Responding to Incidents of National Consequence

Recommendations for America's Fire and Emergency Services Based on the Events of September 11, 2001, and Other Similar Incidents

FEMA

RESPONDING TO INCIDENTS OF NATIONAL CONSEQUENCE

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"Today our way of life, our very freedom came under attack in a series of deliberate and deadly terrorist acts… Today our nation saw evil, the very worst of human nature, and we responded with the best of America, with the daring of our rescue workers, with the caring for strangers and neighbors who came to give blood and help in anyway they could."

– President George W. Bush, September 11, 2001

EXECUTIVE SUMMARY

The terrorist events in the fall of 2001 were unparalleled in our Nation's history and tested the capabilities of the local, State, and Federal emergency response resources beyond any incident or series of incidents to that point. Unfortunately, it may not be the last time such capabilities will be tested. Local, State, and Federal response agencies must learn from the experiences of those who dealt with the tragic events in New York, Virginia, Pennsylvania, and Florida to ensure that they are as prepared as possible for any type of major emergency or disaster.

The purpose of this report is to provide guidance to fire departments and emergency services across America to prepare for, respond to, and recover from major multijurisdictional local incidents that have national consequences and may involve national resources. The issues and recommendations in this report were identified in various after-action reports and interviews with the leaders of the organizations that responded to, participated in, and managed these events.

The incidents that were reviewed had many similarities and many differences. For example, the plane crashes at the World Trade Center (WTC) and the Pentagon can be characterized as fire-managed incidents with a nondiscretionary time element. The plane crash in Shanksville, Pennsylvania, and the anthrax incident in Boca Raton, Florida, can be characterized as law enforcement-managed incidents with a discretionary time element. Although all of the incidents were crisis events, the discretionary time element allows decisions and actions to be developed and implemented without the urgency of an environment that is considered imminently dangerous to health and life. Not all issues identified were present at all of the incidents. Similarly, not all of the recommendations in this report will apply to all departments, nor will the priority order for implementation be the same for all departments.

The issues and recommendations in this report, as shown below, are prioritized in four categories: Awareness/Prevention/Preparedness, Initial Response, Stabilized Event/Ongoing Recovery, and Postevent/Long-Term Recovery.

AWARENESS/PREVENTION/PREPAREDNESS		
Area/ Priority	**Issue** (Current Situation)	**Recommendation** (Action Items)
1	A community may not have adequate resources to sustain a reinforced response to a major incident.	Develop a local and regional capability to augment and sustain a reinforced response.
2	The response to a major incident may deplete local resources, while the population continues to experience typical emergencies.	Develop a plan for continued public safety protection and service provision in a jurisdiction affected by a major incident.
3	Personnel may need to be recalled to duty during the early stages of a major incident.	Develop a formal, organized policy for the orderly recall of organizational personnel.
4	Departments or organizations from non-affected jurisdictions may self-dispatch to the scene, leaving their own communities at risk.	Develop an organizational policy to define/guide the deployment of personnel to assist other agencies in time of crisis.
5	The size, scope, or complexity of an incident may overwhelm local emergency service resources.	Develop statewide mutual-aid agreements for resource acquisition and deployment.
6	Complete knowledge and accurate structural and hazard information about the incident site may not be readily available.	Complete and document an assessment on all target hazards.
7	The integration of local, State, and Federal resources may not occur effectively during a multiagency response to a major incident.	Develop regular interagency planning and training to improve large-scale, multiagency response and incident management.
8	During a major incident, traffic arteries will become congested rapidly, delaying responding resources.	Develop a coordinated traffic management and regional evacuation plan.
9	Untrained local citizens and community groups will attempt to help in times of crisis.	Develop and train supplemental community resources to provide initial assessment and assistance to public safety organizations.

INITIAL RESPONSE		
Area/ Priority	**Issue** (Current Situation)	**Recommendation** (Action Items)
1	During a major incident, unrequested personnel and equipment arriving to offer unsolicited assistance will create confusion, congestion, uncoordinated operations, difficulties in planning, and increased hazards to responders.	Develop a policy to control requested and nonrequested resources and eliminate freelancing of public safety resources.
2	Interagency communication and coordination may not be effective during a multiagency incident.	Establish a Unified Command function as soon as possible after the initial response.
3	Specific communication and coordination between the Unified Command Team and the Federal Bureau of Investigation (FBI) may not be effective during a terrorist event.	Follow the established procedures for the FBI integration into a Unified Command structure to manage the consequences of a terrorist event.
4	Responders are considered targets in terrorist incidents.	Develop the capability and policy for scene security that includes perimeter control, force protection, and responder credentialing.
5	Operational boundaries may not be effective enough to ensure protection of both responders and civilians.	Develop local response capability to implement control zones quickly.
6	Convergence of apparatus too close to the incident site may impede site access for needed apparatus and resources.	Identify remote staging areas in the recall/response policy.
7	A major incident can result in a high number of injuries and casualties.	Develop a multicasualty/multipatient incident capability.
8	Responders and the public may be exposed to multiple hazardous contaminants during a major incident.	Develop risk-based capability to rapidly decontaminate responders and large numbers of civilians.
9	Major incident sites pose multiple health hazards to responders, civilian volunteers, and the general public.	Develop a continuous and comprehensive hazard monitoring capability for the incident site and the community, as indicated.

INITIAL RESPONSE (cont'd)		
Area/ Priority	**Issue** (Current Situation)	**Recommendation** (Action Items)
10	Communication may be hampered during a major incident because decisionmakers are located in multiple areas.	Use the highest-ranking official present to serve as a link among the decision-making entities.
11	The specific operational responsibilities of multiple agencies may not be coordinated effectively during a major incident.	Develop an efficient and effective Unified Operations capability.
12	Normal methods of communicating between units or agencies may not exist during a major event.	Develop a comprehensive communications plan to address initial cell phone overload and potential radio interoperability among responding mutual-aid organizations.
13	Major incidents are multifaceted and may require a significant amount and/or type of resources not routinely available for day-to-day operations.	Develop a robust incident logistics capability.
14	Forecasting actions needed to coordinate activities and resources effectively may not be available during a major incident.	Develop a robust incident planning capability.
15	Responders tend to focus only on immediate aspects of the incident, and may not be aware of related critical information.	Develop a means to keep incident responders updated with credible information about additional threats and events outside the immediate scene.

STABILIZED EVENT/ONGOING RECOVERY		
Area/ Priority	**Issue** (Current Situation)	**Recommendation** (Action Items)
1	State and Federal agencies involved with the management of events may not have an understanding of the roles, responsibilities, and capabilities of those other agencies involved.	Develop a plan to integrate State and Federal assets into an established incident management system.
2	Horrific incidents can have a significant psychological impact on responders.	Develop and implement a plan to provide Critical Incident Stress Management (CISM) to responders early in the incident.
3	Outpouring of citizen contributions can overwhelm an already taxed response system.	Develop and implement an effective management structure to receive, inventory, organize, distribute, and account for large-scale donations and manage civilian volunteers.
4	The local jurisdiction will be inundated with requests from the public for information.	Develop a plan to manage the volume of inquiries about the well-being of both responders and victims and to coordinate family notification of emergency worker fatalities.

POSTEVENT/LONG-TERM RECOVERY		
Area/ Priority	**Issue** (Current Situation)	**Recommendation** (Action Items)
1	The responsibilities for managing different stages of major incidents will vary among agencies.	Develop local doctrine to ensure the proper transfer of command as dictated by incident needs.
2	Adequate and appropriate information about all aspects of incident response may be difficult to identify, document, and maintain.	Develop a mechanism to maintain the most complete and accurate incident response information possible.
3	A major incident has the potential to have a significant long-term financial impact on a department and on the overall economy of the local area.	Maintain a capability to rapidly hire and train replacement firefighters and EMS providers and obtain replacement apparatus and equipment in order to continue providing adequate public protection, even during difficult economic times.
4	A major incident has the potential to have a significant long-term health impact on a department's members and on the citizens of the local area.	Recognize the need to initiate medical evaluation and follow up for responders, as well as long-term health monitoring, following a major incident.

A prioritized checklist showing the issue, the corresponding recommended action(s), and whether the action should be a short-, medium-, or long-term priority for the implementing agency or department can be found in Appendix A.

While the after-action reports and interviews were completed primarily in 2002, this report was completed after the Department of Homeland Security (DHS) was created formally, and after the release of both the Initial National Response Plan (INRP) and the National Incident Management System (NIMS) in 2003. The premise behind the INRP and the NIMS can be found in Homeland Security Presidential Directive-5, found in Appendix B. A fact sheet on the NIMS, as it relates to emergency response agencies, can be found in Appendix C.

It is clear from the research that went into this report that the successful management of a major multijurisdictional local incident that has national consequences and may involve national resources requires:

- rapid implementation of the Incident Command System (ICS), transitioning into a Unified Command structure;
- a Unified Operations Section that includes deputies to coordinate tactical operations across all disciplines;
- strong Planning and Logistics Sections for forecasting the need for and acquiring resources; and
- close interagency coordination and cooperation before, during, and after an incident.

These are all areas that are addressed in the NIMS. All Federal, State, and local agencies must comply with the NIMS, specifically with the use of the ICS to manage major and/or complex incidents. The USFA has worked with the FBI to ensure that local fire and emergency service agencies understand how the FBI fits into the Unified Command structure during terrorist incidents. An ICS chart with this FBI interface is found in Appendix D.

A list of the acronyms used in this report can be found in Appendix E.

Web sites listed in this report are subject to change without notice. The reader may need to contact the appropriate agency for current information.

SECTION 1:

INTRODUCTION

INTRODUCTION

On September 11, 2001, at 8:46 a.m. (EDT), hijacked American Airlines Flight 11 crashed into the north tower of the World Trade Center complex (WTC 1) in New York City. The Fire Department of the City of New York's (FDNY) First Battalion Chief witnessed the first crash. He established the Incident Command Post (ICP) in the lobby of WTC 1 at approximately 8:50 a.m. The ICP was moved out of the lobby when the Chief of the Department assumed the role of Incident Commander (IC). Initial efforts focused on rescue and evacuation. Firefighters began ascending the tower to help those trapped.

Chief officers considered a limited, localized building collapse possible, but no one thought the building would collapse entirely. At 9:03 a.m., hijacked United Airlines Flight 175 hit the south tower of the World Trade Center complex (WTC 2). WTC 2 collapsed at 9:59 a.m., killing many civilians and responders and destroying the ICP. WTC 1 collapsed at 10:29 a.m., killing members of the Command Staff, including the Chief of the Department, temporarily leaving the incident without a clear command structure, and creating an incident of a magnitude and scope that had never been faced before.

At 9:38 a.m., hijacked American Airlines Flight 77 hit the Pentagon. When this plane hit, it was obvious that the United States was under a terrorist attack. The crash was witnessed by the crew of Arlington County (Virginia) Fire Department (ACFD) Engine 101 enroute to a training session. The engine Captain reported the crash to the Arlington County Emergency Communications Center (ECC) and advised them to notify the FBI. Firefighters from the Fort Myer Fire Department station located at the Pentagon close to the impact point reported the actual location of the crash and began helping victims out of the first floor windows. The first ACFD personnel arrived at the Pentagon within 2 minutes of the attack. Command was established within 4 minutes. Within 5 minutes of impact, the Metropolitan Washington Airports Authority (MWAA) Fire Department at Ronald Reagan Washington National Airport had fire and medical units on scene and the first FBI contingent arrived. By 10 a.m., most of the ACFD duty shift was engaged at the Pentagon.

As the country watched the events in New York City and the Pentagon unfold on television in awe and horror, United Airlines Flight 93 crashed in a field near Shanksville, Pennsylvania, at 10:06 a.m. Three departments were dispatched initially to the crash site. The first-arriving Shanksville Volunteer Fire Company (SVFC) was aware of the attacks that were being carried out nationally, and they actually heard the aircraft hit the ground. On arrival, the SVFC Assistant Chief, who was riding on the first apparatus to arrive, requested five additional fire companies and all available Emergency Medical Services (EMS) units from Somerset and Cambria counties.

The initial focus was fire confinement activities and removal of occupants. Upon surveying the area, the SVFC Assistant Chief determined there were no survivors and tried to abort the request for the EMS ambulances from Somerset and Cambria counties. This attempt was unsuccessful. When the FBI arrived, they declared the incident a crime scene and assumed control of the incident, establishing the ICP in a vacant building in a nearby mining operation.

On October 2, 2001, as Americans were still reeling from the events of the previous month, an employee of American Media, Inc. (AMI) was admitted to a Boca Raton, Florida, hospital near death. On October 4, 2001, he was diagnosed with inhalation anthrax. On October 5, 2001, he died. On October 6, spores were found on the dead man's computer. A second AMI worker was admitted to the hospital and diagnosed with inhalation anthrax on October 8. At that point, the FBI established command, sealed the AMI office, and began a formal investigation. With a third worker (the second from the AMI mailroom) testing positive on October 10, the first suspicions arose that the source was a letter received at the AMI building. By October 13, at least six workers had tested positive for anthrax and were on antibiotics. Additional letters began to appear in other parts of the country. Before the end of the month, tainted letters would appear in New York City and Washington, DC, and diagnosed cases would appear in Trenton, New Jersey, New York City, and Washington, as well as Boca Raton.

The Boca Raton Fire Rescue and the Palm Beach County Department of Health supported the FBI investigation by collecting and analyzing samples. This incident developed slowly, allowing participating agencies discretionary time to assess risks, problem-solve, and formulate strategies for subsequent operations.

The events in the fall of 2001 were unparalleled in our Nation's history and tested the capabilities of the Federal, State, and local response resources beyond any incident to that point. Although the fire service had faced the majority of the individual aspects of these events in other incidents, the size, scope, and combination of many of those aspects had never been managed previously (i.e., resource needs, accountability, etc.). Several fire departments involved in these incidents faced issues and challenges they had never faced before, including recall of entire departments, an unprecedented number of simultaneous line-of-duty deaths, family support for the responders lost, and managing an overwhelming volunteer response from both responders and the public. Finally, there were aspects, such as securing the perimeter, responder health and safety, influx of support resources, and compromises to the infrastructure, which took on new and different dimensions and priority.

PURPOSE

Several after-action reports have been written on the individual incidents from different perspectives. These reports detail various aspects of the events, the response, the timeline, the challenges, and the recommendations. This report will not review what is already covered in existing after-action reports. It is based on a review of those reports and the input of the senior leaders who were involved in the management of the incidents. The purpose of this report is to provide guidance to fire departments and emergency services across America to prepare for, respond to, and recover from major multi-jurisdictional local incidents that have national consequences and may involve national resources.

METHODOLOGY

The first step in developing the recommendations in this report was to review the relevant after-action reports to compare and contrast the findings and identify the challenges common to the events. The following are some of the after-action reports that were reviewed.

- McKinsey & Company, *Increasing FDNY's Preparedness;*
- Titan Systems Corporation, *Arlington County After-Action Report;*
- Rand, *Protecting Emergency Responders: Lessons Learned from Terrorist Attacks;* and
- Grant, N., Hoover, D., Scarisbrick-Hause, A., Muffet, S., *Terrorism in Shanksville: A Study in Preparedness and Response* (Quick Response Research Report #157).

The internal United States Fire Administration (USFA) reports that were reviewed are

- *Pre-Event Customized Training for Mass Gatherings and Multiple Incident Events*--After-Action Report of Effects of Executive Analysis of Multi-Venue Operations and EMS Special Operations Training for 2002 Winter Olympics, February 8-25, 2002; and
- *United States Fire Administration's Role in Addressing the Issues Identified from the September 11, 2001 Terrorist Attacks*--Post-9/11 Briefing, May 31-June 1, 2002.

In addition to reviewing written reports, interviews were conducted with senior leaders of the responding departments and agencies. The following are gratefully acknowledged for their willingness to give of their time, honesty in answering questions, and providing their perspective, suggestions, and recommendations to assist other organizations in preparing to deal with an event of this magnitude:

Arlington County Fire Department
Ed Plaugher, Fire Chief
James Schwartz, Assistant Chief

Boca Raton Fire Rescue
Jack McCartt, Deputy Chief

Fire Department of the City of New York
Frank Cruthers, Chief of Department
Stephen Gregory, Assistant Fire Commissioner for Communications
Peter Hayden, Assistant Chief of Operations
Harold Meyers, Assistant Chief, Manhattan Borough Commander
Joseph Pfeifer, Deputy Assistant Chief, Planning
Robert Ingram, Battalion Chief, Hazardous Materials Operations
John Norman, Battalion Chief, Special Operations
Michael Canty, Battalion Chief

Shanksville Volunteer Fire Company
Terry Shaffer, Fire Chief
Rick King, Assistant Chief

U. S. Forest Service Southwest Incident Management Team
Dan Oltrogge, Incident Commander
Paul Summerfelt, Planning Section Chief

OVERVIEW OF REPORT REVIEWS

Each of the incidents was managed differently. The Assistant Chief initially managed the incident in Shanksville, and was succeeded by the Fire Chief, using a partial activation of the ICS structure. The FBI assumed control of the incident at approximately 1 p.m. The Pentagon crash in Arlington County was a locally managed event using Unified Command. The ACFD served as the spokesperson for the first 10-day fire-and-rescue phase of the incident. The FBI assumed control of the incident on September 21. The WTC events were coordinated through the existing New York City emergency management system by local agencies with the help of mutual aid and Federal agencies.

Although each event involved unique circumstances, they shared many common challenges. Although not all-inclusive or prioritized, these challenges included

- multiagency/multijurisdictional participation involving Federal, State, and local agencies;
- expanded Incident Command;
- traffic congestion and response routes;
- overwhelming, unsolicited emergency worker response--self-dispatching and freelancing;

- large-scale/multiagency personnel accountability;
- short- and long-term health and safety issues for responders, including personal protective equipment (PPE), air monitoring, and stress management;
- establishing and maintaining outer and inner perimeter control;
- interagency interoperability, including "trust" factor;
- equipment interoperability;
- communication issues, including hardware, interpersonal, interagency, and system overload;
- logistics, including obtaining, managing, and tracking resources, and long-term logistical support;
- integration of EMS into the ICS structure, including patient tracking;
- managing civilian and business donations;
- issues related to interaction with the Emergency Operations Center (EOC);
- lack of familiarity with the Federal Response Plan (FRP);
- compromised or impaired infrastructure;
- national airspace closed to civilian aircraft;
- lack of current information related to ongoing/potential new attacks; and
- lack of intelligence sharing among agencies.

The issues and recommendations that follow are based on these common challenges and insights provided by those interviewed for this report. The remainder of this report outlines these issues and recommendations prioritized in a chronological manner, using the following structure:

- Awareness/Prevention/Preparedness;
- Initial Response;
- Stabilized Event/Ongoing Recovery; and
- Postevent/Long-Term Recovery.

Each recommendation includes some suggested approach(es), including what has been done by the agencies that responded to the September 11, 2001, incidents.

SECTION 2:

RECOMMENDATIONS

AWARENESS/PREVENTION/PREPAREDNESS

ISSUE: A community may not have adequate resources to sustain a reinforced response to a major incident.

The implications of the attacks of September 11, 2001, were not focused solely on the incident sites. As FDNY and ACFD escalated the response to the sites, the community continued to experience the usual background call load and the typical variety of requests for assistance that those jurisdictions handle on a daily basis. With so many of the regular response and supervisory resources assigned to the WTC and Pentagon sites, these two communities struggled on two fronts: the crisis response to the incident sites and replenishing resources to provide normal community services and protection. Both FDNY and ACFD relied on recall of personnel and mutual-aid departments for equipment and personnel for the crisis response and the continuation of community services.

Additional equipment, supplies, and personnel may be needed sooner than regional or State mutual aid can arrive on scene. Some Federal assets and support may not arrive on scene for up to 72 hours. This delay was particularly apparent in New York. With the air transportation system shut down, some Federal resources had to drive long distances to the site. The delay was less apparent at the Pentagon. Although in Arlington there was a delay in getting some resources and getting key department personnel back, many Federal resources, such as Urban Search and Rescue (US&R), were within a short driving distance of the incident and were incorporated early into the incident management. Members of the New York US&R Task Force were part of the fire department's initial response to the incident and were among the casualties when the towers collapsed. Off-duty US&R members later responded and worked together with the other Federal US&R Task Forces when they arrived.

RECOMMENDATION: Develop a local and regional capability to augment and sustain a reinforced response.

Develop an immediate incident support capability to bridge the gap between the request and the arrival of mutual-aid resources. Following the response to the Pentagon, ACFD began working to develop what they term a regional Mobile Incident Support Team (MIST). This team would provide (among other things) chief officers familiar with local operational policies, air supply, flashlights, and radios (with spare batteries) to provide a 3- to 8-hour support package for incident operations, as well as supervision for back-filling community coverage. In other areas, this concept might involve building a local or regional cache of equipment that might be needed, but not immediately available for up to the first 24 to 72 hours of an incident.

FDNY has logistical support units prepositioned throughout the city. During major incidents, the units provide necessary air supply, lighting, fuel, and other logistical needs. FDNY's command structure requires that senior chief officers be notified of escalating incidents; they then respond to the FDNY Operations Center. Availability of remaining resources and the service needs of the rest of the city are monitored from the Center. Through a Memorandum of Understanding (MOU) with the United States Forest Service (USFS), the department received ICS training to form two, 28-person Incident Management Teams (IMT's) to improve their large incident management capability.

ISSUE: The response to a major incident may deplete local resources, while the population continues to experience typical emergencies.

The emergencies experienced by the residents and visitors in a particular area will continue to occur during the response and recovery efforts associated with a major event. People still will experience vehicle crashes, medical problems, fires, and situations requiring law enforcement interventions. ACFD used mutual-aid resources both at the incident site and teamed with local personnel to cover the remainder of the county.

FDNY implemented a similar plan and was able to maintain coverage with existing personnel and apparatus coupled with pairing of mutual-aid resources.

A jurisdiction's ability to provide services may not be wholly dependent on acquiring additional apparatus and personnel. It may require the repair or rebuilding of, or adaptation to, a compromised infrastructure. For example, in New York City, the collapse of the WTC destroyed a major telephone switching station, compromising the communication infrastructure.

RECOMMENDATION: Develop a plan for continued public safety protection and service provision in a jurisdiction affected by a major incident.

Establishing mutual-aid agreements with all surrounding jurisdictions is one approach to assuring continued public safety protection. The regional support team approach being developed in the Arlington area is another approach. The mutual-aid agreements being developed by FDNY would team mutual-aid personnel with FDNY units and use them primarily to fill fire stations. They will respond as a team under the direction of an FDNY officer. Jurisdictions also should develop plans to assure continued access to government services, such as the phone system or utilities, during periods of infrastructure compromise.

ISSUE: Personnel may need to be recalled to duty during the early stages of a major incident.

Both ACFD and FDNY experienced problems with the recall of personnel. Recall lists were outdated. Many personnel responded independently. The official communication system used for the recall was overloaded. Many television and radio stations broadcast unauthorized requests for first responders. In addition, many personnel reported directly to the incident, instead of to a mobilization point.

Without a formal recall policy, first responders may elect to self-dispatch to a local, near-by, or nationally prominent event. Organizations have a finite number of personnel. There must be a defined, orderly, and practiced policy for personnel use during a crisis event.

RECOMMENDATION: Develop a formal, organized policy for the orderly recall of organizational personnel.

As a result of their response to incidents on September 11, 2001, both ACFD and FDNY have recognized the necessity for a formal and exercised recall policy. A recall system should

- provide for contact of off-duty employees using an accurate list of telephone and/or pager numbers;
- include alternative options for officially notifying personnel, e.g., public service announcements with authorized information, including a specified reporting location;
- provide for access to individual PPE; and
- define a reporting location.

To increase the effectiveness of personnel recall following the September 11, 2001, incident, FDNY implemented a resource capability matrix. Using the matrix, the specific numbers of firefighters and officers required to meet the department needs can be identified and recalled. This results in more efficient resource use and improved command and control. Agreements with the media have been developed to assist the department in a coordinated notification process.

ISSUE: Departments or organizations from nonaffected jurisdictions may self-dispatch to the scene, leaving their own communities at risk.

All three September 11, 2001, responses were faced with managing unrequested resources. Some organizations sent resources and personnel, disregarding local mutual-aid agreements. Many others sent resources without a formal request for assistance. Individuals responded without being requested and, in many cases, without the permission of their employing organization. Sending independent and unanticipated resources overloads the receiving jurisdiction, creates a significant problem for personnel accountability, increases liability, and has the potential to strip a jurisdiction of public safety resources that may be required at home during a follow-on incident.

RECOMMENDATION: Develop an organizational policy to define/guide the deployment of personnel to assist other agencies in time of crisis.

An organization is responsible both for protecting its own jurisdiction and for ensuring the safety of employees when they are sent to assist other agencies. A public safety organization exists to protect and serve its constituents. The safety of employees is a paramount responsibility of the employing organization. Organizations should be participants in mutual-aid agreements before sending resources and/or employees to assist other agencies. The framework of a formal mutual-aid agreement provides guidelines for assisting other jurisdictions, ensuring continued services to constituents, and tracking deployed employee accountability.

ISSUE: The size, scope, or complexity of an incident may overwhelm local emergency service resources.

Mutual aid is a way of life in many rural areas. Somerset County, Pennsylvania, and the Somerset County Emergency Management Agency regularly schedule and conduct mass-casualty exercises. Therefore, the local and State responders at the Shanksville crash

were familiar with one another and respected the professional capabilities of their fellow responders. However, both the local and national responders failed to understand the impact of their actions on the other's responsibilities until the incident had progressed. Once this occurred, the FBI offered support that the local jurisdiction would otherwise not have received. For example, the FBI helped local responders complete an MOU with the U.S. Department of Health and Human Services (HHS), which enabled the deployment of the Disaster Morgue Team (DMORG) and the assumption of many of the expenditures associated with the recovery operation. This was extremely important, since Shanksville was never declared a disaster site and was not eligible for Federal disaster relief monies.

As a result of regular interagency training and exercises, ACFD was aware of the capabilities and resources of their mutual-aid organizations. This allowed them to tap into neighboring Fairfax County Fire and Rescue Department's logistics expertise and use that expertise to begin managing the logistics needs, train their own department personnel, and assure appropriate documentation for Federal reimbursement.

Although FDNY had mutual-aid agreements in place at the time of the incidents, they usually provided mutual aid to other departments. Thus, when they requested aid, it was nonspecific and they were not aware of the responding organizations' resources and capabilities. Since the incident, the department has initiated meetings to develop memoranda of agreement/understanding with adjoining counties. These agreements will describe the policies, procedures, response activation, reporting locations, accountability, tactical ICS organization, communication procedures, and other requirements for safe, effective mutual-aid response.

RECOMMENDATION: Develop statewide mutual-aid agreements for resource acquisition and deployment.

The NIMS addresses the importance of mutual-aid agreements in creating a defined and organized process that will help quantify anticipated resources. This includes apparatus

"typing" as well as qualification, certification, and credentialing of individuals. Formalized agreements should define

- financial compensation for participating agencies;
- the parameters for worker compensation and other insurance issues; and
- the foundation for eliminating/controlling the self-dispatching of responders and resources to an incident.

One proven approach is the Florida Fire Chiefs' Association State Emergency Response Plan (SERP) developed after Hurricane Andrew in 1992. A statewide mutual-aid agreement is a foundational part of this Plan. It has been incorporated into Florida's terrorism response planning. This plan can serve as a template for regional and statewide resource deployment. The SERP can be accessed at:

http://ffca.org/forms/2002_SERP.pdf

Florida's philosophy of terrorism response can be accessed at:

http://www.myflorida.com/myflorida/domestic_secruity/index.html

The Florida Department of Law Enforcement Web site contains additional information on Florida's response preparations. Publicly available information can be accessed at:

http://www.fdle.state.fl.us/publications/anti-terrorism.pdf

ISSUE: Complete knowledge and accurate structural and hazard information about the incident site may not be readily available.

ACFD did not have detailed structural drawings of the Pentagon available or access to any building engineers. As a result, breaching the roof ahead of fire involved a great deal of guesswork.

The FDNY routinely uses construction blueprints, as well as onsite building management personnel who serve as "technical specialists," in its response to emergencies in commercial and highrise structures.

RECOMMENDATION: Complete and document an assessment of all target hazards.

Departments should have building details with hazards preidentified and site drawings available at the incident to provide responders with critical and accurate information. The need to understand building features and hazards has been well documented, and the fire service has used fire preplanning programs for many years.

One of the challenges faced by civilian emergency workers responding to military facilities is gaining knowledge of the portions of the structure(s) that contain classified (government or research) information. Civilian responders must accept that there may be instances when they are denied access and certain property may be sacrificed to protect national security. However, developing good professional relationships with appropriate personnel in access-restricted facilities will provide local organizations with the best possible technical assistance if an incident should involve that facility.

Since September 11, 2001, FDNY has enhanced risk assessment to include potential terrorist targets and now continuously assesses vulnerability at priority sites in the city. A building database includes information on commercial, highrise, and structures that have been altered in any way that could affect safety and/or operations (e.g., mixed construction, special life hazards, and unusual avenues of fire spread). Dispatchers can access the information through the Critical Information Dispatch System (CIDS) program. The information also can be accessed through mobile data terminals (MDT) and digitally. Staging locations, evacuation routes, means of transportation, and sheltering facilities throughout the city are analyzed based on new information. In addition, the department is developing Incident Action Plans (IAP) for special events and priority sites.

ISSUE: The integration of local, State, and Federal resources may not occur effectively during a multiagency response to a major incident.

Regular multiagency exercises and preexisting professional relationships enabled ACFD to incorporate mutual-aid departments rapidly and implement a Unified Command function that integrated local, State, and Federal resources into a sustainable operational posture. The benefit of exercising existing plans also is noted in the Shanksville response. The local agencies' members were very familiar with each other and the resources immediately available in the area. As State and Federal resources assembled on the site, the relationships that were forged in previous responses served the local community well.

The Office of Emergency Management is the city agency responsible for conducting large-scale interagency exercises. The exercises are designed to test the city emergency response plan. The FDNY had not participated in any recent interagency drills prior to September 11, 2001, due to scheduling differences among the city agencies.

RECOMMENDATION: Develop regular interagency planning and training to improve large-scale, multiagency response and incident management.

When a large incident occurs, numerous outside resources will converge on the scene. Two critical components of managing outside resources are the effective integration of those resources into a successful response and the interrelational aspect of agencies and personnel responsible for incident management and scene actions.

Regular exercises and preestablished relationships provide the foundation for a cohesive local response. Another way to express this is within the framework of trust. Exercising established plans should include representatives of local fire, EMS, and law enforcement agencies, as well as State and Federal agencies likely to be involved in a major incident. In particular, the FBI should be invited and encouraged to attend and participate.

Following September 11, 2001, FDNY developed an interagency training approach using tabletop and field exercises. The exercises have clear objectives and are monitored by outside observers. Both monitors and agency participants write after-action reports. Any identified deficiencies are analyzed and corrected. Lessons learned are published and plans are revised as needed.

ISSUE: During a major incident, traffic arteries will become congested rapidly, delaying responding resources.

ACFD experienced two significant challenges in traffic management when the roads around the Pentagon were closed. The first challenge occurred when all the Federal departments closed. The mass exodus of employees from the District of Columbia that resulted from the closing was not coordinated with the Virginia Department of Transportation (VDOT). Although no major problems arose, the lack of coordination could have resulted in one jurisdiction directing evacuating traffic into another jurisdiction's roadblocks.

The second significant challenge arose as the incident extended over time. No one fully recognized the impact of isolating a Federal property that functioned as part of the VDOT network. Over the years, the Pentagon had become an unofficial "Slug Line" transfer point. A Slug Line is a designated location where motorists stop and pick up additional riders to transport to a designated drop off point in the District in the morning. The process is reversed in the evening. This civilian-initiated innovation to deal with traffic volume and lack of parking in the District has operated for many years and, literally, provides the means for thousands to commute efficiently throughout the area each business day.

In New York, traffic congestion and gridlock impeded the response by FDNY, as well as mutual-aid and Federal resources responding into New York.

RECOMMENDATION: Develop a coordinated traffic management and regional evacuation plan.

In all probability, a major incident will have an impact on the transportation infrastructure of a community. Without an evacuation/traffic plan, it is likely that one jurisdiction would unknowingly route traffic into another jurisdiction that was not anticipating the additional traffic. Traffic flow must be coordinated with neighboring jurisdictions as well as the State Department of Transportation.

During preparation for the 1996 Atlanta Olympic Games, it was discovered that one jurisdiction was planning on defining specific one-way streets that ended up in another jurisdiction that had designated the same artery as a one-way street in the opposite direction. This potential problem was resolved through a cooperative planning effort. Every jurisdiction's street maps were produced to the same scale and combined to form a composite road map that was distributed throughout the Olympic Theater.

In planning for the 2002 Winter Olympics, the Utah Department of Transportation (UDOT) worked closely with the Utah Olympic Public Safety Command (UOPSC) to coordinate traffic throughout the Olympic Theater, including implementation of the Intelligent Transportation System and the Commuterlink dispatch center.

ISSUE: Untrained local citizens and community groups will attempt to help in times of crisis.

Community Emergency Response Teams (CERT's) made up of local civilian volunteers are an excellent source of help. CERT's can serve as an important supplement to police, fire, and EMS.

California pioneered the CERT concept in the United States many years ago. The value of this community resource has been proved repeatedly during floods, earthquakes, and

mudslides in that State. CERT's allow neighborhoods to initiate care of themselves. This could alleviate some of the urgency felt by public safety organizations in the hours and days immediately following a major event.

RECOMMENDATION: Develop and train supplemental community resources to provide initial assessment and assistance to public safety organizations.

Each CERT member completes at least 20 hours of training on disaster preparedness, basic disaster medical operations, fire safety, light search and rescue, and other essential topics. The training also includes a disaster simulation in which participants practice skills they learned throughout the course. In the event of an emergency, CERT members can provide immediate assistance to victims, assist in organizing spontaneous volunteers at a disaster site, and provide critical support to first responders. More information on CERT teams is available online at:

http://www.fema.gov and http://www.citizencorps.com

INITIAL RESPONSE

During the initial response phase, local agencies will need to initiate actions to save lives, limit property loss, provide for scene security, and request/prepare for the arrival of regional, State, and Federal resources.

ISSUE: During a major incident, unrequested personnel and equipment arriving to offer unsolicited assistance will create confusion, congestion, uncoordinated operations, difficulties in planning, and increased hazards to responders.

Unanticipated equipment resources congest an incident scene, and unanticipated personnel negate the personnel accountability system and endanger the safety of all personnel involved in operations.

Many units in New York (including fire, EMS, and private ambulances), as well as off-duty responders in their private vehicles, self-dispatched to the incident. EMS could not control the large number of ambulances that self-dispatched. Other units pushed dispatch to send them and, in some cases, dispatch relented. Finally, some units that were dispatched failed to report to staging, going directly to the incident instead.

ACFD faced freelancing ambulances and fire apparatus, as well as freelancing at the Incident Command level. One jurisdiction operated entirely independent of the overall ICS.

In Shanksville, surrounding fire companies self-deployed. Uncontrolled arrivals resulted in severe congestion of the only access road to the downed aircraft. Adding to the congestion problem was the response of department members in their private vehicles. Once the IC determined there were no survivors, he tried to abort the request for the EMS ambulances from two neighboring counties. This attempt was unsuccessful.

RECOMMENDATION: Develop a policy to control requested and non-requested resources and eliminate freelancing of public safety resources.

As part of a comprehensive mutual-aid agreement(s), the communication center or dispatch function should be empowered to control the release, dispatch, and assignment of response resources verbally.

In order to maximize both safety and effectiveness, FDNY has implemented the following policies since September 11, 2001:

- Only on-duty members shall respond to alarms on the apparatus.

- Persons other than members of FDNY are to be excluded from the response. This includes former members of the department, members of other fire departments, friends, and relatives.

- Members who have arrived at incidents prior to responding companies, and those whose assistance has been accepted by authorized Fire Officers, are subject to the direction and control of the IC. It is the policy of the department that such members are relieved as soon as sufficient on-duty, properly equipped and protected resources have arrived. The IC's authority in this matter is absolute.

- In response to recall, members shall report to their assigned quarters. They shall not respond directly to the incident.

ISSUE: Interagency communication and coordination may not be effective during a multiagency incident.

Both ACFD and Arlington County Police Department (ACPD) are familiar and trained in ICS, so the system was established within minutes of the attack on the Pentagon, and quickly transitioned to Unified Command. After the first 8 hours, an estimated 60

agencies responded to the Pentagon scene. Of those agencies, representatives from ACFD, ACPD, the US&R Incident Support Team (IST), Federal Emergency Management Agency (FEMA), Department of Defense (DOD), and the FBI made up the Unified Command function. ACFD added the IST to Unified Command to keep US&R in the information loop. This group met every 4 hours and directed an IAP be produced for each 12-hour operational period. These representatives remained in constant contact with each other through cell phones and incident-issued radios.

At the time of the incident in New York City, the Mayor's Office of Emergency Management (OEM), which included the city's EOC, was located at 7 WTC directly across the street from the WTC towers. The collapse of the towers caused collateral damage to 7 WTC, including numerous fires and eventual structural collapse. The FBI issued an order to evacuate and relocate the EOC. After moving several times, the OEM/EOC ultimately operated from Pier 92. Time lost in reestablishing the EOC severely hampered interagency coordination. In addition, New York City's Emergency Response Plan did not have a formalized ICS in place for all city agencies and lacked a Unified Command concept.

The USFA typically does not respond to major disasters under activation of the FRP. However, historically, USFA personnel have been deployed to major events such as the Oklahoma City bombing and the Columbine school shootings to gather information and document aspects of the incident. USFA's overall mission related to these incident types is to prepare specific training to affect future behavior of emergency personnel and improve response.

After the collapse of the towers on September 11, 2001, FDNY and City officials met with the Director of FEMA. As a result of that meeting, on September 12, 2001, USFA was directed to assemble a 5-person team to report to New York City to function strictly in a support role. They were directed to assist the FDNY leadership in reestablishing the Incident Command structure, work with the U.S. Army Corps of Engineers to locate and provide necessary resources, and support the efforts of the National Fallen Firefighters

Foundation as they coordinated Critical Incident Stress Management (CISM), chaplain support services, and survivor support services. In many instances, USFA helped bridge communication between Federal and local officials and assisted in the integration of the U.S. Forest Service IMT to support FDNY in the planning function.

The IAP is a written document prepared by the Planning Section of the ICS for a given operational period. It provides a clear statement of objectives and actions and serves as the basis for measuring work and cost effectiveness, work progress, and for providing accountability. FDNY had not used the standard ICS planning process for developing an IAP using ICS forms. This, coupled with the collapse of the towers, personnel deaths, and loss of Command Staff, initially resulted in confusion in Command and General Staff functional areas.

An IMT is part of the Federal resources activated under the FRP. The team typically consists of experts in fiscal, logistical, operational, information, safety, and planning issues. The function of the IMT during a deployment under the FRP is to assist the local jurisdiction to develop and manage the incident response framework. The Southwest IMT, activated by FEMA, supported the FDNY in their planning process and developing IAP's. FDNY conducted briefings for all local, State, Federal, and private response agencies at the ICP twice a day. Since the incident, FDNY recognizes the need for all agencies to use the ICS citywide. The experience of September 11, 2001, also illustrated the need for long-term incident management capability to meet threats and potential acts of terrorism.

Based on pre-existing personal relationships, the ACFD IC and the FBI representative collaborated and cooperated from the beginning of the incident. In addition, the Major General in charge at the Pentagon placed his resources in support of the ACFD from the onset of the incident and the FBI (when they assumed control on September 21) until control was returned to the DOD on September 28. Initially the FBI representative worked side-by-side with ACFD and the military in planning and conducting operations in the ICP. Subsequently the FBI liaison was removed from the ICP and placed in the

Joint Operations Center (JOC). There was a noticeable deterioration in the operations, as seen in the unnecessary evacuation orders that resulted from rumored incoming aircraft. This clearly indicates that having ongoing agency representation in the ICP results in a smoother unified operation and better interagency communications. The FBI representative was returned to the ICP on September 13.

ICS was initially attempted in Shanksville. Command was transferred from the Assistant Chief to the Fire Chief approximately 30 minutes into the incident. When the incident was determined to be a recovery operation, Command was transferred to the FBI, who implemented a Unified Command structure. The FBI assumed the Operations Section Chief function responsibility while the Shanksville Fire Department assumed a deputy operations position under the Operations Section. The FBI held periodic briefings with all agencies that remained on the scene. The Shanksville Fire Department maintained a presence in the Unified Command structure until the incident was terminated.

Unified Command was established in response to the anthrax situation at the AMI building in Palm Beach County, Florida. The fire and public health departments supported this Unified Command, which was led by the FBI. Although there was an urgency to work through the particulars and specifics of this situation, Command and Operations were not established or performed in the chaos that is often prevalent in the initial stages of other emergency scenes.

RECOMMENDATION: Establish a Unified Command function as soon as possible after the initial response.

According to Ed Plaugher, the Fire Chief of ACFD, "The ICS audience is broader than ever before and must cross multiple agencies." The scene of a terrorist incident presents a very complex environment with a significant number of responding agencies. The inter-relationships of decisions among these agencies become all-powerful in terms of the impact on the community and incident responders. Unified Command concepts are

explained in the NIMS. In addition, the ICS forms used to develop the IAP accommodate the expression of the Unified Command.

The FDNY is establishing multiple levels of ICS training within the Department. The training level will be based on the function and positions within the ICS, and training on the concepts of Incident Command will be ongoing. As described earlier in this report, they also received incident management training from the U.S. Department of Agriculture's Forest Service.

One method for areas with smaller departments to prepare for implementing Unified Command rapidly at a significant event is forming a regional multiagency IMT. The USFA delivered two customized training courses, *Executive Analysis of Multi-Venue Operations* (EAMVO) and *Emergency Medical Services: Special Operations* (EMS:SO) for the UOPSC in June 2001 and November 2001 to prepare emergency services and law enforcement personnel for the 2002 Winter Olympics. Of the 26 jurisdictions involved in the Olympics, 17 sent students to the EAMVO course and 11 sent students to the EMS:SO course. Both courses included students from fire departments, police departments, and EMS. As a result of this training, the area formed a regional IMT for the Olympics and maintained that concept as part of standard operations.

USFA has developed a "training roadmap" to guide departments or groups of local departments toward the development of multiagency IMT's. Members trained for these teams will learn to function in appropriate ICS Command and General Staff positions during local incidents using Unified Command structure, and to transition to a higher level, more robust team if necessary after the first operational period to assist in managing major incidents. Information about USFA's IMT training initiative is available online at: http://www.usfa.fema.gov/fire-service/incident/imt-roadmap.shtm.

ISSUE: Specific communication and coordination between the Unified Command Team and the FBI may not be effective during a terrorist event.

During the early stages of the Pentagon event, the first-responding FBI Special Agent (SA) quickly established a physical presence with the ACFD Incident Commander. In accordance with the preestablished FBI ICS procedures for a WMD event, the FBI SA and ACFD Incident Commander established a Unified Command structure. This occurred at approximately 9:49 a.m., shortly after their arrival.

Developing and establishing a Unified Command structure was a relatively simple process at this incident. This can be attributed to the fact that the ACFD Incident Commander and FBI SA had attended joint terrorism training sessions together and had developed a professional relationship that was built on trust and confidence. This relationship permitted the Unified Command structure to be established smoothly, allowing for a remarkable collaborative effort during the early stages of the event. It also allowed for other responding agencies to easily assimilate into an already established Unified Command structure.

As events unfolded, at 10:15 a.m., FBI intelligence informed the SA at the ICP of valid threat information. This information was relayed quickly to all agency representatives within the Unified Command team, and an immediate evacuation order was issued for all emergency responders in anticipation of a second aircraft crashing into the structure.

Although this second hijacked aircraft never reached its reported destination, this critical and valid threat information received from FBI intelligence was circulated quickly among the Unified Command team, and immediate and preventive action was taken successfully throughout the incident scene. An assumption could be made that if there had not been an FBI presence at the ICP, that vital piece of valid threat intelligence may not have reached the Unified Command team in a timely manner to issue the emergency evacuation order. If the aircraft had reached its purported destination and emergency

responders had not been forewarned to evacuate, it is quite possible that a large loss of responder lives may have occurred.

Initially at the incident, ACFD established the ICP at the back of a Battalion Chief vehicle (a Chevrolet Suburban) parked in very close proximity to the Pentagon building. However, based on the threat information about the supposedly incoming aircraft, a decision was made to relocate the ICP to a more remote area. The chosen site was under a highway overpass that was deemed to be a safe distance from the Pentagon, but still in the general proximity and within sight of the building.

The relocation of the ICP actually provided beneficial spacing and distancing from the ongoing operational activities taking place around the Pentagon. Oftentimes, close proximity of an ICP can be distracting to command processes and decisionmaking. Defining proper spacing between ongoing operations and the ICP is recommended whenever possible to reduce these potential distractions.

At about noon on September 11, the SA presence within the Unified Command team was interrupted. The SA was directed to detach from the ICP and assist the FBI in preparing to activate the Joint Operations Center (JOC) at nearby Fort Myer. This action had a significant operational downside, even though it was temporary measure.

During the time that the SA presence was detached from the Unified Command Team, two additional full building evacuations were ordered. These evacuations were based on invalid threat information; they were actually a result of friendly aircraft, escorted by fighter aircraft, approaching the area. This critical information gap occurred during the period when there was no physical FBI presence at the ICP. The false evacuations interrupted the fire attack and changed on-site medical treatment of injured civilians during the crucial early stages. False evacuations also can extract a serious toll in terms of physical and psychological well-being of responders.

Moreover, these critical lessons learned clearly identify that face-to-face communication links between the FBI and Unified Command team should be firmly established early in the event and maintained continuously without interruption. Even though radio communication was never severed completely between the Unified Command team and the FBI, the ability to validate critical information face-to-face was lost.

At approximately midnight on September 12, a decision was made to again relocate the ICP. This time it was relocated to Fort Myer, where the JOC had been established. However, this second relocation proved to be somewhat cumbersome, causing some functioning difficulties for both the Unified Command team and JOC group. Most likely this occurred because of the contrasting missions of the JOC group (policy and Federal interagency coordination) and the Unified Command team (operational command).

At approximately, 8 a.m., it was determined that both groups could best function as distinct entities, separate and apart from one another but with strong communication links. The ICP was then relocated back to the overpass site and the JOC remained at Fort Myer. Upon the ICP being relocated back to the overpass site, an FBI SA accompanied the Unified Command team. The physical separation of the ICP and JOC enabled both groups to function effectively throughout the duration of the event without interfering with one another while retaining interrelated agency communications. The inclusion of the SA assured that critical, face-to-face communication links were maintained continuously until the Unified Command structure was deactivated.

Maintaining the flow of external information, particularly to the media, also is vitally important during a terrorist event. Early in the Pentagon incident, the media obtained information from any available source. As a result, the media reported erroneous "eyewitness" accounts of various aircraft crashing into the Pentagon, and overestimates of fatalities based on potential occupancy of the impact area (despite the fact the renovation work left a significant part of the impact area uninhabited). The first official press conference at the Pentagon was not convened until 11 p.m. on September 11, more than 13 hours after the event began.

Establishing effective media information dissemination took longer than it might otherwise have for a number of reasons. The unfilled ACFD Information Officer position was a contributing factor to the media interface problem. Additionally, when the JOC opened, the FBI chose not to activate a Joint Information Center (JIC) to serve as a focal point for coordinating all interagency media interface. The failure to establish a JIC proved to be an impediment to the presentation of coordinated, factual, and timely public information. There was not a central point of interface between the media and the agencies involved in the response. Each agency dealt separately with the media.

During a terrorist event, it is imperative that the Information Officer at the ICP take the necessary precautions to insure that all pertinent event information is coordinated with the JIC before disseminating public information.

RECOMMENDATION: Follow the established procedures for FBI integration into a Unified Command structure to manage the consequences of a terrorist event.

Senior management personnel from all agencies that may respond to a major incident--fire, law enforcement, EMS, and FBI (in the event of a terrorist incident)--should meet and train together to ensure that a good relationship exists prior to an incident. If possible, they should develop a local or regional IMT. Whether or not they are part of a formal IMT, these individuals likely will make up the Unified Command team at a major incident.

An FBI representative should be a part of the Unified Command team at a terrorist incident. (A graphic display of the FBI Interface into the Unified Command structure at a terrorist incident can be found in Appendix D.) At such an incident, the Unified Command team also will have to coordinate closely with the JOC and the JIC. The FBI has provided ICS training for their personnel, and has established the following procedures for integrating into the Unified Command structure at a terrorist incident, and for establishing and activating a JOC and a JIC.

FBI Procedures for Integrating into an ICS Unified Command Structure following a Weapons of Mass Destruction (WMD) event

1. The first component of this procedure is to deploy a Joint Terrorism Task Force (JTTF) to the event site immediately.

    - Included in this JTTF deployment will be an assigned FBI SA.

    - Upon arrival of the first FBI SA at the event site, this SA will assume the role as the initial FBI representative to the Unified Command team. The SA will be responsible for overall Federal law enforcement coordination at the incident, as well as directing any FBI-specific operations.

2. The second component of this procedure is to deploy a WMD coordinator to the event site immediately.

    - The WMD coordinator will assume the role of a Deputy Planning Section Chief functioning under the ICS Planning Section Chief.

3. The third component of this procedure is to deploy the Special Agent in Charge (SAC) and Assistant Special Agent in Charge (ASAC) to the event site immediately.

    - The SAC will assume the role of the FBI unified commander initially filled by the first-arriving SA, and will be responsible for overall Federal law enforcement coordination at the incident. The ASAC will direct any FBI-specific operations necessary as a result of the incident.

    - Upon the SAC replacing the SA as the FBI unified commander, the SA will then assume the role of a Deputy Operations Chief functioning under the ICS Operations Section Chief.

FBI Procedures for Activating a JOC

- The SAC will ensure that a JOC is established and activated within reasonable proximity to the event site. (Under the Initial National Response Plan (INRP), the JOC will be co-located with, and operate under the auspices of, the Joint Field Office (JFO).

- Assigned staff members will assemble at the identified JOC.

- The JOC should be capable of permitting senior representatives from several Federal agencies with relevant responsibilities to convene and exchange information and coordinate interagency law enforcement-related activities.

FBI Procedures for Activating a Joint Information Center (JIC)

- The appropriate FBI staff will ensure that a JIC is established and activated within the JOC. (Under the NIMS and the INRP, the JIC will be established and activated within the JFO.)

- The JIC is established to manage the flow and release of all pertinent event information and is the focal point for coordinating interagency media interface.

- The JIC is designated as the clearinghouse for all public information relevant to the event.

ISSUE: Responders are considered targets in terrorist incidents.

Although police controlled entrances from major roads during the first 2 days at the Pentagon, those claiming involvement were granted liberal access, based on the assumption that some appropriate authority had cleared them. By the third day, everyone entering the fireground needed a new color-coded identification badge. Gaining control of the perimeter in New York City took several days and accountability remained a problem well into the incident. It was not until the arrival of the National Guard, equipped with weapons to support the NYPD, that effective control was established.

Some responders remained on site at the WTC for long periods of time with no system of credentialing or tracking. The extensive involvement of private sector workers involved in debris removal during the recovery phase of the incident added to the credentialing problem. Because the number of these workers was so great, a separate credentialing process was established for the private sector workers.

Personnel safety is the paramount command consideration on an incident scene. An intentionally caused incident has several added dimensions. For example, in an effort to create the safest operational environment possible, responders should be considered secondary targets of the terrorists.

RECOMMENDATION: Develop the capability and policy for scene security that includes perimeter control, force protection, and responder credentialing.

One of the first actions should be to implement law enforcement managed perimeters around the incident. Law enforcement agencies are familiar with "inner" and "outer" perimeters, which are routinely established at hostage or barricade situations. Definitions of these perimeters specific to a haz mat or terrorist situation may coincide with the warm zone (inner perimeter) and the outside of the cold zone (outer perimeter); or new

definitions may emerge as this tactic is developed, implemented, and refined in future exercises and incident management methodologies.

The perimeter can be reinforced later by installing chain-link fence, as was done in Oklahoma City, Arlington County, and New York City. Arrangements for rapid procurement of large quantities of fencing materials should be in place. In Shanksville and Palm Beach County, law enforcement personnel maintained control of the outer perimeter.

Force protection is defined as actions taken by law enforcement or the military to ensure the safety of those working on the incident site. Force protection may consist of any of the following:

1. Armed personnel posted around the operating perimeter.
   Law enforcement personnel were used at the Pentagon. The National Guard assured perimeter control in New York City.

2. Base and staging areas.
   There should be a separate marshalling area at the incident base for unrequested and/or unverified resources. This "corral" concept was used in Oklahoma City. For added security, law enforcement should manage the perimeter of these areas.

3. A badging or credentialing process.
   This approach was used in Oklahoma City, New York City, Arlington County, and Shanksville. Establish criteria to determine who is eligible for incident credentials. Use a method such as color-coded bands or badges to ensure people do not remain on site for more than their scheduled time. If other than public safety agencies are going to credential people for access to the site, it must be approved by those responsible for site security.

ISSUE: Operational boundaries may not be effective enough to ensure protection of both responders and civilians.

Rapidly establishing control zones around an incident site will minimize injuries and contamination, as well as identify operational boundaries for response personnel. During the first 2 days at the Pentagon, police controlled entrances from major roads. Chief Plaugher ordered 2,000 feet of chain-link fence early on September 11 to construct the outer perimeter boundary. Fencing also was used successfully to control access to the Murrah Building in Oklahoma City. Fencing around an incident site is important in gaining absolute perimeter control. Fencing also improves accountability for persons working inside the fence and enables better scene control for the IC. The identification of ingress and egress points must be determined before the hard perimeter is established.

RECOMMENDATION: Develop local response capability to implement control zones quickly.

The first step in scene control should begin with the first-arriving responders. The Hazardous Materials First Responder Awareness competencies of recognition, identification, protection, and notification set the foundation for subsequent arriving responders. It must be recognized that large incidents will require a broad interagency involvement to establish effective scene control.

Identifying local sources for fencing needs, such as home improvement stores, etc., and developing preincident agreements and contacts for after hours also can eliminate a lengthy wait, if the time comes that the resource is needed.

ISSUE: Convergence of apparatus too close to the incident site may impede site access for needed apparatus and resources.

Although not a significant problem at the Pentagon, locating staging areas close to the incident created a problem in New York City. FDNY dedicated two 5th-alarm assignments to the WTC and had an additional 5th-alarm assignment staged in Brooklyn, ready to come to Manhattan. Senior chiefs had designated staging areas near the WTC. However, as units approached the area, many failed to report to the staging areas and proceeded directly to the tower lobbies and other parts of the incident instead. Traffic congestion at the incident site also prevented some apparatus arriving from outlying areas from reaching the designated staging area. Personnel proceeded on foot even though they were unfamiliar with the local street area and the building identification. In after-action discussions, FDNY indicated that this convergence of apparatus could create an additional target of opportunity and that a policy should be written to ease the travel of apparatus and reduce the possibility of creating additional targets.

A particular incident site may not be able to accommodate all of the responding apparatus. An agency may have to develop alternate methods to get personnel to the scene. In addition, the intentional or inadvertent concentration of both regular and specialty response resources creates an opportunistic target for terrorists. Identifying multiple remote staging areas creates a defensive posture and should be part of a deliberate and comprehensive force protection policy.

RECOMMENDATION: Identify remote staging areas in the recall/response policy.

The remote staging definition should be a component of a comprehensive organizational recall policy. Potential sites should be assessed to determine their suitability to meet the following:

- prevent both agency and mutual-aid personnel from responding directly to the incident site without supervision;
- establish accountability for the recalled and mutual-aid personnel;
- control the amount of resources reporting to the site and ensure citywide/ jurisdictional area coverage in the ensuing days; and

- diversify resources in the event of a secondary incident.

A base could be established as a marshalling area and check-in point for responding resources. This also could be used to isolate and hold unrequested and/or unverified resources until they can be screened, verified, and either assigned or released.

ISSUE: A major incident can result in a high number of injuries and casualties.

Localities must develop a plan to address the intentional overwhelming of their local health care system. In both New York and at the Pentagon, patient accountability was deficient. Several factors contributed to this situation. Triage tags were not used at either incident. Ambulances did not go through staging. Civilians flagged them down and crews initiated treatment and transport without reporting their actions through the ICS. At the Pentagon, mutual-aid responders were unfamiliar with locations of staging areas and there was no central hospital designated to coordinate communication and dissemination of patient dispositions.

RECOMMENDATION: Develop a multicasualty/multipatient incident capability.

An effective Multiple Casualty Incident/Multiple Patient Incident (MCI/MPI) plan should include all of the health and medical resources within a local area/region. Significant components of an MCI plan include EMS, private ambulance providers, fire department, law enforcement, hospitals, medical education facilities, and public health capabilities. Freestanding minor emergency treatment centers/clinics should be included in the plan as well.

The MCI/MPI plan must account for and track each patient from the time the patient is located and enters the system through treatment and final release from a definitive care facility. At the site of the incident, the Medical or EMS Branch in the Operations Section will include the Triage, Treatment, and Transport Units. The use of triage tags is an accepted method for tracking patients as they go through this process and provides the field documentation needed to ensure patient accountability.

The appropriate distribution of injured persons among capable treatment facilities must be coordinated to prevent overloading any one facility. The MCI plan must identify a method to assess bed capacity and treatment capability of all area hospitals and then systematically direct the transportation of injured persons to the appropriate facility for treatment. The specific treatment capability available locally may be extremely limited for certain types of incidents (e.g., collapse, fire, chemical, etc.). For example, if the incident results in a high number of burn injury patients, the local burn bed capacity will be overwhelmed quickly and additional specialized care facilities must be identified to receive the injured.

A number of persons will seek medical attention outside of the organized MCI/MPI structure. Many will self-refer to medical facilities in the area of the incident. Visitors present at the time the incident occurs may return home and then follow up for treatment at a doctor's office or hospital in their home location. Although the EMS system documented treatment of only about 100 patients at the 1993 bombing of the WTC, estimates indicate that upwards of 5,000 persons sought medical treatment. A large portion of those fled the 1993 bombing scene, then sought medical attention in a hospital or doctor's office after returning to their home State or country. At this point, it is unknown how many people did this as a result of the WTC collapses. The same actions can be anticipated in almost any major incident.

ISSUE: Responders and the public may be exposed to multiple hazardous contaminants during a major incident.

A decontamination capability must be developed quickly for responders and for persons who are initially exposed to potentially hazardous or toxic substances. Limiting the spread and effect of possible contaminants is one of the most important considerations in any incident. Although first-arriving fire personnel may be overwhelmed with the consequences of the event, it is extremely important to establish an emergency decontamination capability as early as possible and to recognize there is a real likelihood that multiple locations will need to be identified. This process must be a priority for the IC (or Unified Command).

RECOMMENDATION: Develop a risk-based capability to decontaminate responders and large numbers of civilians rapidly.

All fire departments must plan and train for the establishment of emergency decontamination by initial responders. This is one of the first steps in developing effective strategies to control an incident involving large numbers of potentially contaminated civilians or responders. Firefighters trained to the Haz-Mat Operational Level should be able to set up an effective emergency decontamination corridor using firefighting hoses, nozzles, ladder pipes, salvage covers, and the apparatus itself. Proper positioning of the apparatus can create a funnel to direct contaminated persons through a water "shower" to remove a large percentage of a contaminant.

As additional resources are assembled, a more definitive decontamination process can be defined and implemented as necessary. This secondary, or technical, decontamination may include tents or trailers designed for large numbers of persons (mass decontamination) and use specific cleaning solutions. Attention must be given to environmental conditions that affect the decontamination process in the field, such as cold weather. Jurisdictions should be familiar with the best type of decontamination process for use in their geographic location.

Important considerations in the decontamination process include modesty and hyper/hypothermia. The decontamination strategy should include methods to assure availability of and provide re-dress garments for persons exiting the decontamination corridor. Depending on the time of the year, blankets, some type of protective barrier, or heated shelters may be needed for persons completing the decontamination process.

ISSUE: Major incident sites pose multiple health hazards to responders, civilian volunteers, and the general public.

Hazard monitoring may pose unexpected problems. For example, chemical agent monitors did not work at the WTC because of the smoke and dust that caused a large number of false readings. However, they did work at Pentagon, where smoke was less intense. It also may be difficult to gather or compile data if the disaster site is large, as was the case in New York.

One of the issues at the Pentagon and the WTC was lack of interagency coordination and consistency in protocols for both hazard identification and PPE selection. Both the Environmental Protection Agency (EPA) and the Occupational Health and Safety Administration (OSHA) were present at the incidents. In New York City, while Federal, State, and local environmental agencies were conducting air monitoring and sampling, the construction industry brought in its own air monitoring capability along with appropriate respiratory equipment for the construction personnel operating on the site.

At the Pentagon, the IC took all hazard evaluation information into consideration and made the decision about what PPE would be used by all responders on that site. In addition to needing appropriate credentials, no personnel were allowed on the worksite without the required PPE.

RECOMMENDATION: Develop a continuous and comprehensive hazard monitoring capability for the incident site and the community, as indicated.

Local responders need the capability to conduct a site assessment and develop a Site Safety Plan for operations. This implies that equipment designed for the detection and monitoring for hazards (chemical, biological, radiological, etc.) should be in the hands of local responders. If no local or regional hazardous material response team is available, the National Guard Civil Support Team (CST) may be the first arriving asset with definitive detection and monitoring capability. The EPA or State environmental protection agency also may be able to provide excellent air sampling and monitoring functions.

Resolving interagency inconsistencies must occur on a level higher than the local one, but local agencies should provide input and continue to keep the issue alive through communication with the appropriate State agencies and with Federal agencies such as EPA and OSHA.

ISSUE: Communication may be hampered during a major incident because decisionmakers are located in multiple areas.

During the response to the Pentagon, the Fire Chief of ACFD determined that he could be of the greatest benefit to both the incident and the community by assuming the role he termed "Senior Advisor." His primary responsibility was to ensure linkage between the ICP, the local EOC, and the JOC. This position was not used at any of the other incidents.

The Unified Command team must have close coordination with the local EOC during a major incident or disaster. While the Unified Command team deals with the strategic and tactical aspects of the incident, the EOC will be dealing with local policy and planning issues related to the continued protection of the community, as well as resource acquisition for dealing with the response to and recovery from the incident. Should State resources be required for the incident, or should a local state of emergency be issued, the local EOC is the communications link to the State EOC. The State EOC is the point-of-contact for the various agencies within the State, including the Governor's office.

RECOMMENDATION: Use the highest-ranking official present to serve as a link among the decisionmaking entities.

The responsibilities of local organizations to participate in a JOC or a Joint Field Office (JFO) under the new NRP have not been defined fully. The JFO is established by FEMA on its arrival, and provides the operating environment for Federal agencies and organizations who have responsibility in the incident (e.g., DHS, FBI, Federal Aviation Administration (FAA), etc.). The JOC is established within the JFO. The NIMS further defines the multiagency coordination systems that may be used at major and/or complex incidents for interaction between the local Unified Command team and the JFO.

The highest-ranking fire official available at the time of the incident should fill the "senior advisor" position. The IC will continue to focus on the completion of incident priorities, the strategic and tactical plan, and the other components of the incident. The senior advisor's focus is on the entire incident, its impact from a broader perspective, and providing direction and overall guidance. The senior advisor should circulate between the ICP, the EOC, and the JFO on a regular basis to work with the IC, the jurisdiction administrator, and other key local, State, and Federal officials. This will ensure that all the centers have a common understanding of the incident size, complexity, nature, and resource needs so appropriate municipal and incident policy decisions can be made.

ISSUE: The specific operational responsibilities of multiple agencies may not be coordinated effectively during a major incident.

Effective unified operations were difficult to achieve in New York. The loss of senior FDNY leadership and the EOC facility were major contributing factors, as was unfamiliarity with some of the capabilities of Federal resources that were available at the incident. When the Pentagon attack occurred, it was clear that it was a terrorist action. It was quickly determined that fire, EMS, and law enforcement would have to operate under a single Operations Section of the ICS for a coordinated effort.

RECOMMENDATION: Develop an efficient and effective Unified Operations capability.

The concept of unified incident management should be woven throughout the ICS structure, not just the Command function. Such is the main purpose for the implementation of the NIMS. There should be a single Operations Section Chief with deputies assigned from appropriate disciplines. These deputies should ensure coordinated tactical operations. For example, search and rescue, patient care, and evidence collection need to be coordinated closely during a terrorist event. The Operations Section Chief, through the deputies, is responsible for this coordination. This approach to unified operations was used during the response to the Alfred P. Murrah Federal Building bombing. Law enforcement personnel, trained in PPE competencies, accompanied search and rescue personnel for the purpose of evidence preservation and collection. Appendix D contains a graphic organizational chart showing FBI interface with Unified Command and unified operations.

ISSUE: Normal methods of communicating between units or agencies may not exist during a major event.

In both the New York and Pentagon incidents cell phones were of little value in the first few hours. Cell towers were down, there was no cellular priority access, and the lines were overloaded. Radio channels were congested and over-saturated. The FDNY experienced poor communication with the EMS contingent. Fire and EMS dispatchers were overwhelmed and unable to synthesize or disseminate all critical information. There was minimal radio communication between fire department and police department resources operating at the WTC incident.

RECOMMENDATION: Develop a comprehensive communications plan to address initial cell phone overload and potential radio interoperability among responding mutual-aid organizations.

To some degree, the communication mechanism(s) of a typical response entity are probably a combination of a commercial infrastructure and a government-owned radio system.

This configuration presents several challenges:

- Commercial components, such as cell phones, may be overwhelmed by entities other than emergency responders. During the incidents of September 11, 2001, family members were trying to contact other family members; the news media tied up lines; and a far greater number than normal public safety agency personnel were all trying to access lines. This severely limited the number of cell sites available.
- Another problem is the sheer number of cell phone users converging on an area. Working with cellular providers to develop a plan and agreement to bring in portable cellular sites on short notice will decrease the amount of time an agency must deal with an inadequate communication capability. Portable Cellular sites On Wheels (COW's) were used successfully during the WTC incident and the 2002 Olympic Winter Games in Utah to augment existing cellular service, as well as providing increased capability for the public service agencies.

- The new analog and digital 800 and 900 mHz radio systems used by public safety agencies are proprietary systems. This means that only radios built by the specific manufacturer will work on the system. One way to alleviate part of this problem is to require a certain number of analog mutual-aid talk-groups during the system design phase. Some system manufacturers are willing to bring additional digital equipment to the site. However, organizations must be aware that the system is still vulnerable if more digital users are loaded into the system than it was designed to handle.

- COW's can disrupt or disable existing cell networks. If the use of COW's and/or additional digital equipment is anticipated during an emergency, the components should be set up and tested prior to the actual need. Exercise of a supplemental

communication system can avoid unintentional compromise of the communication infrastructure.

The FDNY designed a new system for the department to address field communications. It includes handie-talkies (portable radios), the Command Post radio, repeaters, VHF repeater handie-talkies, and the VHF mobile apparatus radios. The system takes a high-powered mobile (vehicle) radio and makes it usable at the freestanding command posts used by FDNY. The system is designed for use in a large indoor or outdoor structure (such as a stadium or arena), a ship, or a highrise. The department also is testing a modular interface/interconnect system to improve interoperability. This system can be configured to meet almost any interface application involving telephones and radios of any sort.

Regardless of the communication system employed, organizations should not rule out the use of foot messengers during the initial stages, until the enhancements and expansion of cellular/radio system can be implemented. Foot messengers were used successfully by ACFD in the initial hours at the Pentagon. Use of foot messengers may be limited by the geographic scope of the incident, or may require the use of bicycles, golf carts, or other conveyances.

ISSUE: Major incidents are multifaceted and may require a significant amount and/or type of resources not routinely available for day-to-day operations.

Neither ACFD nor FDNY had a dedicated logistics function. ACFD used the logistics person from neighboring Fairfax County Fire and Rescue Department to develop the incident logistics function and train ACFD personnel as the incident progressed. In the days immediately following the attack, the FDNY assigned a chief officer to coordinate both planning and logistics with the support of the Southwest IMT and the Army Corps of Engineers.

RECOMMENDATION: Develop a robust incident logistics capability.

The ability to support the needs of personnel and operational actions on an incident is critical for a successful incident response system. Events like those of September 11, 2001, quickly deplete organizational and mutual-aid supplies and present the incident managers with equipment and supply needs that are difficult, if not almost impossible, to preplan.

FIRESCOPE (FIrefighting RESources of California Organized for Potential Emergencies) involves all agencies with firefighting responsibilities in California in a cooperative effort to create and implement new applications in fire service management, technology, and coordination. The group places an emphasis on Incident Command and multiagency coordination. FIRESCOPE and the National Wildfire Coordinating Group (NWCG) provide resources for local entities to assist in establishing the logistics function within an incident management system. Localities should develop their own logistics capability and should make accommodation to incorporate an IMT into the scene management structure. More information about FIRESCOPE can be found at http://firescope.oes.ca.gov/ More information about NWCG can be found at http://www.nwcg.gov

ISSUE: Forecasting actions needed to coordinate activities and resources effectively may not be available during a major incident.

The ability to forecast actions and needs is a critical function of a successful incident response system. Events of the magnitude witnessed in the fall of 2001 present responders with multiday, multiweek, and multimonth operational durations, as well as hundreds to thousands of persons working on the incident.

ACFD reached out to a neighboring fire department and requested a specific individual with incident planning experience to establish the incident planning function. New York

City incorporated the planning capability of the USFA staff and the Southwest IMT into its scene management methodology.

RECOMMENDATION: Develop a robust incident planning capability.

FIRESCOPE and the NWCG provide resources for local entities to assist in establishing the planning function within an incident management system. Localities may elect to develop their own planning capability or make accommodation to incorporate a metro, regional, or national IMT into the scene management structure. During a terrorist incident, an FBI representative should be in the Planning Section as shown in Appendix D. This is outlined in the NIMS, along with an explanation of the information and intelligence function within the ICS at a major and/or complex incident.

Federal Homeland Security Presidential Directive-5 (HSPD-5) directs the Department of Homeland Security (DHS) to replace the FRP with the new National Response Plan (NRP). The new NRP will "integrate Federal Government domestic prevention, preparedness, response, and recovery plans into one all-discipline, all-hazards plan" under the authority of the Secretary of Homeland Security. It will establish a single base plan to address all hazards and contingencies, cover all disciplines, ensure coordination at all levels, and mandate that the Federal resources being tasked and deployed under the new NRP use the NIMS. The complete text of the Directive can be found in Appendix B.

Until the NRP is developed, Federal agencies generally will follow existing policies and plans as outlined in the INRP during a major disaster. The INRP establishes a process and structure for the systematic, coordinated, and effective delivery of Federal assistance to address the consequences of any major disaster or emergency declared under the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The Plan combines the various response plans used by the Federal government and organizes the types of Federal response assistance under 12 Emergency Support Functions (ESF's), each of which has a designated primary agency. The INRP can be found at http://www.dhs.gov/interweb/assetlibrary/Initial_NRP_100903.pdf

ISSUE: Responders tend to focus only on immediate aspects of the incident and may not be aware of related critical information.

Incident personnel are removed from their regular work areas. They are focused on incident activities and do not have access to their usual news sources. This occurred in both New York and the Pentagon. The FDNY after-action report revealed that personnel operating within the towers not only were unaware of what was occurring outside the towers; they also were unaware of what was occurring in the other tower. The FDNY was unable to access credible information on additional threats and received false notification of a third inbound plane.

The Pentagon received three additional warnings of incoming threatening aircraft. The first threat of an incoming plane (United Airlines Flight 93) was credible, since the FBI liaison was in the ICP and talking directly with the FAA. As a result of this information, an evacuation order was issued and remained in place until word was received that the plane had crashed in Shanksville. The other two threats were rumors. Because the FBI liaison had been moved from the ICP, these rumors resulted in unnecessary evacuation orders that interrupted fire suppression and rescue operations. The FBI liaison was returned to ICP on September 13, 2001.

RECOMMENDATION: Develop a means to keep incident responders updated with credible information about additional threats and events outside the immediate scene.

In a terrorist event, a senior-level FBI agent should be considered an essential member of the Unified Command team and be present at the ICP at all times. This person has the ability and authority to communicate with other appropriate agencies to determine the credibility of additional threats.

A Situation Unit is part of the Planning Section of the ICS. The primary responsibility of the Situation Unit is to document and communicate current incident status. The Situation Unit also is responsible for keeping incident personnel updated on situations and circumstances outside of the immediate incident. This can be augmented by assuring that an FBI representative is assigned to the Planning Section. Another method is posting news articles on bulletin boards in specific places on the incident site. This practice can be expanded to include updates of current local, State, national, or world situations for Command, and posting this information for all incident personnel on a regular or as-needed basis.

The Arlington County EOC developed information updates that were transmitted as voice mail messages to all County employees. For employees not directly associated with the site, these messages were well received. It is unknown if those personnel functioning at the scene accessed their voice mail when they were not working. This approach should be implemented early, and messages broadcast on a regular and frequent basis to provide the most current information possible.

STABILIZED EVENT/ONGOING RECOVERY

Once the event has stabilized, local jurisdictions will be interacting with State and Federal agencies to plan for long-term operations. The definition of long-term changed on September 11, 2001, when long-term fire operations went from a matter of hours to a matter of weeks and months. These operations require coordination of multiple physical resources and personnel.

ISSUE: State and Federal agencies involved with the management of events may not have an understanding of the roles, responsibilities, and capabilities of those other agencies involved.

It was evident in reviewing the after-action reports and through the interviews that both local and Federal agencies lacked a complete understanding of the FRP. Not only were local agencies unaware of many of the capabilities of various Federal agencies, Federal agencies were unaware of the roles and responsibilities of other Federal agencies. ACFD was unaware of the arrival of the California IMT (which they did not request) for almost 2 days and also was unaware of the documentation required for reimbursement. Different Federal agencies duplicated resource acquisition and distribution in New York City.

On the positive side, the Southwest IMT took the time to explain what they could provide and tailored their normal procedures to meet the needs of FDNY. The FDNY Chief of Department, Frank Cruthers stated, "The greatest asset provided by the Federal government to FDNY was the support of the Southwest IMT." Both the FDNY and the members of the IMT gained positive new perspectives of the other's capabilities from the experience.

RECOMMENDATION: Develop a plan to integrate State and Federal assets into an established incident management system.

HSPD-5, published on February 28, 2003, directs DHS to replace the existing FRP with a new NRP. It moves consequence and crisis management into one integrated action, with DHS serving as the lead for designating the role of each agency and when each agency will become involved. It also requires Federal, State, and local agencies to use NIMS. In order to use Federal assets in the most prudent manner, local jurisdictions must understand the resources and capabilities that State and Federal agencies bring to support the local incident management and the role of each agency as they are integrated into the incident management. State and Federal agencies also must understand their place in the local response and their roles and responsibilities, as well as the roles and responsibilities of other State and Federal agencies.

Agencies on all levels (Federal, State, and local) must comply with the new NIMS; Federal agencies also must follow the Initial NRP. All agencies should understand the roles and responsibilities of the IMT, multiagency coordination systems, joint information systems, and the JFO. The magnitude of the incidents of September 11, 2001, requires the local agency to think "outside the box," be flexible, and be open to what various Federal agencies can do to help.

ISSUE: Horrific incidents can have a significant psychological impact on responders.

Responders to large-scale, horrific incidents experience an extraordinary amount of stress and should receive support as soon as possible and on an extended basis. A mandatory debriefing after each operational period is a standard part of US&R operations. This practice was deemed beneficial and was implemented in Oklahoma City.

The Arlington County EOC, Employee Support Task Group placed initial emphasis on providing CISM support to first responders. Arlington County school system employees are the staff of the County's Employee Assistance Program (EAP). Members were at the incident site within 3 hours of the attack. EAP support included contracted chiropractic services, seated therapeutic massages, individual counseling, assistance in contacting family members, and help managing personal affairs. As time progressed, support was extended to other County employee groups and family members.

CISM also was available on site in New York City. However, some personnel were hesitant to use the service because of the "Mental Health" identification on the hats of the debriefers and its location, which allowed many to view who was using the service.

RECOMMENDATION: Develop and implement a plan to provide CISM to responders early in the incident.

Careful consideration must be given to implementing this process at the incident scene. Personnel qualified to manage debriefing should be identified and brought to the scene early on. A process for identifying responders in need of debriefing should be developed. Not all personnel will recognize the need for or seek out assistance. Make attempts to locate the debriefing area away from heavily traveled pedestrian routes. Refrain from using terms that suggest it is a mental health service. A plan also should be in place to follow up and to allow responders to access help for stress management after the incident is concluded. This already may be a part of a department's health and wellness program, but should be reviewed to assure adequate personnel to deal with a large number of responders.

ISSUE: Outpouring of citizen contributions can overwhelm an already taxed response system.

Neither New York City nor Arlington County was prepared for the outpouring of support from around the country and the generosity of citizens. For example, the Arlington County EOC had no plan to handle the hundreds of calls received on their information phone line. In addition, many people channeled their desire to support public safety by preparing homemade meals and treats, which they delivered to the nearest public safety facility or the incident site. This resulted in a dilemma, since homemade food donations can neither be refused nor should they be consumed. After the first 48 hours of the event, the Arlington County EOC coordinated the invitation of citizens to local recreation centers to discuss experiences and prepare expressions of support.

In New York, donations began almost immediately after the collapses of the WTC towers. Private companies contacted fire department headquarters offering and sending donations to assist the department. Numerous warehouses were required for storage and inventory. Both department and voluntarily offered private warehouses were used.

In the days that followed the event, FDNY headquarters was overwhelmed with mail. Trailers were placed in the open area outside of headquarters for storage. Bags of mail were stored at headquarters and alternate sites. When it was discovered that Anthrax had been sent to NBC headquarters offices, all the unopened mail received by FDNY was later irradiated by the Post Office.

RECOMMENDATION: Develop and implement an effective management structure to receive, inventory, organize, distribute, and account for large-scale donations and manage civilian volunteers.

Citizens of this country want to contribute and help an affected community in any way possible. Departments should work with local agencies that are experienced in managing donations, such as the American Red Cross, Salvation Army, and other Voluntary Organizations Active in Disasters (VOAD), to develop a Standard Operating Procedure (SOP) for directing and controlling civilian volunteers, educating the public on acceptable donations and points of drop off, and coordination and support of victims'

families. It is also important to assess the region for potential storage facilities for large-scale donations of supplies and equipment.

ISSUE: The local jurisdiction will be inundated with requests from the public for information.

The FDNY was significantly challenged in dealing with the large number of member fatalities. They were faced with handling a large volume of inquiries, coordinating family notification, and meeting the needs of the families. These tasks were further complicated by the loss of critical personnel. This condition was unique to New York, since the other terrorist incidents did not result in responder fatalities.

Notifying families in incidents with a large numbers of fatalities can overtax a local system. Families will begin calling immediately to try to obtain information, and that alone can overwhelm a system. If there are multiple responder fatalities, there is additional stress and grief resulting from the loss of one of their own, making it even more difficult to meet the needs of the family members.

RECOMMENDATION: Develop a plan to manage the volume of inquiries about the well-being of both responders and victims and to coordinate family notification of emergency worker fatalities.

Activating a preidentified, qualified, independent resource, not involved with personnel at the incident, would be beneficial in assisting a department. Once such organization, Kenyon International, was used by FDNY later in the incident. Representatives from the outside resource should be assigned to personnel from the involved departments rather than function independently. This allows department personnel to advise how best to deal with individual cases. The airline industry, guided by the Families in Disaster Act, uses this type of resource for mass casualty incidents.

POSTEVENT/LONG-TERM RECOVERY

ISSUE: The responsibilities for managing different stages of major incidents will vary among agencies.

As an incident progresses, it will be necessary to transfer overall incident responsibility within and among agencies. The local jurisdiction should have written guidelines that define who is in charge during the different phases of any given incident. The transfer of command must occur within a defined framework. ACFD was in control of the incident site at the Pentagon until all rescue and fire suppression activity was complete. They relinquished control of the incident site to the FBI on September 21. In addition, the military leadership deferred to the ACFD IC, and the Commanding General of the Military District of Washington (MDW) served as the point of contact between the IC and Pentagon leadership. He ensured the military leaders were fully aware of the status of the fire and rescue activities. This averted their consideration of interceding.

In New York City, FDNY was the Incident Commander from the start of the incident. After 18 days operations made a transition from rescue to recovery mode. In late October a Unified Command was established with the FDNY in charge of search, recovery, extinguishment, site safety, and fire prevention issues. The NYC department of Design and Construction was in charge of demolition and debris removal.

RECOMMENDATION: Develop local doctrine to ensure the proper transfer of command as dictated by incident needs.

The need for preparedness planning is addressed in the NIMS. An incident begins as the total responsibility of local government and usually will end as the total responsibility of local government. Assisting agencies arrive as requested or as their organizational policies dictate in accordance with a mutual-aid agreement, and depart after completing their responsibilities under defined scope, jurisdiction, and authority statements. A locality can use the Emergency Operations Plan (EOP) as a mechanism to determine, in advance, who should be responsible for certain situations and certain phases of an

incident. Regular interagency training and exercises among the area departments and agencies also will help define the responsibilities of agency heads, contributing to the effective management of command transfers throughout the incident.

ISSUE: Adequate and appropriate information about all aspects of incident response may be difficult to identify, document, and maintain.

Both FDNY and ACFD lacked experience with the documentation required for reimbursement from FEMA. Knowing Fairfax County Fire and Rescue Department logistics staff had extensive experience in long-term operations in support of its US&R team, ACFD requested their assistance. The Logistics Officer from Fairfax and his team taught the ACFD how to organize, staff up, and manage long-haul logistics functions, including recording all transactions and preparing the necessary paperwork for FEMA reimbursement. In addition, ACFD assigned one of their firefighters to the EOC to assure the personnel ordering resources understood exactly what they were requesting.

A certain portion of the community and organization's cost of the response activity may be reimbursable after the incident. Complete documentation is required for any reimbursement. This documentation combined with objective postincident analysis activities, also will help identify areas of adequate preparation and areas needing improvement.

RECOMMENDATION: Develop a mechanism to maintain the most complete and accurate incident response information possible.

One of the most successful mechanisms for documenting incident response and actions is the use of ICS forms during the response. In addition to the IAP that is produced for every operational period, each section of the ICS uses forms specific to its activities. When compiled at the conclusion of an event, these forms provide a comprehensive accounting of decisions, actions, contracts, assignments, and costs associated with the

incident. The ICS forms provide documentation of the incident and can be used to justify claims for reimbursement from State and Federal agencies. These forms also can become the basis for defense in the legal arena. These forms are referenced in the NIMS, and are available for download from many Internet sites, including www.firescope.org

A robust Planning capability using the ICS forms provides the basis for comprehensive incident documentation. In both California and Florida, the structure of the ICS and the use of the forms associated with the activation of the functions and positions within the ICS have proven beneficial in cost recovery for natural disasters.

Additional information on required documentation for reimbursement is available from State emergency management agencies.

ISSUE: A major incident has the potential to have a significant long-term financial impact on a department and on the overall economy of the local area.

The economic impact of the WTC attack on FDNY was as staggering as the personal impact:

- 343 pensions with death benefits;
- 661 retirees during 2002 (approximately 2.5 times the annual average);
- tremendous overtime costs to cover for deceased or injured firefighters, and to work at the WTC site;
- replacement personnel for deceased and retired firefighters;
- replacement of 98 pieces of apparatus; and
- replacement of damaged/destroyed equipment carried by firefighters and EMS providers, and on apparatus that was damaged or destroyed.

As stated earlier in this report, the New York Office of Emergency Management lost its entire EOC. The replacement cost to the city for this facility alone is in the millions of dollars.

An even larger issue is the impact on both the local and national economies. As an example:

- Jobs lost in New York owing to the attacks: 146,000.
- Days the New York Stock Exchange was closed: 6.
- Stock market volatility that wiped out $1.2 trillion of equity portfolio values in the first week after trading resumed.
- $13 billion of destroyed private and government equity.

This shows the vulnerability of our economy and of individual fire departments to terrorist attacks. While each attack may not be as effective at disrupting our economy, fire and emergency services remain in the situation where they may be faced with catastrophic losses, perhaps planned by terrorists or resulting from an act of nature.

RECOMMENDATION: Maintain the capability to rapidly hire and train replacement firefighters and EMS providers and obtain replacement apparatus and equipment in order to continue providing adequate public protection, even during difficult economic times.

Replacing the number of lost personnel from both fatalities and retirement on the scope of FDNY is the extreme. FDNY strength is about 11,000 persons. The loss of 343 members is approximately 3.1 percent. According to data found on the Web, FDNY also experienced a retirement rate in 2002 that was 2.5 times greater (3.5 percent of the department complement) than the same period in 2001 (661:274). This is above the normal retirement number, but may not be above a realistic turnover rate for some

organizations. How many other departments would face such a retirement rate following an incident? For example, Omaha, Nebraska, is a 500-member department. Even if they lost 5 percent of their personnel on an incident, that would require replacing 25 members, which is less than the normal recruit class number of 35 to 40. There may be a need to hold an unscheduled recruit class or hire (temporarily or permanently) already-trained firefighters and EMS personnel to fill the vacancies and maintain an appropriate level of service.

A second aspect of the economic impact is apparatus replacement. FDNY had 98 vehicles destroyed. What would be the "critical loss" (e.g., 3 engines, 10 engines, etc.) for other departments? That would have to be determined individually by each department, based upon the absolute minimum level of fire and EMS protection the department would be willing to maintain, as well as the availability of loaner apparatus (from other departments, dealers, and manufacturers) and mutual-aid availability and response times.

Other aspects that should be considered include revenue generation methods used by the jurisdictions to replace apparatus, the economic downturn in every State since September 11, 2001, and how those factors would affect replacement strategies. Public Assistance Grants provided $28.3 million for destroyed vehicles and related equipment due to the WTC attack; this is approximately $288,775/vehicle. Will this type of funding be available in the future? Will the new NRP or other policy changes at the Federal level replace any requirements for Federal reimbursement or add any new methods for recovering this type of loss? Much of this information is yet unknown.

ISSUE: A major incident has the potential to have a significant long-term health impact on a department's members and on the citizens of the local area.

This is a huge area and ties in with the economic impact to the individual department and the locality. The total number of people (civilians as well as responders) whose health has been affected by the WTC attacks is unknown. For departments whose emergency responders have been diagnosed with WTC Cough, the ultimate cost of short- and long-term medical treatment, work time lost, disability retirement benefits, etc., may be incalculable.

According to Newsday.com on September 30, 2002:

> "Physicians in the city [NY] have made it clear: The malady now officially called World Trade Center cough is like nothing they've ever seen, and hundreds--perhaps thousands--of people are experiencing it. The extent of this lung disease is not known, and for a combination of bureaucratic reasons, the extent of the human health impact may be understated. Moreover, cleanup efforts may be inappropriately focused on a single element of the debris: asbestos."

There are several Federally-sponsored health screening, monitoring, and research projects related to the WTC incident. Some of these include

Data Snapshot--Understanding the Health Impact of 9/11
(http://www.nyc.gov/html/doh/pdf/wtc/wtc-report200310.pdf)

Environmental Health Effects of WTC (NIEHS/NIH research, Rutgers University)
(http://www.eohsi.rutgers.edu/wtc/ehnetwork/university.shtml)

Injuries and Illnesses Among New York City Fire Department Rescue Workers After Responding to the World Trade Center Attacks
(http://www.cdc.gov/mmwr/preview/mmwrhtml/mm51SPa1.htm)

World Trade Center Worker and Volunteer Medical Screening Program
(http://www.cdc.gov/niosh/inquiry/WTCmeetMay2/pdfs/volunteer.pdf

Another health issue is chronic stress-related problems in responders. While there has not been much information on this topic specifically related to the terrorist attacks, it is just as important as the WTC Cough in terms of addressing health issues. The two health issues are important and complex enough to warrant their own report.

RECOMMENDATION: Recognize the need to initiate medical evaluation and followup for responders, as well as long-term health monitoring, following a major incident.

The fire and emergency services are well versed in providing short-term medical care to responders who are injured at incidents. Long-term medical care and health monitoring aren't as commonplace. Capabilities for these services are available from many research and teaching hospitals, and often through arrangements with Local or State heath departments.

A medical evaluation, followup and health monitoring process was implemented by Fairfax County, Virginia, Fire and Rescue Department in 1988 following a response to a ruptured gasoline pipeline. Dozens of responders were exposed to gasoline fumes for several hours as they worked to evacuate residents and contain a flowing spill of 270,000 gallons of unleaded fuel. Approximately 2 weeks after the incident, initial medical evaluations were done on the responders most significantly exposed. A joint team of physicians and nurses from the Fairfax County Health Department, Fairfax Hospital, and George Washington University Medical Center (GWUMC) conducted the evaluations. Thirteen responders required long-term medical followup and health monitoring; this was done by the GWUMC Occupational Medicine Department. Only 3 of the 13 had any time lost from work due to the exposure.

In the event of a major incident with potential long-term health effects for responders and/or citizens, consideration should be given to conducting a study of those potentially exposed. Such studies can be initiated by the local medical community, often through the local or the State public health agency. Federal agencies that may sponsor, conduct, or assist with such studies include the Centers for Disease Control and Prevention (CDC) entities: Agency for Toxic Substances and Disease Registry (ATSDR), National Institutes for Environmental Health Sciences (NIEHS), the National Institutes of Health (NIH), and the National Institute for Occupational Safety and Health (NIOSH).

The long-term health impact on responders from a major incident will be minimized by implementing other recommendations in this report, such as "Develop a continuous and comprehensive hazard monitoring capability for the incident site and the community" and "Develop and implement a plan to provide Critical Incident Stress Management to responders early in the incident."

SECTION 3:

CONCLUSIONS AND SUMMARY

CONCLUSIONS AND SUMMARY

Numerous after-action reports related to the role of the fire and emergency services in multijurisdictional, long-term operations were reviewed. This review, in conjunction with the openness of those involved in the September 11, 2001, and the Anthrax responses, led to many recommendations and approaches. These recommendations should assist fire and emergency service organizations to develop their own plan to deal with a large-scale incident. The review also raised unanswered questions.

FDNY experienced an unprecedented loss of personnel and apparatus as a result of the WTC collapses. Hopefully, this will never happen again. However, it may be an indication of the type of terrorist-intended consequence. Much has been published on emergency workers being the target for secondary attacks. If the destruction of response infrastructure is anticipated in the future, should our Nation prepare a replacement philosophy to resupply and restaff an affected locality?

Who will/should bear the cost of replacing apparatus? In the weeks that followed the events of September 11, 2001, the citizens of our Nation responded in an equally unprecedented manner. New fire apparatus from volunteer fire companies and other organizations were donated to FDNY to replace certain pieces of apparatus that were destroyed by the collapses. Can, or should, this type of generosity be expected the next time one of our communities experiences the loss of response infrastructure? Following the attacks:

- The New York Stock Exchange was closed for 6 days.
- The stock market volatility wiped out $1.2 trillion of equity portfolio values in the first week after trading resumed.
- There was $13 billion in destroyed private and government equity.
- There were 146,100 jobs lost in New York attributed to the attacks.

The entire country has suffered an economic impact as a result of these events. Would/Could this generosity be repeated in the current economic downturn?

As time passes, more and more cases of "World Trade Center Cough" continue to surface. What will the overall impact be on the health of those exposed to the hazardous materials? What will the final physical effects be on those who have already developed symptoms? How many others will present symptoms in the future--not only responders, but also civilians who worked at the site, visitors who were exposed during the collapse, and residents who lived in the path of the "cloud"? How many cases will surface in other parts of the country or internationally as the visitors seek medical attention at home? How many responders are dealing with chronic, posttraumatic stress related problems? Very little has been published related to this. What is the financial impact in terms of direct medical costs, time lost, early retirement, etc.? The economic and health-related questions posed are outside the scope of this report. It will take time and further definitive research to determine those answers; but the answers need to be found.

The National Incident Management System (NIMS) was released on March 1, 2004. The NIMS is a consistent, nationwide approach for Federal, State, tribal, and local governments to work effectively and efficiently together to prepare for, prevent, respond to, and recover from any type of incident, regardless of cause, size, location, or complexity. It is a core set of concepts, principles, and terminology, and is applicable for all incidents and across all levels of government. The NIMS is based on six key components, which address many of the issues identified in this report:

1. Command and Management, including the use of ICS/Unified Command, multiagency coordination systems, and public information systems.
2. Preparedness, including preparedness planning, training and exercises, personnel qualification and certification, and mutual-aid agreements.
3. Resource Management, including resource typing, mobilizing and tracking resources, and reimbursement.
4. Communications and Information Management, including interoperable communications and information databases.

5. Supporting Technologies, including scientific support and research.
6. Ongoing Management and Maintenance, using a multiagency, multidiscipline approach based on lessons learned and best practices.

The DHS also has released the Initial NRP (INRP). During a disaster, Federal assets and resources generally will be requested and deployed consistent with the procedures identified in the FRP, the U.S. Government Domestic Counterterrorism Concept of Operations Plan, and other related plans. The Initial NRP establishes that a Principal Federal Official will oversee the coordination of the deployment and the application of Federal assets and resources in support of the onscene Incident Commander, and in collaboration with other Federal officials identified in existing plans. A JFO will be established, operating under an ICS-type structure, where the various Federal entities supporting State and local operations at the incident will be collocated. The final NRP is scheduled to be released in June 2004.

While many questions remain unanswered, much has been learned that will assist the fire and emergency services in preparing for and improving the response to these types of events. This report discussed various recommendations related to responses with national consequences. These recommendations are based on the findings of a variety of after-action reports and interviews with chief officers involved in managing the events of September 11, 2001. Although all of the information in this report is pertinent, the recommendations are summarized in this section for quick reference for departments as they develop policies and procedures to improve their own preparedness.

AWARENESS/PREVENTION/PREPAREDNESS

- Develop a local and regional capability to augment and sustain a reinforced response.

- Develop a plan for continued public safety protection and service provision in a jurisdiction affected by a major incident.

- Develop a formal, organized policy for the orderly recall of organizational personnel.

- Develop an organizational policy to define/guide the deployment of personnel to assist other agencies in time of crisis.

- Develop statewide mutual-aid agreements for resource acquisition and deployment.

- Complete and document an assessment on all target hazards.

- Develop regular interagency planning and training to improve large-scale, multi-agency response and incident management.

- Develop a coordinated traffic management and regional evacuation plan.

- Develop and train supplemental community resources to provide initial assessment and assistance.

INITIAL RESPONSE

- Develop a policy to control requested and non-requested resources and eliminate freelancing of public safety resources.

- Establish a Unified Command function as soon as possible.

- Follow established procedures for FBI integration into a Unified Command structure.

- Develop the capability and policy for scene security that includes perimeter control, force protection, and responder credentialing.

- Develop local response capability to implement control zones quickly.
- Identify remote staging areas in the recall/response policy.
- Develop a multicasualty/multipatient incident capability.
- Develop a risk-based capability to decontaminate responders and large numbers of civilians rapidly.
- Develop a continuous and comprehensive hazard monitoring capability for the incident site and the community.
- Use the highest-ranking official present to serve as a link among the decision-making entities.
- Develop an efficient and effective Unified Operations capability.
- Develop a comprehensive communications plan to address cell phone overload and radio interoperability among responding mutual-aid organizations.
- Develop a robust incident logistics capability.
- Develop a robust incident planning capability.
- Develop a means to keep incident responders updated with credible information about additional threats and events outside the immediate scene.

STABILIZED EVENT/ONGOING RECOVERY

- Develop a plan to integrate State and Federal assets into an established incident management system.

- Develop and implement a plan to provide Critical Incident Stress Management to responders.

- Develop and implement an effective management structure to receive, inventory, organize, distribute, and account for large-scale donations and manage civilian volunteers.

- Develop a plan to manage inquiries about the well-being of both responders and victims and coordinate family notification of emergency worker fatalities.

POSTEVENT/LONG-TERM RECOVERY

- Develop local doctrine to ensure the proper transfer of command as dictated by incident needs.

- Develop a mechanism to maintain the most complete and accurate incident response information possible.

- Maintain the capability to rapidly hire and train replacement firefighters and EMS providers and obtain replacement apparatus and equipment.

- Recognize the need to initiate medical evaluation, followup, and long-term health monitoring following a major incident.

APPENDIX A:

ISSUES-RECOMMENDATIONS CHECKLIST

APPENDIX A: ISSUES-RECOMMENDATIONS CHECKLIST

Area/ Priority	**Issue** (Current Situation)	**Recommendation** (Action Items)	Short Term (0-6 mos.)	Medium Term (6-18 mos.)	Long Term (18-36 mos.)
AWARENESS/PREVENTION/PREPAREDNESS					
1	A community may not have adequate resources to sustain a reinforced response to a major incident.	Develop a local and regional capability to augment and sustain a reinforced response.	X		
2	The response to a major incident may deplete local resources, while the population continues to experience typical emergencies.	Develop a plan for continued public safety protection and service provision in a jurisdiction affected by a major incident.	X		
3	Personnel may need to be recalled to duty during the early stages of a major incident.	Develop a formal, organized policy for the orderly recall of organizational personnel.	X		
4	Departments or organizations from nonaffected jurisdictions may self-dispatch to the scene, leaving their own communities at risk.	Develop an organizational policy to define/guide the deployment of personnel to assist other agencies in time of crisis.	X		
5	The size, scope, or complexity of an incident may overwhelm local emergency service resources.	Develop statewide mutual-aid agreements for resource acquisition and deployment.		X	
6	Complete knowledge and accurate structural and hazard information about the incident site may not be readily available.	Complete and document an assessment on all target hazards.		X	
7	The integration of local, State, and Federal resources may not occur effectively during a multi-agency response to a major incident.	Develop regular interagency planning and training to improve large-scale, multiagency response and incident management.		X	
8	During a major incident, traffic arteries will become congested rapidly, delaying responding resources.	Develop a coordinated traffic management and regional evacuation plan.			X
9	Untrained local citizens and community groups will attempt to help in times of crisis.	Develop and train supplemental community resources to provide initial assessment and assistance to public safety organizations.			X

APPENDIX A: ISSUES-RECOMMENDATIONS CHECKLIST

Area/ Priority	**Issue** (Current Situation)	**Recommendation** (Action Items)	Short Term (0-6 mos.)	Medium Term (6-18 mos.)	Long Term (18-36 mos.)
INITIAL RESPONSE					
1	During a major incident, unrequested personnel and equipment arriving to offer unsolicited assistance will create confusion, congestion, uncoordinated operations, difficulties in planning, and increased hazards to responders.	Develop a policy to control requested and nonrequested resources and eliminate freelancing of public safety resources.	X		
2	Interagency communication and coordination may not be effective during a multiagency incident.	Establish a Unified Command function as soon as possible after the initial response.	X		
3	Specific communication and coordination between the Unified Command Team and the FBI may not be effective during a terrorist event.	Follow the established procedures for FBI integration into a Unified Command structure to mange the consequences of a terrorist event.	X		
4	Responders are considered targets in terrorist incidents.	Develop the capability and policy for scene security that includes perimeter control, force protection, and responder credentialing.	X		
5	Operational boundaries may not be effective enough to ensure protection of both responders and civilians.	Develop local response capability to implement control zones quickly.	X		
6	Convergence of apparatus too close to the incident site may impede site access for needed apparatus and resources.	Identify remote staging areas in the recall/response policy.	X		
7	A major incident can result in a high number of injuries and casualties.	Develop a multicasualty/multi-patient incident capability.	X		
8	Responders and the public may be exposed to multiple hazardous contaminants during a major incident.	Develop risk-based capability to decontaminate responders and large numbers of civilians rapidly.	X		

Area/ Priority	**Issue** (Current Situation)	**Recommendation** (Action Items)	Short Term (0-6 mos.)	Medium Term (6-18 mos.)	Long Term (18-36 mos.)
INITIAL RESPONSE (cont'd)					
9	Major incident sites pose multiple health hazards to responders, civilian volunteers, and the general public.	Develop a continuous and comprehensive hazard monitoring capability for the incident site and the community, as indicated.	X		
10	Communication may be hampered during a major incident because decision-makers are located in multiple areas.	Use the highest-ranking official present to serve as a link among the decisionmaking entities.	X		
11	The specific operational responsibilities of multiple agencies may not be coordinated effectively during a major incident.	Develop an efficient and effective Unified Operations capability.		X	
12	Normal methods of communicating among units or agencies may not exist during a major event.	Develop a comprehensive communications plan to address initial cell phone overload and potential radio interoperability among responding mutual-aid organizations.		X	
13	Major incidents are multi-faceted and may require a significant amount and/or type of resources not routinely available for day-to-day operations.	Develop a robust incident logistics capability.		X	
14	Forecasting actions needed to coordinate activities and resources effectively may not be available during a major incident.	Develop a robust incident planning capability.		X	
15	Responders tend to focus only on immediate aspects of the incident, and may not be aware of related critical information.	Develop a means to keep incident responders updated with credible information about additional threats and events outside the immediate scene.			X

APPENDIX A: ISSUES-RECOMMENDATIONS CHECKLIST

Area/ Priority	**Issue** **(Current Situation)**	**Recommendation** **(Action Items)**	Short Term (0-6 mos.)	Medium Term (6-18 mos.)	Long Term (18-36 mos.)
STABILIZED EVENT/ONGOING RECOVERY					
1	State and Federal agencies involved with the management of events may not have an understanding of the roles, responsibilities, and capabilities of those other agencies involved.	Develop a plan to integrate State and Federal assets into an established incident management system.		X	
2	Horrific incidents can have a significant psychological impact on responders.	Develop and implement a plan to provide Critical Incident Stress Management to responders early in the incident.		X	
3	Outpouring of citizen contributions can overwhelm an already taxed response system.	Develop and implement an effective management structure to receive, inventory, organize, distribute, and account for large-scale donations and manage civilian volunteers.			X
4	The local jurisdiction will be inundated with requests from the public for information.	Develop a plan to manage the volume of inquiries about the well-being of both responders and victims and to coordinate family notification of emergency worker fatalities.			X

Area/ Priority	**Issue** **(Current Situation)**	**Recommendation** **(Action Items)**	Short Term (0-6 mos.)	Medium Term (6-18 mos.)	Long Term (18-36 mos.)
POSTEVENT/LONG-TERM RECOVERY					
1	The responsibilities for managing different stages of major incidents will vary among agencies.	Develop local doctrine to ensure the proper transfer of command as dictated by incident needs.	X		
2	Adequate and appropriate information about all aspects of incident response may be difficult to identify, document, and maintain.	Develop a mechanism to maintain the most complete and accurate incident response information possible.		X	
3	A major incident has the potential to have a significant long-term financial impact on a department and on the overall economy of the local area.	Maintain the capability to rapidly hire and train replacement firefighters and EMS providers and obtain replacement apparatus and equipment in order to continue providing adequate public protection, even during difficult economic times.			X
4	A major incident has the potential to have a significant long-term health impact on a department's members and on the citizens of the local area.	Recognize the need to initiate medical evaluation and followup for responders, as well as long-term health monitoring, following a major incident.			X

APPENDIX B:

HOMELAND SECURITY PRESIDENTIAL DIRECTIVE-5

Subject: Management of Domestic Incidents

Purpose

(1) To enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive national incident management system.

Definitions

(2) In this directive:

(a) The term "Secretary" means the Secretary of Homeland Security.

(b) The term "Federal departments and agencies" means those executive departments enumerated in 5 U.S.C. 101, together with the Department of Homeland Security; independent establishments as defined by 5 U.S.C. 104(1); government corporations as defined by 5 U.S.C. 103(1); and the United States Postal Service.

(c) The terms "State," "local," and the "United States" when it is used in a geographical sense, have the same meanings as used in the Homeland Security Act of 2002, Public Law 107-296.

Policy

(3) To prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies, the United States Government shall establish a single, comprehensive approach to domestic incident management. The objective of the United States Government is to ensure that all levels of government across the Nation have the capability to work efficiently and effectively together, using a national approach to domestic incident management. In these efforts, with regard to domestic incidents, the United States Government treats crisis management and consequence management as a single, integrated function, rather than as two separate functions.

(4) The Secretary of Homeland Security is the principal Federal official for domestic incident management. Pursuant to the Homeland Security Act of 2002, the Secretary is responsible for coordinating Federal operations within the United States to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. The Secretary shall coordinate the Federal Government's resources utilized in response to or recovery from terrorist attacks, major disasters, or other emergencies if and when any one of the following four conditions applies: (1) a Federal department or agency acting under its own authority has requested the assistance of the Secretary; (2) the resources of State and local authorities are overwhelmed and Federal assistance has been requested by the appropriate State and local authorities; (3) more than one Federal department or agency has become substantially involved in responding to the incident; or (4) the Secretary has been directed to assume responsibility for managing the domestic incident by the President.

(5) Nothing in this directive alters, or impedes the ability to carry out, the authorities of Federal departments and agencies to perform their responsibilities under law. All Federal departments and agencies shall cooperate with the Secretary in the Secretary's domestic incident management role.

(6) The Federal Government recognizes the roles and responsibilities of State and local authorities in domestic incident management. Initial responsibility for managing domestic incidents generally falls on State and local authorities. The Federal Government will assist State and local authorities when their resources are overwhelmed, or when Federal interests are involved. The Secretary will coordinate with State and local governments to ensure adequate planning, equipment, training, and exercise activities. The Secretary will also provide assistance to State and local governments to develop all-hazards plans and capabilities, including those of greatest importance to the security of the United States, and will ensure that State, local, and Federal plans are compatible.

(7) The Federal Government recognizes the role that the private and nongovernmental sectors play in preventing, preparing for, responding to, and recovering from terrorist attacks, major disasters, and other emergencies. The Secretary will coordinate with the private and nongovernmental sectors to ensure adequate planning, equipment, training, and exercise activities and to promote partnerships to address incident management capabilities.

(8) The Attorney General has lead responsibility for criminal investigations of terrorist acts or terrorist threats by individuals or groups inside the United States, or directed at United States citizens or institutions abroad, where such acts are within the Federal criminal jurisdiction of the United States, as well as for related intelligence collection activities within the United States, subject to the National Security Act of 1947 and other applicable law, Executive Order 12333, and Attorney General-approved procedures pursuant to that Executive Order. Generally acting through the Federal Bureau of Investigation, the Attorney General, in cooperation with other Federal departments and agencies engaged in activities to protect our national security, shall also coordinate the activities of the other members of the law enforcement community to detect, prevent, preempt, and disrupt terrorist attacks against the United States. Following a terrorist threat or an actual incident that falls within the criminal jurisdiction of the United States, the full capabilities of the United States shall be dedicated, consistent with United States law and with activities of other Federal departments and agencies to protect our national security, to assisting the Attorney General to identify the perpetrators and bring them to justice. The Attorney General and the Secretary shall establish appropriate relationships and mechanisms for cooperation and coordination between their two departments.

(9) Nothing in this directive impairs or otherwise affects the authority of the Secretary of Defense over the Department of Defense, including the chain of command for military forces from the President as Commander in Chief, to the Secretary of Defense, to the commander of military forces, or military command and control procedures. The Secretary of Defense shall provide military support to civil authorities for domestic incidents as directed by the President or when consistent with military readiness and

appropriate under the circumstances and the law. The Secretary of Defense shall retain command of military forces providing civil support. The Secretary of Defense and the Secretary shall establish appropriate relationships and mechanisms for cooperation and coordination between their two departments.

(10) The Secretary of State has the responsibility, consistent with other United States Government activities to protect our national security, to coordinate international activities related to the prevention, preparation, response, and recovery from a domestic incident, and for the protection of United States citizens and United States interests overseas. The Secretary of State and the Secretary shall establish appropriate relationships and mechanisms for cooperation and coordination between their two departments.

(11) The Assistant to the President for Homeland Security and the Assistant to the President for National Security Affairs shall be responsible for interagency policy coordination on domestic and international incident management, respectively, as directed by the President. The Assistant to the President for Homeland Security and the Assistant to the President for National Security Affairs shall work together to ensure that the United States domestic and international incident management efforts are seamlessly united.

(12) The Secretary shall ensure that, as appropriate, information related to domestic incidents is gathered and provided to the public, the private sector, State and local authorities, Federal departments and agencies, and, generally through the Assistant to the President for Homeland Security, to the President. The Secretary shall provide standardized, quantitative reports to the Assistant to the President for Homeland Security on the readiness and preparedness of the Nation -- at all levels of government -- to prevent, prepare for, respond to, and recover from domestic incidents.

(13) Nothing in this directive shall be construed to grant to any Assistant to the President any authority to issue orders to Federal departments and agencies, their officers, or their employees.

Tasking

(14) The heads of all Federal departments and agencies are directed to provide their full and prompt cooperation, resources, and support, as appropriate and consistent with their own responsibilities for protecting our national security, to the Secretary, the Attorney General, the Secretary of Defense, and the Secretary of State in the exercise of the individual leadership responsibilities and missions assigned in paragraphs (4), (8), (9), and (10), respectively, above.

(15) The Secretary shall develop, submit for review to the Homeland Security Council, and administer a National Incident Management System (NIMS). This system will provide a consistent nationwide approach for Federal, State, and local governments to work effectively and efficiently together to prepare for, respond to, and recover from

domestic incidents, regardless of cause, size, or complexity. To provide for interoperability and compatibility among Federal, State, and local capabilities, the NIMS will include a core set of concepts, principles, terminology, and technologies covering the incident command system; multi-agency coordination systems; unified command; training; identification and management of resources (including systems for classifying types of resources); qualifications and certification; and the collection, tracking, and reporting of incident information and incident resources.

(16) The Secretary shall develop, submit for review to the Homeland Security Council, and administer a National Response Plan (NRP). The Secretary shall consult with appropriate Assistants to the President (including the Assistant to the President for Economic Policy) and the Director of the Office of Science and Technology Policy, and other such Federal officials as may be appropriate, in developing and implementing the NRP. This plan shall integrate Federal Government domestic prevention, preparedness, response, and recovery plans into one all-discipline, all-hazards plan. The NRP shall be unclassified. If certain operational aspects require classification, they shall be included in classified annexes to the NRP.

(a) The NRP, using the NIMS, shall, with regard to response to domestic incidents, provide the structure and mechanisms for national level policy and operational direction for Federal support to State and local incident managers and for exercising direct Federal authorities and responsibilities, as appropriate.

(b) The NRP will include protocols for operating under different threats or threat levels; incorporation of existing Federal emergency and incident management plans (with appropriate modifications and revisions) as either integrated components of the NRP or as supporting operational plans; and additional operational plans or annexes, as appropriate, including public affairs and intergovernmental communications.

(c) The NRP will include a consistent approach to reporting incidents, providing assessments, and making recommendations to the President, the Secretary, and the Homeland Security Council.

(d) The NRP will include rigorous requirements for continuous improvements from testing, exercising, experience with incidents, and new information and technologies.

(17) The Secretary shall:

(a) By April 1, 2003, (1) develop and publish an initial version of the NRP, in consultation with other Federal departments and agencies; and (2) provide the Assistant to the President for Homeland Security with a plan for full development and implementation of the NRP.

(b) By June 1, 2003, (1) in consultation with Federal departments and agencies and with State and local governments, develop a national system of standards, guidelines, and protocols to implement the NIMS; and (2) establish a mechanism for ensuring ongoing

management and maintenance of the NIMS, including regular consultation with other Federal departments and agencies and with State and local governments.

(c) By September 1, 2003, in consultation with Federal departments and agencies and the Assistant to the President for Homeland Security, review existing authorities and regulations and prepare recommendations for the President on revisions necessary to implement fully the NRP.

(18) The heads of Federal departments and agencies shall adopt the NIMS within their departments and agencies and shall provide support and assistance to the Secretary in the development and maintenance of the NIMS. All Federal departments and agencies will use the NIMS in their domestic incident management and emergency prevention, preparedness, response, recovery, and mitigation activities, as well as those actions taken in support of State or local entities. The heads of Federal departments and agencies shall participate in the NRP, shall assist and support the Secretary in the development and maintenance of the NRP, and shall participate in and use domestic incident reporting systems and protocols established by the Secretary.

(19) The head of each Federal department and agency shall:

(a) By June 1, 2003, make initial revisions to existing plans in accordance with the initial version of the NRP.

(b) By August 1, 2003, submit a plan to adopt and implement the NIMS to the Secretary and the Assistant to the President for Homeland Security. The Assistant to the President for Homeland Security shall advise the President on whether such plans effectively implement the NIMS.

(20) Beginning in Fiscal Year 2005, Federal departments and agencies shall make adoption of the NIMS a requirement, to the extent permitted by law, for providing Federal preparedness assistance through grants, contracts, or other activities. The Secretary shall develop standards and guidelines for determining whether a State or local entity has adopted the NIMS.

Technical and Conforming Amendments to National Security Presidential Directive-1 (NSPD-1)

(21) NSPD-1 ("Organization of the National Security Council System") is amended by replacing the fifth sentence of the third paragraph on the first page with the following: "The Attorney General, the Secretary of Homeland Security, and the Director of the Office of Management and Budget shall be invited to attend meetings pertaining to their responsibilities."

Technical and Conforming Amendments to National Security Presidential Directive-8 (NSPD-8)

(22) NSPD-8 ("National Director and Deputy National Security Advisor for Combating Terrorism") is amended by striking "and the Office of Homeland Security," on page 4, and inserting "the Department of Homeland Security, and the Homeland Security Council" in lieu thereof.

Technical and Conforming Amendments to Homeland Security Presidential Directive-2 (HSPD-2)

(23) HSPD-2 ("Combating Terrorism Through Immigration Policies") is amended as follows:

(a) striking "the Commissioner of the Immigration and Naturalization Service (INS)" in the second sentence of the second paragraph in section 1, and inserting "the Secretary of Homeland Security" in lieu thereof;

(b) striking "the INS," in the third paragraph in section 1, and inserting "the Department of Homeland Security" in lieu thereof;

(c) inserting ", the Secretary of Homeland Security," after "The Attorney General" in the fourth paragraph in section 1;

(d) inserting ", the Secretary of Homeland Security," after "the Attorney General" in the fifth paragraph in section 1;

(e) striking "the INS and the Customs Service" in the first sentence of the first paragraph of section 2, and inserting "the Department of Homeland Security" in lieu thereof;

(f) striking "Customs and INS" in the first sentence of the second paragraph of section 2, and inserting "the Department of Homeland Security" in lieu thereof;

(g) striking "the two agencies" in the second sentence of the second paragraph of section 2, and inserting "the Department of Homeland Security" in lieu thereof;

(h) striking "the Secretary of the Treasury" wherever it appears in section 2, and inserting "the Secretary of Homeland Security" in lieu thereof;

(i) inserting ", the Secretary of Homeland Security," after "The Secretary of State" wherever the latter appears in section 3;

(j) inserting ", the Department of Homeland Security," after "the Department of State," in the second sentence in the third paragraph in section 3;

(k) inserting "the Secretary of Homeland Security," after "the Secretary of State," in the first sentence of the fifth paragraph of section 3;

(l) striking "INS" in the first sentence of the sixth paragraph of section 3, and inserting "Department of Homeland Security" in lieu thereof;

(m) striking "the Treasury" wherever it appears in section 4 and inserting "Homeland Security" in lieu thereof;

(n) inserting ", the Secretary of Homeland Security," after "the Attorney General" in the first sentence in section 5; and

(o) inserting ", Homeland Security" after "State" in the first sentence of section 6.

Technical and Conforming Amendments to Homeland Security Presidential Directive-3 (HSPD-3)

(24) The Homeland Security Act of 2002 assigned the responsibility for administering the Homeland Security Advisory System to the Secretary of Homeland Security. Accordingly, HSPD-3 of March 11, 2002 ("Homeland Security Advisory System") is amended as follows:

(a) replacing the third sentence of the second paragraph entitled "Homeland Security Advisory System" with "Except in exigent circumstances, the Secretary of Homeland Security shall seek the views of the Attorney General, and any other Federal agency heads the Secretary deems appropriate, including other members of the Homeland Security Council, on the Threat Condition to be assigned."

(b) inserting "At the request of the Secretary of Homeland Security, the Department of Justice shall permit and facilitate the use of delivery systems administered or managed by the Department of Justice for the purposes of delivering threat information pursuant to the Homeland Security Advisory System." as a new paragraph after the fifth paragraph of the section entitled "Homeland Security Advisory System."

(c) inserting ", the Secretary of Homeland Security" after "The Director of Central Intelligence" in the first sentence of the seventh paragraph of the section entitled "Homeland Security Advisory System".

(d) striking "Attorney General" wherever it appears (except in the sentences referred to in subsections (a) and (c) above), and inserting "the Secretary of Homeland Security" in lieu thereof; and

(e) striking the section entitled "Comment and Review Periods."

GEORGE W. BUSH

APPENDIX C:

NIMS FACT SHEET FOR EMERGENCY RESPONSE AGENCIES

The National Incident Management System

Fact Sheet for Emergency Response Agencies

Homeland Security Presidential Directive 5

To prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies, the United States Government shall establish a single, comprehensive approach to domestic incident management. The objective of the United States Government is to ensure that all levels of government across the Nation have the capability to work efficiently and effectively together, using a national approach to domestic incident management.

What is the National Incident Management System, or NIMS?

The NIMS is…

- Core set of
  - Doctrine
  - Concepts
  - Principles
  - Terminology
  - Organizational processes
- Applicable to all hazards

The NIMS is not…

- An operational incident management plan
- A resource allocation plan
- A terrorism / WMD-specific plan
- Designed to address international events

The NIMS has Six Components

1. Command and Management
2. Preparedness
3. Resource Management
4. Communications and Information Management
5. Supporting Technologies
6. Ongoing Management and Maintenance

1. Command and Management

The NIMS standardizes incident management for all hazards and across all levels of government. The NIMS-standard incident command structures are based on three key constructs:

Incident Command System
Multiagency Coordination Systems
Public Information Systems

2. Preparedness
The NIMS establishes specific measures and capabilities that jurisdictions and agencies should develop and incorporate into an overall system to enhance operational preparedness for incident management on a steady-state basis in an all-hazards context.

The operational preparedness of our nation's incident management capabilities is distinct from the preparedness of the individual citizens and private industry.

3. Resource Management
The NIMS defines standardized mechanisms to describe, inventory, track, and dispatch resources before, during, and after an incident; it also defines standard procedures to recover equipment once it is no longer needed for an incident.

4. Communications & Information Management
Effective communications, information management, and information and intelligence sharing are critical aspects of domestic incident management. The NIMS communications and information systems enable the essential functions needed to provide a common operating picture and interoperability for incident management at all levels.

5. Supporting Technologies
The NIMS promotes national standards and interoperability for supporting technologies to successfully implement the NIMS, as well as standard technologies for specific professional disciplines or incident types. It provides an architecture for science and technology support to incident management.

6. Ongoing Management & Maintenance
The DHS will establish a multi-jurisdictional, multi-disciplinary NIMS Integration Center. This Center will provide strategic direction for, and oversight of, the NIMS, supporting both routine maintenance and the continuous improvement of the system over the long term.

The NIMS Integration Center will facilitate the development and promulgation of the standards addressing the components of the NIMS.

All users and stakeholders--including various levels of government, functional disciplines, and private entities--will be given the opportunity to participate in the NIMS Integration Center activities.

NIMS Timelines and Compliance Requirements

March 1, 2004--Secretary Ridge announced the NIMS.

October 1, 2004--State and local organizations must adopt the NIMS to receive Federal preparedness assistance (through grants, contracts, and other activities).

Short-term compliance for local, State, and Federal entities is possible by adopting the Incident Command System as articulated in the NIMS document dated March 1, 2004.

By October 1, 2004--the NIMS Integration Center will begin publishing additional standards, guidelines, and compliance protocols.

Other components require additional development and refinement to enable future compliance (e.g., data and communications systems interoperability)

Impact of the NIMS on Local Agencies

The NIMS recognizes the National Wildfire Coordinating Group (NWCG) ICS training as a model for course curricula and materials applicable to the NIMS:

ICS-100, Introduction to ICS
ICS-200, Basic ICS
ICS-300, Intermediate ICS
ICS-400 Advanced ICS

The USFA's *National Fire Academy* and *Emergency Management Institute* both follow this model in their ICS training curricula. At the local level, agencies may contact the fire department for information and training on ICS.

There are two minor differences between the NIMS ICS and the FIRESCOPE ICS or NFA Model ICS:

Under NIMS, the intelligence and information function may be organized in one of the following ways:

- Officer within the Command Staff
- Unit within the Planning Section
- Branch within the Operations Section
- Separate General Staff section

Under NIMS, the Command Staff position previously known as "Information Officer" will be known as "Public Information Officer."

Emergency response personnel and others involved in incident management will be required to comply with national qualification standards. The NIMS Integration Center will facilitate the development of these national qualification and certification standards.

Personnel that are certified for employment in support of an incident that transcends interstate jurisdictions will be required to meet national qualification and certification standards.

Mutual aid agreements provide the means for one jurisdiction to provide resources, facilities, services, and other required support to another jurisdiction during an incident. Each jurisdiction should be party to a mutual aid agreement with all neighboring or nearby jurisdictions, as well as relevant private sector and non-governmental organizations. The NIMS will facilitate the development of State and local mutual aid agreements.

The full NIMS document is available for download from . . .

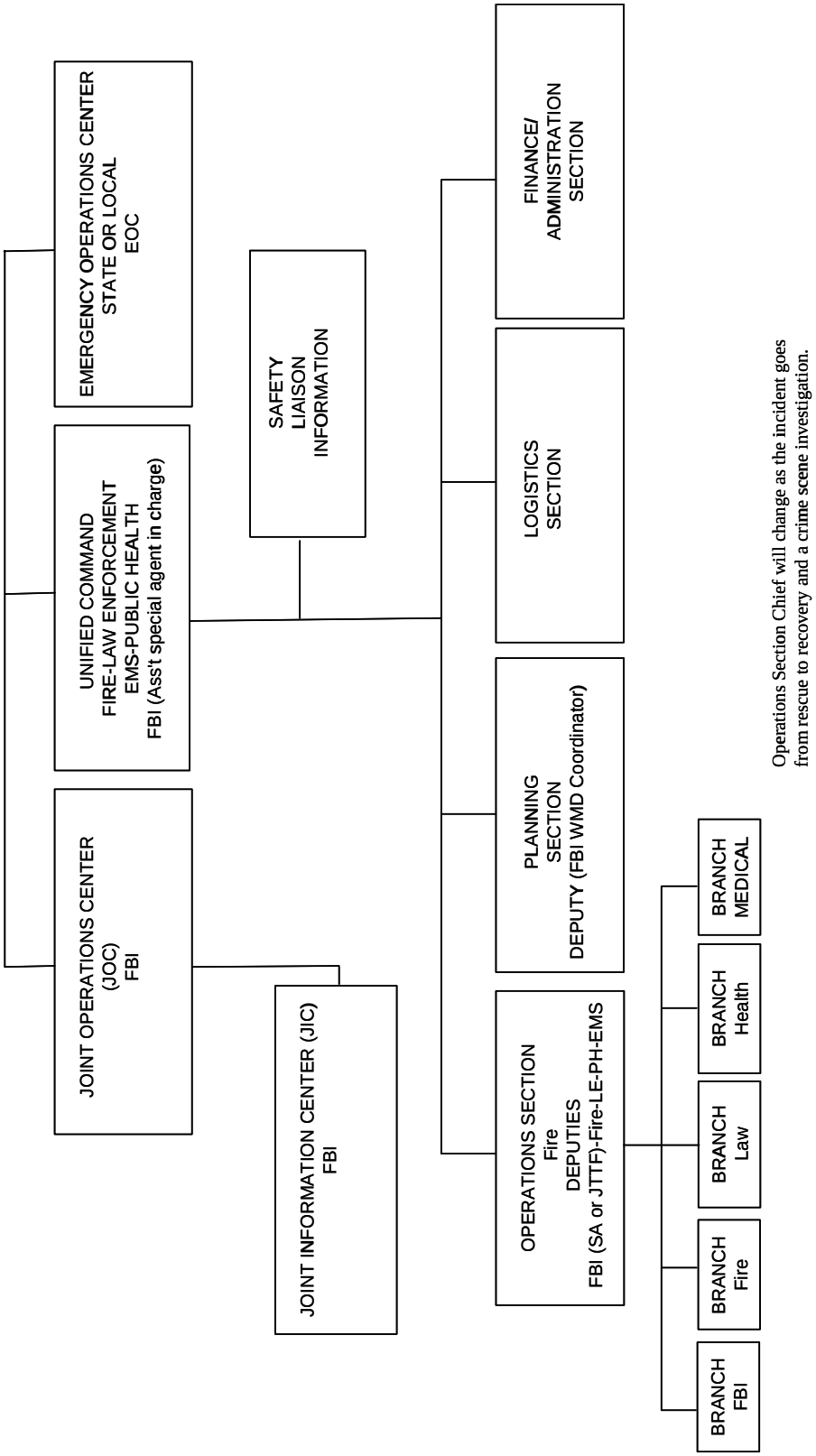
http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf

Additional information on the NIMS

www.dhs.gov
www.fema.gov
www.usfa.fema.gov
State fire training agencies
State emergency management agencies

APPENDIX D:
FBI INTERFACE

FBI Interface



APPENDIX E: ACRONYMS

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ACFD ..... Arlington County Fire Department
ACPD ..... Arlington County Police Department
CERT ..... Community Emergency Response Team
CIDS ..... Critical Information Dispatch System
CISM ..... Critical Incident Stress Management
DHS ..... Department of Homeland Security
DOD ..... Department of Defense
DOJ ..... Department of Justice
EAMVO ..... *Executive Analysis of Multi-Venue Operations*
EAP ..... Employee Assistance Program
ECC ..... Emergency Communication Center
EMS ..... Emergency Medical Services
EMSSO ..... *Emergency Medical Services Special Operations*
EOC ..... Emergency Operations Center
EPA ..... Environmental Protection Agency
ESF ..... Emergency Support Function
FAA ..... Federal Aviation Administration
FBI ..... Federal Bureau of Investigation
FDNY ..... Fire Department of the City of New York
FEMA ..... Federal Emergency Management Agency
FRP ..... Federal Response Plan
HHS ..... Health and Human Services
HSPD ..... Homeland Security Presidential Directive
IAP ..... Incident Action Plan
IC ..... Incident Commander
ICP ..... Incident Command Post
ICS ..... Incident Command System
IMT ..... Incident Management Team
INRP ..... Initial National Response Plan
IST ..... Incident Support Team
JFO ..... Joint Field Office

JOC ..... Joint Operations Center
MCI ..... Multi-Casualty Incident
MDT ..... Mobile Data Terminal
MOU ..... Memorandum of Understanding
MPI ..... Multi-Patient Incident
MWAA ..... Metropolitan Washington Airports Authority
NIMS ..... National Incident Management System
NRP ..... National Response Plan
NWCG ..... National Wildfire Coordinating Group
OEM ..... Office of Emergency Management
PPE ..... Personal Protective Equipment
SOP ..... Standard Operating Procedure
SVFC ..... Shanksville Volunteer Fire Company
UOPSC ..... Utah Olympic Public Safety Command
US&R ..... Urban Search and Rescue
VDOT ..... Virginia Department of Transportation
WTC ..... World Trade Center