

# Summary of Post 9/11 Reports "Lessons Learned"



Cross-Cutting Analysis of  
Post 9/11 Report "Key Recommendations" for  
Improving the Nation's Preparedness



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## **Cross-Cutting Analysis of Post 9/11 Report “Key Recommendations” for Improving the Nation’s Preparedness**

This paper provides a cross-cutting analysis of key recommendations for improving the nation’s preparedness to respond to terrorism and other catastrophic events as taken from nine reports written in the wake of September 11, 2001. Three of these reports deal directly with response operations from the World Trade Center and the Pentagon, with the other six looking beyond these specific events to review State and local homeland security priorities.

This paper groups key recommendations from these reports into common functional areas of response operations, such as communications and mutual aid. This grouping of recommendations serves to highlight areas where significant improvements need to be made to better prepare local communities in general and the nation at large, to respond to future emergencies of any nature, to include terrorism.

The critical task of preparing the nation to respond to catastrophic events—such as terrorist attacks—is a focal point of the President’s *National Strategy for Homeland Security* and is a constant theme throughout this paper.

### **POST 9/11 REPORTS**

The cross-cutting analysis of key recommendations analyzed by this report are taken from the following nine post September 11, 2001 reports:

- Arlington County: *After-Action Report*
- McKinsey Report: *Increasing FDNY's Preparedness*
- McKinsey Report: *Improving NYPD Emergency Preparedness and Response*
- RAND: *Protecting Emergency Responders: Lessons Learned from Terrorist Attacks*
- National Governor's Association: *States Homeland Security Priorities*
- Conference of Mayors: *A National Plan for Safety and Security in America's Cities*
- Federation of American Scientists: *Training Technology Against Terror*
- Report for Congress: *The Department of Homeland Security: State and Local Preparedness Issues*
- Report for Congress: *First Responder Initiative: Policy Issues and Options*

See Appendix A for a brief description of each report.

### **FUNCTIONAL CATEGORIES**

This paper looks at key recommendations for improving the nation's preparedness made by these nine reports, and cross-references them to each other according to the following seven functional categories, viewed as critical to response operations.

- Command & Control
- Communication
- Coordination
- EOCs
- Mutual Aid
- Strategic Planning
- Training & Exercises

The table below shows, by functional category, where key recommendations appear repeatedly in each of the nine reports with command and control, strategic planning, communications, and training and exercises being the most common areas identified as needing improvements.

Recommendations by Functional Category	Command & Control	Communication	Coordination	EOCs	Mutual Aid	Strategic Planning	Training & Exercises
Arlington County AAR	◆	◆		◆	◆	◆	
McKinsey Report (FDNY)	◆	◆			◆	◆	
McKinsey Report (NYPD)	◆	◆			◆	◆	◆
Protecting Emergency Responders	◆	◆			◆	◆	◆
States' Homeland Security Priorities	◆	◆	◆			◆	
A National Plan for Safety and Security in America's Cities	◆	◆	◆			◆	◆
Federation of American Scientists Report			◆				◆
Report for Congress: DHS: State and Local Preparedness		◆	◆				◆
Report for Congress: First Responder Initiative: Policy Issues and Options	◆	◆	◆		◆	◆	◆

### MOST COMMON RECURRING THEMES

The most prevalent themes for improving community responses to terrorism and other catastrophic events that emerge from the review of key recommendations from these nine reports are:

- **Command and Control.** The need for a pre-planned command structure that establishes security at the site, effectively tracks personnel, and utilizes an incident command system (ICS) in order to establish stability and consistency in operations.
- **Communications.** The need for interoperable communication equipment and standards on the local, State, and Federal levels to allow first responders to communicate effectively with one another.
- **Training and Exercises.** The need for first responder training in preparedness, response operations, and interoperable equipment across agencies.

## **OTHER CROSS-CUTTING THEMES**

Following are additional cross-cutting themes distilled from the review of key recommendations from the nine reports as grouped by each of the functional categories used in this report.

### **Command and Control**

Command and control issues were discussed in seven of the nine reports, with the greatest number of recommendations found in *Protecting Emergency Responders: Lessons Learned from Terrorist Attacks*. There were three reoccurring themes in these reports:

- Utilize a preplanned command structure.
- Federal agencies should integrate their command systems into the existing State and local ICS.
- Site security should be established quickly.

### **Communication**

All but one of the nine reports offered recommendations with regard to communication. These recommendations addressed the need for interoperability, standards, protocols, and procedures.

### **Coordination**

Five of the nine reports discussed the need for improved coordination at all levels of government. Recommendations were offered regarding the development of a coordinated interagency plan, adequate Federal funding to support State and local activities, and improved information flow from the Federal to State and local governments.

### **EOCs**

Only the Arlington County After-Action Report addressed the issue of Emergency Operations Centers. The AAR found that EOCs should be properly equipped with fully integrated systems.

### **Mutual Aid**

Recommendations specific to mutual aid were addressed in five of the nine reports. Along with general recommendations regarding the need for mutual aid agreements, the reports examined resource management, equipment caches, and the need for joint training and exercise programs.

### **Strategic Planning**

Seven of the nine reports addressed the area of strategic planning. It was recommended that strategic planning involve the entire emergency response community. In addition, it is important to conduct risk assessments before developing strategic plans.

### **Training and Exercises**

Training and exercises was discussed in six of the nine reports. Recommendations focused on the need for:

- Joint training with Federal, State, and local agencies.
- Training provided in responders' normal working environments.
- Cross training among different response elements

A complete breakdown of all of the recommendations by functional category can be found in Appendix B.

## Appendix A: Brief Description of Each Report

### Arlington County After-Action Report

Arlington County released its after-action report (AAR) from the September 11 attack on the Pentagon, in July. The AAR describes the activities of Arlington County and supporting jurisdictions and offers 235 recommendations and lessons learned. These comments can be grouped generally into four principal response functional areas. They are:

- Fire Department Operations
- Hospitals and Clinics
- Law Enforcement
- Emergency Management and Emergency Operations Center

☞ <http://www.co.arlington.va.us/emergency/>

### McKinsey Report – Increasing FDNY’s Preparedness

The New York City Fire Department (FDNY) asked McKinsey and Co. to assemble a document that addressed the effective and ineffective aspects of the response to the World Trade Center attacks. Over a 5-month time period, the team conducted interviews to gather information on events surrounding response to the attacks. The report focused on:

- Events surrounding response on September 11th
- Recommendations for improvements to preparedness
- Additional issues to be addressed
- Exhibits that include additional detail and graphic illustrations to support material contained in the report

☞ [http://www.nyc.gov/html/fdny/html/mck\\_report/toc.html](http://www.nyc.gov/html/fdny/html/mck_report/toc.html)

### McKinsey Report – Improving NYPD Emergency Preparedness and Response

The New York City Police Department (NYPD) asked McKinsey and Co. to assemble a document that addressed "lessons learned" from the events of September 11. Over a 4-month time period, the team conducted interviews and distributed surveys to gather information on events surrounding response to the attacks. The report provides a table of information sources and a project timeline and focused on recommendations in four distinct areas:

- NYPD objectives and how well achieved on 9/11
- Assessment of NYPD's instrument's of response
- Improvement Opportunities for the future
- Next Steps

☞ <http://www.nyc.gov/html/nypd/pdf/nypdemergency.pdf>

### Protecting Emergency Responders: Lessons Learned from Terrorist Attacks

RAND, in this report, synthesizes the recommendations and discussions between individuals with first-hand experience responding to the attacks on the World Trade Center, the Pentagon, and the anthrax incidents in 2001, as well as the Oklahoma City bombing in 1995. The report

highlights recommendations from these first responders involved in the rescue and recovery efforts, and focuses primarily on site management and personal protective equipment (PPE) performance, availability, training, and information.

🔗 <http://www.rand.org/publications/CF/CF176/CF176.pdf>

### **States' Homeland Security Priorities**

The National Governors Association Center for Best Practices initiates a state-based strategy for Homeland Security. The report incorporates written responses to the Office of Homeland Security's request for State collaboration regarding the national strategy, as well as input from State homeland security directors. The report identifies the top priorities for the national agenda identified by the States and territories and presents their recommendations.

🔗 <http://www.nga.org/cda/files/081202HSPRIORITIES.pdf>

### **A National Action Plan for Safety and Security in America's Cities**

The United States Conference of Mayors provides recommendations in areas of Homeland Security and Safety on the State and local level on behalf of the Conference of Mayors. America's mayors stand ready on the domestic front lines to assist in every way possible--the "domestic troops" in the war on terrorism.

🔗 [http://www.usmayors.org/uscm/news/press\\_releases/documents/ActionPlan\\_121101.pdf](http://www.usmayors.org/uscm/news/press_releases/documents/ActionPlan_121101.pdf)

### **Federation of American Scientists Report-Training Technology Against Terror**

The Federation of American Scientists in a report highlight the deficiencies in WMD training nationwide, proposes the framework of a training program, and reviews the activities that must be undertaken and outlined to develop a strategy for WMD training. Calling for a systematic national strategy, the report stresses an interagency approach drawing on expertise from a variety of areas.

🔗 [http://www.fas.org/terrorism/wmd/docs/wmd\\_resp.pdf](http://www.fas.org/terrorism/wmd/docs/wmd_resp.pdf)

### **Report for Congress: The Department of Homeland Security: State and Local Preparedness Issues**

The Report to Congress analyzes selected State and local preparedness issues that pertain to the proposed Emergency Preparedness and Response Division of the Department of Homeland Security, (i.e., H.R. 5005 and S. 2452.) For four primary issue areas, the prevailing policy is analyzed, disagreeing opinions and critiques on the policy are highlighted, and various policy alternatives are presented.

🔗 <http://fpc.State.gov/documents/organization/13386.pdf>

**Report for Congress: First Responder Initiative: Policy Issues and Options**

The Report to Congress discloses the objectives of the Administration's First Responder Initiative proposed in its FY2003 budget request. The program would fund a broad range of activities in the areas of planning, training, exercises and equipment. This report includes an overview of the administration's proposal, effectiveness of the program and analysis of other related bills.

 <http://www.house.gov/htbin/crsprodget?/rl/RL31475>

## **Appendix B: Functional Categories and Recommendations**

Appendix B outlines recommendations and observations by functional category as outlined in each of the nine reports. An overarching theme apparent throughout each report is the need for collaboration in all of the functional areas. Most of the nine reports are centered on four areas—command and control, communication, strategic planning, and training and exercises.

## **COMMAND & CONTROL**

### **The Arlington County After Action Report**

- To every extent possible, the command structure at the incident site should be preplanned and agreed upon by area responders and public safety organizations. All agencies should adhere to a single command system.
- Shift changes and dismissal instructions should be described in the department's standard operating procedures to which changes can be made to accommodate the circumstances of a particular event.
- Standardized NIIMS ICS forms should be available and used for all long-term incidents.
- If a Joint Operations Center (JOC) is established, a Joint Information Center (JIC) should also be activated.
- To every extent possible, the command structure at the incident site should be preplanned and agreed upon by area responders and public safety organizations. All agencies should adhere to a single command system.

### **McKinsey Report--Increasing FDNY's Preparedness**

- Expand the use of the Incident Command System (ICS) to provide a foundation for responding to and managing any type of emergency.
- Review all FDNY procedures to ensure consistency with ICS principles.
- Train FDNY personnel on the ICS.
- Establish ongoing ICS training programs for Senior Personnel.

### **McKinsey Report--Improving NYPD Emergency Preparedness and Response**

- Allow for clearer delineation of roles and responsibilities of key NYPD leaders.
- Better clarity in the chain of command is needed.

### **Protecting Emergency Responders: Lessons Learned from Terrorist Attacks**

- Plans made for establishing command over a disaster site must be sufficiently resilient and robust to handle situations that can disrupt them.
- Mechanisms must be developed to allow rapid and efficient scene control at disaster sites as early as possible during a response.
- The site should be isolated and entry and exit control quickly established.
- City managers should be compelled to immediately hire fencing contractors when a large incident occurs.
- There must be a quick and effective establishment of an effective command authority over an incident site

- A mandatory staging system could be developed where mutual-aid responders gather in a staging area and then are selectively brought to the scene as a way to control the confusion associated with an influx of well-intentioned volunteers.
- Strict access control combined with effective personnel-location technologies is the most effective way to account for individuals working in very chaotic and dangerous environments.
- Bar-coded identification cards linked to personnel records could be used to enable agencies to track on-site personnel.
- Enforcement of the proper and constant use of personal protective equipment is an absolute necessity at disaster sites. Once perimeters are fixed with defined entry and exit points, appropriate protective equipment can become part of the “admission ticket” that allows workers to enter a site.
- Provide guidelines and define organizational responsibilities for enforcing protective-equipment use at major disaster sites, the health and safety of responders should be a principal concern.
- Explore mechanisms to effectively outfit all responders at large incident sites with appropriate personal protective equipment as rapidly as possible.
- Guidelines must be practical in the sense that they consider the capabilities of emergency-response organizations, are easy to use in the field, and do not unduly impair the ability of emergency responders to perform critical life-saving missions.
- Define mechanisms to rapidly and effectively provide responders at incident sites with useful information about the hazards they face and the equipment they need for protection.
- The safety officer at a disaster site should be an independent official whose sole responsibility is safety enforcement. In cases where incident sites are managed through a unified command structure, those responsible for responder safety could be part of that command.
- Site commanders could benefit from guidelines on how to handle VIPs, off-duty workers, and volunteers developed in advance of an incident.

### **States' Homeland Security Priorities**

- Federal agencies should integrate their command systems into existing State and local incident command systems (ICS) rather than requiring State and local agencies to adapt to Federal command systems.

### **A National Action Plan for Safety and Security in America's Cities**

- The number of local Urban Search and Rescue teams should be increased and all teams should be fully equipped.
- When an incident occurs, there should be a single Federal point of contact.

- It must be clear how many deployed National Guard troops relate to local authorities.

**Report for Congress: First Responder Initiative: Policy Issues and Options**

- The Administration's First Responder Initiative proposal includes developing and improving incident command and control systems.

## COMMUNICATION

### **The Arlington County After Action Report**

- A regional medical disaster plan should include the designation of a Clearinghouse Hospital to coordinate communication between the incident site and supporting medical treatment centers.
- A communications mechanism needs to be developed to activate mutual-aid resources.
- Procedures should be established to ensure timely public medical recall announcements during large-scale exercises.
- There should be a regional review of response plans to identify, institute, and agree on communication channels to be used by all area responders and hospitals to ensure complete communications.

### **McKinsey Report--Increasing FDNY's Preparedness**

- Revamp the management process it uses to evaluate, acquire and deploy communications systems and protocols and technology.
- Immediately address urgent needs in its technology infrastructure, processes and protocols.
- Lead the development of a long-term Technology Plan,
- Improve radio communications.
- Improve the Department's ability to receive and disseminate critical incident information.
- Give chief officers at incident scenes better ways to manage information and track personnel.

### **McKinsey Report--Improving NYPD Emergency Preparedness and Response**

- Create radio communications protocols and procedures that optimize information flow.

### **Protecting Emergency Responders: Lessons Learned from Terrorist Attacks**

- All Federal agencies acquiring and stocking personal protective equipment should use identical brands or, at the least, interoperable equipment.
- Regulations should be promulgated requiring that the Personal Protective Equipment (PPE) procured meet minimal performance standards.
- Federal regulations mandating that equipment purchased by responder organizations meet some standard of interoperability would aid effort
- The National Institute of Occupational Safety and Health (NIOSH) or another agency with jurisdiction should issue binding regulations establishing standard couplings on respirators so that cartridges and masks could be used interchangeably.

- PPE acquisitions and logistics should be coordinated with other local and State jurisdictions to ensure interoperability.
- Divisions and safety units of responding organizations should be monitored to ensure that data is coordinated, vetted, and disseminated in a way that is useful and credible to front-line responders.
- There should be on-site environmental monitoring in a geographic information system to make information available to lead authorities.
- Examine any barriers to equipment standardization or interoperability among emergency-responder organizations.

### **States' Homeland Security Priorities**

- States must work with local governments to develop interoperable communications between first responders and adequate wireless spectrum must be set aside to do the job.
- Interoperable equipment standards for emergency responders, including definitions and terms, is critical so in any use of mutual aid the responding party has equipment compatible with all other responders.
- Action must be taken at the Federal level to ensure that there are adequate radio frequencies dedicated to public safety needs. There is inadequate spectrum available under existing allocations by the FCC.
- Full funding is needed to provide a full and comprehensive land mobile radio system (LMRS) in each State. US DoD, Federal non-DoD, and State and local governments must all be included in this project.
- Effective system must be developed that secures points of entry at borders, airports, and seaports without placing an undue burden on commerce.

### **A National Action Plan for Safety and Security in America's Cities**

- There must be communication system inter-operability to ensure clear communication among city departments and Federal, regional, State and other local entities responding to disasters.

### **Report for Congress: Department of Homeland Security: State and Local Preparedness Issues**

- Report evaluates how much authority the new Department of Homeland Security (DHS) should have to encourage communication standards.

### **Report for Congress: First Responder Initiative: Policy Issues and Options**

- The Administration's First Responder Initiative proposal includes developing interoperable communication system

## **COORDINATION**

### **States' Homeland Security Priorities**

- Coordination must involve all levels of government.
- All Federal resources, programs, and activities involving State and local government must be coordinated through the nation's governors and their appropriate State agencies.
- Federal government must disseminate timely intelligence information to the States.
- The Office of Homeland Security should be a central repository and clearinghouse to provide State and local agencies with counter terrorism-related information to assist States in their efforts to distribute information tailored to communities.
- State and local governments need help and technical assistance to identify and protect critical infrastructure.
- Federal government should provide adequate Federal funding and support to ensure that homeland security needs are met.
- National Guard should remain flexible and remain primarily under the control of the governor during times of crisis.

### **A National Action Plan for Safety and Security in America's Cities**

- The Mayor's organization has formed bipartisan task forces on airport security, coordination of Federal and local law enforcement, and water system security.
- Mayors, police chiefs, fire chiefs, emergency managers and public health officials from cities across the nations should join together for briefings by top Federal officials and for the sharing of information on "best practices" in safety and security.
- The Office of Homeland Security must be structured to work directly with mayors in support of their leadership roles and responsibilities in both their cities and their regions.
- The Director of Homeland Security should immediately establish a permanent commission consisting of mayors, police chiefs, local emergency managers, and local public health officials.
- Mayors and other local officials should have clear guidelines for the use of resources provided by both Federal and State governments when disasters occur.
- Mayors and police chiefs should be allowed to hold the security clearances needed to receive intelligence from the Federal level.

### **Federation of American Scientists Report-Training Technology Against Terror**

- Each Federal agency should be assigned missions consistent with its core competencies.
- A coordinated interagency plan should be created and well implemented to provide timely updates, quality control, and peer review of the content.

**Report for Congress: Department of Homeland Security: State and Local Preparedness Issues**

- H.R. 5005 and S. 2452 make the Department of Homeland Security responsible for coordinating homeland security efforts of States and localities.
- Policy alternative to the proposal of the Department of Homeland Security is to authorize an office for State and local government coordination.
- Debate exists in relation to the creation of an Office for State and local government coordination.

**Report for Congress: First Responder Initiative: Policy Issues and Options**

- The Administration's First Responder Initiative proposal calls for technical assistance from Federal Agencies to the State and local government.
- The S.2664 bill delegates the FEMA director with distributing funds not only using the variable of population but also such variables as location of vital infrastructure and proximity to nuclear power plants, chemical stockpiles, and other potential terrorist targets.
- The S. 2664 bill instructs the FEMA Director to coordinate the new block grant program with existing assistance programs that have related goals

## **EOCs**

### **Arlington County AAR**

- A new EOC should be electronically equipped with communications and computing devices that are fully integrated. Regular emergency management training and cross-training should be mandated for managers and senior staff members.

## **MUTUAL AID**

### **The Arlington County After Action Report**

- It is critical that response units from other locations coordinate with the host jurisdiction dispatch center before deploying to the incident site.
- Memorandums of agreement with private ambulance services should be established and stipulate that they report only to designated staging areas and strictly adhere to the Incident Command directives.
- Joint training and exercise programs should be developed and institutionalized to regularly test mutual-aid arrangements.

### **McKinsey Report--Increasing FDNY's Preparedness**

- Develop agreements with neighboring departments for fire operations mutual aid to augment FDNY's resources when necessary.
- Assess partner capabilities before signing Mutual Aid agreements.
- Develop and deploy mutual aid agreements.
- Seek help coordinating agreements.
- Participate in regional EMS mutual aid planning.

### **McKinsey Report--Improving NYPD Emergency Preparedness and Response**

- More efficient provisioning and distribution of emergency/donated equipment as a result of mutual aid agreements.

### **Protecting Emergency Responders: Lessons Learned from Terrorist Attacks**

- FEMA US&R should bring in equipment supply for local responders, particularly in small jurisdictions.
- Commanders should have proper information and the authority to turn away offers of equipment that would not be useful.
- Caches should be maintained at all levels- local, regional, and national- to assure that minimum amounts of equipment are available.
- An inventory database should be developed for site commanders for the quick determination of what Personal Protective Equipment (PPE) is available in nearby warehouses and request shipment of the most critical goods.

### **Report for Congress: First Responder Initiative: Policy Issues and Options**

- The Administration's First Responder Initiative proposal includes developing mutual aid compacts.

## **STRATEGIC PLANNING**

### **The Arlington County After Action Report**

- Additional region-wide training in mass casualty operations and unified Incident Command should be provided. Training initiatives should include all professionals involved in emergency response.
- Regional response drills should be planned and executed annually. Mutual-aid jurisdictions should be included in response exercises whenever possible.
- Standards should be established to quickly evaluate and classify volunteers wanting to help in emergency situations.

### **McKinsey Report--Increasing FDNY's Preparedness**

- Enhance FDNY's planning and management processes.
- Expand and reorganize the Operational Planning Unit.
- Create a formal Annual Plan consisting of clear objectives, along with initiatives designed to meet those objectives.
- Form a Planning Oversight Committee (POC) to lead the planning process, supported by the existing Management Analysis and Planning (MAP) group.
- Expand and reorganize FDNY's Operational Planning Unit to include risk assessment, bureau strategy, and management of technical information for Fire and EMS Operations.
- Conduct a comprehensive, citywide risk assessment to find and prioritize potential hazards to various city locations.

### **McKinsey Report--Improving NYPD Emergency Preparedness and Response**

- It is necessary to have a comprehensive disaster response plan, with a significant terrorism component.
- A post-incident analysis should be conducted.

### **Protecting Emergency Responders: Lessons Learned from Terrorist Attacks**

- R&D should be aimed towards advanced PPE to improve upon the current heavy and burdensome equipment.
- The roles of various Federal agencies with health and safety responsibilities should be clearly defined and continually reassessed in State plans.

### **States' Homeland Security Priorities**

- States and Federal government must focus on enhancing bioterrorism preparedness and re-building the nation's public health system to address 21<sup>st</sup> century threats.

### **A National Action Plan for Safety and Security in America's Cities**

- Efforts to strengthen comprehensive emergency management plans have redoubled and there have been major deployments of police and other local public safety resources.
- Transportation security in the U.S. must be maintained in the air and on the rails, highways and waterways
- Flexible funding should be provided to increase the ability of local governments to strategically plan for and respond to emergencies. Funds could be used for full-time disaster coordination, training of first responders, construction and retrofitting of local command and control centers and mobile command vehicles, and to meet disaster equipment needs.

### **Report for Congress: First Responder Initiative: Policy Issues and Options**

- The Administration's First Responder Initiative proposal includes performing risk assessments and developing response plans.

## **TRAINING & EXERCISES**

### **McKinsey Report Improving NYPD Emergency Preparedness and Response**

- Counter-Terrorism training needs to be provided regularly across the Department

### **Protecting Emergency Responders: Lessons Learned from Terrorist Attacks**

- More PPE training should be held in advance of terrorist incidents.
- Equipment needed for these types of major responses should be integrated into the standard operating procedures of organizations as much as possible.
- Hospital staffs should also be included in training exercises.
- Foul-weather disaster training should be a focus in training exercises.
- Cross training among different responder groups allows information, that might traditionally be held in special units within firefighting or law-enforcement organizations, to benefit a broader cross-section of the responder community.
- Exercises in joint response can play a very important role in building relationships that enable managers to deal more expeditiously with the problems that arise in the heat of a real emergency.
- Consider logistical requirements of extended response activities during disaster drills and training. Such activities provide response commanders with information on the logistical constraints that could restrict response capabilities.

### **A National Action Plan for Safety and Security in America's Cities**

- Federal, State and local agencies should participate in simulated biological and chemical attack exercises
- Up-to-date emergency response training programs need to be increased so that they can reach more local first responders.
- There should be one regional training center in each Federal region charged with expanding the training capacity of existing emergency medical training centers.

### **Federation of American Scientists Report-Training Technology Against Terror**

- Millions of civilian and military medical personnel must be trained quickly to respond to events involving WMD and have continuous access to refresher courses (including “just in time” training during an emergency).
- New information and training technologies can build a training system that will reach personnel quickly with timely information.
- Training must be available to responders and hospital workers in their ordinary working environment and integrate seamlessly with the tools and systems that they routinely use to perform their jobs

- A system must be put in place that contemplates rapid future advances and is not built on the assumption that current methods of delivering material are the final step.
- A coherent plan for delivering WMD training must be developed in the coming year.
- A coherent program for managing the development, certification, and distribution of training materials must be implemented.

**Report for Congress: Department of Homeland Security: State and Local Preparedness Issues**

- Possible integration of Office of Domestic Preparedness and Office of National Preparedness to allow for well integrated Federal training opportunities.

**Report for Congress: First Responder Initiative: Policy Issues and Options**

- S. 2664 bill requires States to participate in a response exercise to "measure the progress of the State in enhancing the ability of State and local first responders to respond to incidents of terrorism, including incidents involving weapons of mass destruction.