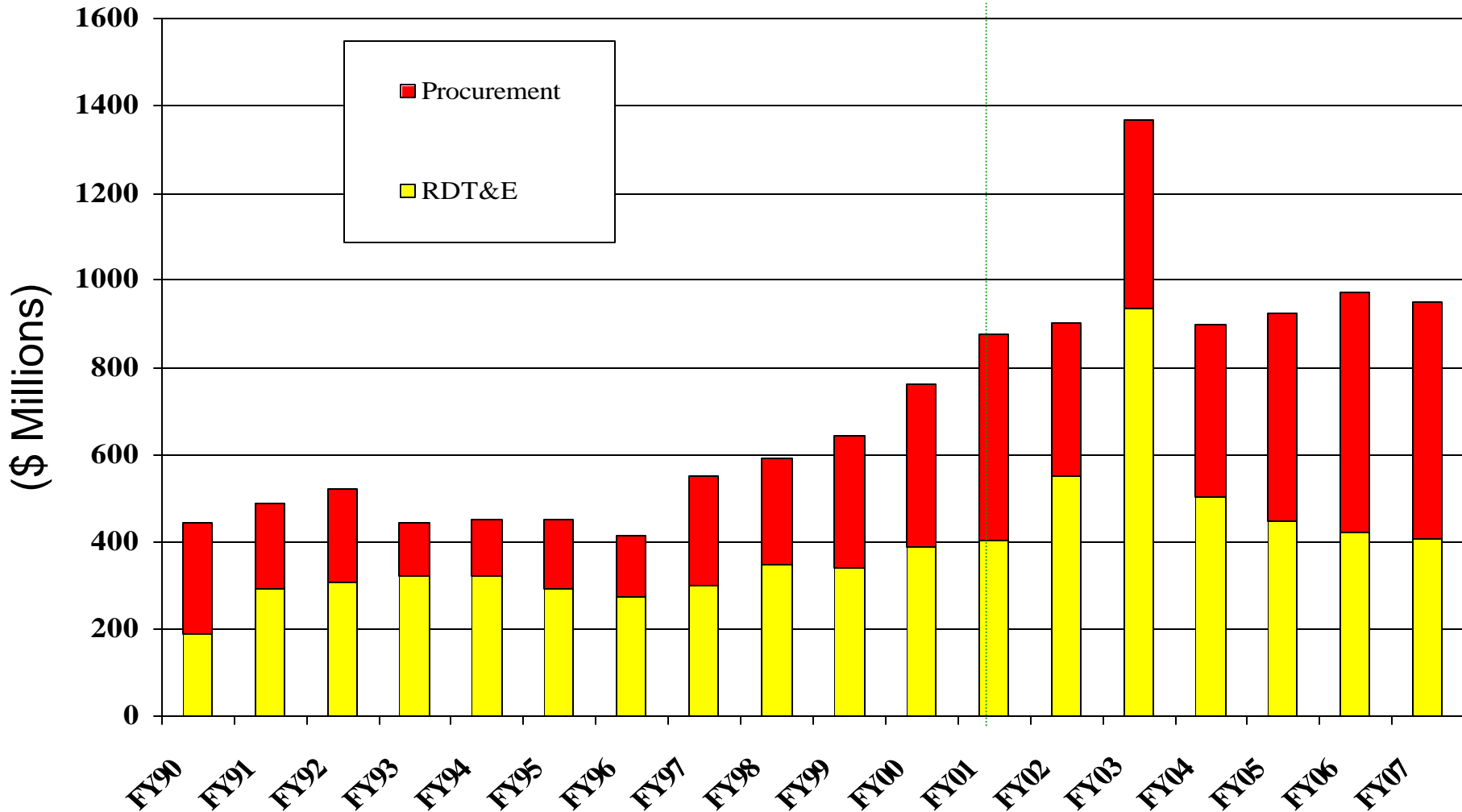
- **Parallel history of the Chemical Corps and OSD CB Defense Program**
- **Equipment – Then and Now**
- **Looking towards the Future**
  - Transformation within the DoD
  - Senior Leadership Support for the DoD Joint Chemical/Biological Defense Program (CBDP)
  - Changing Threats
  - Homeland Security/Civilian needs
  - Supporting the Warfighter- Capability Enhancements
- **Evolving Challenges**

# Parallel History



# CB Defense Program Funding

## Historical Progress- Based on FY03 PB-FYDP



*First P.L. 103-160 Consolidated Budget Submission*

# Protective Masks- Then & Now

W.W.I



W.W.II



Post W.W.II



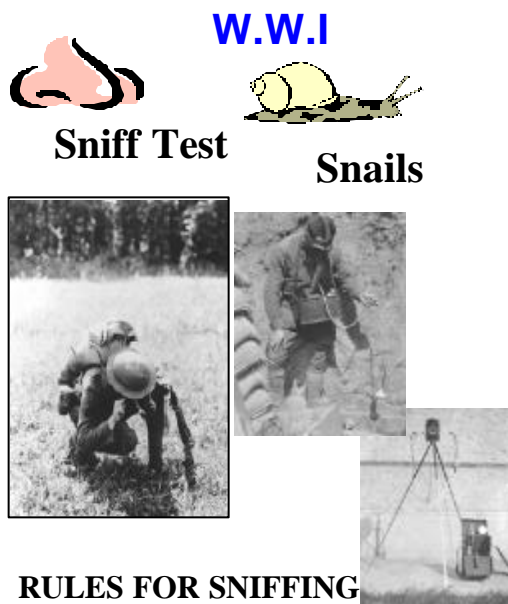
1960'-1970's



Current



# CB Detectors- Then & Now



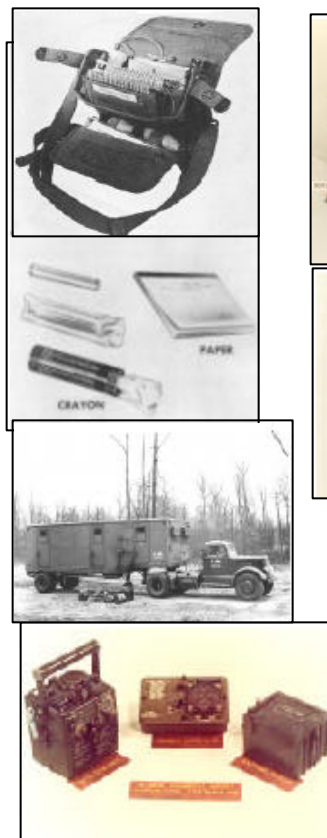
## RULES FOR SNIFFING

1. Sniff- don't inhale
2. Sniff only once
3. Sniff –then think. Try to associate the odor with the name of the gas and not something the gas is supposed to smell like
4. After sniffing, exhale strongly through the nose several times.
5. Don't smoke when sniffing. It dulls the sense of smell
6. Don't rely on odor entirely. Use all available methods

## 1940's



## 1950's-1960's



## 1970's-1980's



## Current



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**“Those who cannot remember the past are  
condemned to repeat it.”**

**George Santayana**

**But he also said**

**"History is a pack of lies about events that  
never happened told by people who weren't  
there."**

# Defense Transformation

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But we do not seek evolutionary progress in our ability to defend ourselves. So little is certain when it comes to the future of warfare, but on one point we must be clear: We risk deceiving ourselves and emboldening future adversaries by assuming it will look like the past. Sept. 11 proved one thing above all others: **Our enemies are transforming.**



**Will we?**

Donald Rumsfeld, Secretary of Defense

May 16, 2002, *The Washington Post*



**Al-Qaida videos show poison gas tests: CNN shows first samples from a cache of tapes**

**Bioterrorism Related Inhalation Anthrax: The First 10 Cases Reported in the United States**

**Pentagon: Hamas experimenting with chemical weapons**

**Is America at War**

**Israelis Brace For Fallout Of Attack By U.S. On Iraq**

**Kurdish Militants Conducted Tests With Deadly Toxin Ricin**

**Iraq Denies Laboratory Biological Weapons Link**

**Disjointed First Step - Transformation**

**The "Dirty Bomb" Scenario**

**Cruise Missile Threat Grows, Rumsfeld Says**

**Rumsfeld says Iraq has chemical, biological weapons, links to terrorism**

**Health Workers Await Official Smallpox Policy**

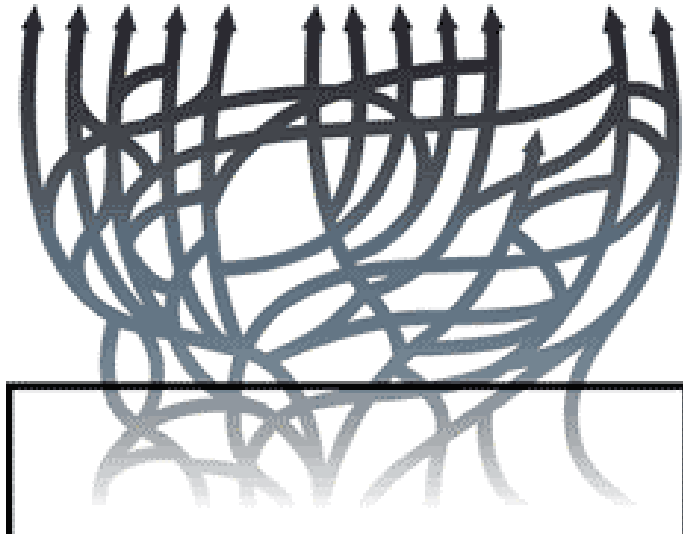
**New Questions Raised on Anthrax Perils: Study Finds Spores in Daschle Office Easily Stirred Up, Complicating Risk Analysis**

**New U.S. Department to Protect Against Catastrophic Terrorism**

# Transformation

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New Organization



Current Organization

- **Not only involves organizations but also:**
  - **Joint forces and capability packages**
  - **New technologies**
  - **Culture of the affected institutions, eg. Services**
  - **Budgeting, acquisition, personnel, and management systems in place today**

# Quadrennial Defense Review Transformation Tenets

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## A Capability-Based Approach

- Shift basis of defense planning from a “threat-based” model to a “capabilities-based” model for the future:
- Capabilities based model:
  - Focuses more on **how an adversary might fight** rather than specifically whom the adversary might be or where a war might occur
  - Identify **capabilities** required to **deter and defeat** adversaries who will rely on surprise, deception, and **asymmetric warfare** to achieve objectives
  - Maintain our **military advantages** in key areas while we develop new areas of military advantage and deny **asymmetric advantages** to adversaries

# Quadrennial Defense Review Transformation Tenets

## Paradigm Shift In Force Planning

- **New force-sizing construct specifically shapes forces to:**
  - Defend the United States
  - Deter aggression and coercion forward in critical regions;
  - Swiftly defeat aggression in overlapping major conflicts while preserving for the President the option to call for a decisive victory in one of those conflicts- including the possibility of regime change or occupation; and
  - Conduct a limited number of smaller-scale contingency operations

- Builds portfolio of capabilities that is robust across the spectrum of possible force requirements
- Places new emphasis on unique operational demands associated with Defense of the U.S.
- Restores the Defense of the United States as the Departments primary mission

# Quadrennial Defense Review Transformation Initiatives

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- **New defense strategy identifies 6 key operational goals for deterring conflict and conducting military operations**
- **DoD investment resources must be focused on these goals**
  - **Protect bases of operation at home and abroad and defeat the threat of CBRNE weapons**
  - Assure information systems in the face of attack and conduct effective information operations
  - **Project and sustain U.S. forces in distant anti-access and area-denial environments**
  - Deny enemies sanctuary by providing persistent surveillance, tracking, and rapid engagement
  - Enhance the capability and survivability of space systems
  - Leverage information technology and innovative concepts to develop interoperable Joint C4ISR

**Goals represent the operational focus for efforts to transform our Forces**

# The Aftermath of 9-11

Awareness of Threat Soars



- Entire spectrum of CB matters has received increased emphasis from the Administration, Congress, Media, and the Public
- Warfighting spectrum expanded to include homeland security
- Emphasizes importance of coordinated USG program to counter WMD proliferation
- Asymmetric methods are no longer a threat, but a reality



**Our guides for the immediate future:**  
*Flexibility and Ingenuity with Responsibility*

# The Changing Threat

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- **CB threat is a prototype of future warfare:**
  - Complex and changing
  - Need for clearly defined roles and responsibilities will replace requirement for detailed procedures
  - Threat is shifting from survival in CB environment to response to a limited or specific CB incident
  - Bioterrorism viewed as significant threat for the Homeland
  - **B<sup>1</sup>C**

# Key Military-Technical Trend Affecting U.S. Defense Strategy and Planning

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- **Increasing proliferation of nuclear, biological, and chemical weapons and ballistic missiles:**
  - **“The proliferation of NBC technology, materiel, and expertise has provided potential adversaries with the means to challenge directly the safety and security of the United States and its allies and friends. The pace and scale of ballistic missile proliferation has exceeded earlier intelligence estimates and suggests this challenge may grow at a faster pace than previously expected. Likewise the biotechnology revolution and bio-terror portent a future with increasing threats of advanced and more sophisticated forms of attack. Hostile regimes and terrorist organizations will seek to acquire and use NBC weapons and ballistic missiles to attack the vulnerabilities of open societies.**

*– Extract from the SECDEF Annual Report to the President and the Congress, 2002*



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**“The one that scares me to death, perhaps even more so than tactical nuclear weapons, and the one we have less capability against is biological weapons.”**



**Gen. Colin Powell, then Chairman of the Joint Chiefs of Staff. Testimony before US Congress, House Committee on Armed Services, *Hearings on National Defense Authorization Act FY 1994* – February 1993**

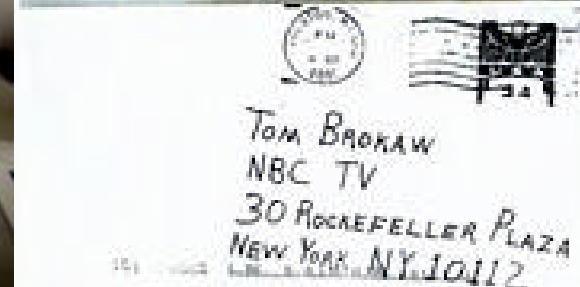
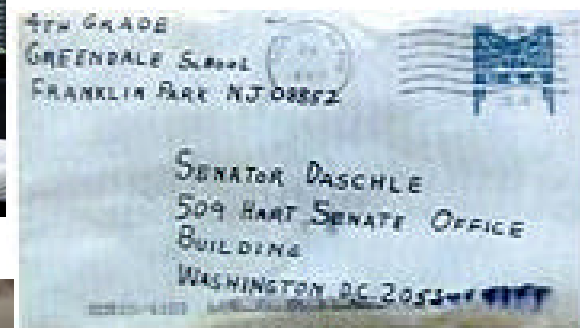
# Popular Interest In Bioterrorism

*From fiction...*



# Bioterrorism Threats

*...to reality.*



Mark Duncan - AP

Brian Branch-Price - AP

# Changing Perceptions

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## “1991”

- **WMD = Poor man’s atomic bomb**
- **Used against US as weapons of last resort**
- **Bio is less of threat than CW**
- **Regional in nature**
- **NBC - it’s all the same WMD**

## Today

- **WMDs counter U.S. conventional superiority**
- **Early CB use against US possible, even likely**
- **Bio-terrorism main concern**
- **U.S. Homeland at risk**
- **N<sup>1</sup> B<sup>1</sup> C**

# Homeland Security and Consequence Management

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## ➤ **Evolving Role for DoD**

- **Military assistance to civil authorities**
  - **National Guard and Army Reserve Teams**
- **Achieving interoperability with first responders**
- **Installation Protection - Joint Service Installation Pilot Project**
- **Homeland Security strategy**

## ➤ **DATSD(CBD) – oversight for Research, Development, and Acquisition to support Consequence Management**

- **Includes: detection, sampling; decontamination; command and control; modeling & simulation; and platform integration**

## ➤ **Office of Homeland Security provided FY 03 funding for two HLS initiatives;**

- **Biological Counter-terrorism Research Program**
- **Biological Defense Homeland Security Support Program**

# Biological Counterterrorism Research Program

- Establishes Center for Biological Counterterrorism at the U.S. Army Medical Research and Materiel Command, Fort Detrick
- Leverages unique capabilities to support DoD and national requirements and reduce vulnerabilities
  - Utilize multidisciplinary and multiagency approach
  - Establish interagency research program that focuses on bioterrorism/ BW defense threat assessment and microbial forensics
  - Support national security, law enforcement, and medical/public health communities

- *Analysis and Attribution*
- *Threat and Risk Assessment*
- *Prevention of Technological Surprise*



# Biological Defense Homeland Security Support Program

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- **Initiates comprehensive program to build a National Biological Defense System for the Office of Homeland Security**
- **Provides an integrated Homeland Security capability to detect, mitigate and respond to biological-related incidents:**
  - Enhanced biological detection capabilities and the fusion of medical surveillance systems, wide-area environmental sensors, access control points and information systems
  - Deployed systems will exploit existing technology supplemented with new capabilities resulting from accelerated development
- **FY03 plans include establishment of a fully-equipped DoD test-bed, an enhanced monitoring system for the National Capitol Region and an initial capability in two additional urban areas**

# Joint Service Installation Pilot Project (JSIPP)

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## ➤ Objectives:

- Increase CBRNE defense capabilities at 9 CONUS DOD installations
- Enhance emergency responder CBRNE capability for Consequence Management with equipment, procedures & training for on and off installation emergency response elements
- Generate installation CBRNE defense requirements recommendations.

## ➤ Scope

- Consists of two procurement efforts
  - Installation CB defense technologies designed to provide situational awareness & aid in consequence management decision making
  - Equip on post and train emergency responder elements in CBRNE consequence management, integrating civilian community responders
- Includes developing & conducting training for C2 & emergency responders
- Includes exercises to ensure capability and collect data to support CBRNE defense requirements recommendations



# The DoD Joint Chemical Biological Defense Program (CBDP) Vision

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Ensure U.S. military personnel are the best equipped and best prepared force in the world for operating in future battlespaces that may feature chemically and biologically contaminated environments.



# DoD CB Defense Concept –

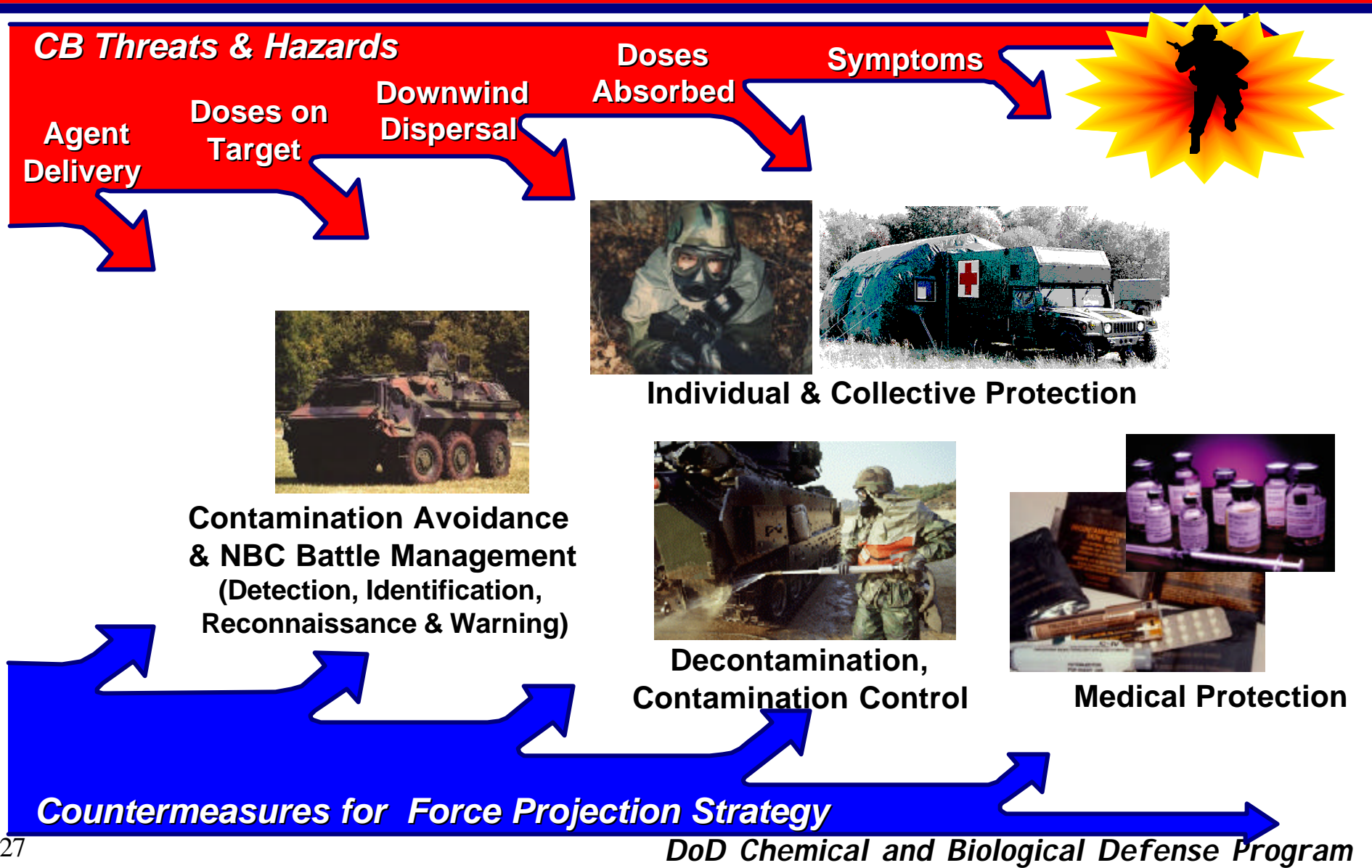
## *RDA to support the Warfighter*

### *An Integrated System-of-Systems, including capabilities for:*

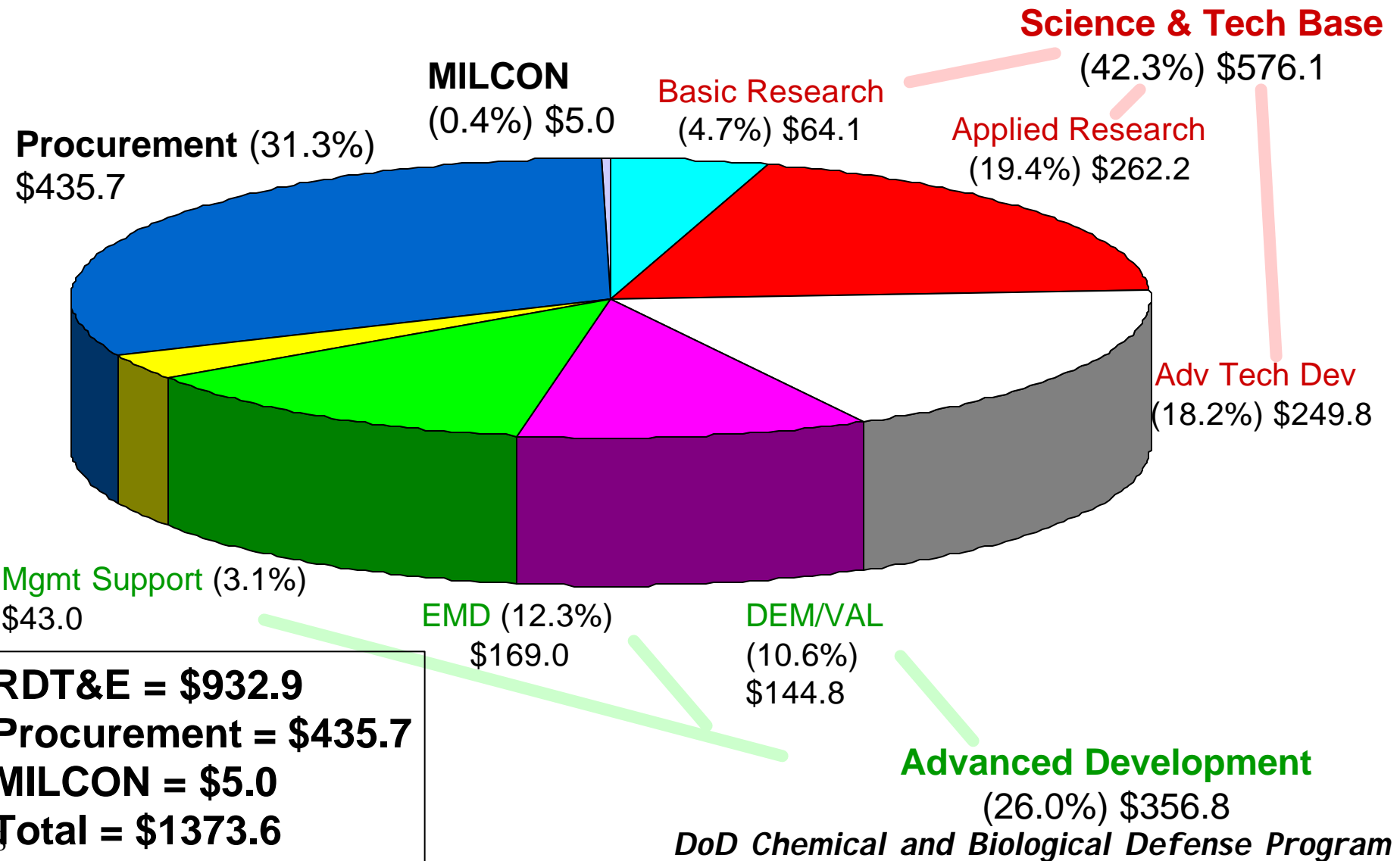
- *Battle Management*
- *Contamination Avoidance*
- *Individual Protection*
- *Collective Protection*
- *Medical Systems*
- *Restoration*



# An Integrated Materiel Approach to Counter the Threat



# DoD Chemical/Biological Defense Program FY2003 (\$M)- President's Budget (PB) Request



# Support to the Warfighter

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- **Making Progress in Research, Development and Acquisition:**
- **However more progress needed:**
  - Organizational/Managerial Transformation
  - Training Readiness
  - Joint Concepts/Doctrine
  - Senior Service/Combatant Commanders Awareness

**\$\$ Dollars Will Not Solve Everything**

# Evolving Challenges

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- **Supporting homeland security roles and missions**
  - Executing programs as strategy evolves
  
- **Enhancing CB installation force protection**
  
- **Acceleration of CB defense technologies**
  - Spinning off appropriate technologies for civilian applications
  
- **Maintaining current programs to respond to warfighter requirements**
  - Balance of competing priorities within current budget authority



Questions