International Association of Firefighters

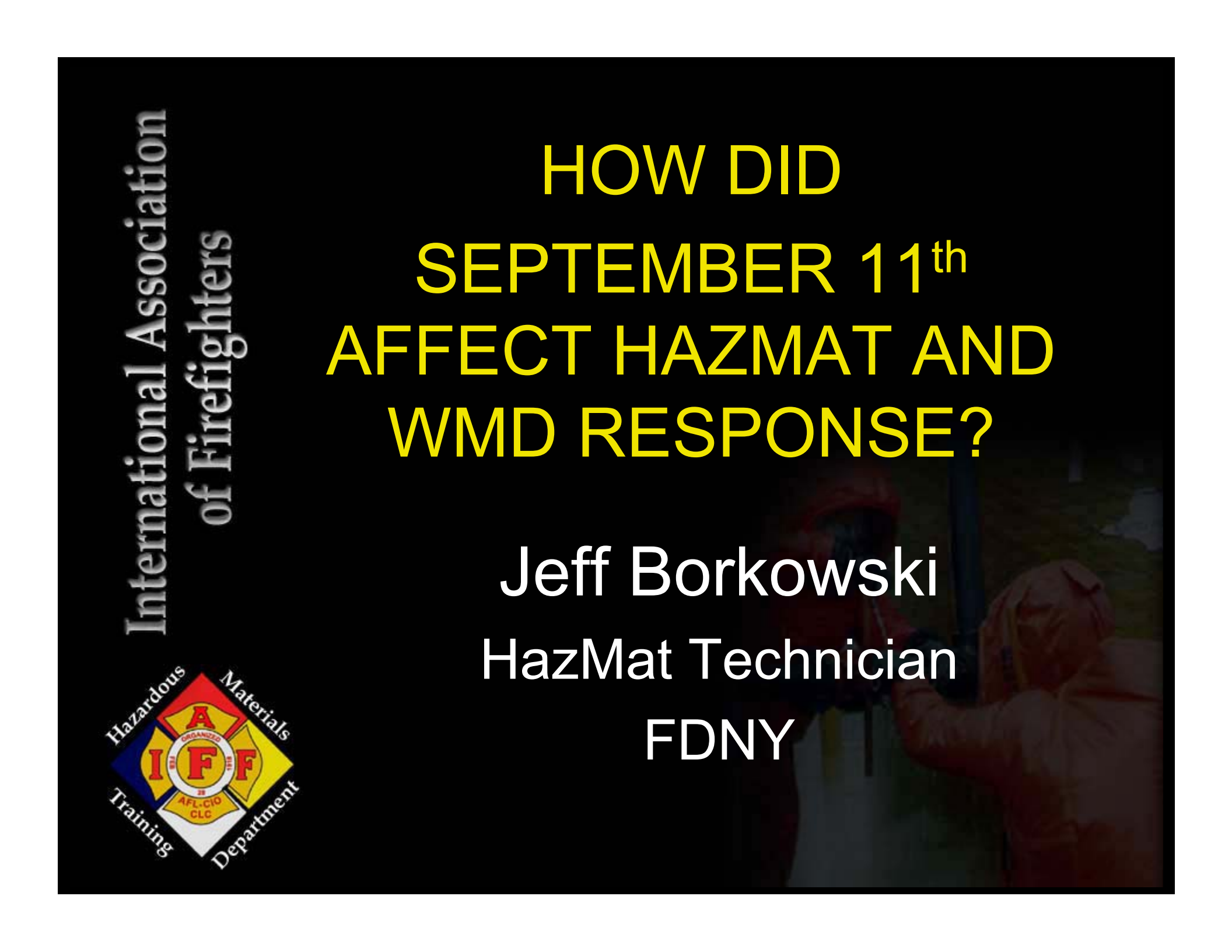
Hazardous Materials Training Department

HOW DID SEPTEMBER 11th AFFECT HAZMAT AND WMD RESPONSE?

Jeff Borkowski

HazMat Technician

FDNY



Outline

- What were the demands placed on FDNY?
  – On Sept. 11th / Post-incident / Today
- How did 9/11 change the way we respond to HazMat and WMD incidents?
- How did 9/11 change our training needs?

International Association of Firefighters

Hazardous Materials Training Department

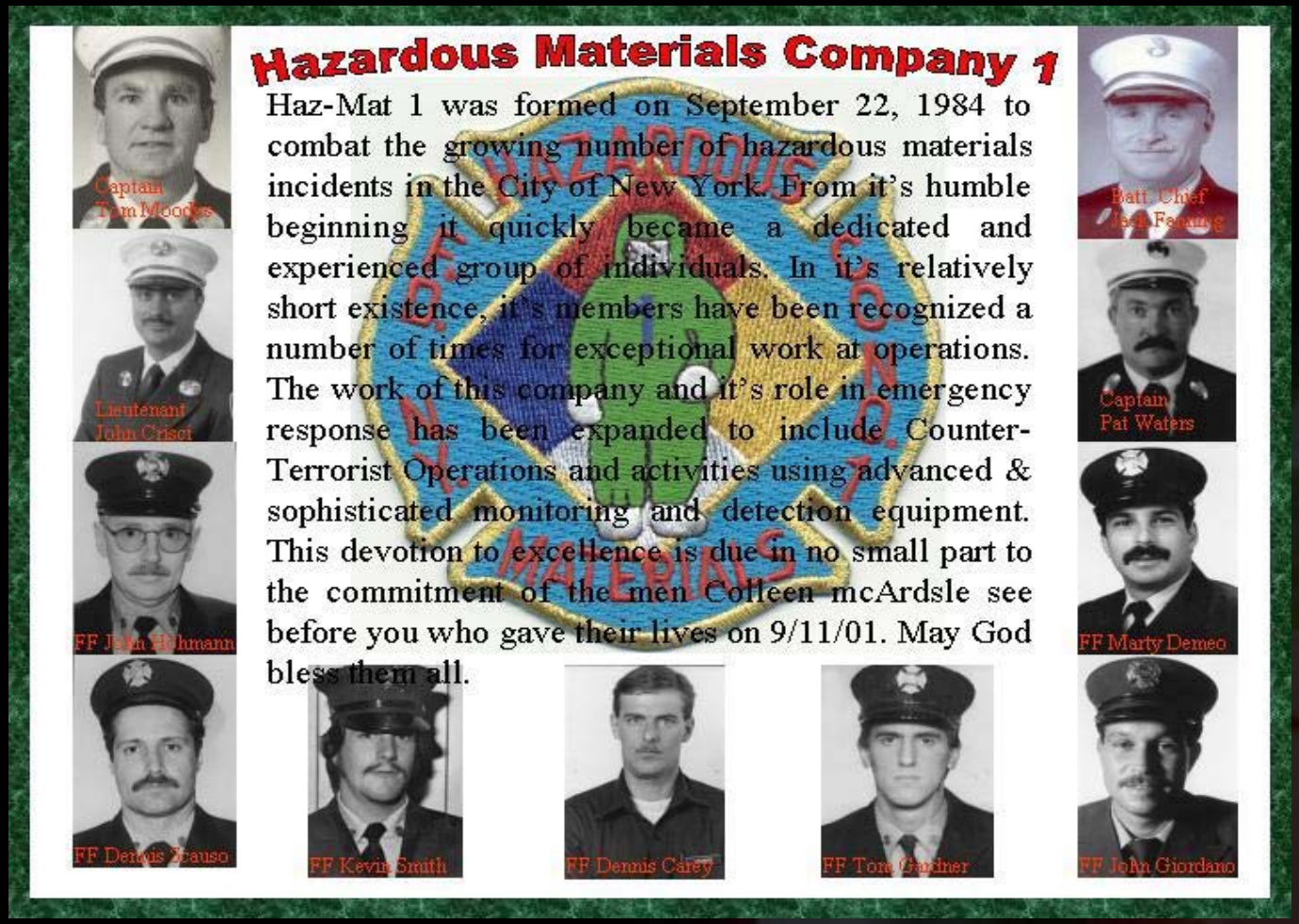
FDNY Personnel Killed

- Chief of Department
- 1st Deputy Comm.
- 2 Ass't Chiefs
- 18 Battalion Chiefs
- 20 Captains
- 47 Lieutenants
- 250 Firefighters
- 1 Chaplain
- 2 Paramedics
- 1 Fire Marshall
- Total 343

FDNY Haz-Mat Specialists Killed

International Association of Firefighters

Hazardous Materials Training Department



International Association of Firefighters

The Fire Service Effect

- It can happen on our soil!
- "It's not a question of ***<u>if</u>***, but when" has been replaced by "***<u>When</u>*** and ***<u>where</u>*** will it happen again"
- Increased requests for training, equipment and funding

Hazardous Materials Training Department

International Association of Firefighters

Hazardous Materials Training Department

The Fire Service Effect

- Role of fire fighters as first responders
- Lack of Federal support
- Hi-lighted the lack of coordination between federal agencies

International Association of Firefighters

Hazardous Materials Training Department

FDNY Apparatus Destroyed

- 2 Rescue Trucks
- 3 Squad Engines
- 4 Haz-Mat Support
- 15 Ladder Trucks
- 15 Engines
- 6 Ambulances
- 23 Sedans
- 16 Suburbans
- 7 Support Vehicles
- 91 Total Vehicles

International Association of Firefighters

The Fire Service Effect

- HazMat Training is the key to WMD Training
- We need to link equipment and approaches used in HazMat to WMD
- Need for better cross-functional ICS training and practical exercises

Hazardous Materials Training Department

The Fire Service Effect

- Level of PPE has changed
- Integration of Law Enforcement tactics in response
- Change in decontamination needs
- Lack of reliable bio detection field instruments

International Association of Firefighters

Hazardous Materials Training Department

International Association of Firefighters

The Fire Service Effect

- Need to consider criminal intent during dispersion
- Fire Fighters need training + administrative support
- Analyze decontamination needs and capabilities

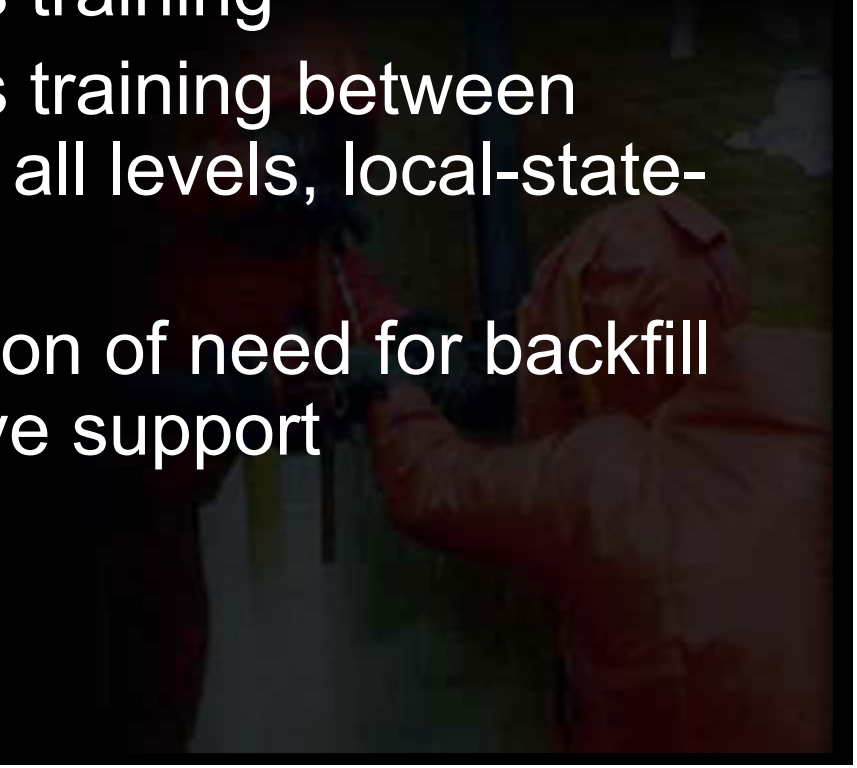
Hazardous Materials Training Department

Positive HazMat/WMD Training Changes

International Association of Firefighters

Hazardous Materials Training Department

- Students now know it can happen and are more attentive
- Increase in cross training
- Increase in cross training between inter-agencies in all levels, local-state-federal
- Federal recognition of need for backfill and administrative support



Positive HazMat/WMD Training Changes

- IAFF / NIEHS Projects
  - Rebuilding lost resources through training
    - Tech
    - CPC/Decon
    - First Responder
  - Administrative support / backfill
    - Without it, training would not be possible!

Training Changes Still Needed

- Faster more direct access to new technologies currently classified by the military and law enforcement for response
- Firefighters do not typically need secret clearance for their work, without it they cannot get access to new technologies

International Association of Firefighters

Hazardous Materials Training Department

Training Changes Still Needed

- More Operations-level training for first responders to WMD events
- Unified Command training and exercises for interagency command staff members
- Additional training on PPE for responders that will protect them from the effects of WMD agents and materials

Training Changes Still Needed

- More HazMat Technicians
- More HazMat Team Support personnel (CPC/Decon)
- Increased training of medical personnel in WMD PPE for treatment of victims in contaminated zones

International Association of Firefighters

Hazardous Materials Training Department

Training Changes Still Needed

International Association of Firefighters

- Critical Incident Stress
- Now and the future
  - Our recruits have seen things most firefighters will never see
  - How do you handle the rest of your career?

Hazardous Materials Training Department

International Association of Firefighters

Hazardous Materials Training Department

Protecting Emergency Responders

Lessons Learned from Terrorist Attacks

Conference on Personal Protective Technologies

New York City, December 2001

CDC Workplace Safety and Health

NIOSH

Sept. 11, 2001 -
-
the day our world Changed forever

CDC Workplace Safety and Health

NIOSH

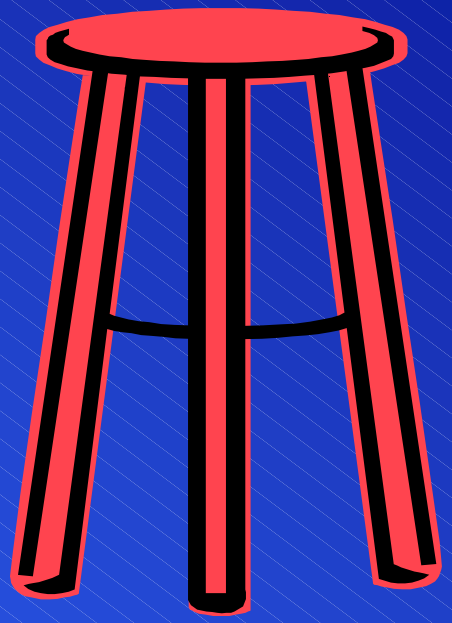
CDC Workplace Safety and Health

NIOSH

Why the NYC meeting?

One part of a three-legged approach

- IA with RAND to formulate technology development roadmap
- NYC meeting to hear "lessons learned"
- New IA to evaluate environmental data to support users guidelines



NYC Meeting

- Purpose
  - Document first-hand views on the protection of emergency workers in terrorist attack response
    - PPE performance, availability, and use
    - Training
    - Hazard assessment and communication
- Goals
  - Understand the post-attack environment
  - Provide input to PPE research agenda
  - Improve safety PPE education and training

CDC Workplace Safety and Health

NIOSH

Conference Format

Participants:

110+ Responders with first hand experience at the attack sites

- World Trade Center
- Pentagon
- Oklahoma City
- Anthrax incidents

Process:

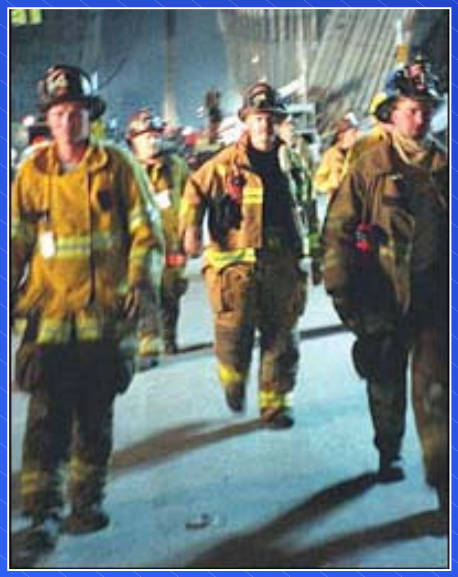
Panel discussions by service

- Firefighters
- EMTs
- Law enforcement
- Construction & trade services
- Public health specialists
- Federal and state agencies

Plenary Sessions

- Protection Challenges
- Health and Safety Data
- Experience at the Sites

Recurring Themes



Á The scale of the terrorism events, their duration, and the dynamic range of hazards they presented required that many emergency responders also take on atypical tasks for which they were insufficiently equipped or trained.

- The consensus among several panels was that unless practices are ingrained before a major incident and the use of equipment and procedures is part of preparedness, responders are unlikely to absorb training fully in the heat of the battle to save lives or to be predisposed to wear PPE as prescribed.

What did we learn?

1. **Resources unavailable or used ineffectively**
   - Large physical area
   - Multiple & dynamically changing hazards
   - Multiple simultaneous incidents
   - Many responding agencies
   - Acquisition and management of back-up supplies impeded by transportation systems shutdown
   - Communications systems overloaded
   - 1000's of anthrax calls
   - Potential secondary incidents/devices

What did we learn?

2. **Responders abandoned/modified PPE during long duration campaign. Productivity Diminished**

- Equipment is designed for short intervals
- SCBA air bottles lasted for only minutes
- Respirator cartridges clogged
- Batteries need recharging
- Turnout gear heavy, hot, and uncomfortable
- Extended wear caused blisters and fatigue
- Disposable garments tear
- Sustained high physiologic demands

What did we learn?

3. Multi-Threat Events

- Large scale scene with diverse response activities

  Intense fire, falling debris, structure collapse search, rescue & recovery; security & crime scene; site stabilization & restoration; employee assistance programs; mortuary; etc.

- Responders faced many additional risks
  - Jet fuel, rubble, dust, toxins, body parts/fluids, hazardous materials
- Unknowns associated with terrorism
- Risks exacerbated by stress and fatigue

What did we learn?

4. New Roles, New Responders
   - Firefighters engaged in non-traditional tasks
   - Trades workers thrown onto the front-lines
     - Equipment operators, iron-workers, sanitation, food service
   - Off-duty personnel and citizen volunteers on scene
   - Few agencies sufficiently prepared for “refined” anthrax
   - Disaster sites were crime scenes - extensive law enforcement activity
     - PPE supply and training for law enforcement very limited

What are *we* doing?

- SCBA standards for CBRN completed
- PAPR and APR (full face) standards
- Guidelines with a twist
- Identifying/analyzing databases (RAND)
- End-of-Service-Life research
- Changing standards to promote interchangeable of parts
- Biological protection

What are *we* doing?

- Decon procedures and guidance
- PAPR and APR (full face) standards
- Guidelines with a twist
- Identifying/analyzing databases (RAND)
- End-of-Service-Life research
- Changing standards to promote interchangeable of parts
- Biological protection

What's it all mean to *you*?

- Lighter, more comfortable PPE for long duration operations
- Interchangeable parts
- Cooling systems
- PPE with hydration capabilities
- Combination SCBA/APR units
- Effective eye protection
- PPE as an ensemble
- Multifunctional ensembles (eye, ear, head protection, communication capabilities, sensor readouts)

What's it all mean to *you*?

- Integrated PPT technologies
  - responder tracking systems
  - enhanced communications
  - displays
- Size selection to include female and multicultural responders
- Emergency re-supply logistics
- On-site training/materials
- Abrasion resistant, flexible, and bio-proof ensembles

CDC Workplace Safety and Health

NIOSH

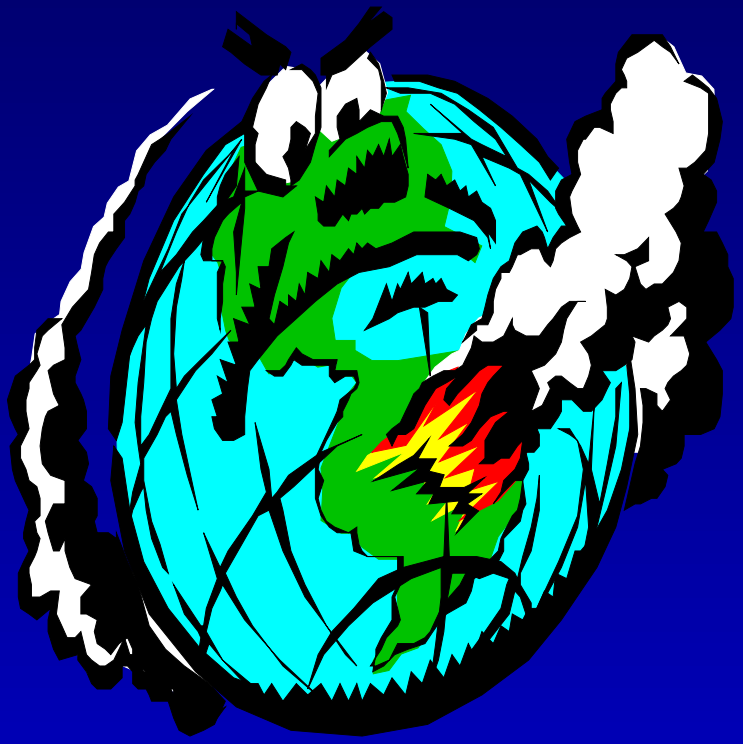
Concluding Observations

- Responders believe they lack the necessary personal protection information, training, and equipment for major disaster responses
- Strategies for effectively providing needed equipment & training must be explored
- PPE must provide appropriate balance between responder safety and mission effectiveness
- Having coordinated personal protection policies, practices, and training are essential for effective successful responses
- R&D and technology transfer could provide ways to address the problems and trade-offs identified

Critical Incident Response

Marilyn Knight, M.S.W.
Incident Management Team
Southfield, Michigan

Critical Incidents



Historical Sources of CISD

- Military Science
- Police and Fire Fighters
- Emergency Medical Services

Critical Incident

- an event outside of the range of normal human experience which would be distressing to almost anyone

- any situation where a person feels:
  - overwhelmed by a sense of vulnerability
  - lack of control over the situation

Critical Incident Situations

- sudden and unexpected
- disrupts one's sense of control
- shatters assumptions about how the world works
- perception of a life-damaging threat
- distressing to anyone

Types of Critical Incidents

- Natural Phenomena
- Technological (Omission)
- Man-Induced (Commission)

Natural Phenomena

- hurricanes
- earthquakes
- floods
- windstorms
- tornadoes

Work Environment

- fires
- chemical releases
- explosions
- electrocutions

Work Environment

- falls / falling objects
- nuclear
- machinery accidents
- vehicle accidents

Work Trauma

- fatalities
- serious injuries
  - crushing
  - maiming
  - burns
- car or plane wrecks

Threats and Violence

- verbal threats
- assaults
- robbery
- rape
- attempted / actual kidnapping

Threats and Violence

- bomb threats
- hostage situations
- suicide
- murder

Organizational

- downsizing / layoffs
- plant closings
- criminal indictments
- death of “key” worker or executive
- embezzlement
- mergers
- product tampering

Crisis Reactions

The Impact of Trauma on Individuals

Crisis Reactions - Physiological

- Shock
- Numbness
- “Frozen Fright”
- “Fight of Flight” survival response

Crisis Reactions - Physiological

- Body pumps adrenaline
- Body relieves itself of excess fluids
  - perspiration
  - urination / defecation
  - nausea / vomiting

Crisis Reactions - Physiological

- Senses may become “acute”
- Heart rate increases
- Hyperventilation
- Heightened arousal may lead to exhaustion

Crisis Reactions - Emotional

- Stage One:
  - Shock
  - Disbelief
  - Denial
  - Numbness

Crisis Reactions - Emotional

- Stage Two: Impact Stage

  Cataclysms of emotions-

  - Anger / Rage
  - Fear
  - Terror
  - Grief

Crisis Reactions - Emotional

- Stage Two: Impact Stage
  - Confusion
  - Sorrow
  - Frustration
  - Self-Blame / Guilt
  - Alienation / Withdrawal

Crisis Reactions - Emotional

- Stage Three: Reconstruction of Equilibrium

  Emotional "roller-coaster" that

  eventually becomes balanced

How Traumatic Events may be Re-Experienced:

- Intrusive images or thoughts
- Nightmares
- Flashbacks
- Painful memories
- Intense reactions to “trigger events”

“Trigger Events”

- Sensing something similar that one was acutely aware of during the traumatic event:
  - seeing
  - hearing
  - touching
  - smelling
  - tasting

“Trigger Events”

- Returning to the Worksite where the incident occurred
- “Anniversaries” of the event
- Media articles about similar events

"Trigger Events"

- Proximity of holidays or significant "life events"
- Phases of Criminal Justice Proceedings
  - hearings
  - trials
  - appeals
  - depositions
  - identification of assailant

Recovery Pitfalls

- Need to keep “brave” front
- Suppression of feelings
- Concerns for job security
- Lack of organizational support
- Skepticism about mental health

Signs of Post Traumatic Stress Disorder

- Painful memories of incident
- Nightmares
- Continuously re-experiencing the event
- Numbing of one's emotions
- Avoiding thoughts or activities associated with the event
- Feeling detached or "apart" from others

PTSD

- Loss of emotional control
- Intense irritability
- Startle reflexes
- Sleep difficulties
- Loss of sense of
  - safety and security
  - immortality and invulnerability
  - identity

Issues with Post Traumatic Stress (PTSD)

- Fear of repetition
- Rage at the source
- Self-blame and guilt
- Bereavement and grief
- Fear of symptoms

Psychological Issues

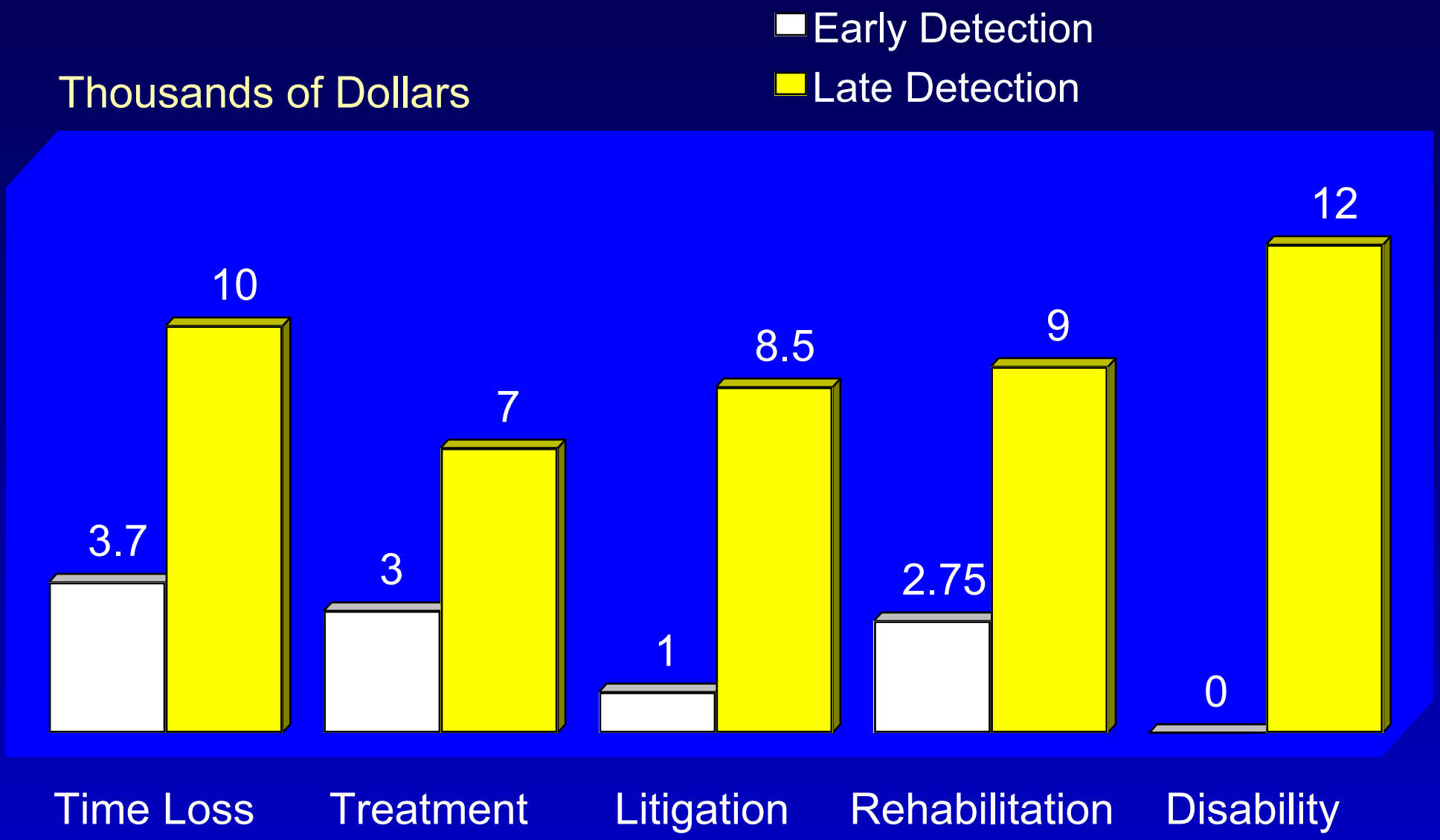
- Conflicts with aggression and alienation
- Embarrassment and shame
- Challenge to self-esteem
- Fear of scrutiny

Critical Incident Response

"The second best decision, quickly made,
is better than
the best decision never made."

General Douglas MacArthur

Cost of Delaying Intervention



Friedman, Framer, and Shearer; "Early Response to Posttraumatic Stress." *EAP Digest*. Sept./O

Immediate help may be
more effective than
extended help
at a later time.

CIS Assumptions

- "Normal people" reacting to an abnormal event
- Event is sudden, unpredictable and overwhelming
- Crisis intervention is:
  - rapid
  - active
  - temporary
  - incident specific

Benefits of On-Site Crisis Team

- Immediate Response to Re-establish Control of Situation
- Sets Expectancy of Recovery
- Shows Loyalty to Employees
- Assesses Severity of Impact on Employees, Company, Customers

On-Site Crisis Goals

- Provide safety and support
- Ventilation and validation
- Explore personal impact of trauma
- “Normalize” stress reactions
- Predict and prepare
- Suggest coping strategies

On-Site Crisis Goals

- Establish follow-up plan
- Assure that problems are being addressed
- Mobilize peer / group support
- Reduce assumption of uniqueness and abnormality
- Accelerate recovery process

On-Site Crisis Activities

- Establish Crisis Center
- Identify Crisis Team
- Define “At-Risk” Groups
- Organize Debriefing Groups
- Establish Family Support

On-Site Crisis Activities

- Develop Follow-up Plan
- Define Internal / External Resources
- Educate Supervisors, Union on Immediate and Delayed Reactions
- Document Activities

Crisis Communications

- Identify Media Liaison
- Release Statement of Facts
- Establish Rumor Control Hotline
- List Crisis Team Location
- Distribute Stress Handouts

Crisis Communications

- Publish Schedule of Employee Debriefing Groups
- Release Updates of Injured Employees
- Memorial Biographies
- Define Interim Continuity Plans

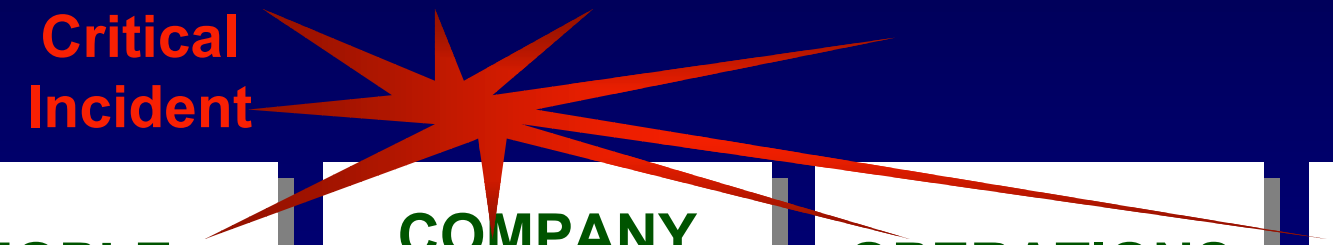
Critical Incident Response Formats

Critical Incident Stress Formats

- On-Scene Support
- Defusing
- Demobilization
- Critical Incident Stress Debriefing
- Individual Consults
- Follow-Up Services

The Critical Incident Response Program

POST INCIDENT RECOVERY



PEOPLE

COMPANY IMAGE

OPERATIONS

LOSS AND RISK

Criticality Assessment

Incident Notification

Matching and Deployment of Resources

Comprehensive Impact Assessment

Investigations

Containment and Recovery

Follow-up

POST-INCIDENT RECOVERY COMPONENT

EVENT	IMPACT	FIRST RESPONDERS	IMMEDIATE SUPPORT	INTERVENTIONS
critical incident	Victims Observers	Supervisors Managers	Emergency Response Team	within 12 hours Defusing Sessions
violence terrorism hazmat chemical release workplace accident natural disaster	traumatic stress reactions	Emergency Medical Team Security impact assessment personnel support resource access	Employee Assistance Program impact assessment and triage recovery strategies site stabilization deployment and coordination of resources	within 72 hours Debriefing Sessions after 72 hours Intervention Counseling and Follow-up

Worker Re-Entry

Facilitating Worker Re-Entry

- Explore contractual options for re-entry:
  - less-demanding assignments
  - phases-in return schedules
- Identify resources for assisting the worker
- Monitor job performance
- Reasonable accommodation

Supervisor's / Employee Representative's Role During Re-Entry

- Be model for empathy and tolerance
- Be understanding about possible limitations
- Be sensitive to needs and concerns of co-workers and organization
- Monitor for problem indicators

Supervisor's / Representative's Role During Re-Entry

- On-going Family Involvement
  - invitations to social functions
  - have supervisors / union members maintain supportive calls, visits with spouse and children

Problem Cases

Problem Cases

- Individual who “causes” injury / death to others
- Traumatized family members
- Supervisor / representative from incident scene
- Severely injured / disabled worker

The Cost of Caring

"The best deed in the world
after creating a human life,
is saving a human life."

Abraham Lincoln

Remember!!!

It wasn't raining when
Noah built the Ark.

Thank You

Marilyn Knight, M.S.W.
Incident Management Team
Southfield, Michigan
248-560-6200

Response to Destructive Incidents

OSHA's experience at the World Trade Center

Richard Mendelson
Area Director
OSHA – Manhattan Area Office


Link-Belt

Planning for emergencies

- Conduct a comprehensive assessment
- Consider accidents, fires, medical emergencies, chemicals, severe weather, transportation, utilities, deliberate acts
  - Most likely scenarios
  - Worst-case scenarios
- Implement an **Emergency Action Plan**

Employee training

- Roles & responsibilities
- Threats, hazards, and protective actions
- Notification, warning, and communication
- Proper response
- Train employees:
  - Initially
  - New hires
  - Changes to process, facility, or plan

Important considerations

- Evacuation routes
  - Alternatives
- Muster point
  - Alternatives
- Accountability
- Handicapped individuals
- Visitors and contractors
- Coordination with other tenants
- Practice drills

Contingency plans

- Who's in charge?
- Call-up lists (kept current? available offsite?)
- Staff morale
- Temporary space
- Resumption of operations
- Telecommunication & information technology
- Administrative functions & files
- Permanent relocation

OSHA's response role

- Providing technical assistance & support
  - Advice and consultation as safety & health professionals
- Federal Response Plan
- CPL 2.94 - OSHA Response to Significant Events of Potentially Catastrophic Consequences (7/22/91)

OSHA activities at WTC

- Health risk assessment & sampling
- Safety monitoring & PPE compliance
- Respiratory protection & PPE distribution
- Emergency Operations Center staffing

Safety and health hazards

- Hazards associated with initial response
- Hazards associated with long-term recovery operation
- Prediction and identification
- Control and abatement

Challenges

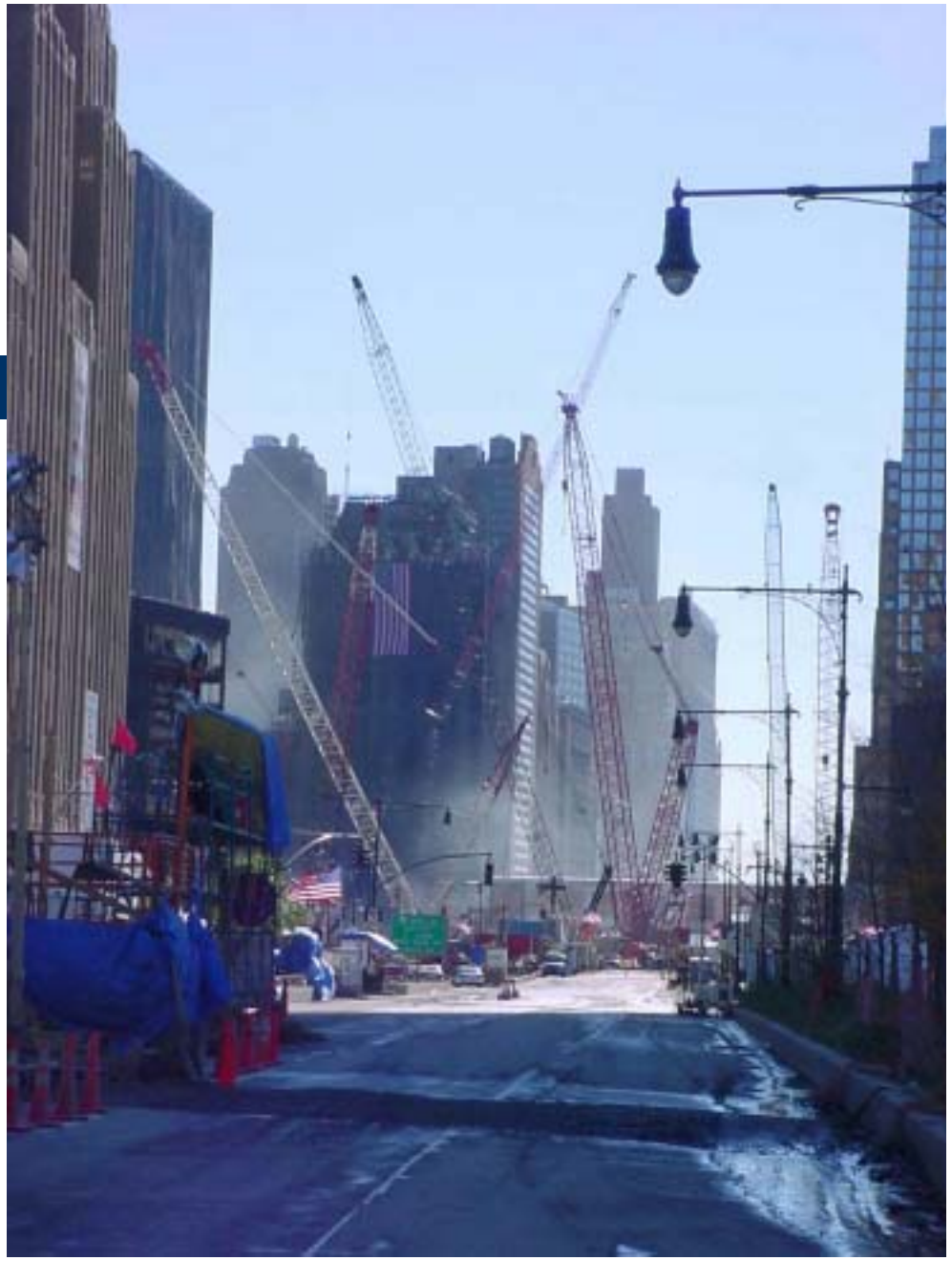
- Operating under incident-command structure
  - FDNY / DDC co-incident commanders
- Uniform services
- Law-enforcement considerations
  - Crime scene
- Coordination and logistics
- Volunteers, bereaved, sightseers, celebrities
  - Perimeter security
  - Access control

Special considerations

- Risk communication
- Critical incident stress
- Weather
- Fatigue
- Unknowns

Safety and health management

- Partnership agreements
- Environmental Safety & Health Plan
- Site safety & health infrastructure
- Safety and health meetings
- Standing and ad-hoc committees
- Employee involvement



Success story:
Joint Crane Inspection Task Force

- Early October:
  - Dozens of cranes on site
  - Numerous hazard interventions
- Task force launched 10/12, on-site for 3 weeks
  - 17 cranes inspected in first three days
  - 222 pieces of rigging inspected in next four days
- Follow-up: three additional one-week inspections (November, December, March)
- Incidence of crane-related hazards greatly reduced


OSHA

Success story:
Confined space entry #1

- Area below 6WTC designated a “permit-required confined space”
- Stewards raised concerns
- Meeting held with all parties
- Joint walk-through of space before work began
- Management adopted all suggestions


EXIT
EXIT

Success story:
Confined space entry #2

- Alleged CO overexposure reported under 5WTC
- Ad-hoc committee reviewed situation, brainstormed possible hazards and controls
- Committee conducted walk-through of entire area
- CO determined not to be a cause
- General safety & health improvements suggested
- Suggestions implemented


OSHA

Success story:
Evacuation drill

- Suggested by shop-stewards
- Committee formed to work out logistics
- Two drills held:
  - 6WTC confined space
  - Southern portion of pit
- Deficiencies were noted for correction
- Overall, drills were successful


OSHA

Bio/Chemical Incident Response

Glenn Paulson, Ph.D.
Paulson and Cooper, Inc.
Jackson Hole, WY

Purpose

- Provide a framework
- Lessons learned
- Spark discussion
- Help set the stage for breakouts

Topics

- “Thinking about the (formerly) unthinkable”
- Similarities
- Differences
- Military experience
- Lessons learned lately

The Unthinkable

- History: of very limited use
- First responders v. skilled support personnel
- Who is in charge, and when?
- Who has the knowledge?
- Who has the equipment?
- Who has the skills?
- When is the job done?

Similarities: Biological v. Chemical Weapons

- Unexpected
- Often very limited in area first affected
- More effective inside structures
- Personal protective equipment
- Poor real time monitoring capability

Differences: Biological v. Chemical Weapons

- Mechanisms of action
- Speed of action
- Detection techniques
- Medical aspects
- Remedial measures
- Remedial equipment

Military Experience

- Hard to obtain
- Of limited use in attacks on civilians
- Need continuing access (with safeguards)

Lessons Recently Learned

- No single reliable comprehensive source of either authoritative expertise or wisdom
- Uncertainties abound
- Inherently multi-disciplinary
- Create/maintain your network
- External peer review

Suggestions for Next Steps

Recommendations from the breakout groups should be as specific as possible

- Actions/activities of awardees
- Actions/activities of Clearinghouse
- Actions/activities of NIEHS WETP
- Other actions/activities

The Federal Response Plan vs. the National Contingency Plan during Terrorist Attacks

Rod Turpin

U.S. Environmental Protection Agency
Environmental Response Team
Edison, NJ, USA

National Contingency Plan (NCP)

- National Oil and Hazardous Substances Pollution Contingency Plan
- 1968 – Clean Water Act

  1967 Oil Spill – Torrey Canyon – 37 million gallons of crude oil

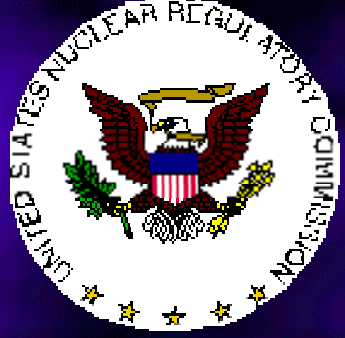
  (Alaska Exxon Valdez - 11 million gallons of crude oil)

- First comprehensive system of accident reporting, spill containment, and cleanup
- Established a response headquarters, national reaction team, and regional reaction teams

  - precursors to today's NRT and RRTs.

NCP Members



- Plus state and local representatives

- Six of these agencies were designated as key Federal CT agencies – DOJ/FBI, FEMA, EPA, DOD, HHS, DOE

Agencies

- Environmental Protection Agency
- U.S. Coast Guard
- Department of State
- Department of Health and Human Services
- Department of Defense
- General Services Administration
- Department of Energy
- Department of Agriculture
- Department of Labor/Occupational Safety and Health Administration

- Six of these agencies were designated as key Federal CT agencies – DOJ/FBI, FEMA, EPA, DOD, HHS, DOE

Agencies, cont'd.

- Department of Transportation
- Department of the Interior
- Department of Justice
- Department of Commerce/National Oceanic and Atmospheric Administration
- Federal Emergency Management Agency
- Department of the Treasury
- Nuclear Regulatory Commission

- Six of these agencies were designated as key Federal CT agencies – DOJ/FBI, FEMA, EPA, DOD, HHS, DOE

National Response Team (NRT)

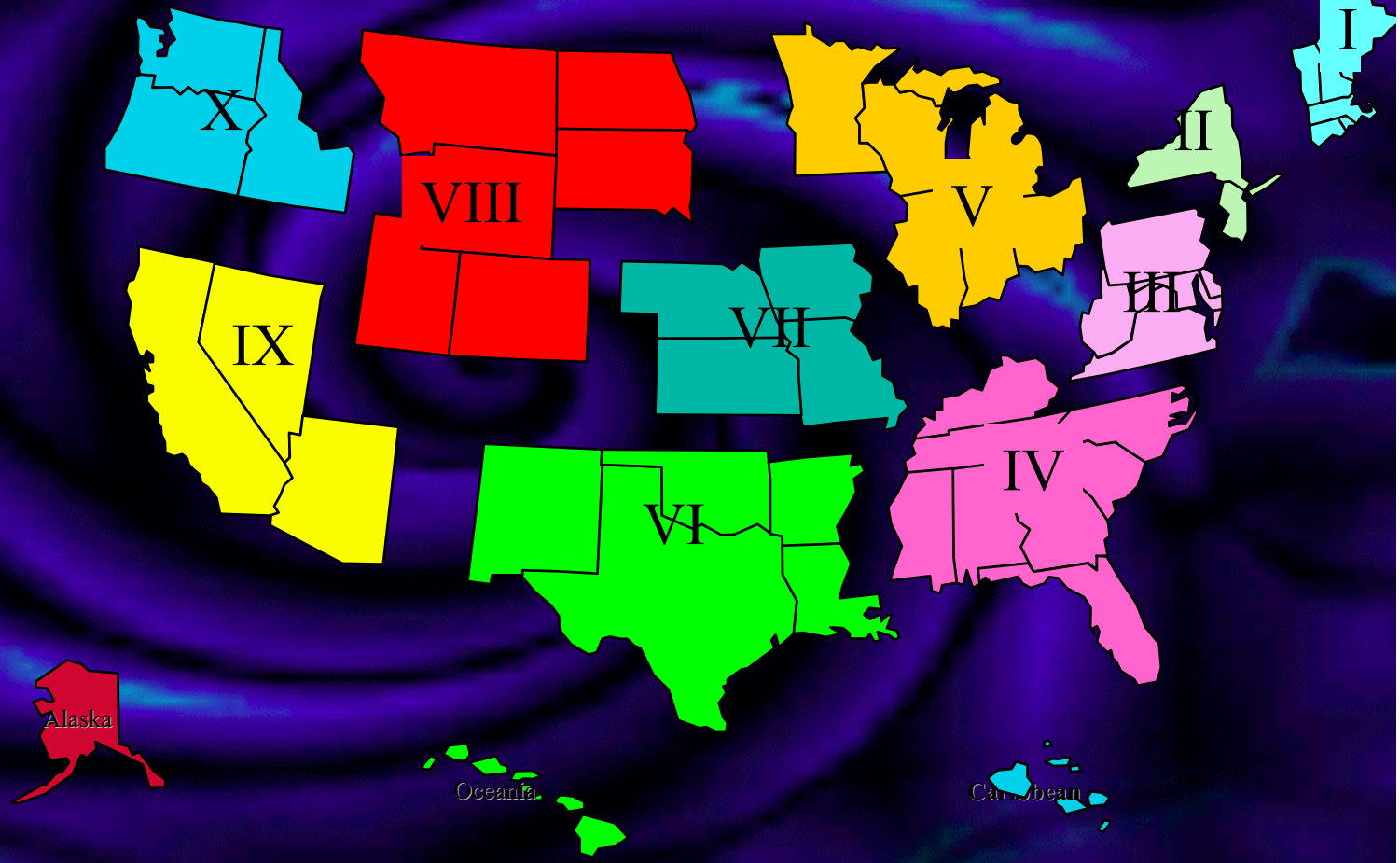
- NRT does NCP ***planning*** and ***coordination***
- NRT Chair: USEPA

  NRT Vice Chair: USCG

Regional Response Teams (RRTs)

- Established by NCP to ensure regional response actions
- Made up of same Federal agencies as NRT but at a regional level
- Coordinates assistance and advice to the Federal On-Scene Coordinator (OSC)

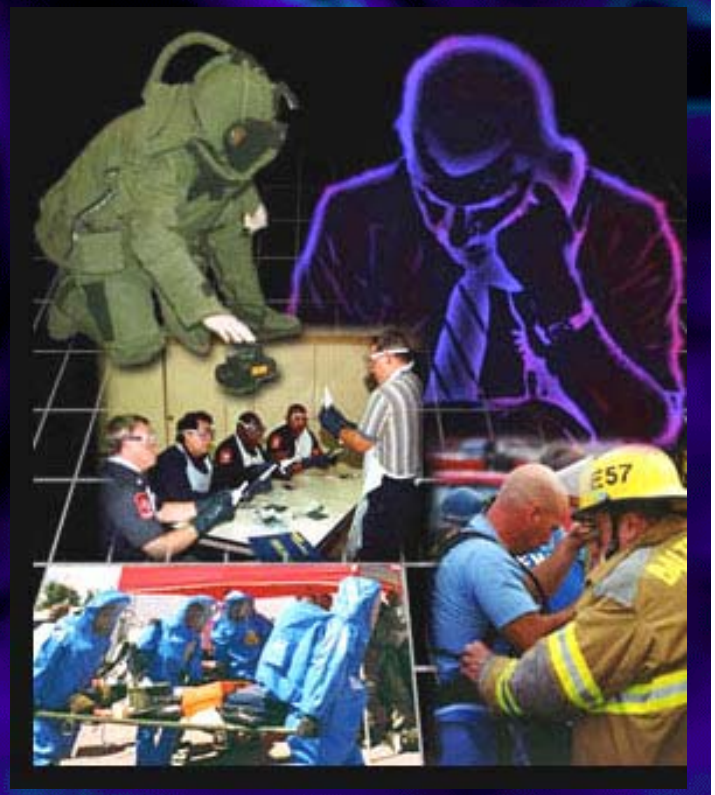
National Response Team



Regional Response Teams

Response Assets

- Federal On-Scene Coordinators
- Regional Response Teams
- EPA Removal Managers
- Response contractor support
- Special Forces



Special Forces

- EPA's Environmental Response Team (ERT)
- EPA's Radiological Environmental Response Team (RERT)
- NOAA and EPA Scientific Support Coordinator (SSC)
- USCG National Strike Force (NSF)
- USCG District Response Groups (DRG)
- USCG Public Information Assist Team (PIAT)
- Navy Supervisor of Salvage (SUPSALV)
- Radiological Assistance Teams (RATs)

Federal OSC's Role

- Federal OSCs play a pivotal role in a response.

  They ensure:

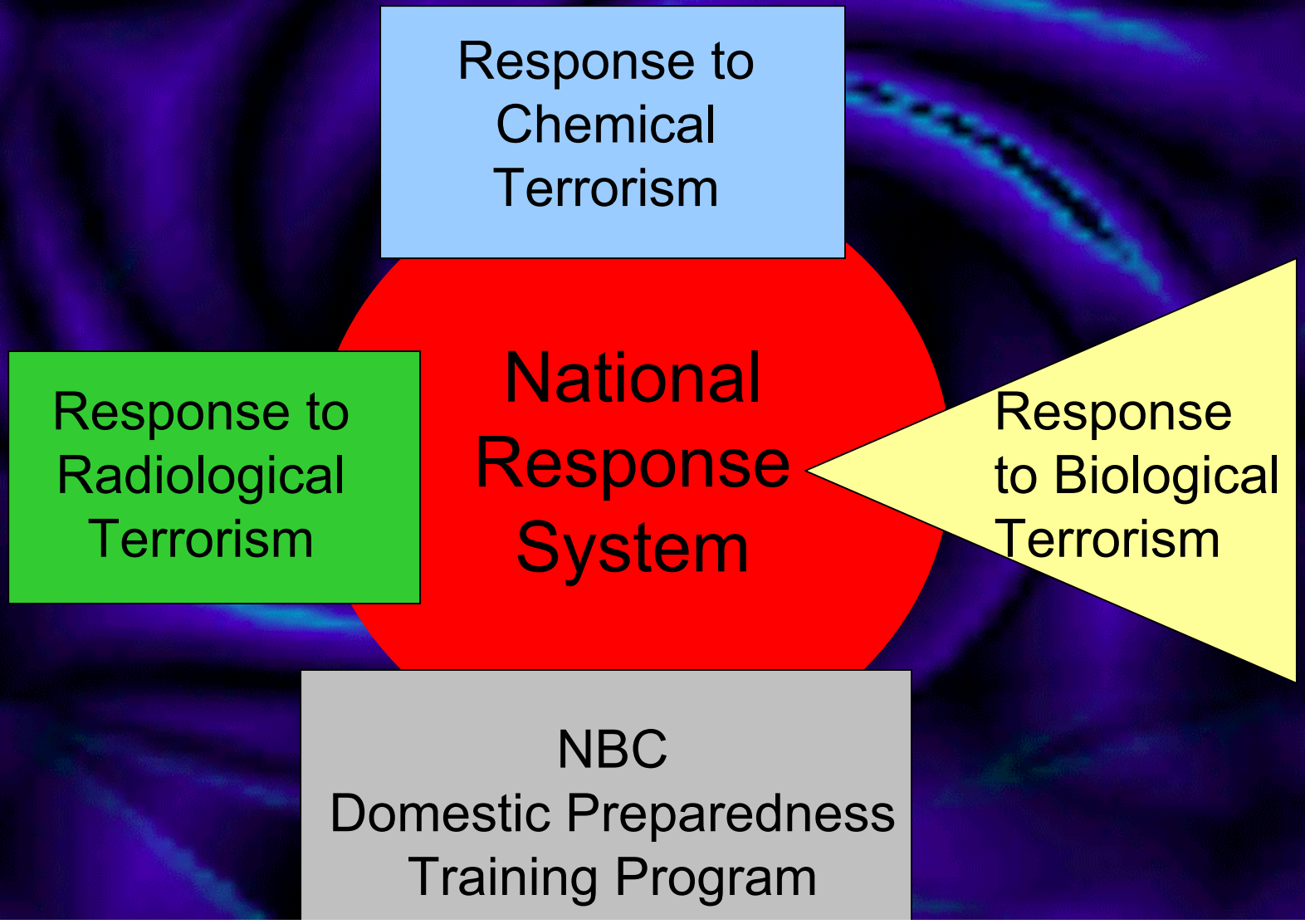
  a. - that the responsible party (RP) cleans up the spill or release.

  b. - immediate access to technical assistance and cleanup contractors if the RP does not adequately respond.

Federal OSC's Role, cont'd.

- Direct/coordinate, and/or provide technical assistance to all response efforts at site
- Maintain final decision-making authority for protecting health and safety
- Ensure access to information by other interested relevant parties

What is the NCP's Involvement in Counter Terrorism?



Federal Response Plan

- Issued in 1992, the FRP describes the ***mechanism*** and ***structure*** by which the Federal Government mobilizes to address the consequences of any major disaster or emergency that ***overwhelms*** the capabilities of ***State and local governments***.
- ***Federal*** assistance is available to:
  1. save lives
  2. protect public health, safety, and property
  3. alleviate damage and hardship
  4. reduce future vulnerability

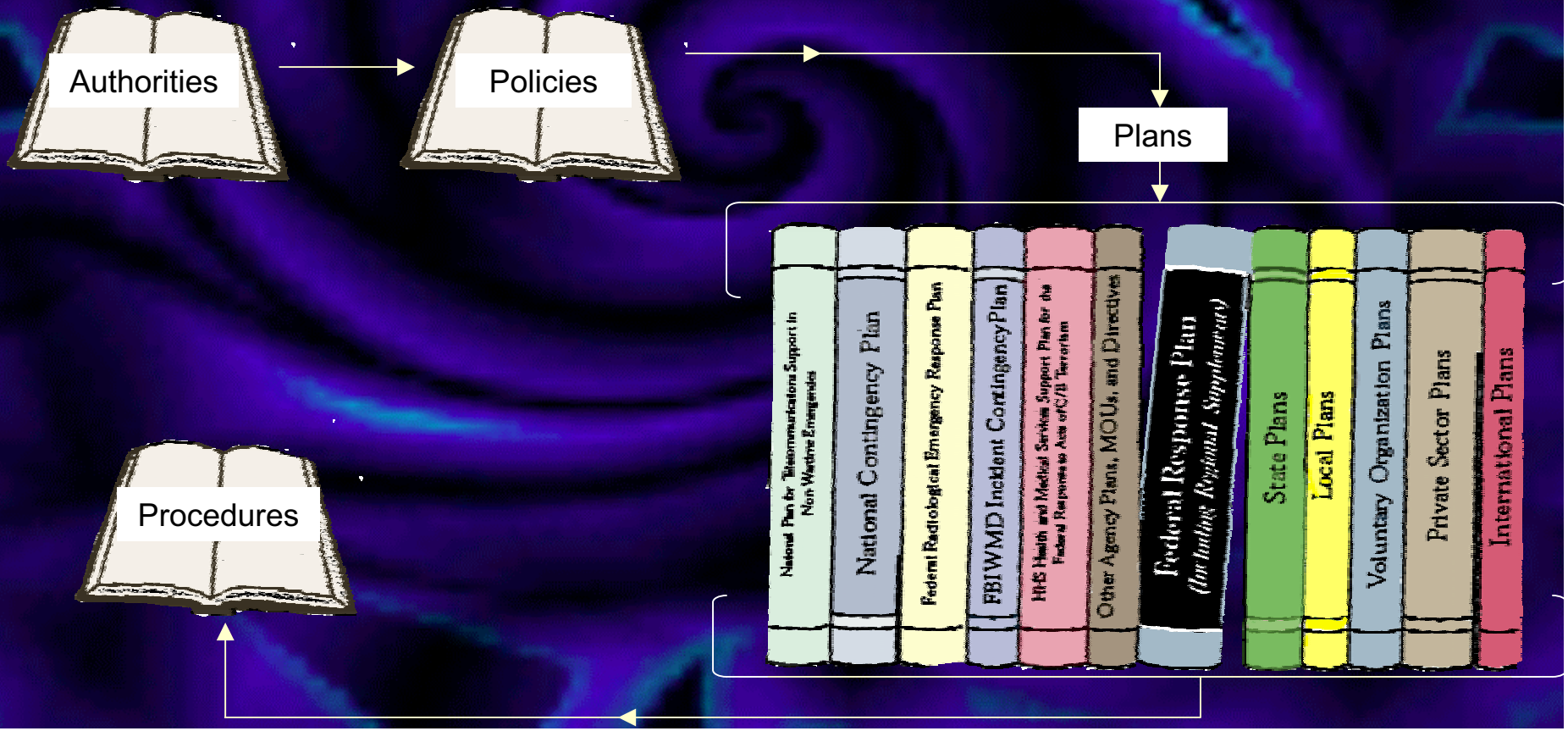
Letter of Agreement

- By signing this letter of agreement, Federal departments and agencies commit to:
  - * Support the FRP concept of operations and carry out their assigned functional responsibilities.
  - * Cooperate with the Federal Coordinating Officer appointed by the President.
  - * Make maximum use of existing authorities to reduce disaster relief costs.
  - * Form partnerships with counterpart State agencies, voluntary organizations, and the private sector to take advantage of all existing resources.
  - * Develop headquarters and regional planning, exercise, and training activities.

Signatories to the Federal Response Plan

9230.1-PL
Supersedes FEMA 229
(April 1992)

FEDERAL RESPONSE PLAN



FRP Actions

- State and local responders ***handle*** most disasters and emergencies
- Federal Government is asked for assistance to assist when disaster ***exceeds*** state or local capabilities
- It employs a multi-agency incident command system (ICS)

  --- based on fire and rescue ICS
- Provides for other Federal emergency operations, such as the NCP
- It subdivides major disasters/emergencies into twelve emergency support functions (ESFs)

Emergency Support Functions (ESF)

ESF	Primary Agency
1. Transportation	Dept. of Transportation
2. Communication	National. Communication System
3. Public works & engineering	Dept. of Defense, US Army Corps of Engineers
4. Firefighting	Dept. of Agriculture, Forest Services
5. Information and planning	Federal Emergency Management Agency
6. Mass care	American Red Cross
7. Resource support	General Service Administration
8. Health and medical services	Dept. of Health and Human Services
9. Urban search and rescue	Federal Emergency Management Agency
10. Hazardous materials	U.S. Environmental Protection Agency
11. Food	Dept. of Agriculture, Food & Nutrition Service
12. Energy	Dept. of Energy

Emergency Support Function Designation Matrix

#	1	2	3	4	5	6	7	8	9	10	11	12
ESF / Agency	Transportation	Communications	Public Works and Engineering	Firefighting	Information and Planning	Mass Care	Resource Support	Health and Medical Services	Urban Search and Rescue	Hazardous Materials	Food	Energy
USDA	S	S	S	P	S	S	S	S	S	S	P	S
DOC		S	S	S	S		S			S		
DOD	S	S	P	S	S	S	S	S	S	S	S	S
DOEd					S							
DOE					S		S	S		S		P
HHS			S		S	S		P	S	S	S	
HUD						S						
DOI		S	S	S	S					S		S
DOJ					S			S	S	S		
DOL			S				S		S	S		
DOS	S									S		S
DOT	P				S		S	S		S		S
TREAS	S				S		S					
VA			S			S	S	S				
AID								S	S			
ARC					S	P		S			S	
EPA			S	S	S			S		P	S	
FCC		S										
FEMA	S	S		S	P	S	S	S	P		S	
GSA	S	S			S	S	P	S			S	
NASA					S		S		S			
NCS		P			S		S	S				S
NRC					S					S		S
OPM							S					
SBA					S							
TVA	S		S									S
USPS	S					S		S				

P = Primary Agency: Responsible for Coordination of the ESF

S = Support Agency: Responsible for Supporting the Primary Agency

Signatories to the Federal Response Plan

Emergency Support Function #9 (Urban Search & Rescue Annex)

Participating agencies: FEMA is the primary agency with the following as the supporting agencies:

- Dept. of Agriculture
- Dept. of Health & Human Services
- Agency for International Development
- Dept. of Defense
- Dept. of Justice
- Dept. of Labor
- National Aeronautics & Space Administration

ESF #9 Purpose & Scope

- Deploy National Urban Search & Rescue (US&R) Response Units.
- Provide lifesaving assistance such as:
  - * Locating and extracting victims
  - * Providing on-site medical treatment

Emergency Support Function #10 (Hazardous Materials Annex)

Primary Agency U.S. Environmental Protection Agency

Support Agencies

- U.S. Coast Guard
- Dept. of Agriculture
- Dept. of Commerce
- Dept. of Defense
- Dept. of Energy
- Dept. of Health & Human Services
- Dept. of the Interior
- Dept. of Justice
- Dept. of Labor
- Dept. of State
- Dept. of Transportation
- Nuclear Regulatory Commission

ESF #10 Purpose & Scope

- Provide Federal support to releases of hazardous materials

  * Hazardous materials is defined to include:

    Oil
    CERCLA hazardous materials
    Weapons of mass destructions

- The ESF #10 response is carried out under the ***NCP***

Conclusions

- Title is misleading
- Until September 11, 2001, FRP response activities fit nicely into ESF activities' rules of engagement:
  - floods
  - hurricanes
  - oil spills
  - chemical spills
  - etc.

Conclusions, cont'd.

- The September 11, 2001 attacks on the Pentagon and the World Trade Center showed that the unimaginable is possible – more than one or two ESF may be involved.

Conclusions, cont'd.

- As the NCP has been refined since 1968, so will the FRP.

  September 11, 2001 has demonstrated the need for:

  * Better communication
  * Well established chain of command
  * Good inter-agency coordination

For more information:

WWW.NRT.ORG

WWW.EPA.GOV/CEPPO

WWW.ERT.ORG