Chemical, Biological, Radiological and Nuclear (CBRN) Response Enterprise (CRE)

Presenter Name
Position
Phone Number
Email

Agenda

• Overview
• CBRN Response Enterprise Overview
• Weapons of Mass Destruction (WMD)- Civil Support Team (WMD-CST)
• CBRNE Enhanced Response Force Package (CERFP)
• Homeland Response Force (HRF)
• Summary
• Questions
**CBRN Response Enterprise Overview**

**NG CRE History (WMD-CST/CERFP/HRF)**

- **General Policies:**
  - PDD-39: U.S. Policy on Counterterrorism
  - PDD-62: Combating Terrorism
  - Nunn-Lugar-Domenici Act: Enhanced support to improve the capabilities of state and local emergency

- **Weapons of Mass Destruction (WMD)-Civil Support Teams (CST):**
  - Title 10 USC, Section 12310: Established initial 10 WMD-CSTs
  - NDAA 2007: Established the final WMD-CSTs for a total of 55
  - NDAA 2013 (Section 1435): Authorized the SECDEF 2 additional WMD-CSTs for a total of 57

- **CBRNE Enhanced Response Force Package (CERFP):**
  - JROCM 162-06: Established 12 CERFPs
  - NDAA 2006: Authorized 5 additional CERFPs

- **Homeland Response Force (HRF):**
  - QDR 2010: Identified short falls within the Department of Defense in CBRN consequence management response
  - RMD 700: Established 10 HRFs in the 10 National FEMA Regions

- **Selected Responses:** 9/11 Attack, RNCs, DNCs, Presidential Inaugurations, NSSEs, Boston Marathon, G8/G20 Summits, Hurricanes Katrina, Rita and Sandy.

- **National and Regional Exercises:** Vigilant Guard, Ardent Sentry, Patriot, Vibrant Response, United Response, Joint Eagle and the National Boy Scout Jamboree.
Analysis prior to and during the 2010 Quadrennial Defense Review showed that significant improvements could be made in the Department of Defense force construct for domestic CBRN consequence management response:

- Deployment timeline does not enable life-saving
- Capabilities are not optimized for likely needs
- Lack of cohesion between dispersed supporting units

The new construct provides critical advantages over the legacy approach:

- Much faster response times
- More personnel dedicated to life-saving
- Regional distribution and integration
- Better balance between state and federal control
- Enterprise approach to training, evaluations, exercises

New enterprise concept is more consistent with tiered response approach and National Response Framework:

- New approach supports FEMA “Go Big, Go Fast” initiative

The military CBRN Response Enterprise includes:

- National Guard units assigned to the National Guards of their respective states:
  - Weapons of Mass Destruction Civil Support Teams (WMD-CSTs)
  - CBRN Enhanced Response Force Packages (CERFPs)
  - Homeland Response Forces (HRFs)
- Title 10 units allocated to USNORTHCOM for this mission:
  - Defense CBRN Response Force (DCRF)
  - Command & Control CBRN Response Elements (C2CREs A and B)
- In addition, a catastrophic incident may require significant contingency-sourced follow-on forces
**NG CRE Response Timeline**

**Title-32 State Response**

- Total Force: 10,373

**National Guard Civil Support Team**

- WMD-CST (57 teams) 1254 personnel
  - 22 personnel
  - Detection
  - Identification

- CERFP (17 units) 3349 personnel
  - 197 personnel
  - C2
  - Search/Extraction
  - Decontamination
  - Triage/Stabilization
  - Fatality Search and Recovery Team (FSRT)

- HRF (10 units) 5770 personnel
  - 577 personnel
  - C2
  - Search/Extraction
  - Decontamination
  - Triage/Stabilization
  - CBRN Assistance Support Element (CASE)
  - Logistic Support

**NG CRE Provide a Phased and Modular Capability**

- WMD-CSTs detect and identify CBRN agents/substances, assess the effects and advise the local authorities on Managing the effects of the attack and assist with request for other forces.
- CERFPs locate and extract victims from a contaminated environment, perform medical triage and stabilization, and perform mass patient/casualty decontamination.
- HRFs provide additional CERFP capabilities, a robust C2, and a Casualty and Assistance Support Element.

**Title-10 Federal Response**

- Total Force: ~8,200

**Defense CBRNE Response Force**

- DCRF 1 5200 personnel
  - CBRN Assessment
  - Search/Rescue
  - Decontamination
  - Emergency Med
  - Security
  - Logistics Support
  - C2
  - FP1 - 2000 personnel, 24hrs
  - FP 2/3 - 3200 personnel, 48 hrs

- C2CREs A/B 1500 personnel each 96hrs
  - 3000 personnel total

**Follow-on General Purpose Forces**

- General Purpose Forces
  - Aviation
  - Security
  - Medical
  - Logistics

**NG HRF/ CERFP**

- NG HRF ADVON / CERFP Main Deploys to Assembly Area or Staging Area

**INCIDENT SITE**

- NG HRF ADVON
- NG HRF MAIN
- HRF MAIN
- CERFP MAIN
- CERFP ADVON
- NG CRE Provide a Phased and Modular Capability
- NG CRE Main Deploys to Assembly Area or Staging Area

**Assembly Area**

- Local & State First Responders
- NG HRF / CERFP
- NG CRE Advon

**CST ADVON**

- CST Notification
- CST ADVON Deploys
- CST MAIN
- CERFP ADVON

**Follow-on**

- National Guard Homeland Response Force
- CERFP MAIN
- HRF MAIN
- NG CRE Provide a Phased and Modular Capability

**Hot Zone**

- NG CRE Main Deploys to Assembly Area or Staging Area
**WMD-CST**

**MISSION:** Support civil authorities at a domestic incident site during specified events, which include use or threatened use of a WMD; terrorist attack or threatened terrorist attack; intentional or unintentional release of nuclear, biological, radiological, or toxic or poisonous chemicals; natural or manmade disasters in the United States that result, or could result, in the catastrophic loss of life or property by identifying hazards, assessing current and projected consequences, advising on response measures, and assisting with appropriate requests for additional support.

**KEY CHARACTERISTICS:**
- Operates under control of the Governor
- WMD-CSTs are certified by the SECDEF
- Operate only in US and Territories
- 22 Full-time Guardsmen
- 80% Commercial Off The Shelf (COTS) equipment
- All WMD-CST personnel are HAZMAT TECH certified
- Total of 57 Teams, 1 for each State and Territory (CA, NY, FL 2 ea)
- Unified Command Suite (UCS) a self-contained, stand-alone, air transportable, mobile communications system to facilitate reach-back
- Analytical Laboratory System (ALS) a mobile, analytical lab that conducts field laboratory analysis to detect and characterize an unknown CBRN sample

**WMD-CST OVERVIEW**

![Diagram](attachment:image.png)

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>3 PAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPERATIONS</td>
<td>3 PAX</td>
</tr>
<tr>
<td>ADMIN/LOG</td>
<td>2 PAX</td>
</tr>
<tr>
<td>MEDICAL/ANALYTICAL</td>
<td>4 PAX</td>
</tr>
<tr>
<td>SURVEY</td>
<td>8 PAX</td>
</tr>
<tr>
<td>COMMUNICATIONS</td>
<td>2 PAX</td>
</tr>
</tbody>
</table>

*Total PAX = 22*
DETECT

• Alert to presence of potential hazard model
• Sample for characterization
• Collect hazard info
• Provide modeling

IDENTIFY

• Conduct site characterization
• Assess consequences
• Assess infrastructure effects
• Refine models
• Advise on mitigation measures
• Advise and link to follow-on forces

DETERMINE CONTAMINATED AREA

• Prepare to redeploy
• Prepare for follow on support for IC
• Prepare for additional CSTs
• Prepare to support CERFP or HRF Mission
• Prepare for split operations

ASSIST

• Participate in advance planning
• Coordinate for potential response
• Report / info exchange
• Link to support agencies
• Prepare for follow-on forces

PREPARE

• Determine identity or hazard class
• Identify effects
• Advise on casualty minimization measures
• Advise on containment measures
• Report / info exchange
• Refine hazard model
• Provide reach-back

ASSESS

• Conduct site characterization
• Assess consequences
• Assess infrastructure effects
• Refine models
• Advise on mitigation measures
• Advise and link to follow-on forces

ADVISE

• Prepare to redeploy
• Prepare for follow on support for IC
• Prepare for additional CSTs
• Prepare to support CERFP or HRF Mission
• Prepare for split operations

WMD-CST CONOPS

Detect

• Primary Capabilities
  – Detects location of CBRN or other hazards
  – Collects CBRN samples for confirmatory analysis
  – Links to state and federal authorities for transfer of samples
  – Uses validated sampling protocols or IC directed procedures
  – Supports both public health and public safety sampling
  – Collects CBRN samples for confirmatory analysis

• Other Relevant Capabilities
  – Detects location of CBRN or other hazards
  – Links to state and federal authorities for transfer of samples
  – Uses validated sampling protocols or IC directed procedures
  – Supports both public health and public safety sampling

HAZMAT Technician Certified
Confined Space Rescue Certified

All equipment meets NIOSH/ ANSI/OSHA Safety/Protection Standards
Identify

**Mission:** Utilizes specialized laboratory instrumentation to identify potential chemical and biological threat agents at the field confirmatory level.

The WMD-CST Laboratory Program is accredited by the American Association for Laboratory Accreditation (A2LA) to conform to ISO 17025 Laboratory Standards

- **Primary Capabilities**
  - Class 3 Glovebox for BSL-4 Agents
  - Hand-held Immunoassays for detection / identification of Biological Warfare Agents (BWA)
  - Electrochemiluminescence Immunoassay (ECLIa) for antigen based detection of BWA
  - Polymerase Chain Reaction (PCR) for detection / identification of nucleic acid biomarkers
  - Fourier Transform Infrared Spectroscopy (FTIR) for detection / identification of unknown chemicals
  - Gas Chromatography Mass Spectrometry (GC-MS) for detection of Chemical Warfare Agents and TIC/TIMs
  - Raman Spectroscopy for detection of CWA and TIC/TIMs
  - Polarized Light Microscopy for “white powder” analysis
  - Fluorescent Light Microscopy for biological analysis

- **Other Relevant Capabilities**
  - Split samples for confirmatory analysis
  - Chain of custody protocols
  - Reach-back to State and Federal Laboratories

Determine Contaminated Area

**Mission:** Utilizes specialized equipment to conduct a survey around the contaminated area in order to determine the presence and extent of contamination. Generate a plume model for vulnerability analyses and site characterization.

All Survey members trained and certified to the HAZMAT Technician level (CFR 1910-120)

- **Primary Capabilities**
  - Conduct initial assessment of the affected area
  - Locates source of CBRN or other hazards
  - Develop plume model
  - Collects CBRN samples for confirmatory analysis

- **Other Relevant Capabilities**
  - Video and photographing items of interest
  - Reporting casualty information
Mission: Facilitate reach-back for both the WMD-CST and organizations that it supports, providing a critical link to follow-on forces, supplies, and expertise for CBRNE incidents and natural and man-made disasters.

Primary Capabilities:
- Provide interoperable communications
- Provide WMD-CST reachback from ALS to fixed laboratories
- Advise on incident response and Common Operating Picture
- Assist incident command with requests for support

Other Relevant Capabilities:
- Maintains COMSEC equipment and keying material to ensure secure communications
- Establishes secure communications links, as required and maintains classified documents
- Augments IC communications as available and within its capabilities
- Coordinates with civil and military agencies for follow-on support

CBRNE Enhanced Response Force Package (CERFP)
**CBRNE Enhanced Response Force Package (CERFP)**

**MISSION:** On order, responds to a chemical, biological, radiological and nuclear (CBRN) incident and assists local, state, and federal agencies in conducting consequence management by providing capabilities to conduct patient decontamination, medical triage and stabilization, and casualty search and extraction.

**KEY CHARACTERISTICS:**
- Operate under the control of the Governor
- CERFPs are validated by the TAG of each State
- Can operate both in a regional and national level
- 80% Commercial Off The Shelf (COTS) equipment
- HAZMAT Awareness or Operations level certified
- Total of 17 CERFP at least one per FEMA Region
- All members ICS 100b, 200b, 700a and 800b trained
- FSRT conducts processing of contaminated remains only within the CERFP Elements

**CERFP CONOPS**

- Participate in advance planning
- Coordinate for potential response
- Link to support agencies
- Directs and deploys the overall activity of the CERFP
- Conduct extraction operations
- Conduct rope extraction operations
- Conduct lifting/hauling operations
- Support S&E teams and triage operations in the hot zone
- Conduct cold zone triage
- Provide Initial Med stabilization
- Conduct transfer procedures from other CERFP elements
- Conduct recovery, initial processing and temporary holding of contaminated and clean remains/decedents
- Conduct equipment DECON
- Establish a hazardous waste site
- Prepare for treatment of CBRN casualties
- Released to IC for follow on care and disposition

**TOTAL PAX = 197**

- **SEARCH & EXTRACTION (50 Pax)**
- **DECON (75 Pax)**
- **MEDICAL (45 Pax)**
- **FATALITY SEARCH & RECOVERY (FSRT) (11 Pax)**

**PREPARE:**
- DETECT
- IDENTIFY
- DETERMINE CONTAMINATED AREA
- Must be completed by CST-WMD or Certified HAZMAT Team prior to CERFP executing their mission

**SEARCH:**
- Conduct search operations

**EXTRACTION:**
- Conduct search and rescue operations

**DECON:**
- Conduct equipment DECON
- Establish a hazardous waste site
- Prepare for treatment of CBRN casualties

**MEDICAL:**
- Conduct transfer procedures from other CERFP elements
- Conduct recovery, initial processing and temporary holding of contaminated and clean remains/decedents

**COMMAND & CONTROL (16 Pax)**

**PLAN, COORDINATE and SUSTAIN**

**FATALITY SEARCH and RECOVERY**
Plan, Coordinate and Sustain

- **Individual Qualifications**
  - Command and Staff
    - WMD and Collapse Mission Command Staff Planning Course

All C2 members trained and certified to the HAZMAT Awareness Level (CFR 1910-120)

- **Primary Capabilities**
  - Conduct planning and coordination
  - Issue Orders
  - Conduct Incident Operations
  - Conduct Sustainment Operations
  - Conduct Deployment Operations
  - Conduct Redeployment Operations
  - Reports to the JTF-State and incident commander

Search and Extraction

- **Collective Capabilities (NFPA 1670)**
  - S&E element trained and equipped to provide the following operational capabilities
    - Rope Rescue at the Operations Level
    - Structural Collapse Search and Rescue at the Operations Level
    - Confined Space Search and Rescue at the Operations Level

- **Individual Qualifications (NFPA 1006 (2013))**
  - All Members
    - Level I Rope Rescuer
    - Level I Confined Space Rescuer
    - Level I Structural Collapse Rescuer
  - Team Leaders and above (a minimum of 5 members per S&E element)
    - Level II Rope Rescuer
    - Level II Confined Space Rescuer
    - Level II Structural Collapse Rescuer

All equipment meets NIOSH/ ANSI/OSHA Safety/Protection Standards

- **Primary Capabilities**
  - Conduct search
  - Conduct rope rescue operations
  - Conduct lifting/loading operations
  - Conduct confined space operations
  - Conduct S&E tasks below IDLH levels in Level B/C PPE with PAPR

All S&E members trained and certified to the HAZMAT Operations level (CFR 1910-120)
**Decontamination**

- **Primary Capabilities**
  - Establish CBRN response DECON site
  - Conduct ambulatory & non-ambulatory clothing removal, decontamination, monitoring, and redress operations
  - Establish equipment and personnel property decontamination stations
  - Establish and maintain a hazardous waste site
  - Establish technical DECON Line

**Medical**

- **Primary Capabilities**
  - Provide health and medical monitoring for assigned CERFP/HRF personnel during operations
  - Provide medical support to S&E teams
  - Perform triage operations in the hot zone
  - Team lead casualty collection
  - Perform cold zone triage
  - Treat CBRN casualties
  - Stabilize patients for movement to definitive care

**Individual Qualifications**

- BLS, ACLS and PALS
- ATLS, PHTLS, and TNCC
- Trauma Training
- Medical/Field Management of Chemical and Biological Casualties Course (MMCBC)/(FMBCBC)
- Incident Command, Capabilities, Planning and Response Actions for All Hazards (IC)
- Healthcare Leadership for Mass Casualty Incidents (HCL)
- Emergency Medical Operations for CBRN Incidents (EMO)
- Intermediate Hands-On Training for CBRN Incidents (HOT-I)
- Medical Effects of Ionizing Radiation (MEIR)
- Radiological Emergency Response
- Radiological Emergency Management
- Radiological Emergency Response Operations (RERO)
- Possess civilian licensure as physicians, PAs, registered nurses, pharmacists or NREMTs

All DECON members trained and certified to the HAZMAT Operations Level (CFR 1910-120)

All Medical members trained and certified to the either the *HAZMAT Awareness or HAZMAT Operations Level (CFR 1910-120)*
Fatality Search and Recovery

• Individual Qualifications
  – Mortuary Skills Enhancement
  – In-Residence Mortuary Officers Course
  – Home Station Readiness Course

All FSRT members trained and certified to the HAZMAT Operations Level (CFR 1910-120)

• Primary Capabilities
  – Takes possession of fatalities from other CERFP elements
  – Double bag contaminated remains
  – Search and recover fatalities
  – Turn remains over to the IC

CERFP GSA Vehicles

BN-C2 (16 PAX)
- 3x F350s
- 3x Cargo trailer
- 1x Bus

S&E (50 PAX)
- 5x F350s
- 4x Cargo trailer
- 1x Flatbed trailer
- 1x Gator

DECON (75 PAX)
- 6x F350s
- 6x Cargo trailer
- 1x Decon trailer
- 1x F750 Stake body
- 1x Bus

MED (45 PAX)
- 4x F350s
- 2x F450s
- 2x Cargo trailer
- 1x Van

FSRT (11 PAX)
- 4x F350
- 2x Cargo trailer
- 2x Flatbed trailer
- 2x Gators

Notes:
• Movement planning factor: 5 pax per vehicle
• Pax movement solutions vary on state sourcing solutions
• Additional trailers have been proposed as part of Equipment Enhancements process
Homeland Response Force (HRF)
MISSION: When directed by proper authority and upon consent of the Governor(s), the Homeland Response Force (HRF) alerts and assembles within 6-12 hours; on order, deploys and conducts command and control; casualty assistance; search and extraction; decontamination; medical triage and stabilization to save lives and mitigate human suffering. On order, transitions operations to civil authorities and redeploys.

KEY CHARACTERISTICS:
- Operate under the control of the Governor
- HRF’s are validated by the TAG of each State
- Can operate both in a regional and national level
- 80% Commercial off the shelf equipment
- HAZMAT Awareness or Operations level certified
- Total of 10 HRF’s one per FEMA Region
- All members ICS 100b, 200b, 700a and 800b trained
- BDE C2 Bridges a gap between initial NG response and Title 10 capabilities
- CASE Security of site and general support

HRF CONOPS

- Conduct extraction OPS
- Conduct rope extraction OPS
- Conduct litter bearer duties
- Conduct security OPS
- Support S& E teams and triage operations in the hot zone
- Conduct cold zone triage
- Provide initial field stabilization
- Released to IC for follow on care/disposition
- Must be completed by CERFP or Certified HAZMAT Team prior to HRF executing their mission
- Conduct transfer procedures from other CERFP elements
- Conduct recovery, initial processing, and temporary holding of contaminated and clean remains/decedents
- Conduct CERFP DECON
- Establish a hazardous waste site
- Prepare for treatment of CBRN casualties

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**Plan, Coordinate, and Sustain – Battle Staff**

- **Individual Qualifications**
  - WMD and Collapse Mission Command Staff Planning Course

- **Primary Capabilities**
  - Support the IC and local authorities
  - Directs and deploys the overall activity of the HRF
  - Provides a regionalized, distributed, life saving CBRN response capability
  - Bridges a gap between first responders and follow-on State and Federal Elements

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**CBRN Assistance and Support**

- **Individual Qualifications**
  - ICS 800 Introduction to National Response Framework

- **Primary Capabilities**
  - Provides force protection
  - Assist in casualty movement
  - Secure area of operations
  - Provide control at cordon and entry points
  - Assist with crowd control

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All C2 members trained and certified to the HAZMAT Awareness Level (CFR 1910-120)

All CASE members trained and certified to the HAZMAT Operations Level (CFR 1910-120)
<table>
<thead>
<tr>
<th><strong>HRF GSA Vehicles</strong></th>
</tr>
</thead>
</table>
| **BDE-C2**  
(180 PAX)  |
| • 4x F350s  
• 4x Cargo trailer  
• 4x Bus  
• 1x 20’ Cargo truck  
• 3x Van |
| **BN-C2**  
(16 PAX)  |
| • 3x F350s  
• 3x Cargo trailer  
• 1x Bus |
| **S&E**  
(50 PAX)  |
| • 5x F350s  
• 4x Cargo trailer  
• 1x Flatbed trailer  
• 1x Gator |
| **DECON**  
(75 PAX)  |
| • 6x F350s  
• 6x Cargo trailer  
• 1x Decon trailer  
• 1x F750 Stake body  
• 1x Bus |
| **MED**  
(45 PAX)  |
| • 4x F350s  
• 2x F450s  
• 6x Cargo trailer  
• 1x Van |
| **FSRT**  
(11 PAX)  |
| • 4x F350  
• 2x Cargo trailer  
• 2x Flatbed trailer  
• 2x Gators  
• 4x Bus |
| **CASE**  
(200 PAX)  |
| • 4x F350  
• 1x 20’ Cargo truck |

**Notes:**
- Movement planning factor: 5 pax per vehicle
- Pax movement solutions vary on state sourcing solutions
- Additional trailers have been proposed as part of Equipment Enhancements process

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**SUMMARY**
NG CBRN Response Enterprise (NGCRE)

Unit Locations

Notional Example of a HRF Operational Picture

COLD ZONE
WARM ZONE
HOT ZONE

REMOT SITE
STAGING AREA
INCIDENT CP

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NGB CBRN Enterprise POCs

HRF Commander (ST) FEMA Region (xx)
Phone
Email

Presenting State JOC POC
Phone
Email

Presenting State POCs (HRF, CERFP, CST)
phone
e_mail