



U.S. Department of Transportation  
**Federal Highway Administration**

**Office of Operations**

**21<sup>st</sup> Century Operations Using 21<sup>st</sup> Century Technology**



**Best Practices in  
Emergency Transportation Operations  
Preparedness and Response**

**Results of the FHWA Workshop Series**

**ANNOTATED**

U.S. Department of Transportation  
Federal Highway Administration



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Dear Colleague,

Emergencies can occur at any time and at any place. We must be prepared to take immediate action to move out of harm's way. The September 11 (or 9/11), 2001, attacks on the high-profile workplaces of the World Trade Center (WTC) in New York City and the Pentagon in the Washington, D.C. area, made real the impact of an unexpected, or "no-notice," event in a metropolitan setting. After those events, the Federal Highway Administration sponsored a series of workshops in 30 regions around the country to bring together the transportation community and first responders, to improve recognition of each other's role in emergency preparedness and response and to foster better working relationships among these vital partners. These workshops were part of FHWA's overall Emergency Transportation Operations (ETO) Initiative.

When a large-scale, damaging event has occurred or the imminent threat of one has become known, transportation agencies, working with public safety and emergency management officials, focus on two traditional, principal objectives:

- Minimize the time it takes to get an adequate force of emergency responders to the scene where they can help victims, provide assessments, and control access.
- Maximize the proportion of the population moved away from the hazardous area without being subjected to other risks (e.g., traffic accidents; prolonged exposure to the danger).

Once an event has occurred and the initial response has been completed, the transportation community can play an important role in the impacted community's return to normalcy.

The 30 workshops included a preparedness phase, a response phase, and a recovery phase. Participants were faced with a scenario of a terrorist attack on transportation systems in their community and they were asked to work together to identify what actions they would take in each phase and to identify any issues that arose from their discussion of the scenario and their recommended actions. In addition, they identified a series of follow-up actions they could take in their community to be better prepared when a real-life disaster occurred. This document identifies a series of best practices identified in the workshop discussions that may aid local, State, and Federal authorities in preparing for and responding to future disasters.

This document is one of a series of publications that FHWA has been producing to aid local, State, and Federal authorities in designing evacuation and other types of emergency transportation operations plans. While transportation authorities have responsibility for developing transportation-specific plans, we expect that they are being done in coordination with State and local emergency planning efforts. We encourage our transportation partners to share information in this and other ETO guides with emergency managers and first responders, and to watch for new publications in the Emergency Transportation Operations series, found on <http://www.ops.fhwa.dot.gov/opssecurity> or the ETO page on <http://www.dhs.llis.gov>.

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**Technical Report Documentation Page**

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<ol style="list-style-type: none"> <li><b>1. Increase participant awareness of the critical processes, issues, and activities that may arise during and following an emergency, and of the possible approaches for addressing them.</b></li> <li><b>2. Enhance working relationships among personnel from multiple organizations responsible for emergency preparedness and response in each of the 30 regions.</b></li> <li><b>3. Identify areas for improvement for transportation emergency response planning and readiness in each of the 30 regions. Determine next steps to address these areas.</b></li> <li><b>4. Provide input to transportation emergency preparedness guidance material being prepared at the national level.</b></li> </ol> <p><b>This report consolidates the best practices identified during the 30 workshops. Practices are not presented in priority order, but rather have been grouped in common categories. The categories are as follows:</b></p> <ul style="list-style-type: none"> <li><b>• Interagency Coordination and Communication</b></li> <li><b>• Emergency Operations</b></li> <li><b>• Equipment</b></li> <li><b>• Intelligent Transportation Systems</b></li> <li><b>• Mutual Aid</b></li> <li><b>• Threat Notification, Awareness, and Information Sharing</b></li> <li><b>• Policy</b></li> </ul>					
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## Executive Summary

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Between May 2002 and June 2005, the Federal Highway Administration (FHWA) and Booz Allen Hamilton conducted workshops on Transportation Operations Preparedness and Response in 30 regions across the United States. The objectives of these workshops were to:

1. Increase participant awareness of the critical processes, issues, and activities that may arise during and following an emergency, and of the possible approaches for addressing them.
2. Enhance working relationships among personnel from multiple organizations responsible for emergency preparedness and response in each of the 30 regions.
3. Identify areas for improvement for transportation emergency response planning and readiness in each of the 30 regions. Determine next steps to address these areas.
4. Provide input to transportation emergency preparedness guidance material being prepared at the national level.

The locations and dates for the workshops were as follows:

- Baltimore, Maryland—May 8–9, 2002
- Raleigh, North Carolina—May 23–24, 2002
- Omaha, Nebraska/Council Bluffs, Iowa—May 29–30, 2002
- Cincinnati, Ohio/Northern Kentucky—June 19–20, 2002
- Milwaukee, Wisconsin—July 16–17, 2002
- Dover, Delaware—July 23–24, 2002
- Salem, Virginia (I-81 corridor)—July 31–August 1, 2002
- Kansas City, Missouri/Kansas—August 13–14, 2002
- Honolulu, Hawaii—August 21–22, 2002
- Spokane, Washington—August 27–28, 2002
- Oakland, California—June 25–26, 2003
- Portland, Oregon—August 13–14, 2003
- Nashville, Tennessee—September 17–18, 2003
- Chicago, Illinois—September 23–24, 2003
- St. Louis, Missouri—October 7–8, 2003
- Pittsburgh, Pennsylvania—October 21–22, 2003
- Seattle, Washington—November 18–19, 2003
- Minneapolis/St. Paul, Minnesota—December 3–4, 2003
- Santa Fe, New Mexico—March 3–4, 2004
- Los Angeles, California—March 16–17, 2004
- Boise, Idaho—July 27–28, 2004
- Detroit, Michigan—August 31–September 1, 2004
- San Diego, California—October 20–21, 2004
- Hampton Roads, Virginia—October 26–27, 2004
- Columbus, Ohio—November 3–4, 2004
- Memphis, Tennessee—November 9–10, 2004
- Reno, Nevada—December 7–8, 2004
- Charlotte, North Carolina—December 14–15, 2004
- Phoenix, Arizona—March 29–30, 2005
- Houston, Texas—June 7–8, 2005

The purpose of this report is to consolidate the best practices identified during the 30 workshops. Practices are not presented in priority order, but rather have been grouped in common categories. The categories are as follows:

- Interagency Coordination and Communication
- Emergency Operations
- Equipment
- Intelligent Transportation Systems
- Mutual Aid
- Threat Notification, Awareness, and Information Sharing
- Policy

For additional information on these issues, please contact the FHWA project manager at the e-mail address provided at the end of this report.

## Acronyms

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AAR	American Association of Railroads	GETS	Government Emergency Telecommunications Service
AASHTO	American Association of State Highway and Transportation Officials	GIS	Geographic Information System
APTA	American Public Transportation Association	HSAS	Homeland Security Advisory System
ATA	American Trucking Association	ICS	Incident Command System
ATTF	Anti-Terrorism Task Force	ID	Identification
AVL	Automatic Vehicle Location	INS	Immigration and Naturalization Service
CCTV	Closed Circuit Television	ISAC	Information Sharing and Analysis Center
COW	Cellular on Wheels	ITS	Intelligent Transportation Systems
CST	Civil Support Team	JIC	Joint Information Center
DHS	Department of Homeland Security	JRAC	Joint Rear Area Coordinator
DMIS	Disaster Management Interoperability System	JTTF	Joint Terrorism Task Force
DOT	Department of Transportation	LEO	Law Enforcement Online
EAS	Emergency Alert System	MAP	Motorist Assistance Patrol
EMAC	Emergency Management Assistance Compact	MMRS	Metropolitan Medical Response System
EMS	Emergency Medical Services	MPO	Metropolitan Planning Organization
EOC	Emergency Operations Center	NGO	Non-governmental Organization
ETIS	Evacuation Traffic Information System	OMNCS	Office of the Manager, National Communications System
FAA	Federal Aviation Administration	PIO	Public Information Officer
FBI	Federal Bureau of Investigation	PPE	Personal Protective Equipment
FEMA	Federal Emergency Management Agency	REJIS	Regional Justice Information System
FHWA	Federal Highway Administration	TMC	Transportation Management Center
FMCSA	Federal Motor Carrier Safety Administration	VMS	Variable Message Sign



## Interagency Coordination and Communication

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### Coordination for Anti-Terrorism and Emergency Preparedness

- **Transportation Agency Roles in Anti-Terrorism and Emergency Response Planning**—In many regions, state Departments of Transportation (DOTs) and major transit agencies are participating in coordination efforts led by state-level homeland security offices and state and local emergency management agencies.<sup>1</sup> In many areas, state DOTs are taking a lead role in advancing activities related to transportation coordination (e.g. emergency and evacuation planning, multi-agency notification procedures, public information coordination).<sup>2</sup> In other regions, particularly those that encompass multiple states, the Metropolitan Planning Organization (MPO) is taking a lead role in working with various agencies to advance these issues.<sup>3</sup> A good resource for transportation security information is AASHTO's transportation security Web site at <http://security.transportation.org>.<sup>4</sup>
- **Non-Profit Organizations and Task Forces for Regional Emergency Coordination**—One bi-state region has established a non-profit organization to coordinate emergency response activities and resources for the region. The organization receives funds through MPO allocations, but has a separate governing board and charter.<sup>5</sup> Another 13-county metropolitan area established a voluntary task force to coordinate emergency planning on a regional basis. The task force has accomplished such goals as establishing equipment standards for the region. Task force participants include public safety, emergency management, and transportation agencies, the Federal Bureau of Investigation (FBI), local hospitals, and others.<sup>6</sup>
- **Private Sector Coordination**—One region formed a Corporate Homeland Security Working Group including Federal, State, local public, and private organizations who meet regularly for security briefings.<sup>7</sup>
- **Joint Terrorism Task Forces (JTTFs) and Anti-Terrorism Task Forces (ATTFs)**—JTTFs, coordinated by the FBI in major U.S. cities are a means for law enforcement agencies to share and

receive threat information. ATTFs, coordinated by the U.S. Attorney's Offices, have a broader anti-terrorism mission that includes intelligence sharing, training, policy review, and problem solving. Transportation officials may be involved in special committees of the ATTF in their region. In one region the closest JTTF is located in an adjacent state, so the local law enforcement agencies formed their own working group to disseminate information to local law enforcement agencies.<sup>8</sup>

- **State Office of Homeland Security or State Protection Working Group**—In several regions, a statewide office or working group has been established to coordinate efforts related to homeland security. In these states, the methods for communicating threat information appear to be better established. The office or working group also facilitates the assignment of roles and coordination of actions among multiple state agencies.<sup>9</sup>
- **Use of Code Systems**—Codes are being used in various emergency planning efforts. Codes enable rapid execution of plans by multiple agencies during an emergency with minimum communication. Most public safety and transportation agencies now have established procedures that correspond with the U.S. Department of Homeland Security's (DHS) Advisory System. Code systems are also being applied to regional emergency and evacuation planning.<sup>10</sup> At least one state uses codes to activate mutual aid assistance.<sup>11</sup>

### Coordination During Emergencies

- **Coordination Among Agencies During Emergencies**—Emergency Operations Centers (EOCs) are responsible for coordinating information during emergencies. However, in an incident that spans multiple counties and even states, coordination among EOCs can become challenging. In at least one region, the MPO is establishing procedures to aid communication and coordination among EOCs in an emergency.<sup>12</sup>
- **Combined Counter Terrorism Team**—One region formed the Advanced Local Emergency Response Team (ALERT) with over 100 responders who are cross trained and drilled including the media, to be able to respond to emergencies.<sup>13</sup>

- **Public Information Coordination During Emergencies**—Many regions have procedures in place to establish a Joint Information Center (JIC) to ensure that all agencies “speak with one voice” and release consistent information to the public and the media.<sup>14</sup> In most, the emergency management agency is responsible for operating the JIC.<sup>15</sup> However, at least one region has established the local fire department as the responsible agency for emergency public information and two fire chiefs have been assigned the role of Public Information Officer (PIO) for all events.<sup>16</sup> In most regions, state DOTs also have processes for providing coordinated information related to transportation. Either DOT personnel are represented in the regional JIC or establish separate emergency information centers, often located at Traffic Management Centers (TMCs), which coordinate with the regional JIC.<sup>17</sup>

## Communications Systems Use and Coordination

- **Mobile Emergency Response Operations/ Command Centers**—At least two state DOTs have developed mobile command or emergency response operations centers, which can be quickly deployed to emergency sites.<sup>18</sup> These trailers support various radio frequencies, including those for State DOT, State Patrol, and most local police and fire departments. One state’s trailers support UHF, VHF, low band VHF, amateur (HAM) radio, 800 MHz, and satellite communications, and they carry a seven-day power generator. This state used grant funds from the Federal Emergency Management Agency (FEMA) to purchase the trailers.<sup>19</sup> Another region’s transit system has a bus equipped as a Mobile Command Center that can be used for emergency response.<sup>20</sup> Another region has the Operational Area Satellite Information System (OASIS) which includes two mobile Satellite communications trailers and other microwave and radio systems. Other offices, EOCs, etc. are linked to the system.<sup>21</sup>
- **Cellular on Wheels (COW)**—One two-state area has an agreement in place with a local cellular phone provider to provide COW services so the two states can have a common communications platform in an emergency situation.<sup>22</sup> Another region noted that many cellular phone companies could augment service in an emergency by installing temporary cell towers, which generally can be done in about 24 hours.<sup>23</sup>
- **Integrated Communication System**—One region installed an integrated communications system covering a 12-county area to allow common communications between fire, police, and medical services. They also have a UHF system as a back-up as well as satellite phones and HAM radios.<sup>24</sup>
- **Radio Communication Options**—One region has acquired a large number of portable radios with multiple frequencies to maintain communications among multiple agencies during an emergency.<sup>25</sup> Similarly, one local police department has a policy of loaning its radios to other agencies during an emergency so personnel can talk on the same frequency.<sup>26</sup> Another region has obtained a plug-in communication platform (ATP 1000™) that enables interagency communication through an 800 MHz system.<sup>27</sup> In one metropolitan region covering a two-state area, local police departments have access to a common radio channel to communicate in an emergency.<sup>28</sup>
- **Radio Use Practices and Training**—Many regions have taken steps to reduce the likelihood of radio failure due to overloading the system. One multi-city region has instituted a hierarchical use structure and designated channels on its 800 MHz system for specific purposes. The largest city fire department’s chief is responsible for overseeing radio use and assigning additional channels in a major emergency.<sup>29</sup> One DOT provides routine training on the use of its 800 MHz system to teach radio discipline practices to staff.<sup>30</sup>
- **Mobile Emergency Response Support (MERS)**—FEMA has five MERS detachments. The MERS detachments maintain a wide variety of equipment for communications, information processing, logistics, and operational support in self-contained and environmentally controlled vehicles. The units are mobile, air transportable, and self-sufficient, capable of operating with detachment generators and fuel for many days. The MERS is able to respond and set up quickly. Once on-site, the MERS can provide prompt and rapid multi-media communications during national emergencies and disasters. The five geographically dispersed MERS detachments are located in Maynard, Mass., (west of Boston), Thomasville, Ga. (north of Tallahassee, Fla.), Denton, Texas (northwest of Dallas), Denver, Co., and Bothell, Wash., (north of Seattle). For

additional information see <http://www.fema.gov/emergency/mers/index.shtm>.<sup>31</sup>

## Emergency Operations

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### Emergency Operations Center Practices

- **Virtual Emergency Operations Center**—In more than one region, the concept of a virtual EOC is being discussed. This would enable multiple EOCs to coordinate activities and effectively operate as one unit even though the EOCs are not physically collocated.<sup>32</sup>
- **EOC Monitoring of Radio Transmissions**—In one region, once the EOC is activated, it monitors both DOT and law enforcement radio transmissions to keep up with situation developments.<sup>33</sup>
- **Response Information Management System (RIMS)**—One state has developed RIMS as a statewide system for situation reports and mission requests and updates when the mission is completed. The system is Web based for use by authorized Federal, State, and local users.<sup>34</sup>
- **State Liaisons to Local EOCs**—One state has designated state emergency management personnel to travel to each County EOC and to each major incident scene to coordinate state resources and emergency management activities between the state and the counties.<sup>35</sup>
- **Utility Liaisons to EOC**—One region includes representatives of the local power company and the local telephone company, who is the primary 911 provider, in the EOC operations. The EOC is also in contact with the two local hospital systems.<sup>36</sup>
- **Railroad Representatives Identified to Participate in EOC Operations**—In at least one region, railroad companies have designated personnel to participate in state and local EOCs if necessary. This decision was due to the large amount of railroad activity in the state.<sup>37</sup>
- **Transfer of Dispatching Functions**—In one region, once an EOC has been activated, fire and ambulance dispatching functions are transferred to the EOC to ensure close coordination of the resources.<sup>38</sup>
- **Incident Response Protocols**—One region formed

a working group including transportation, incident management assistance patrol, fire, police, EMS, and highway patrol to develop plans and protocols for incident response such as where to park vehicles, roles and responsibilities, etc.<sup>39</sup>

### Emergency Traffic Management and Evacuation

- **Emergency Traffic Management**—State and local police have primary responsibility for emergency traffic management; however, transportation agencies are an important partner in many regions. In most regions, jurisdiction for traffic management is clearly defined and public safety agencies are experienced in traffic management techniques during traffic incidents and natural disasters. The roles of DOTs in emergency traffic operations vary by region. In most regions, DOTs provide equipment, such as barriers, for long-term road closures. In some regions, DOT maintenance and emergency patrol personnel actually assist police in road closures and traffic management in major emergencies when police resources are stretched thin.<sup>40</sup> One DOT has developed an emergency plan that assigns maintenance units to specific locations for this purpose.<sup>41</sup> In some regions, state and local DOTs are engaged with other agencies in emergency traffic management and detour route planning.<sup>42</sup> In many regions, DOTs' Intelligent Transportation Systems (ITS) are an important source of real-time information about the transportation system, and police departments have procedures for communicating with DOT traffic management centers.<sup>43</sup>
- **Pre-Planned Detour Routes**—One DOT has identified pre-planned detour routes for the state's entire interstate highway system. Since the routes are already well known to DOT staff, it is easy to implement the detours in an incident or other emergency. These routes are coordinated with evacuation planning in the state.<sup>44</sup> Several other state and local DOTs also have standard detour routes planned for their major thoroughfares. These plans are used on a regular basis for construction or incident-related rerouting.<sup>45</sup>
- **Downtown Evacuation Plans**—Several regions have developed emergency evacuation plans for their central business districts.<sup>46</sup> In one region, the plan was developed as a project of the state ATTF. The state DOT led the cooperative effort,

which involved personnel from multiple state, city, and county, transportation, police, fire, and emergency management agencies, the MPO, and major hospitals. The plan identifies primary and alternative evacuation routes and includes maps of each major highway access point, showing where emergency vehicles should be parked to block traffic. The plan describes specific roles for each agency involved, including which police or DOT unit is responsible for securing each highway access point. It also includes a prioritized list of needs to be addressed as funding becomes available. Participants credit inter-agency collaboration as key to developing the plan. Although the plan covers only roadway transportation, major transit agencies participated in the plan development and adapted transit plans to correlate. The MPO was another important participant, because it provided data about commute patterns upon which the plans are based.<sup>47</sup>

- **School System Evacuation Plans**—One region requires all schools to have an emergency evacuation plan including routes for buses and identification of alternate school locations for accommodating students in the event of an emergency. Each school is also linked to its community's REVERSE 911® call system.<sup>48</sup>
- **Emergency Transportation Resources**—In at least one region, additional transportation resources and options have been identified for emergency use. These include police and military helicopters, Coast Guard and military ferries, and private water vessels such as dinner cruise ships.<sup>49</sup>
- **Tunnel Emergency Management**—In one region, some roadway tunnels are equipped with electronic sensing and other specialized emergency equipment. Strike teams are assigned and trained to assist in tunnel emergencies.<sup>50</sup>

## Emergency Medical Response

- **Metropolitan Medical Response System (MMRS)**—In several regions, an MMRS has been established, which includes mobile units and a dedicated radio frequency for hospital coordination in an emergency. MMRS hospitals all have mass decontamination abilities and their personnel are trained to identify signs of radiation exposure.<sup>51</sup> The MMRS plan includes a hospital emergency personnel contact list and identifies staff to serve

as medical response coordinators at incident scenes.<sup>52</sup> Several regions have established hospital disaster radio networks to notify hospitals of emergencies, chemical releases, and other incidents that may affect them and provide coordination during medical emergencies.<sup>53</sup> One region is developing an Emergency Patient Transfer System, which uses arm bands to track patients transported from an emergency site to regional hospitals. The system will enable family members to find loved ones quickly and help manage hospital resources more effectively.<sup>54</sup> Another region operates a Disaster Net to link all the area hospitals to coordinate the distribution of patients in a large-scale emergency.<sup>55</sup> Another region has an MMRS that covers portions of two adjacent States.<sup>56</sup>

- **Active Medical Surveillance System**—One region developed the Public Health Resource Surveillance Team (PHRST) to monitor absenteeism at schools and day care centers, as well as hospital admissions, to identify any infectious diseases or other actions (bioterrorism) that might be in effect. The team includes veterinarians and the Department of Agriculture.<sup>57</sup>
- **Mass Casualty Annex Activation**—When there is a mass casualty incident in one region, the fire department notifies dispatch to activate Annex 9 (Mass Casualty) of their emergency response plan. When it is activated, a call goes out to all area hospitals for bed allocation and all ambulances.<sup>58</sup>
- **Provision of Nursing Services**—One local Red Cross organization provides a nurse for all sheltering and triage areas. The nurses provide minor medical treatment and play a role in keeping people calm in shelter situations.<sup>59</sup>

## Personnel and Resource Management

- **Employee Reporting During Terrorist Emergencies**—Reporting of essential personnel during a terrorist emergency is a concern expressed by some transportation agencies, particularly those with large contract or unionized work forces. Some DOTs are working with labor unions and their contractors to clarify policies and contracts regarding employee expectations during terrorist attacks. Transportation agencies say that communication with employees is key, so employees understand what is expected of



them and what their employer is doing to protect them and their families. Several State DOTs and transit agencies have conducted surveys to gauge employee sentiments on these issues.<sup>60</sup> One state DOT's policy indicates that employees should ensure the safety of their families prior to reporting to work in an emergency. This policy increases productivity (employees are not distracted by concerns about their families) and morale.<sup>61</sup> One region's hospital system has a phone number for its employees to call to hear a pre-recorded message on when/if they need to report to work in an emergency.<sup>62</sup>

- **Regional Personnel Accountability, Safety, and Security System (PASS)**—One region is developing a PASS to identify emergency responders. The system will include bar codes indicating levels of training and other pertinent information. Identification (ID) badges will be issued on a voluntary basis to emergency response personnel throughout the region including hospital and transportation personnel. The ID system has portable capabilities so it can be used to issue badges on site during an emergency.<sup>63</sup> This on-scene credentialing is available in at least one other region.<sup>64</sup> Another region indicated that they use an on-site system that issues colored armbands for responding personnel. A different armband is issued each day to control access to the scene.<sup>65</sup> Another region has established a mobile credentialing system to allow credentialing for those who need access to the incident site.<sup>66</sup> One other region has color coded passes for the state police to wear during emergencies. The color of the pass determines how far a person can get inside the incident scene.<sup>67</sup>
- **Major Incident Support (MIS) Teams**—In one region, the regional fire and law enforcement agencies have established MIS teams, whose role is to coordinate and balance resources throughout the County in an emergency. These teams work from a bus mobile command post near incident scenes. These teams are on call during major weather emergencies.<sup>68</sup>
- **Availability of After-Hours Contact Information for Personnel**—In most regions, the state DOT district offices maintain lists of after-hours contact numbers for personnel who may be required during emergency response. These agencies have procedures for activating personnel call-in. In addition, some DOTs have a procedure for ensuring that these lists are routinely updated to keep them current.<sup>69</sup>
- **Resource Management Systems**—One state maintains a statewide database that contains a list of state resources along with location and contact information.<sup>70</sup> Another state DOT has developed a prototype emergency response system for its maintenance units. The system contains a geographic information system (GIS) database of emergency response resources, including personnel and their home addresses, to enable managers to quickly pinpoint the closest available resources to emergency or incident sites. The system is accessible by laptop computers to maintenance supervisors in the field.<sup>71</sup>
- **On-Scene Liaisons**—One DOT has a practice of sending a DOT employee to the site of all incidents to act as an on-scene liaison to provide information to the DOT and to request any additional resources that may be needed as an incident unfolds.<sup>72</sup>
- **Mental Health Services for Responders**—Almost all public safety agencies and most DOTs now provide critical incident stress programs for personnel who have been involved in emergency situations and for their family members. These programs often include professional counseling and peer discussion groups. At least one public safety agency has made stress management programs mandatory for all officers during and following emergency situations. The agency believes this is important because personnel are often reluctant to utilize these services on a voluntary basis, and yet they are critical factors in employee retention.<sup>73</sup>
- **Managing Volunteers and Donations**—The job of managing volunteers and donations during and after an emergency can be overwhelming. One region has designated its local sports arena as the processing center for managing volunteers and donations. One function of the center is to provide the media with information about what kind of volunteer support and donations are and are not needed.<sup>74</sup> Another location has a system of volunteers, organized through a religious charity, which supports the Red Cross with such activities as feeding victims and responders.<sup>75</sup> One region

has a pre-existing plan with HAM radio operators to report to the EOC once it is activated.<sup>76</sup> Another region has routine contact with HAM radio operators and the Civil Air Patrol, who could be called upon to provide support. This state's Emergency Operations Plan has a section that discusses dealing with volunteers and donations.<sup>77</sup>

## Training and Drills

- **Shelter in Place Drills in Schools**—Providing shelter in place rather than evacuation is sometimes the preferred choice in responding to emergency situations. At least one region has practiced its shelter-in-place procedures with its local schools.<sup>78</sup>
- **Coordination of Training for Hospitals**—In one region, the MPO has coordinated and standardized hospital emergency training for 25 area hospitals to ensure that hospital resources are prepared to work together in a coordinated fashion during an emergency.<sup>79</sup>
- **Incident Command Training for Transportation Personnel**—Many state and local transportation agencies recognize the need for their personnel to be trained in the Incident Command System (ICS). In several regions, local public safety agencies have opened their ICS training programs to transportation personnel,<sup>80</sup> particularly city public works personnel. Some state DOTs are also developing ICS training programs for their employees.<sup>81</sup> In many regions, transportation field personnel are already familiar and practiced with the incident command system from working with the public safety community in traffic incident management.<sup>82</sup> In February 2006, the U.S. DOT published the “Simplified Guide to the Incident Command System for Transportation Professionals” which can be accessed at [http://www.ops.fhwa.dot.gov/publications/ics\\_guide](http://www.ops.fhwa.dot.gov/publications/ics_guide).

## Emergency Documentation

- **Documentation of Hazardous Materials Incidents**—State law in one location requires written documentation of all hazardous materials incidents. It is the responsibility of the incident commander on the scene to immediately begin a log of events. This documentation is routinely used in debriefing sessions to improve response to

hazardous materials incidents.<sup>83</sup>

- **Emergency Declaration Forms**—One local government has created blank emergency declaration forms and distributed these to key responding agencies. These ensure that the information necessary for declaration of a county, state, or Federal disaster is collected and recorded from the beginning of an event and speeds the process of emergency declaration.<sup>84</sup>

## Equipment

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### Equipment Inventory Management

- **“Operation Bulldozer” Publication**—In one region, the local Committee of Heavy Contractors assembled and published a brochure that lists all the contractors in the region, contact information and what types of resources they have available, such as trucks, barrier walls, cranes, etc. The brochure enables the DOT and other agencies to have resource information at their fingertips for rapid response in an emergency.<sup>85</sup>
- **Incident Response Booklet/Equipment Lists**—In at least one region, the DOT has developed a specific list of equipment that was needed to respond to an emergency situation. The list includes information about where the equipment is located and how many of each item is available. In some cases the list also includes equipment from the local transit agency.<sup>86</sup>

### Traffic Control Equipment

- **Trailblazer Signs for Detour Routes**—One DOT maintains a supply of detour route signs that can be quickly installed as trailblazers to guide motorists on detour routes.<sup>87</sup>
- **Use of Ramp Gates for Road Closures**—One DOT indicated it had installed ramp gates at some ramps on the interstate that could be used in an emergency to support road closures.<sup>88</sup>

### Telecommunications

- **Government Emergency Telecommunications Service (GETS)**—A service of the Office of the Manager, National Communications System (OMNCS) in the Department of Homeland Security,

GETS provides priority local and long distance phone service access over the public switched telephone network to users during emergencies. The service is available to any registered user from Federal, state, and local government, industry, and non-governmental organizations (NGO). Additional information can be found at <http://gets.ncs.gov/>.<sup>89</sup> One region's EOC has obtained 100 GETS cards to distribute in an emergency.<sup>90</sup>

## Hazardous Materials Management Equipment

- **Personal Protective Equipment (PPE) for Law Enforcement**—One state patrol organization has issued respirator masks to all of its patrol officers in case they come into contact with hazardous materials when responding to incidents, especially those involving commercial trucks.<sup>91</sup> A local police department has equipped its officers with canister masks to deal with some hazardous materials.<sup>92</sup> Another highway patrol has gas masks available as needed.<sup>93</sup>
- **Portable Radiological Detectors**—In one region, the Coast Guard has a number of hand-held pager devices that can be used to detect the presence of radiological material. These devices can be used by the Coast Guard or loaned to other public or private agencies that may have an emergency need for them.<sup>94</sup>
- **Use of Inflatable Tents**—One region has obtained a number of inflatable tents with air and water heating capabilities that can be used for triage and decontamination purposes. Each of the region's hazardous materials response teams carries a tent.<sup>95</sup>
- **Plume Projection Software**—Some regions have developed region-specific software for projecting plumes and downwind hazard assessment related to the release of chemical or biological substances.<sup>96</sup>

## Mapping and Information Equipment

- **Satellite Imagery**—One local DOT uses satellite imagery to produce maps that can be given to responders who may not be familiar with the area of the incident scene.<sup>97</sup>

## Emergency Notification Equipment

- **Emergency Sirens**—One region has a siren system that could be used to alert people of an emergency.<sup>98</sup>
- **“Wizard” System**—One region has deployed a portable trailer unit called “Wizard” that allows them to send messages to long-haul truckers through two CB radio channels.<sup>99</sup>

## Intelligent Transportation Systems (ITS)

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### Transportation Management Centers (TMCs)

- **Use of Transportation Management Centers for Emergency Operations**—In some regions, the TMC serves as a transportation EOC<sup>100</sup> or is collocated with a state or county EOC. These arrangements allow for close coordination between the DOT and their counterparts in emergency response and allow the ITS resources operated from the TMC to be quickly employed for emergency response. In at least one state, the DOT maintains an operating procedures manual that identifies personnel to staff the TMC in an emergency.<sup>101</sup> At least one region is examining the possible use of the district TMC and county EOC as back-ups for one another in case one is disabled in an emergency.<sup>102</sup> In one region, the local traffic information provider is collocated in the TMC.<sup>103</sup>
- **Use of Traffic Cameras for Critical Infrastructure Surveillance**—Many regions with traffic cameras are now using them for surveillance of critical infrastructure during periods of heightened alert, and TMCs are developing policies and training personnel for this purpose. In some regions, TMC camera operators have already been trained to look for suspicious activity.<sup>104</sup> In some regions public safety agencies have access to traffic cameras, either by their presence in TMCs or by external camera feeds and control mechanisms.<sup>105</sup>
- **Use of Closed Circuit Television (CCTV) to Monitor Freight Rail Movement**—One region's TMC can monitor freight rail movements on one rail corridor to see direction of travel, length of train, etc. The major city in the region also has cameras on railroad tracks throughout the city so they can see when a train is blocking a street. This

information is posted on the region's TMC Web site. In addition, the CCTV cameras are capable of viewing the hazardous material placards on overturned trucks and rail cars if they are located near a traffic or rail monitoring camera. The TMC has a database of the hazardous materials placards so they can quickly identify a substance from the TMC if necessary.<sup>106</sup>

## Resource Management

- **Automatic Vehicle Location (AVL) Systems**—In one region, all city maintenance vehicles are equipped with AVL transponders, which enable rapid location of vehicles during emergencies.<sup>107</sup> In at least two other regions, all public buses are equipped with AVL to supplement current radio communications.<sup>108</sup> In a third region, paratransit vehicles are equipped with AVL and the remaining transit vehicles are being upgraded to include AVL.<sup>109</sup>

## Conditions Monitoring

- **Condition Acquisition and Reporting System (CARS)**—One DOT maintains CARS, which is an Internet-based system that facilitates real-time assembly of information on conditions and events affecting the transportation network. CARS can aggregate traffic conditions, weather and road conditions, locations of hazardous materials shipments, and other information into a single statewide and nationally accessible database. Access to the site is granted through the DOT.<sup>110</sup> Another DOT maintains the Highway Condition Reporting System (HCRS) that feeds its 511 service and internet site and provides automatic notices to television and radio stations.<sup>111</sup> Another region has a Traveler Information Management System (TIMS) that allows alerts users to events that cause severe congestion on the roadways. This system is also linked to the real time travel information system (SMART).<sup>112</sup>

## Public Services

- **Motorist Assistance Patrol (MAP)**—Several regions have established motorist assistance patrols on their highway systems, to assist motorists with vehicle troubles. These patrols can assist in emergency response if their contract

allows, and many already do. In one region in particular, motorist assistance patrols often arrive at traffic incident scenes before public safety officers. MAP officers in the region are trained to establish incident command and provide initial emergency and medical response, until other units arrive on scene.<sup>113</sup> One limitation is that many of these systems currently operate only during peak travel hours.<sup>114</sup>

- **Radio Station as Part of the TMC**—In one region, the state TMC has a fully licensed radio station to provide traffic information. This asset may also be used in an emergency to broadcast information to the public and motorists.<sup>115</sup>
- **Information Brochures**—One DOT publishes a series of fold-out brochures on topics of interest to the community. One brochure explains the state's Integrated Transportation Management System which includes ITS, incident management, and motorist assistance patrol services.<sup>116</sup>
- **Regional Arterial Management System (RAMS)**—One region established the RAMS as a regional inter-jurisdictional signal/traffic management system. The system includes integrated work stations for controlling field devices such as Variable Message Signs (VMS) and CCTV.<sup>117</sup>

## Mutual Aid

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### Compacts and Agreements

- **Emergency Management Assistance Compact (EMAC)**—EMAC is a coalition of all 50 states, the District of Columbia, and 2 territories (Puerto Rico and the Virgin Islands) that agree to provide mutual aid across state lines in an emergency to any of the member states. The agreement allows for recovery of expenses related to emergency response supporting another jurisdiction. Additional information may be found at <http://www.nemaweb.org>. In one region, they have an agreement that the closest unit responds and the agencies have interoperable communications. One fire department handles the fire mutual aid, one sheriff's department handles the law enforcement mutual aid, and the EOC handles all other mutual aid.<sup>118</sup>
- **Hospital Mutual Aid Agreements**—One region's



hospitals have an established mutual aid agreement that enables the transfer of patients if a hospital has to be evacuated.<sup>119</sup>

## Special Resources

- **Designation of “Tiger Teams”**—In one DOT, several teams of people with special capabilities, such as bridge inspection, have been designated as “Tiger Teams” that can be deployed anywhere in the state on very short notice to respond to emergency situations.<sup>120</sup>
- **Use of Airport Resources**—Many large commercial airports have resources that may be used to assist in emergency response. For example, many airports have excess land that could be used as staging areas for emergency response equipment and activities. In addition, commercial airports stock body bags, fire-fighting foam, and other emergency supplies and equipment, which may be utilized in a large-scale emergency.<sup>121</sup>
- **Use of Military Resources**—Many regions of the country have major military installations that may provide emergency response support. One state civil defense agency works through the Joint Rear Area Coordinator (JRAC) for the military to coordinate military assistance.<sup>122</sup> Of particular importance is the Civil Support Team (CST), a 22-person team of the National Guard that has special training in dealing with weapons of mass destruction. The CST tracks development and activities of terrorist groups and works with local responders on planning and training. In addition, the CST tracks all radiation sources from area hospitals on a daily basis to identify any unusual activity. The unit has detection and protective equipment to respond to radiological incidents. The CST is developing capabilities for plume modeling in the field based upon its access to real-time meteorological information.<sup>123</sup>
- **Use of Fairgrounds**—In one state, the county fairgrounds are under the control of the state through agricultural associations. The sites can be used as staging areas or other emergency purposes.<sup>124</sup>
- **Use of Inmate Resources**—One region has trained inmates to staff the 1-800 information

state hotline number and relay calls to appropriate agencies. They provide surge capacity or back-up to regular operators if needed.<sup>125</sup>

- **Mental Health Services**—Emergency situations often tax local resources, including mental health services. One region has a plan in place to bring in mental health providers from other areas of the state to assist in an emergency event.<sup>126</sup>
- **Funeral Facilities**—One two-state region has established agreements with its state Funeral Directors Associations to handle mass-casualty situations requiring transport and storage of victims.<sup>127</sup> Another state owns several refrigerated trucks that can be used for transporting and storing mass casualties.<sup>128</sup>

## Threat Notification, Awareness, and Information Sharing

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### Coordination and Notification Processes

- **Coordination of Threat Level Notification System**—In at least one region, the DOT has developed a threat level notification system that is synchronized with its state’s threat level system. The system is being modified to correlate with the Federal Homeland Security Advisory System (HSAS). This DOT system employs the TMC to relay threat and emergency information to state, local, and Federal transportation and emergency management contacts, including local and regional transit systems, through a paging system and Nextel network. This state also has established a formal notification process from its state emergency management agency to its state DOT.<sup>129</sup>
- **Multiple Means of Notification**—Some state DOTs have established multiple processes for disseminating emergency notifications, including Web distribution, blast fax systems, radio codes, paging, and telephone calling lists. These duplicative methods are important in case one or more modes of communication is inaccessible during an emergency.
- **Contacting the Media**—One community uses

a paging system to notify the local media of emergency situations so the media can quickly broadcast the information.<sup>130</sup> Another region has the Media Alert Notification System (MANS) which is a Web based notification system linking emergency management officials with the media.<sup>131</sup>

- **Airport Coordination with Tenants**—One municipal airport has taken steps to communicate with all tenants and airport users regarding suspicious activities to watch for, what to do if they see suspicious activity, and what to expect from the airport during each threat condition.<sup>132</sup> Another regional airport has a weekly security briefing and holds a special briefing if an imminent threat exists.<sup>133</sup>
- **Contact with Hazardous Materials Suppliers and Shippers**—In one state, the emergency management agency maintains regular contact with private suppliers and shippers of hazardous materials. In addition to maintaining a contact list and hosting regular meetings, the agency contacts the 40 largest hazardous materials suppliers monthly to identify any unusual activity. This agency has a geographic information system (GIS) application under development to assist with tracking the hazardous materials suppliers and shippers.<sup>134</sup> Another region includes the major hazardous material shippers as members of its Local Emergency Planning Committee. These shippers are required to provide specific information, including contact information for their company personnel for emergency purposes.<sup>135</sup> In at least two other states, either the state DOT or the Federal Motor Carrier Safety Administration (FMCSA) regional office maintains a contact list that allows dissemination of information to long-haul truckers.<sup>136</sup> In many regions, the state trucking associations are also involved in a formal notification and information dissemination process to their members.<sup>137</sup>
- **Chamber of Commerce Contact Lists**—In one region, the local Chamber of Commerce maintains a list of area businesses and how to contact them in an emergency.<sup>138</sup> In another region, a large business park maintains a call list of how to contact all tenants in the business park in an emergency.<sup>139</sup>

## Intelligence Sharing and Infrastructure Protection Systems

- **Information Sharing and Analysis Centers (ISACs)**—The DHS has instructed various industries that own and maintain critical infrastructure, including transportation, to establish ISACs. ISACs enable members to share information about vulnerabilities, threats, and incidents (cyber and physical). The American Public Transportation Association (APTA) and the American Association of Railroads (AAR) are overseeing an ISAC for public transportation and surface transportation (<http://www.surfacetransportationisac.org>) and the American Trucking Association (ATA) is a Highway Transportation ISAC (<http://www.highwayisac.org>).
- **Law Enforcement Online (LEO)**—The FBI is working to connect all law enforcement agencies to LEO to share critical information. A section of LEO will be restricted to police chiefs or their equivalent to enable hierarchical communication.<sup>140</sup>
- **International Justice and Public Safety Information Sharing Network**—NLETS provides two basic capabilities to its users. First, it is an international, computer-based message switching system that links together state, local, and Federal law enforcement, and justice agencies for the purpose of information exchange. Second, it provides information services support for a growing number of justice related applications. NLETS supports data communications links to state networks using a commercial frame relay service. All agencies within each state are serviced through this state interface. Federal and international systems operate in much the same manner. The user population is composed of all of the states/territories, all Federal agencies with a justice component, and selected international agencies, all cooperatively exchanging data. The types of data being exchanged vary from motor vehicle and driver's data, Canadian "Hot File" records, and Immigration and Naturalization (INS) databases to state criminal history records. Over 34 million messages are transacted each month. NLETS is a 501(c)(3) not-for-profit organization and is owned and governed by the states. Representatives from each state elect a Board of Directors and Officers annually. For additional information, see <http://www.nlets.org>.<sup>141</sup>

- **Regional Justice Information System (REJIS)**—REJIS is a U.S. Department of Justice system for sharing threat information with law enforcement, and reaches agencies that may not participate in Joint Terrorism Task Forces. Some states maintain similar systems, but these are not necessarily compatible with national systems. There is interest and investigation into extending REJIS access to other public and private participants in anti-terrorism.<sup>142</sup>
- **Disaster Management Interoperability System (DMIS)**—This Web site is operated by the DHS Science and Technology directorate, Office of Interoperability and Compatibility, Disaster Management Program to improve disaster response by enabling responders to share information seamlessly between organizations. It also provides new software tools at no cost to responder organizations for increased disaster response effectiveness. It operates the DMIS Interoperability Backbone is a web service that provides responders with communication tools that allow them to share information with other responder organizations. Responder groups receive and transmit information over the web, enabling them to rapidly develop and exchange incident information with other responder organizations. This capability of sharing incident information gives all responders greater knowledge of a particular disaster event by leveraging technology to gain efficiency. It also provides training and other resources such as a newsletter. More information may be obtained at <http://www.cmi-services.org>.<sup>143</sup>
- **Infragard Network**—Infragard is a partnership between the FBI, state and local enforcement agencies, academic institutions, and business associations to share information concerning protection of critical national infrastructure. More information on the network may be obtained at <http://www.infragard.net>.<sup>144</sup>
- **National Infrastructure Coordination Center (NICC)**—The NICC operates through the Information Analysis and Infrastructure Directorate at DHS and has the responsibilities of fulfilling the mission of physical and cyber critical infrastructure assessment and protection. As a key component of the Infrastructure Coordination Division (ICD), the National Infrastructure Coordinating Center (NICC), serving as an extension of the Homeland

Security Operations Center, provides the mission and capabilities to assess the operational status of the nation's Critical Infrastructures and Key Resources, supports information sharing with the Information Sharing and Analysis Centers (ISACs) and the owners and operators of critical infrastructure facilities, and facilitates information sharing across and between the individual sectors. Please email or call the NICC for information, and to report issues of a physical nature that may affect or have an impact on our Nation's Critical Infrastructures and Key Resources. NICC may be reached at [nicc@dhs.gov](mailto:nicc@dhs.gov) or by phone: 202-282-9201, 9202, and 9203 or fax at 703-607-4998.

## Other Information Sharing Systems

- **Evacuation Traffic Information System (ETIS)**—ETIS is a system in which some southeastern states are participating. The intent of the system is to create a single database containing information that all states can access regarding evacuations. This allows states to be notified of events in other states that may affect traffic patterns in their own states.<sup>145</sup>
- **Fire Net**—One state<sup>146</sup> has developed Fire Net, an online system operated by the State Fire Marshal to provide hazardous materials information to fire departments.<sup>147</sup>
- **I-95 Corridor Coalition Information Exchange Network**—Fourteen states, the District of Columbia, and other transportation authorities and organizations belong to the I-95 Corridor Coalition. The Coalition facilitates rapid exchange of traffic information in the Northeast and mid-Atlantic United States. The ability to quickly disseminate regional information in an emergency has proven valuable and was used extensively during and after the September 11 terrorist attacks. More information on the Coalition can be found at <http://www.i95coalition.org>.<sup>148</sup>

## Public Information

- **Use of Toll-Free Phone Numbers and Agency Web Sites to Provide Information**—Several DOTs maintain toll-free telephone numbers to provide information to the public. These can be helpful in emergency response. Some agency toll-free lines normally play recorded messages, but can be

converted to staffed customer service lines in an emergency. Agencies need to be prepared for large volumes of calls and for staffing their phone lines 24 hours a day during emergencies. Most DOTs maintain a Web site to provide public information. These can be used to provide emergency information as well as information about recovery after an incident.

- **Emergency Alert System**—In several regions, the existing radio and television network, known as the Emergency Alert System (EAS), is an integral part of emergency operations and a way to disseminate information to the public about emergency situations. For further information go to <http://www.fcc.gov/eb/eas>.<sup>149</sup>
- **REVERSE 911® Call Systems**—A few regions have implemented REVERSE 911® call systems allowing local emergency coordinators to contact residents via a computerized call system based on the phone numbers in the 911 emergency phone system.<sup>150</sup> Another region has a similar system covering the county and several cities with a population of over 3 million users with wireline phone service. Its system is called the Citizens Emergency Notification System (CENS) provided by Intelligent (SM) Target Notification.<sup>151</sup>
- **Statewide Incident Reporting System**—One DOT maintains a statewide Web site that provides information on incidents in the state that affect the public road system. The system includes information on the time, location, and nature of the incident and updates this information as the incident is responded to and cleared.<sup>152</sup>
- **Seat Drops on Buses to Provide Information**—At least two transit agencies indicated that they routinely use a flyer or brochure dropped onto bus seats as a way to communicate information to passengers. This method can be useful if transit services have to be modified for some period of time after an emergency has occurred.<sup>153</sup>

### Terrorism Awareness Programs

- **Terrorism Awareness Brochure**—At least two DOTs have developed and published a brochure to raise the awareness level of their employees regarding terrorism incidents. The brochures alert employees about what to look for and what to do if they notice any suspicious activity. These

DOTs noted the importance of routinely updating and frequently distributing the brochures to sustain employee awareness and ensure that new employees receive the information.<sup>154</sup> In addition, some of the transit agencies had provided security awareness training for employees.<sup>155</sup>

- **Pre-Incident Indicators List**—In one region, the ATTF has developed a two-sided laminated card (4 ½" by 9 ½") for law enforcement describing indicators of potential terrorist activity. It includes relevant local and Federal contact information for reporting related activities.<sup>156</sup>
- **Trucking Company Watch Program**—One state is working with trucking companies to create a Neighborhood Watch type program. The trucking companies will be advised on how to watch for suspicious activities and what steps to take if they see suspicious activities.<sup>157</sup> In another state, the Emergency Management Agency works through the state regulatory agency (Department of Motor Vehicles) to notify private freight carriers of threat information and utilizes freight contacts to assist in monitoring trucks for suspicious activities.<sup>158</sup>
- **Training of 911 Operators**—One region has established required training for all its 911 telephone operators to identify signs of potential terrorist activity.<sup>159</sup>

### Policy

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- **Protection of Vulnerability Assessment Information**—In some regions, transportation agencies have completed their vulnerability assessments and provided them to their state's National Guard units or the local office of the FBI. These agencies are exempt from the state's public records disclosure requirements.<sup>160</sup>
- **Critical Infrastructure Protection**—One state has developed a statewide list of critical infrastructure through its state Anti-Terrorism Task Force. The list is shared with local law enforcement agencies, who are largely responsible for protection of this infrastructure.<sup>161</sup>
- **Cooperation Between State Patrol and DOT in Closing Roadways**—In at least one location, there is an agreement between the state patrol and the DOT outlining responsibilities for road closures. In this example, the state patrol makes the decision

to close the road and the state patrol and DOT maintenance staff handle the actual closures jointly.<sup>162</sup>

- **Ability to Close Airspace**—In one location, the city police commissioner has the authority to close airspace to helicopters. This can be important for keeping helicopter traffic out of a hazardous area and can also reduce possible interference from media helicopters, etc.<sup>163</sup> In other states, it was noted that the FAA could be contacted to request that airspace be closed.
- **Monitoring of Trains Carrying Hazardous Materials**—In one region, the local railroad company has worked with the municipality to identify major gathering spots such as arenas, stadiums, etc. that are in proximity to their railroad tracks.<sup>164</sup> The railroad also coordinates with the city to know when major events occur at these locations, so they may increase train control as needed during the events.
- **Protection of Area Hospitals**—One region has a policy to immediately dispatch law enforcement patrols to every hospital in the region in the event of a terrorist attack to protect the hospitals from potential contamination or a secondary attack.<sup>165</sup>
- **Declaration of Quarantine**—Biological or chemical emergencies may require declaration of a quarantine. Public safety personnel in most regions know who at the state or local level has this authority.
- **Opening of Fire Stations to Family Members**—One city fire department has a policy to open its fire stations to the families of local firefighters so that they can seek shelter in an emergency and the firefighters on duty know that their families are protected.<sup>166</sup>



## Endnotes

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The following endnotes indicate the location of the workshop(s) at which this best practice was discussed.

### (Endnotes)

- 1 Chicago, IL; Seattle, WA; Minneapolis/St. Paul, MN; Oakland, CA
- 2 Chicago, IL; Seattle, WA; Minneapolis/St. Paul, MN
- 3 Kansas City, MO/KS; Oakland, CA; Cincinnati, OH/Northern KY
- 4 Memphis, TN
- 5 St. Louis Area Regional Response System
- 6 Pittsburgh, PA
- 7 Charlotte, NC
- 8 Boise, ID
- 9 Chicago, IL
- 10 Chicago, IL
- 11 St. Louis, MO
- 12 Kansas City, MO/KS
- 13 Charlotte, NC
- 14 Baltimore, MD; Raleigh, NC; Chicago, IL; Seattle, WA; Oakland, CA; Minneapolis/St. Paul, MN
- 15 Cincinnati, OH/Northern KY
- 16 Honolulu, HI
- 17 Chicago, IL; Oakland, CA; Minneapolis/St. Paul, MN
- 18 Salem, VA; St. Louis, MO
- 19 St. Louis, MO
- 20 Salem, VA
- 21 Los Angeles, CA
- 22 Kansas City, MO/KS
- 23 Milwaukee, WI
- 24 Charlotte, NC
- 25 Spokane, WA
- 26 Nashville, TN
- 27 Honolulu, HI
- 28 Cincinnati, OH/Northern KY
- 29 Minneapolis/St. Paul, MN
- 30 Portland, OR
- 31 Reno, NV
- 32 Cincinnati, OH/Northern KY; Kansas City, MO/KS
- 33 Omaha, NE
- 34 Los Angeles, CA
- 35 Raleigh, NC
- 36 Charlotte, NC
- 37 Kansas City, MO/KS
- 38 Kansas City, MO/KS
- 39 Charlotte, NC
- 40 Chicago, IL; Seattle, WA
- 41 Chicago, IL
- 42 Baltimore, MD; Chicago, IL; Raleigh, NC; Seattle, WA; Oakland, CA; Minneapolis/St. Paul, MN
- 43 Baltimore, MD; Cincinnati, OH/Northern KY; Oakland, CA; Chicago, IL; Minneapolis, MN; Seattle, WA
- 44 Raleigh, NC
- 45 Baltimore, MD; Seattle, WA; Oakland, CA; Minneapolis/St. Paul, MN
- 46 Nashville, TN; Chicago, IL
- 47 Chicago, IL
- 48 Raleigh, NC
- 49 Honolulu, HI
- 50 Honolulu, HI
- 51 Kansas City, MO/KS
- 52 Kansas City, MO/KS; Honolulu, HI; Spokane, WA
- 53 Spokane, WA; St. Louis, MO
- 54 St. Louis, MO
- 55 Cincinnati, OH/Northern KY
- 56 Santa Fe, NM
- 57 Charlotte, NC
- 58 San Diego, CA
- 59 Spokane, WA
- 60 Chicago, IL; Seattle, WA
- 61 Chicago, IL
- 62 Boise, ID
- 63 Kansas City, MO/KS
- 64 Baltimore, MD
- 65 Cincinnati, OH/Northern KY
- 66 Charlotte, NC
- 67 Detroit, MI
- 68 Spokane, WA
- 69 Kansas City, MO/KS
- 70 Raleigh, NC
- 71 Bay Area Emergency Response System (BAERS)—Oakland, CA
- 72 Dover, DE
- 73 Honolulu, HI
- 74 Spokane, WA
- 75 Raleigh, NC
- 76 Cincinnati, OH/Northern KY
- 77 Spokane, WA
- 78 Honolulu, HI
- 79 Kansas City, MO/KS
- 80 Minneapolis/St. Paul, MN
- 81 Seattle, WA
- 82 Minneapolis/St. Paul, MN; Oakland, CA; Chicago, IL; Seattle, WA
- 83 Spokane, WA
- 84 Raleigh, NC
- 85 Kansas City, MO/KS
- 86 Kansas City, MO/KS
- 87 Raleigh, NC
- 88 Milwaukee, WI
- 89 Portland, OR
- 90 Boise, ID
- 91 Cincinnati, OH/Northern KY
- 92 Kansas City, MO/KS
- 93 Kansas City, MO/KS—Missouri State Highway Patrol
- 94 Honolulu, HI
- 95 Spokane, WA
- 96 Kansas City, MO/KS; Honolulu, HI; Cincinnati, OH/Northern KY
- 97 Nashville, TN
- 98 Cincinnati, OH/Northern Kentucky
- 99 Salem, VA
- 100 Oakland, CA; Minneapolis/St. Paul, MN; Cincinnati, OH/Northern KY; Kansas City, KS/MO
- 101 Kansas City, MO/KS
- 102 Minneapolis, MN
- 103 Boise, ID

104 Minneapolis, MN, Seattle, WA	124 Los Angeles, CA	145 Salem, VA
105 Oakland, Seattle, Minneapolis, Pittsburgh	125 Charlotte, NC	146 Oregon
106 Houston, TX	126 Omaha, NE	147 Spokane, WA
107 Baltimore, MD	127 Cincinnati, OH/Northern KY	148 Baltimore, MD
108 Honolulu, HI; Omaha NE/Council Bluffs IA	128 Raleigh, NC	149 Kansas City, MO/KS, Honolulu, HI; Omaha, NE; and Milwaukee, WI
109 Spokane, WA	129 Raleigh, NC—NCDOT	150 Baltimore, MD; Raleigh, NC
110 Omaha, NE/Council Bluffs, IA— IADOT	130 Salem, VA	151 Phoenix, AZ
111 Phoenix, AZ	131 Houston, TX	152 Raleigh, NC
112 Charlotte, NC	132 Kansas City MO/KS—Lee Summit Municipal Airport	153 Baltimore, MD, Spokane, WA
113 Seattle, WA	133 Honolulu, HI	154 Kansas City, MO/KS, St. Louis, MO; Spokane, WA
114 Kansas City, MO/KS Dover, DE, Oakland, CA; Seattle, WA; Minneapolis/St. Paul, MN	134 Kansas City, MO/KS—Kansas Division of Emergency Management	155 Oakland, CA, Minneapolis, MN, Chicago, IL
115 Dover, DE	135 Spokane, WA	156 St. Louis, MO
116 Kansas City, MO/KS	136 Honolulu, HI; Salem, VA; Minneapolis/St. Paul, MN; Seattle, WA	157 Salem, VA
117 San Diego, CA	137 Salem, VA; Kansas City, KS	158 Kansas City, MO/KS
118 San Diego, CA	138 Salem, VA	159 Salem, VA
119 Salem, VA	139 Raleigh, NC	160 Raleigh, NC
120 Salem, VA	140 Raleigh, NC	161 Chicago, IL
121 Raleigh, NC, Baltimore, MD	141 Charlotte, NC	162 Kansas City, MO—Kansas
122 Honolulu, HI	142 St. Louis, MO	163 Baltimore, MD
123 Honolulu, HI	143 Cincinnati, OH/Northern KY	164 Kansas City, MO/KS
	144 Raleigh, NC	165 Honolulu HI
		166 Spokane, WA

## Contact Information

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