Chemical Weapons Improved Response Program

US Army Soldier and Biological Chemical Command

Chemical Weapons Improved Response Program Overview

Dr. Paul D. Fedele
Chief Scientist, CWIRP
pdfedele@apgea.army.mil
410-436-2962

US Army Soldier and Biological Chemical Command

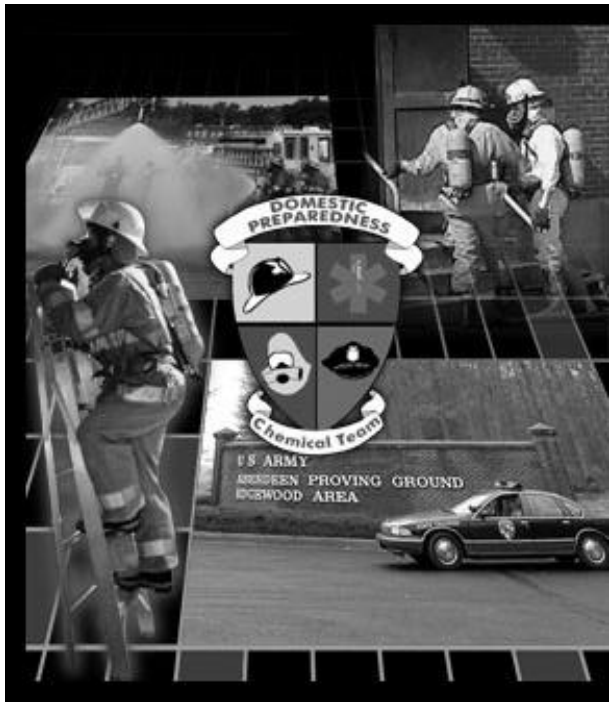
- **Department of Defense experts on chemical and biological warfare since 1917**
- **Develop, acquire, and sustain chemical and biological defense technology, systems and services**
- **Also provide:**
  - **Chemical weapons storage and demilitarization**
  - **Associated environmental remediation**
  - **Chemical weapons treaty compliance**

Chemical Weapons Improved Response Program

- Designed to improve response posture for acts of terrorism using chemical weapons
- Focuses on high priority responder needs
  - Think tank approach
  - Conducts technical and operational investigations with associated exercises to insure valid solutions
- Applications to both rural and metropolitan communities

Chemical Weapons Improved Response Program

- SBCCOM possesses the technical expertise in WMD
- Local involvement essential
- Partnership between federal, state, and local experts



Chemical Weapons Improved Response Program
Program Approach

Established four functional groups to focus on key issues

CWIRP Functional Groups
Health & Safety

Mission

Focus on the issues that impact the well-being of the community at large and the challenges associated with maximizing the impact of local and regional public health and medical resources.

- **Baltimore City HD**
- **USPHS**
- **MD DHMH**
- **MIEMSS**
- **Baltimore City School Police**
- **American Red Cross**
- **Johns Hopkins Hospital**
- **Franklin Square Hospital**
- **St. Agnes Hospital**
- **Disaster Planning International**

CWIRP Functional Groups

Law Enforcement

Mission

Enhance preparedness by identifying, prioritizing, and addressing the challenges facing law enforcement that are unique to a chemical terrorist incident.

- **FBI**
- **APG CID**
- **MD State Police**
- **MD State Fire Marshall**
- **MD Trans. Authority**
- **Mass Transit Admin.**
- **Ocean City Police**
- **Baltimore City**
- **Baltimore County**
- **District of Columbia**
- **Harford County**
- **Howard County**
- **Montgomery County**
- **New York City**

CWIRP Functional Groups
Emergency Response

Mission

Identify and develop ways to improve the response capabilities of the first responders to manage the consequences of a chemical terrorist event.

- **Montgomery County**
- **Aberdeen Proving Ground**
- **Ft. Detrick, MD**
- **Baltimore City**
- **Baltimore County**
- **Boston, MA**
- **District of Columbia**
- **Harford County**
- **Howard County**
- **Philadelphia, PA**
- **Washington County**
- **Anchorage, AK**

CWIRP Functional Groups
Emergency Management

Mission

Address issues and make recommendations designed to enhance the responder and emergency management communities' planning, resourcing and coordinating capability.

- **Baltimore County**
- **MEMA**
- **Baltimore City**
- **Carroll County**
- **Howard County**
- **American Red Cross**

CWIRP Accomplishments

Exercises:

- **Eleven table top exercises**
- **Two functional exercises**

Technical studies:

- **Firefighter PPE Assessment for Quick Rescue**
- **Positive Pressure Ventilation Studies**
- **Mass Casualty Decontamination Techniques**
- **Law Enforcement / EMS PPE Assessments**
- **Protective Clothing analysis for SWAT Teams**
- **Alternate Chemical Casualty Medical Care Facility**
- **Chemical Mass Fatality Management**
- **Law Enforcement Protective Clothing Report**
- **Fire Service Emergency Response Video**

Technical Initiatives

Firefighter Protective Clothing Assessment

- **Evaluate the degree of protection against chemical agents offered by standard firefighter gear during quick rescue operations**
- **Conducted tests with local firefighters at SBCCOM test facilities using standard DoD test methodologies**
- **Developing guidelines the can be used by the Incident Commander to make risk-based decisions if level A protection is not immediately available**

Technical Initiatives

Positive Pressure Ventilation

- **Evaluate the use of PPV fans as a mitigation tool to quickly reduce contamination levels in a contaminated building**
- **Determine the amount of additional protection afforded firefighters conducting quick rescue**
- **PPV reduces vapor concentrations of agent by 50%-70%**

Technical Initiatives

Protective Clothing for Police Officers

- **Recommended a range of low cost protective clothing options for personnel operating on the perimeter of an incident**
- **Threat of contamination comes from wind shifts, cross-contamination from victims, and secondary releases**
- **Included gas mask evaluations, chemical clothing tests and weapons firing**
- **Concerns included cost, training and maintenance requirements**

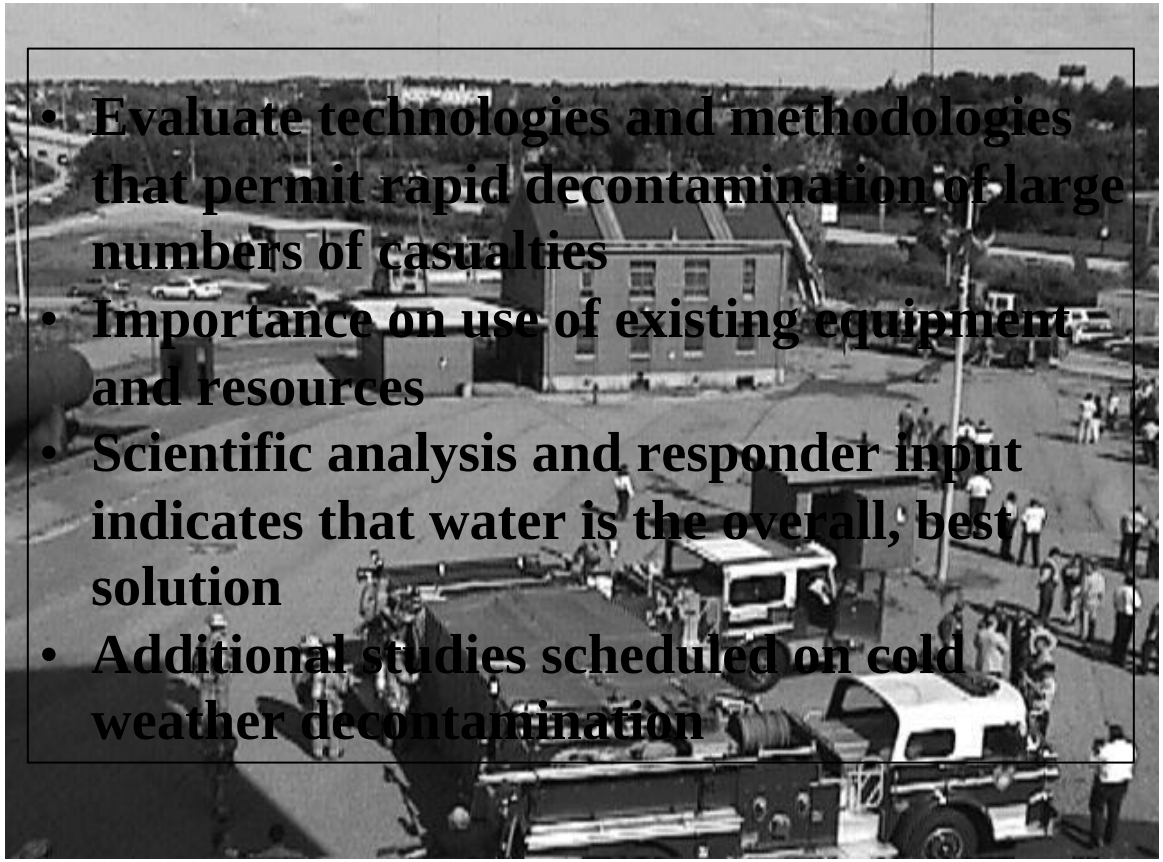
Technical Initiatives

Protective Clothing for SWAT Teams

- **Evaluated available protective clothing suitable to a SWAT team**
- **Protection from higher levels of contamination are needed**
- **Focus on protection afforded while using special weapons, equipment and tactics**

Technical Initiatives

Mass Casualty Decontamination



- Evaluate technologies and methodologies that permit rapid decontamination of large numbers of casualties
- Importance on use of existing equipment and resources
- Scientific analysis and responder input indicates that water is the overall, best solution
- Additional studies scheduled on cold weather decontamination

Technical Initiatives

Medical/Health Response

- **Develop a medical response plan to handle the potentially catastrophic number of casualties from a chemical terrorism incident**
- **Establish Off-site Triage, Treatment and Transport Center to**
  - **Manage the non-critically ill and psychosomatic**
  - **Allows established infrastructure to maintain status quo**
- **Outline chemical fatality management guidelines**

CWIRP Future
2001 and Beyond

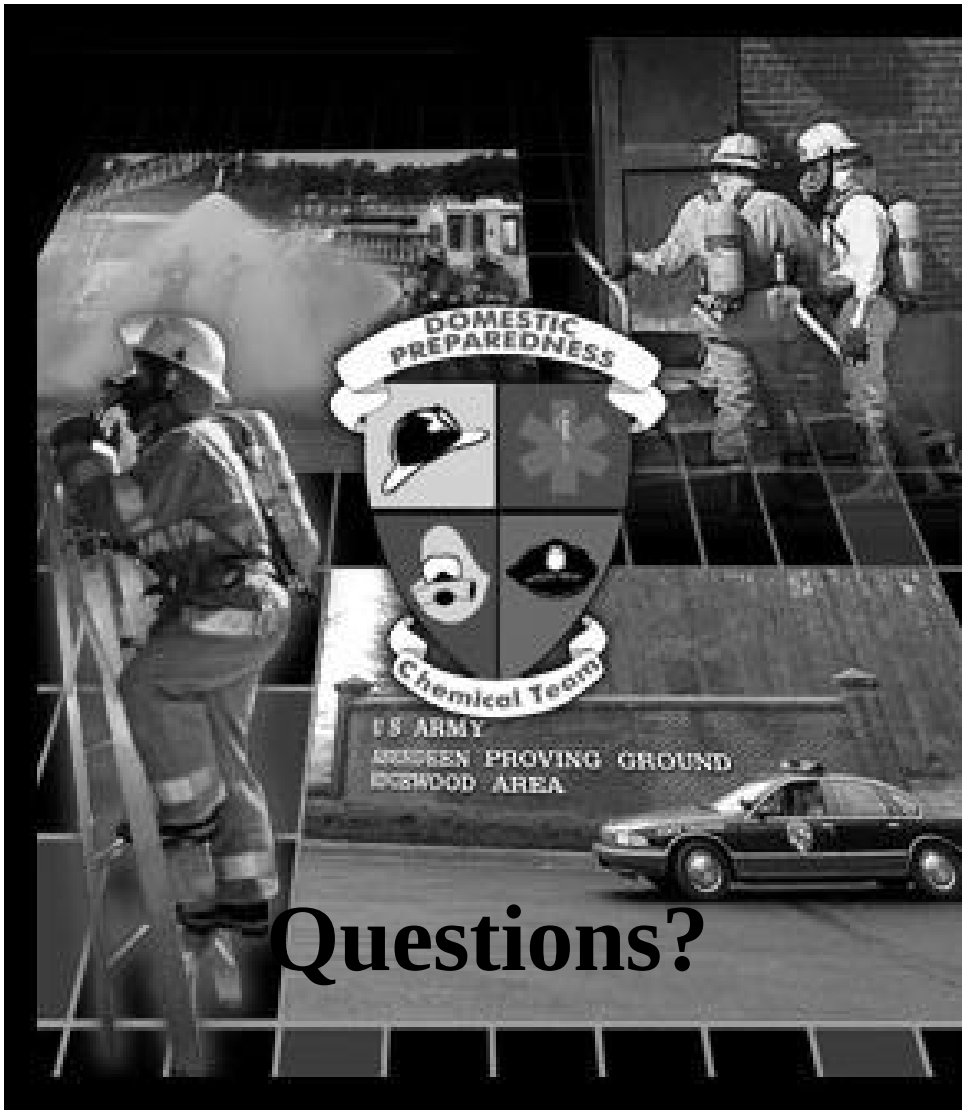
- **Domestic Preparedness transitions from Department of Defense (DoD) to Department of Justice (DoJ)**
- **Office of Justice Programs continues civilian response improvement.**
- **SBCCOM maintains support and focuses on DoD military installation protection and response preparedness.**

Further CW IRP Information

Further information is available on line, under CWIRP at the web site:

http://www2.sbccom.army.mil/hld/index.htm

Dr. Paul D. Fedele
Chief Scientist, CWIRP
pdfedele@apgea.army.mil
410-436-2962


DOMESTIC PREPAREDNESS
Chemical Team
US ARMY
PROVING GROUND
AREA

Questions?