U.S. Department of Transportation

Federal Aviation Administration

Advisory Circular

Subject: AIRPORT EMERGENCY PLAN **Date:** 6/19/2009 **AC No:** AC 150/5200-31C
Initiated by: AAS-300 **Change:**

1. PURPOSE. This Advisory Circular (AC) provides guidance to the airport operator in the development and implementation of an Airport Emergency Plan (AEP). The AEP addresses essential emergency related and deliberate actions planned to ensure the safety of and emergency services for the airport populace and the community in which the airport is located. The AEP document should be functionally oriented, comprehensive in the assignment of responsibilities, and coordinated at all levels. This AC addresses the following:

a. The format and organization of information in the AEP.

b. Provisions for the systematic approach of determining all hazards that warrant emergency preparedness.

c. Involvement of local communities, State organizations, and Federal agencies in emergency management and preparedness so that their expertise and resources are incorporated to the mutual benefit of all parties.

2. CANCELLATION. AC 150/5200-31B, *Airport Emergency Plan*, dated March 23, 2009, is cancelled.

3. APPLICATION. This AC provides guidance in meeting the requirements outlined in Title 14 Code of Federal Regulations (CFR) §139.325, Airport Emergency Plan. An airport operator may elect to follow an alternative method, provided it is also found by the Federal Aviation Administration (FAA) to be an acceptable means of complying with 14 CFR Part 139, Certification of Airports. For certificated airports (part 139), the use of the guidelines and standards in this Advisory Circular is mandatory. In the event of a conflict, 14 CFR part 139 takes precedence over all other documents identified in the AC. The standards contained in this AC should be used for the development of new AEPs and are to be implemented at all part 139 certificated airports no later than one year from the effective date of this AC.

For all other airports the FAA recommends the use of the guidelines and standards contained herein for the development of Airport Emergency Plans. Although this AC is not mandatory for non-certificated airports, the AEP for such airports must follow the general guidelines prescribed by Homeland Security Presidential Directive 5 (HSPD-5), *Management of Domestic Incidents* and Homeland Security Presidential Directive 8 ((HSPD-8), *National Preparedness*. In development of new AEPs, the FAA also recommends that all airports (certificated and non-certificated) use as guidance certain provisions in the National Fire Protection Agency Standards (NFPA) (i.e. only 424, 1500, 1561, and 1600 (latest editions)).

4. PRINCIPAL CHANGES.

a. AC 150/5200-31, *Airport Emergency Plan*, has incorporated numerous updated referencing documents and specific web site linkage referencing.

b. The application of the National Incident Management System (NIMS) and Incident Command System (ICS) has been institutionalized and incorporated by reference.

c. Examples of organizational structure are provided.

d. The scope of functional services and responsibilities have been enhanced and aligned to the requirements of public law, national standards, and recently revised advisory circulars.

e. NIMS and ICS training resources have been added and provided with web site links.

f. Hazard-specific details were revised to incorporate essential response actions.

g. Appendix 4, Definitions have been expanded.

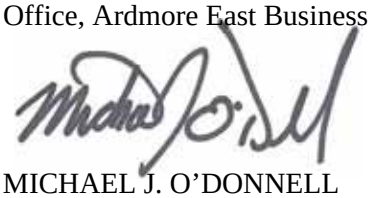
h. Appendix 5, Acronyms have incorported new terms.

i. Appendix 6, Bibliography has been updated and provided with current web site links.

j. Appendix 7, Mutual Aid Agreements have been refined**.**

5. METRIC UNITS. To promote an orderly transition to metric units, this AC contains both English and metric dimensions, where applicable. The metric conversions may not be exact metric equivalents and, until there is an official changeover to the metric system, the English dimensions will govern.

6. COPIES OF THIS AC. The Office of Airport Standards makes ACs available to the public through the Internet. These ACs may be found through the FAA home page (www.faa.gov). A printed copy of this and other ACs can also be ordered from the U.S. Department of Transportation, Subsequent Business Office, Ardmore East Business Center, 3341 Q 75th Avenue, Landover, Maryland, 20785.



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CHAPTER 1. THE AIRPORT EMERGENCY

1-1 INTRODUCTION. Airports differ in complexity, but each has unique features. Some are small, uncomplicated facilities serving a more rural environment, while others represent a good sized community complete with residential, industrial, and commercial installations serving major metropolitan areas. Airports are operated by the local government such as a city or county; or by an Authority representing multiple local governments; and some are operated by the State. However, one thing they all have in common is that they are all subject to emergencies and incidents.

Terrorist attacks and the 2004 and 2005 hurricane seasons highlighted the need to focus on improving airport emergency management, incident response capabilities, and coordination processes across the country. A comprehensive national approach, applicable at all jurisdictional levels and across functional disciplines, improves the effectiveness of emergency management/response personnel across the full spectrum of potential incidents and hazard scenarios (including but not limited to natural hazards, terrorist activities, and other manmade disasters). Such an approach improves coordination and cooperation between public and private agencies/organizations in a variety of emergency management and incident response activities. The National Incident Management System (NIMS) framework describes the comprehensive approach.

1-2 DEFINITION. An airport emergency is any occasion or instance, natural or man-made that warrants action to save lives and protects property and public health. The AEP should address those emergencies that occur on or directly impact, an airport or adjacent property that:

a. is within the authority and responsibility of the airport to respond; or

b. may present a threat to the airport because of the proximity of the emergency to the airport; or

c. where the airport has responsibilities under local/regional emergency plans and by mutual aid agreements.

NOTE: *Sections 139.315, .317, and .319 prescribe the requirements for Aircraft Rescue and Fire Fighting personnel, equipment, response criteria, etc. Consider the impact on airport operational status of use of airport ARFF personnel/equipment in an off-airport response. Use caution when entering into agreements (or writing into plans) that may impact on the airport operational status.*

NOTE: *Throughout this Advisory Circular (AC), the terms "emergency," "incident", "accident", "disaster," "hazard," and "crisis" are frequently used interchangeably to represent any situation which presents a threat to public health and safety.*

1-3 GENERAL. An airport incident can occur anywhere, at any time - day or night, under any weather condition, and in varying degrees of magnitude; it can occur instantaneously or develop slowly; it can last only a few minutes or go on for days. It can be natural, such as a hurricane or earthquake, or it can be "man-made", such as a hazardous materials spill, civil unrest, terrorism, major fire, or power outage. Moreover, emergencies of the same type can differ widely in severity, depending on factors such as degree of warning, duration, and scope of impact. The important thing to remember is that, while emergencies can seldom be exactly predicted, they can be anticipated and prepared for.

The potential for disaster exists everywhere, and the cost in suffering, life, and property can be devastatingly high. Since emergencies are perceived as low probability events and because preparedness requires cost in time and finances, the importance of such planning can often be overlooked. However,

airports and communities that experience such disasters can pay a high price if they are not prepared. In addition to health and safety problems, social disruption, lawsuits, negative publicity, and psychological after-effects may result. While every contingency cannot be anticipated and prepared for, a strong emergency preparedness program can assist in limiting the negative impact of these events, including liability and other post-emergency issues.

CHAPTER 2. CONCEPTS and PRINCIPLES

2-1 PLANNING GUIDANCE AND STANDARDS. Virtually no airport has sufficient resources to respond to every emergency situation independently. Each airport must depend to some degree on the resources from its surrounding communities. For this reason, each airport operator is encouraged to involve local communities in the development of the AEP and use the collective expertise and resources for the mutual benefit of all parties.

Likewise, airport resources may be incorporated into local/regional emergency plans. For example, airports may be identified as evacuation staging sites or reception sites for outside specialists.

Relationships between on-airport emergency services and all other mutual aid entities should be defined in Memorandums of Understanding (MOUs) and Memorandums of Agreement (MOAs). The airport operator has the primary responsibility for airport emergency response. Airport access should in accordance with applicable MOUs and MOAs. Requirements of §§139.315, .317, .319 must not be compromised by allowing unlimited (or in some cases even limited) airport assets to be used in the local system on an off airport response. Airports may "incorporate by reference" mutual aid agreements and applicable local, regional, state NIMS plans and to expand on them in the AEP only when necessary for §§139.317 and 139.319 compliance.

Under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended, the elected officials of the communities that own and operate airports are legally responsible for ensuring that necessary and appropriate actions are taken to protect people and property from the consequences of emergencies and disasters. These communities must also develop emergency preparedness programs to assist the local and state emergency management officials in complying with emergency preparedness responsibilities. The Federal Emergency Management Agency (FEMA) has published the *National Response Framework (NRF)*, National Incident Management System (NIMS) and the State and Local Guide (SLG 101), *Guide for All-Hazard Emergency Operations Planning*. NIMS and SLG 101 provide emergency managers and other emergency services providers with information regarding the FEMA concept for developing risk-based, all-hazards Emergency Operations Plans (EOPs).

Since it is extremely important for airport operators and off-airport emergency response agencies to coordinate their preparedness efforts, the information presented in this AC has been based primarily on the guidance provided in SLG 101, both in content and format. This should help provide a standardized basis for the development of the AEP and assist in the overall coordination with the local community EOP.

The National Response Framework

The *National Response Framework* presents the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies. It establishes a comprehensive, national, all-hazards approach to domestic incident response. The National Response Plan was replaced by the National Response Framework effective January 2008.

The National Response Framework defines the principles, roles, and structures that organize how we respond as a nation. The National Response Framework:

- describes how communities, tribes, states, the federal government, private-sectors, and nongovernmental partners work together to coordinate national response;

- describes specific authorities and best practices for managing incidents; and
- builds upon the National Incident Management System (NIMS), which provides a consistent template for managing incidents.

Information on the National Response Framework including Documents, Annexes, References and Briefings/Trainings can be accessed from the NRF Resource Center.

National Incident Management System (NIMS)

The NIMS provides a set of standardized organizational structures - such as the Incident Command System (ICS), multiagency coordination systems, and public information systems - as well as requirements for processes, procedures, and systems designed to improve interoperability among jurisdictions and disciplines in various areas, including:

- training
- resource management
- personnel qualification and certification
- equipment certification
- communications and information management
- technology support
- continuous system improvement.

While most airport incidents are generally handled routinely by a single jurisdiction at the local level, there are important instances in which successful domestic incident management operations depend on the involvement of multiple jurisdictions, functional agencies, and emergency responder disciplines. These instances require effective and efficient coordination across this broad spectrum of organizations and activities. The NIMS uses a systems approach to integrate the best of existing processes and methods into a unified national framework for incident management. This framework forms the basis for interoperability and compatibility that will, in turn, enable a diverse set of public and private organizations to conduct well-integrated and effective incident management operations. The NIMS does this through a core set of concepts, principles, procedures, organizational processes, terminology, and standards applicable to a broad community of users.

Incident Command System (ICS)

The ICS is a management system designed to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure. A basic premise of ICS is that it is widely applicable and is used to organize both near-term and long-term field-level operations for a broad spectrum of emergencies, from small to complex incidents, both natural and manmade. ICS is used by all levels of government - Federal, State, local, and tribal - as well as by many private-sector and nongovernmental organizations. ICS is also applicable across disciplines. It is normally structured to facilitate activities in five major functional areas: command, operations, planning, logistics, and finance and administration.

Acts of biological, chemical, radiological, and nuclear terrorism represent particular challenges for the traditional ICS structure. Events that are not site specific, are geographically dispersed, or evolve over longer periods of time will require extraordinary coordination between Federal, State, local, tribal, private-sector, and nongovernmental organizations. An area command may be established to oversee the management of such incidents.

Since it is extremely important for airport operators and off-airport emergency response agencies to coordinate their preparedness efforts (Figure 2-1), the information presented in this AC has been based primarily on the guidance provided in SLG 101, both in content and format. This information should help provide a standardized basis for the development of the AEP and assist in the overall coordination with the local community Emergency Operations Plan (EOP). See Appendix 9 for a sample Airport Emergency Incident Chain of Command.

Coordination of Airport Emergency Plans with Local/Regional Disaster Plans.

As appropriate, consideration should be given to mutual assistance and coordination between local/regional resources with airport resources. In addition to law enforcement and fire fighting aid, contingencies such as, mass evacuation with the airport being the staging and exit point or staging areas for arriving rescue teams should considered. See Figure 2-1. The plans should include designated assembly areas, crowd control, shelter, sanitation, feeding, etc.

Figure 2 - 1. Airport Emergency Plans Should be Coordinated with Other Plans

The regulations, standards, and guidance used in the development of this AC may be found in the Bibliography. Some examples include:49 Code of Federal Regulations (CFR) part 1542, *Airport Security*, part 1544, *Aircraft Operator Security*, part 1548, *Indirect Air Carrier Security;* ICAO *Airport Services Manual; part 7, Airport Emergency Planning;* National Fire Protection Association (NFPA) 424, *Guide for Airport/ Community Emergency Planning;* NFPA 1600, *Standard on Disaster/Emergency Management and Business Continuity Programs; the Federal Response Plan;* and others.

NOTE: *National Fire Protection Association Standards (NFPA) 424, 1500, 1561, and 1600 provide useful guidance regarding the development of Airport Emergency Plans. This note refers only to the four cited NFPA standards, and not to other NFPA standards that are incorporated by reference within these standards.*

NOTE: *The safe and orderly movement of vehicles and pedestrians on an airport is essential in airport emergency planning. Lack of sufficient training for personnel and vehicles on airports has the potential to lead to life threatening consequences and costly property damage. Airports must work closely with mutual aid responders to ensure all requirements for each airport to include, but not limited to compliance with all regulations and ordinances applicable to each airport.*

2-2 COMPREHENSIVE EMERGENCY MANAGEMENT (CEM). There are no typical emergencies and there are no typical or standard preparedness plans that are ideal for all airports or communities. However, some common phases to preparedness for disasters can provide systematic approach for planning purposes. This systematic approach applies the CEM described in the *Guide for All-Hazard Emergency Operations Planning,* SLG 101. It is a process that recognizes four separate, but related actions:

a. Mitigation

b. Preparedness

c. Response

d. Recovery

Each planning action is treated as a phase of a comprehensive process, each building on the other (Reference Table 2-1).

2-3 AEP AND CEM. The AEP does not need to reflect all four phases of CEM. Rather, its focus should be mainly on response and initial recovery issues. Detailed Mitigation Plans, Administrative Plans, or Recovery Plans can be handled separately.

2-4 AIRPORT EMERGENCY PLAN (AEP). The AEP is a document that:

a. Assigns responsibility to organizations and individuals for carrying out specific actions at projected times and places in responding to an emergency.

b. Sets forth lines of authority and organizational relationships, and shows how all actions should be coordinated.

c. Describes how people and property will be protected in emergencies and disasters.

d. Identifies personnel, equipment, facilities, supplies, and other resources available—within the airport or by agreement with communities—for use during response and recovery operations.

e. As a public document, cites its legal basis, states its objectives, and acknowledges assumptions.

f. Facilitates response and short-term recovery to set the stage for successful long-term recovery.

Table 2 - 1. Comprehensive Emergency Management

PHASE	DESCRIPTION	EXAMPLES
MITIGATION	Actions that can prevent, alleviate, or diminish the potential effects of a disaster situation	Zoning, public education, budget allocations, earthquake-resistant construction
PREPAREDNESS	Actions that enhance emergency response capabilities	Emergency plans, training, drills and exercises
RESPONSE	Time-sensitive actions to save lives and property, reduce the possibility of secondary damage, and speed recovery operations	Mobilizing emergency response personnel and equipment, conduct search and rescue, alerting the public, evacuation
RECOVERY	Actions that restore the airport/ community to pre-emergency conditions	Crisis counseling, long-term medical assistance, reconstruction, rehabilitation, public information programs, hazard-reduction programs

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CHAPTER 3. THE PLANNING PROCESS

3-1 OBJECTIVE. This chapter offers suggestions for the process of developing or updating an Airport Emergency Plan (AEP). The process may be as useful to the airport and the emergency response community as the final plan itself. As discussed below, this process can be easily tailored to meet the specific needs of each airport, regardless of size.

3-2 REVIEWING OTHER PLANS. As indicated in Chapter 2, the development of the AEP need not, and should not, start from scratch. The AEP should build on what exists in the surrounding communities, such as an Emergency Operations Plan (EOP) or other emergency plans and/or procedures. These should be reviewed for applicability and functionality. Also, critiques should be gathered from previous drills and exercises as well as debriefs following actual emergencies to help establish a sense of what needs to be done.

3-3 ESTABLISHING AN AEP TEAM. With all of the specialized areas needed for a total AEP, i.e. medical, fire, law enforcement, hazardous materials, etc., it is virtually impossible for any one individual to put together the necessary detail to develop a truly functional AEP and supporting procedures. FEMA provides resident and online emergency management training. See www.fema.gov .

The team approach offers the following benefits:

a. Better participation and commitment by all participants involved with the AEP.

b. More knowledge and expertise are brought into the planning process.

c. Closer professional relationships among response and recovery personnel during the planning process to ensure better coordination and teamwork during emergencies.

d. Potential Team Members. The AEP team should consist of those individuals/organizations that have a potential role in the airport's emergency response program. The need for this is further reinforced by the requirements established in 14 CFR §139.325(g)(2) which states that the airport certificate holder will "…To the extent practicable, provide for participation by all facilities, agencies, and personnel …in the development of the plan."

e. A representative list of potential team members can be found in Table 3-1.

Table 3 - 1. AEP Planning Team Members

AEP Planning Team Members		
1. Air carriers	13. Emergency Medical Services	25. National Weather Service
2. Air Traffic Control	14. EPA	26. NTSB
3. Aircraft operators	15. EOD	27. Police/Security
4. Airport Authority/Mgmt.	16. FAA	28. Post Office
5. Airport employees	17. Firefighting & Rescue	29. Public Information/Media
6. Airport tenants	18. Government authorities (e.g. local community emergency planners, TSA and FEMA, as appropriate)	30. Public Works & Engineering
7. Animal Care/Control	19. HAZMAT Response Team	31. Public Utilities
8. Clergy	20. Health & Medical	32. Red Cross
9. Coast Guard/Harbor Patrol	21. Hospitals	33. Resource Support
10. Communications Services	22. Mental Health Agencies	34. Search & Rescue
11. Coroner	23. Military/National Guard	35. State Aviation Authority
12. Emergency Mgmt. Agency	24. Mutual Aid Agencies	36. Civil Air Patrol
		37. Morgue

The Airport Manager, Airport Authority Chair, or other appropriate Chief Executive(s) should also be a part of the team. Preparation for a disaster requires team leaders to understand the hazards analysis process and its associated results, and their respective roles during emergencies, Team leaders should also review information describing past disasters similar to those which could occur on the airport, as well as readiness assessments and exercise critiques, and potential liability issues.

3-4 AEP RESEARCH.

a. At certificated airports, in addition to the requirements established in 14 CFR §139.325, an AEP needs to address other applicable regulations, standards, and guidance relating to emergency preparedness. Additional documents that should be reviewed for applicability include:

(1) Regulations, Standards, and Guidance:

(a) Federal Emergency Management Administration[1] (www.fema.gov):

(i) National Incident Management System (NIMS)

(ii) National Response Framework (replaces the NRP)

(iii) SLG 101, *Guide for All-Hazard Emergency Operations Planning*

(b) National Fire Protection Association (NFPA) 424, *Airport/Community Emergency Planning*.

[1] The Federal Emergency Management Emergency Management Institute provides training courses online at training.fema.gov/ such as:

- National Incident Management
- National Incident Management System (NIMS) Information
- NIMS Tab 8 The Planning Process
- National Response Plan (NRP)

(c) 14 CFR part 139, *Certification of Airports*.

(d) 49 CFR part 1542, *Airport Security* (formerly 14 CFR part 107).

(e) 49 CFR part 1544, *Aircraft Operator Security* (formerly 14 CFR part 108).

(f) 49 CFR part 1546, *Foreign Air Carrier Security* (certain provisions of part 129 were removed and transferred into the relevant parts of part 1546).

(g) 49 CFR part 1548, *Indirect Air Carrier Security* (formerly 14 CFR part 109).

(h) State and Local Regulations.

(i) ICAO Technical Instructions.

(j) International Air Transport Association, *Dangerous Goods Regulations Manual*.

(k) Department of Transportation, *The Public Transportation System Security and Emergency Preparedness Planning Guide*, 2003 as amended.

(l) National Response Team, NRT-1, *Hazardous Materials Emergency Planning Guide*.

(m) Airport Joint Use Agreements with the Department of Defense (DoD).

(n) *U. S. Coast Guard Addendum to the National SAR Supplement* (CGADD), COMDTINST M16130.2D.

(o) FAA Order 7210.3, *Facility Operation and Administration*.

(2) Existing Plans:

(a) Airport Emergency Plan.

(b) Airport Security Plan

(c) Air Carrier Emergency Plan(s).

(d) Airport Tenant Emergency Plan(s).

(e) Local/regional Emergency Operations Plan(s).

(f) Local/regional Emergency Services Plans.

(g) Local Industry OSHA/EPA Compliance Plans.

(h) Air Carrier Aviation Disaster Family Assistance Act Plans.

(3) Existing Mutual Aid Agreements/ Memoranda of Understanding.

(a) Airport agreements.

(b) Local emergency response agreements.

(c) Private sector organization agreements.

(d) Military installation agreements.

b. **Conduct a Hazard/Risk Analysis**.

(1) The main purpose for conducting a Hazard/Risk Analysis is to help the planning team determine what hazards exist, what actions must be planned, and what resources are recommended. There are many types of programs available to assist in this process, some of which can be complex. The planning team should check with the local emergency management officials to determine if such an analysis has already been accomplished. If not, or if the analysis is dated, a sample Airport/Community Hazards Analysis Program has been provided in Appendix 1.

(2) It is important to include as many people/organizations as possible from both the airport and surrounding communities when doing the analysis. This provides information across a broad spectrum and avoids limiting the outcome to only one or two areas of expertise.

(3) Once the hazards have been identified and prioritized, the planning team should create scenarios and brainstorm needed hazard-specific planning provisions and hazard-specific resource requirements. Starting with a given intensity of a hazard, the team can imagine the hazard's development from initial warning (if available) to its impact on a specific part of the airport/community and its generation of specific consequences (e.g. loss of critical services and infrastructure; death, injury). This information can then be further refined through drills and tabletop exercises.

(4) Maps for some hazards analysis are available through FEMA and State emergency management agencies, the U.S Geological Survey (USGS) and State geological surveys, and the National Weather Service (NWS). For more localized hazards, maps from the Federal Insurance Administration (FIA), maps of the 10-and 50- mile Emergency Planning Zones (EPZ) around nuclear power plants, and any maps of HAZMAT sites prepared by the Local Emergency Planning Committee (LEPC) would be useful.

(5) Historical data is also available through Federal, State, and County hazards analyses. Further, Red Cross disaster records can be checked and long time residents of the area can be contacted.

c. **Resource Base**. Planning team members should know what resources are available for emergency response and recovery. In particular, airport operators should know what is available on the airport and what they may need from off-airport for specific emergencies. Shortfalls may require negotiating agreements with private suppliers or other jurisdictions. Determination of the resource base should also include a consideration of what facilities are vital to emergency operations and how they may be affected by hazards. In the overall community EOP, the airport probably should be listed as a vital facility for many emergencies and given priority to resource allocation for response and recovery activities. It is important to note that problems that cannot be mitigated should be addressed in the AEP.

d. **Special Facets**. The planning team should note special geographic and topographic features, which may affect operations. For example, the airport may have only one runway or limited access roads, or there may be bridges that could be destroyed during an earthquake, etc.

Provisions for special needs groups, such as hearing-or mobility-impaired individuals, also should be identified. Other factors to be considered include:

(1) An aircraft submerged in water or surrounded by ice.

(2) An accident involving an aircraft and a building structure.

(3) A hurricane that knocks out the phone lines or computer system or isolates a significant number of people on your airport.

(4) Conditions that only a trained or experienced observer would recognize as being dangerous. AEP preparers should try and locate observers from the airport staff or from the surrounding community for advice on identifying such conditions.

3-5 DEVELOPMENT OF THE AEP. The process of developing the AEP includes the following items:

a. A rough draft of all components of the AEP to serve as a point of departure for the planning team.

b. A meeting to establish committees for parts of the AEP, appoint committee chairs, develop a time line, and schedule a follow-up meeting.

c. Work with committees on successive drafts.

d. Prepare necessary graphics, charts, maps, etc.

e. Produce a final draft and circulate to the planning team for review and comment.

f. Obtain concurrence from organizations with identified responsibilities for implementation of the AEP.

g. Present the final document to the appropriate chief executive for signature and promulgation.

h. Print and distribute the AEP to all parties with duties and responsibilities under the plan. Limit distribution to a need-to-know basis. Maintain a record of AEP distribution.

NOTE: *Those portions of the AEP which contain sensitive information, e.g. security-related, home telephone numbers, etc., should be distributed only to those persons/agencies with a need-to-know.*

3-6 VALIDATION. Once the AEP has been completed, it should be checked for conformity to the applicable regulation(s) and standards, and to ensure it works as planned. There are two basic ways to validate:

a. Consult with the local community emergency management officials regarding its plan review cycle. Since much of the information in community plans may be incorporated in one form or another in the AEP, it would seem appropriate to become a part of their review process and to take advantage of improvements suggested as a result of their accumulated experience.

b. Conduct tabletop and full-scale exercises. These offer the best way, short of an actual emergency, to determine if an AEP actually works and is understood.

3-7 TRAINING, DRILLS, AND EXERCISES. It is important that the people assigned to support the AEP are familiar with their roles and responsibilities and have been tested through drills and exercises.

a. **Training**.

(1) Objective. The on and off-airport personnel who respond to emergencies are the most vital elements of an airport's emergency response capability. Their training is essential for responding effectively to emergencies by making optimum use of facilities, equipment, and vehicles. The emergency procedure guidelines presented in this section address the following issues:

(a) Airport personnel's knowledge of the AEP, its facilities, equipment and vehicles.

(b) Emergency response organizations' (e.g. fire, medical, and police) knowledge of their responsibilities relative to the AEP, its facilities, equipment, and vehicles.

(2) Familiarization. There is a need for on- and off-airport personnel to be familiar with each other's equipment and facilities. It is especially important that off-airport personnel become familiar with the unique operating environment of an airport (e.g. security requirements, the hazards of moving aircraft, communications, etc.). This familiarization becomes critical during nighttime operations and other periods of low visibility.

(3) General. Initial training of airport personnel should be primarily devoted to Standard Operating Procedures (SOPs). This general training should be provided to all airport employees. Certain airport, as well as other emergency response personnel, should receive specialized training based on their individual job responsibilities. A word of caution - many times, and often due to lack of manpower resources, individuals may be assigned a job for which they are not emotionally prepared or capable (e.g. maintenance personnel assigned to carry stretchers or otherwise help at an accident site may end up being "victims" due to the emotional trauma experienced by proximity to severely injured people). Further, periodic training should be scheduled in order to prevent loss of knowledge and skills over time.

(4) Initial training. A goal of initial training should be to ensure all airport employees are familiar with the following:

(a) Standard Operating Procedures (SOPs). Airport operators should establish guidelines for handling all normal, abnormal, and emergency operations. The procedures contained in the Hazard-Specific Sections of the AEP are the best place to start.

(b) Layout of Facilities. Familiarization with the airport's facilities is critical. Films, video tapes, walking and bus tours should emphasize the location of normal and emergency exit controls (to include security procedures), communications equipment, and other safety features of the facilities.

(c) Communications Equipment. Airport personnel should be familiar with the location, protocols, and use of communication equipment, i.e. telephone, two-way radio, fax, e-mail, etc. to communicate with on-airport and responding mutual aid agencies. Only priority information should be transmitted during emergencies.

(d) Emergency Equipment. Personnel should know where specialized emergency equipment associated with their assigned duties is located and its use. All personnel should be instructed to report lost, stolen, and vandalized equipment. Emergency related equipment that is out of service for any reason should be reported immediately and provisions for temporary replacement made.

(5) Specialized Emergency Training. Airport operators should conduct a cycle of specialized training courses, followed by periodic refresher training. Simulation drills should be used to provide training, as well as to determine additional training needs.

(a) General. Depending on specific job responsibilities, airport personnel should receive specialized training for each of the emergencies identified in the airport's Hazards Analysis. Even if an individual's responsibility is nothing more than to stand by at a specific location to await assignment, training and procedure should reflect that responsibility. Specialized training should include the following:

(i) Procedures for assisting the handicapped and elderly during an emergency.

(ii) Separate training for individual SOPs based on the AEP.

(iii) Drills with predefined goals and objectives to ensure responsibilities are understood.

(b) Air Traffic Control (ATC). Because ATC often initiates the response to an emergency, coordination between ATC and the AEP should be explored with respect to:

(i) Details of the fixed facilities.

(ii) Capabilities, limitations, and typical failure modes of aircraft, power, and communications systems.

(iii) Provide progressive directions to the accident/incident site for first responders (ARFF, law enforcement).

(iv) Facilitate the use of Discrete Emergency Frequency procedures to air crew and ARFF whenever possible.

(c) Other Personnel. Operating and supervisory personnel, maintenance personnel, and airport security should know appropriate responses to the emergencies included in the airport's Hazard-Specific Sections.

(d) Passenger Emergency Care Training. Airport operators should provide emergency care training to appropriate employees. Emergency care training may include the following:

(i) First aid treatment of hemorrhages, bruises, and abrasions.

(ii) Recognition and immobilization of individuals with head and back injuries.

(iii) Cardiopulmonary resuscitation (CPR).

(iv) Treatment of respiratory blockages and convulsions.

(e) Crowd Control and Panic Prevention. Airport personnel training should include crowd control and panic prevention techniques.

(6) Refresher/Retraining Programs. Airport operators and employees should under-stand the importance of repeated and updated training. Refresher/retraining programs should be instituted to accomplish the following:

(a) Inform employees of changes in processes and/or equipment.

(b) Reinforce a segment of the program for an individual who has not performed properly.

(c) Maintain employee skills at a level enabling them to execute their responsibilities effectively.

(7) Training Methods and Equipment. Airport operators should devise a training handbook with formal methods for training their personnel. Formal methods include, but are not limited to, classroom instruction, on-site familiarization, and emergency training drills (for airport personnel, emergency response personnel, and the public). Regular training should be used to identify inconsistencies in operating rules, SOPs, and personnel duties.

(a) Classroom Instruction.

(i) Rules, SOPs, and Emergency Procedures. Classroom instruction should explain rules, SOPs, and emergency procedures. Discussions of the information should be thorough, and examinations should be given to test comprehension.

(ii) Audio-visual (AV) Training Programs. AV training programs can be developed to show specific procedures each airport unit should follow. These, combined with mock-ups, can substantially enhance classroom instruction. Development of training aids that use computer-based instruction/scenarios, including decision-making exercises intended to develop good judgment is recommended.

(b) On-site Familiarization. On-site familiarization includes on-the-job training, walking tours, demonstrations, and/or hands-on practice sessions.

(8) Emergency Response Organization Personnel Training. To ensure a coordinated response, the airport operator should offer training in airport emergency procedures to local police, firefighters, ambulance personnel, paramedics, emergency management agencies, the media and other off-airport emergency response organizations. The training should include the following:

(a) Formal presentations and discussions of the airport's AEP, facilities, equipment, and normal and emergency operating procedures.

(b) Tours of the airport to highlight features described in the formal presentation and to familiarize personnel with the layout and topography of the airport. Emphasis should be placed on the special operating conditions at the airport, such as security and access control, communications requirements, and aircraft-related hazards.

(c) Participation in all levels of drills and exercises, to include the triennial full-scale exercise which is only required of those airports certificated under part 139.

(d) Emergency response personnel must train and become familiar with each aircraft normally using the airport including cargo aircraft. This training will include access, flight crew locations, hazard locations, and emergency shut down procedures.

b. **Drills and Exercises**.

(1) Objective. The AEP provides the framework that enables airport and community fire, security, medical, and other resources to join in an effective, coordinated response to airport emergencies. By using any of several types of airport emergency drills, airport operators and community emergency resource managers can accomplish the following:

(a) Produce an integrated emergency plan that provides a response based upon need and emergency location.

(b) Ensure readiness in the procedures and coordination needed to accomplish an effective emergency response in minimum time.

(c) Confirm the functionality and effectiveness of their plans and procedures under controlled conditions and make changes as needed.

(d) Improve emergency responder confidence in the plan, as well as becoming more familiar with the facility, and resources.

(2) Types of Exercise. FEMA defines an exercise as "an activity designed to promote emergency preparedness; test or evaluate emergency operation, policies, plans, procedures or facilities; train personnel in emergency management duties; and demonstrate operational capability." FEMA has identified five elements or types of exercises that constitute an exercise program, with each one building on the concepts of the previous exercise. This necessitates the performance of a lower level exercise before conducting a higher level exercise. Those five exercise types are:

(a) Orientation Seminar. This seminar involves bringing together those with a role or interest in the AEP (e.g. airport, ARFF, law enforcement, EMS, air carriers, media, airport tenants, etc.) to discuss the AEP and initial plans for upcoming drills and exercises, as well as to become familiar with the roles, procedures, responsibilities, and personalities of all those involved.

(b) Drill. A drill is the lowest level exercise and tests, develops, or maintains skills in a single emergency response procedure. A drill may focus, for example, on the emergency notification process to determine the effectiveness and timeliness of notifying participating personnel/organizations. A drill is considered a necessary part of ongoing training.

(c) Tabletop Exercise. The tabletop exercise is a higher-level test than the drill and is designed to provide training and evaluate plans and procedures and to resolve questions of coordination and assignment of responsibilities in an informal, non-threatening format without concern for time constraints, stress levels, or actual simulations. The methodology of the tabletop exercise is by discussion in a meeting format through a facilitator. Effectiveness is determined by feedback from participants and the impact this feedback has on evaluating and revising policies, plans, and procedures. There is no utilization of equipment or deployment of resources. Therefore, all activities are simulated and participants interact through discussion.

(d) Functional Exercise. The functional exercise is the highest level test that does not involve the full activation of airport and off-airport emergency personnel and facilities.

The functional exercise is designed to test or evaluate the specific capabilities of the participants for several functions under a stress-induced environment with time constraints and actual simulation of specified events. In other words, it can test within specified limits the internal airport and the external responses of off-airport emergency response agencies.

(e) Full-Scale Exercise. The full-scale exercise is the most comprehensive test and is intended to evaluate the operational capability of the emergency management system in a stress environment with actual mobilization and deployment to demonstrate coordination and response capability. It uses all resources and requires reaction from equipment and personnel that would normally be available if the exercise were an actual emergency. The FAA requires a full-scale airport emergency plan exercise at least every thirty-six calendar months for airports holding a Class I Airport Operating Certificate under 14 CFR part 139. This full-scale exercise requires a simulated emergency, as it would in an actual aircraft disaster, for airports holding Class I Airport Operating Certificate commensurate with the index of the airport, to ensure that all personnel having duties and responsibilities under the plan are familiar with assignments and are properly trained.

(3) Exercise Development. The following steps are common for the development of any of the above drills/exercises:

(a) Needs Assessment. The first step in the process is to identify difficult areas of the emergency preparedness program. Hazards Analysis can determine these needs. The drill/exercise priorities may be better placed on those hazards, which present the highest vulnerability factor. However, for the purpose of part 139 the triennial exercise must be an aircraft accident indicative of the airport's Index.

(b) Defining the Scope. The best mechanism for dealing with the problem may be that, for a complex problem, it would be best to start out with a series of small drills followed by a tabletop exercise. In defining the scope of an exercise, five components need to be addressed in the developmental stage:

(i) The types of on- and off-airport activities or procedures to be exercised.

(ii) The parties to be involved.

(iii) The degree of realism desired.

(iv) The hazard or the selection of high priority problem.

(v) The geographical area where the problem could occur.

(c) Statement of Purpose. It is recommended that a statement of purpose be developed which clearly and concisely explains why the drill/exercise is being conducted. At this point the drill or exercise can be announced, the necessary coordination accomplished, and the date and location established. This step may be modified, as needed, i.e. it may be an unannounced drill/exercise; therefore the information released, if any, would be limited.

(d) Goals/Objectives. One of the most important steps in the drill/exercise program is deciding exactly what should be accomplished by expending the time, funds, and efforts

of airport and community emergency planners and responders. The needs assessment, scope, and Statement of Purpose should be examined very closely during this process. Caution should be exercised in determining the number of goals/objectives for any given exercise; to avoid confusion and frustration; they should be limited and focused. Further, any goals/objectives established should be specific, credible, and realistic, yet challenging, results-oriented, and measurable. For example, a goal of a communications drill may be: "… to notify all required response agencies within two minutes from initiation of the drill…."

(e) Scenario. After the type of exercise and goals/objectives has been established, a scenario or narrative should be written which sets the scene for the drill/exercise. It is important to remember that the scenario should be written in such a manner that it supports the defined goals/objectives. The complexity of the scenario will depend on the type of exercise, i.e. a tabletop exercise scenario can, and should, be more complex than a communications drill. Complicating factors such as limited communications capability or hazardous cargo can be used, once again depending upon defined goals/objectives and type of exercise. Although airport planners may be responsible for scenario development, they may need expert assistance in drafting specific details for scenarios, which go beyond airport operations, particularly if some type of natural disaster is to be used.

(f) Messages/Problem Statements. Some types of exercises will involve the development of a major sequence of events list, a detailed sequence of events list, and messages or problem statements. While the exercise narrative provides the participants with a certain amount of information, the major sequence of events list itemizes the events, from the beginning of the exercise to the conclusion that will require a response by the airport or responding agencies. The detailed sequence of events lists the details for each major event. The messages or problem statements, which are primarily used for drills and tabletop exercises, come from the major and detailed sequence of events list. The messages and problem statements are intended to provide the participants with sufficient information so that they will be able to respond with an action or decision.

(g) Evaluation/Critique. A system for assessing the success of the exercise, and ultimately the AEP, should be developed. The assessment should involve a qualified evaluation team, as well as the participants. The evaluation team should:

(i) Have full access to the scenario and exercise site.

(ii) Be qualified in, and focus on, one functional area.

(iii) Be provided with, and complete, an exercise evaluation form (critique sheet).

NOTE: *A sample Exercise Checklist may be found in Appendix 2.*

An immediate post-exercise critique should be held, followed by a more detailed evaluation report. A critique is a debriefing of the participants where information is discussed as to what went right and areas, which need improvement. The critique should be both oral and written. The formal evaluation consists of a brief written report that is based on observations and recommendations that come from the participant's critique, as well as from the official evaluators.

(4) Other Concerns.

(a) Hazard Control. Because of the intense activity characteristic of most full-scale exercises, if not managed carefully, the exercise itself can cause accidents. Two of the most common potential hazards are as follows:

(i) Air Operations Area access. During most exercises, the airport will continue to run normally. Because many of the exercise participants will be unfamiliar with aircraft operations, many could unintentionally end up in the way of aircraft, resulting in an accident. Some preventive actions include:

(a) Restrict access to the airfield.

(b) Install barricades to keep aircraft out of the areas closed for the exercise.

(c) Define precise checkpoints where airport personnel can log vehicles onto the field.

(d) Brief personnel on desired routes to the site.

(e) Set up a traffic flow system that will separate people and vehicles from aircraft.

(f) Assign safety people to monitor the movement of people and vehicles.

(ii) Injuries. Because of the combination of people and moving equipment, personal injuries may occur. Volunteer "Victims" may fall off backboards, trucks or ambulance may collide with each other or people. Because of the situation, it may be difficult to differentiate between real and simulated injuries. Therefore, participants should be provided with an easily remembered code word signifying that they have a real injury.

(iii) Victim Training. Volunteer victims need instructions on the behavior emergency survivor's display. Also, volunteer victims need instructions on how to properly simulate the behavior emergency survivors display. These instructions can come from fire, rescue, EMS, or medical personnel.

(iv) Liability. Because of the potential for injury discussed earlier, it is important for the exercise planners to address all liability issues in advance.

(b) Public Awareness/Notification. Airport emergencies, whether real or simulated, are highly visible events that are of great interest to the public. To prevent alarm, airport operators should notify the community in advance that a drill would be in progress. It is also a good idea to make periodic announcements during the exercise, including in the terminal; ATC should be requested to add information concerning the full-scale exercise to the Automatic Terminal Information Service (ATIS) to avoid undue concern. At airports without an ATCT, a NOTAM should be issued concerning the full-scale exercise.

(c) Media Awareness/Notification. The local media should be informed of upcoming exercises and invited to participate. Exercises can provide an opportunity for establishing a productive and positive relationship with the media. During an emergency, the media

will very actively seek information, so exercises provide an excellent opportunity for testing communications mechanisms, which will allow the media to gather their information without interfering with emergency operations.

(5) Corrective Actions. One of the major purposes of exercises is to identify areas within the emergency preparedness program, which may need improvement. Therefore, it is essential that, once all of the critique and evaluation reports have been reviewed, corrective actions in the form of plan and procedure revisions, training and retraining, and a new series of drills and exercises takes place.

c. **Maintenance**. The AEP is a living document. Problems develop, situations change, gaps become apparent, federal requirements are altered. The AEP must be adapted to remain useful and up-to-date.

(1) A remedial action process:

(a) Helps planning teams identify, illuminate, and correct problems with the airport's AEP.

(b) Captures information from exercises, post-disaster critiques, self-assessments and audits which may indicate deficiencies exist.

(c) Brings members of the planning team together to discuss the problem, and to consider and assign responsibility for corrective actions.

(2) A revision process should:

(a) Be a recurring activity, accomplished at least on an annual basis.

NOTE: *It is recommended that any AEP documents which contain specific names and/or telephone numbers be updated on a quarterly basis.*

(b) Provide information needed to allow the planning team to keep the AEP current.

(3) Implementing Documents:

(a) Ensure that each tasked organization or individual develops the SOPs necessary to facilitate the accomplishment of assigned tasks.

(b) The AEP does not anticipate every detail of the tasks it describes - but the details are important to its implementation.

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CHAPTER 4. PLAN FORMAT

4-1 INTRODUCTION. Even if it contains all of the pertinent information, poor organization of information can be the downfall of any document, including the AEP.

The FAA does not mandate a particular format. However, for airports certificated under 14 CFR part 139, the FAA recommends the use of the guidance in this publication. If the document contains the recommended information and if it *is* functional, i.e. the users are familiar with the content and can find the information they need when they need it, then the format is good. If, however, during drills, exercises, actual response, plan review, etc., that test is not met, then some change in format may be in order.

4-2 CONCEPT. A critical component of the planning process for responding to emergencies is to identify all of the common tasks, or *functions*, that must be performed, assign responsibility for accomplishing each function, and ensure that the assigned individuals/organizations have prepared Standard Operating Procedures (SOPs) that describe in detail how they will carry out their assigned tasks, and how they interface with the overall program.

AEPs may be developed using the functional approach, which provides for a document consisting of four major components (reference Figure 4-1):

a. Basic Plan.

b. Functional Annexes.

c. Hazard - specific Sections.

d. SOPs and Checklists.

4-3 COMPONENTS

a. **Basic Plan**. The Basic Plan provides an overview of the airport's emergency response organization and its policies. Its major functions include:

(1) Citing the legal authority for emergency operations.

(2) Summarizing the situations addressed by the AEP.

(3) Explaining the general concept of operations.

(4) Assigning responsibilities for emergency planning and operations.

(5) If applicable, is designed to meet the regulatory requirements of 14 CFR part 139, *Certification of Airports*, with a minimal amount of detailed information. The details may be contained in the Hazard-Specific Sections, SOPs and Checklists as described below.

NOTE: *To assist airport operators certificated under 14 CFR part 139 to comply with the emergency plan requirements outlined in §139.325, an AEP Review Checklist has been developed (reference Appendix 3).*

b. **Functional Annexes**. Functional annexes are plans organized around the performance of broad tasks, e.g. Command and Control, communications, health and medical, etc. Since functional annexes are operations oriented, their target audiences are those who perform the tasks. They do not repeat general information contained in the Basic Plan. For the purposes of the AEP, Functional Annexes usually include:

(1) Command and Control.

(2) Communications.

(3) Alert & Warning.

(4) Emergency Public Information.

(5) Protective Actions.

(6) Law Enforcement.

(7) Fire & Rescue.

(8) Health & Medical.

(9) Resource Management.

(10) Operations & Maintenance.

c. **Hazard-Specific Sections**. Hazard-specific Sections provide additional detailed information applicable to the performance of a particular function in support of a particular hazard. They are prepared when the Hazards Analysis and regulatory considerations warrant. These documents, along with their associated SOPs and Checklists, are usually "stand alone" - for example, if there is a bomb threat, the Bomb Threat section can be pulled from the AEP and used to support the incident - there should be no need to reference the Basic Plan or Functional Annexes during the emergency.

d. **SOPs and Checklists**. SOPs and Checklists provide detailed instructions that an individual or organization needs to fulfill responsibilities and perform tasks assigned in the AEP. Most SOPs and Checklists are hazard-specific and attached to each Section. For example, the airport law enforcement agency may have a general SOP for Traffic and Access Control or for Terminal Evacuation with supporting individual checklists for the Shift Supervisor, Ramp Patrol, etc. Additionally, these documents should provide enough detail to cover the basic response and recovery functions necessary to get the job done, but still are general enough to be flexible since no two emergencies are the same. And remember, emergencies happen at the worst possible time - so try to determine what the worst case scenario for each emergency would be and develop your SOPs and checklists accordingly.

4-4 SUMMARY. Creating a different plan for each hazard is an option, but one that is not recommended. The functional approach described above:

a. Avoids duplication of the planning effort for every hazard, and for every task, by dividing the AEP into four levels (Basic Plan, Functional Annexes, Hazard-specific Sections, and SOPs).

b. Provides an easy-to-use mechanism for organizing all pertinent information.

c. Serves in all-hazard situations, even unanticipated ones, by organizing the AEP around performance of “generic” functions.

d. Permits emphasis on hazards that pose the greatest risk to an airport and surrounding communities, through use of Hazard-specific Sections.

e. Provides the flexibility needed to allow airports of all sizes to adapt to their specific needs based upon available resources and their specific situation.

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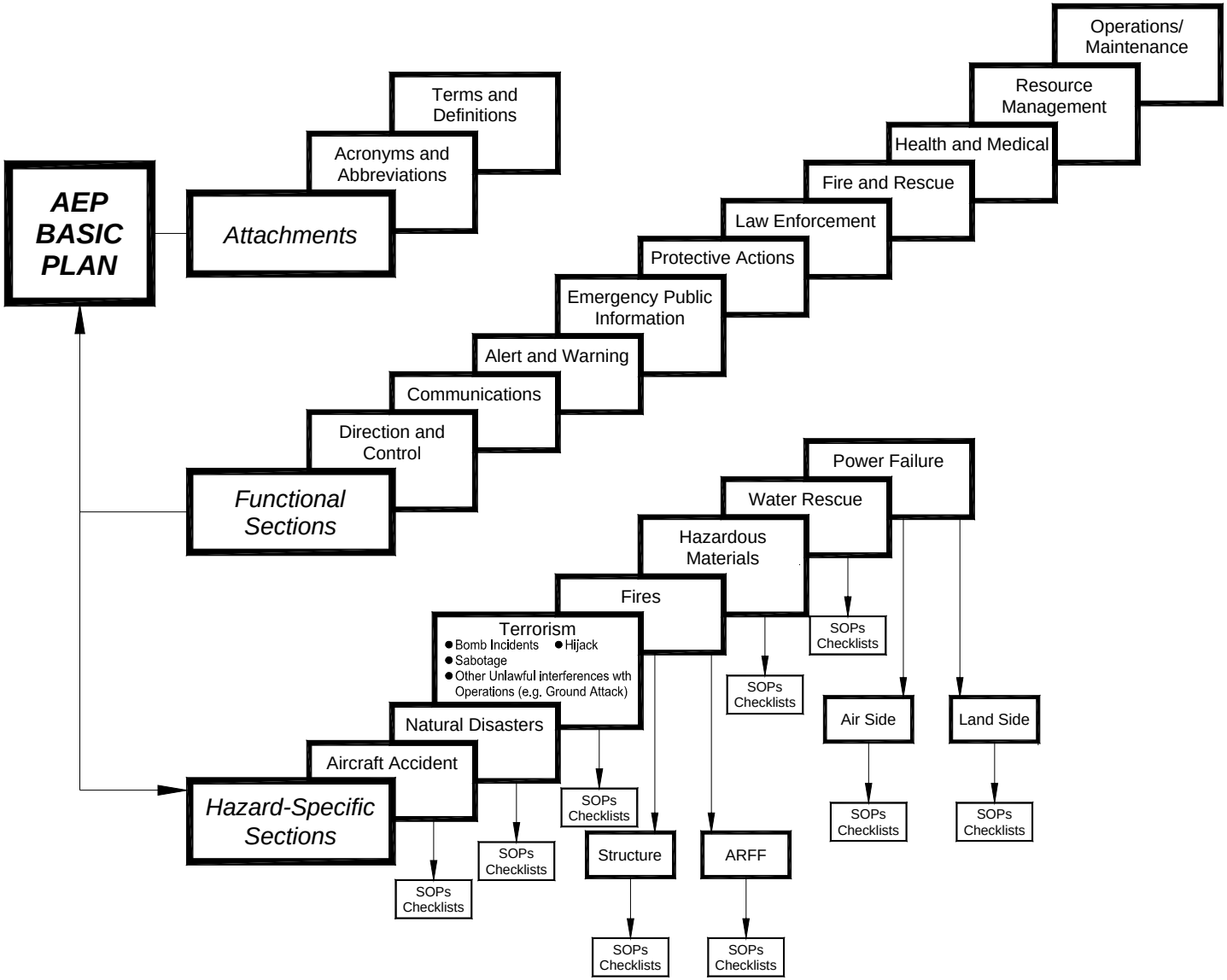

Figure 4 - 1. Airport Emergency Plan Structure

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CHAPTER 5. BASIC PLAN

5-1 INTRODUCTION. The Basic Plan provides an overview of the airport's approach to emergency operations. It generally defines related policies, describes the response organization, and assigns tasks. The primary purpose of the Basic Plan portion of the AEP is to meet the informational needs of the airport's executive body and other agency heads. It often serves as a mechanism for outlining what hazards the AEP addresses without getting bogged down in detail.

5-2 INTRODUCTORY INFORMATION. The AEP should normally be prefaced with certain items that both enhance accountability as well as make it easy to use. These items normally include:

a. **Promulgation Document**. This is usually a letter or form signed by the Airport's governing body. It gives the AEP official status and provides both authority and responsibility for organizations to perform assigned tasks. The promulgation document can also discuss the tasked organizations' responsibility to prepare and maintain SOPs and commit them to the training, exercises, and plan maintenance efforts needed to support the AEP.

b. **Signature Page**. Some airports may choose to include a signature page to show that all response organizations tasked in the AEP have coordinated in the plan's development and are committed to its effective implementation. If the AEP is for an airport certificated under 14 CFR part 139, this type of page may be useful in meeting the plan coordination requirements established in §139.325.

c. **Dated Title Page**. The title page should contain the date of publication, as well as the date of the latest revision.

d. **Record of Changes**. A record of changes can be a chart containing a number assigned to any change, a description of the change, the date of the change, the date of actual entry into the AEP, and the signature or initials of the person(s) responsible for the change.

e. **Record of Distribution**. The Record of Distribution can be used to provide evidence that tasked individuals and organization have had the opportunity to read and understand their responsibilities. To that end, copies may be numbered and the record may show both a date of transmittal and a date on which receipt is confirmed.

f. **Table of Contents**. A Table of Contents makes finding information easier and provides a quick overview of the document.

5-3 PURPOSE. The Basic Plan should contain a general statement of what the AEP is meant to do. It should be supported by a brief synopsis of the Basic Plan, the Functional Annexes, and the Hazard-specific Sections.

5-4 SITUATION AND ASSUMPTIONS. This section narrows the scope of the AEP by outlining what hazards the AEP addresses (as drawn from the Hazards Analysis); what characteristics of the airport may affect response activities and how; and what information used in preparing the AEP must be treated as assumption rather than fact. Policies can be included as a part of the situation or in a separate section, if desired. It is valid to include even "obvious" assumptions: that identified hazards will occur that individuals and organizations are familiar with the AEP and will execute their assigned responsibilities, that assistance may be needed, and that assistance will be available, if applicable.

5-5 OPERATIONS. The purpose of the Basic Plan is to provide an overall sequence and scope of the planned emergency response. In the Concept of Operations the airport's overall approach to an emergency situation is detailed, i.e. what should happen, when, and at whose direction, to include potential inter-jurisdictional responsibilities.

5-6 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. This section of the Basic Plan establishes the emergency organization that will be relied on to respond to an emergency situation. It includes a listing by position and organization responsibilities, along with related tasks to be performed. It provides a "snapshot" view of who does what without a lot of the procedural details that are found in the Functional Annexes. When two or more organizations perform the same kind of task, one should be given primary responsibility with the others given a supporting role. A matrix of organizations and areas of responsibility should be included to show at a glance the primary and supporting roles (reference Table 5-1 for an example).

NOTE: *It is understood that not every airport will have the personnel resources to fill each of the positions described in Table 5-1. It is important, however, that each of the functional areas is addressed, even if the same person must cover two or more. Detailed responsibilities should be included in the Hazard-specific Sections.*

The following are examples of individuals/organizations and related basic responsibilities to be considered for inclusion in the AEP. They are in no way all-inclusive.

a. **Air carrier(s)/Aircraft operator(s)**.

(1) Provide full details of aircraft related information, as appropriate, to include number of persons, fuel, and dangerous goods on board.

(2) Coordinate transportation, accommodations, and other arrangements for uninjured passengers.

(3) Coordinate utilization of their personnel and other supplies and equipment for all types of emergencies occurring at the airport.

(4) Perform duties in accordance with the air carrier's Aviation Disaster Family Assistance Act plan.

b. **Air Traffic Control**.

(1) Contact ARFF service regarding aircraft incidents/accidents and providing them information relevant to the emergency. Provide ARFF vehicle operators with information regarding the last known position of the accident aircraft, the best estimate of the accident.

(2) Coordinate the movement of non-support aircraft away from any area on the airport, which may be involved in an emergency.

(3) Coordinate the movement of support aircraft to/from the emergency scene.

Table 5 - 1. Emergency Response Organization Responsibility Matrix

Functions \ Agency	Airport Manager/Chief Executive	Fire Department	Police Department	Health and Medical Coordinator	Emergency Response Manager	Communications Coordinator	Public Information Officer	Airport Operations and Maintenance	Warning Coordinator	Resource Manager	Volunteer Organizations	Other Agencies
Direction and Control	P	P/S	P/S	P/S	S	S	S	S	S	S	S	S
Communications	S	S	S	S	S	P	S	S	S	S	S	S
Alert and Warning	S	S	S	S	S	S	S	S	P	S	S	S
Emergency Public Information	S	S	S	S	S	S	P	S	S	S	S	S
Protective Actions	P	P/S	P/S	P/S	S	S	S	S	S	S	S	S
Fire and Rescue	S	P	S	S	S	S	S	S	S	S	S	S
Law Enforcement	S	S	P	S	S	S	S	S	S	S	S	S
Health and Medical	S	S	S	P	S	S	S	S	S	S	S	S
Operations and Maintenance	S	S	S	S	S	S	S	P	S	S	S	S
Resource Management	S	S	S	S	S	S	S	S	S	P	S	S

LEGEND

P : Primary Responsibilty

S : Support Responsibility

P/S : One of these may be in charge, depending on the nature and scope of emergency

c. **Airport Authority/Management**.

(1) Assume responsibility for overall response and recovery operations once life, property and safety matters have been mitigated. Until such time the Fire Chief or designee will be the Incident Commander.

(2) Establish, promulgate, coordinate, maintain, and implement the AEP, to include assignment of responsibilities.

(3) Coordinate the closing of the airport when necessary and initiate the dissemination of relevant safety-related information to the aviation users (NOTAMs).

d. **Airport tenants**.

(1) Coordinate the use of their available equipment and supplies.

(2) Coordinate the use of their manpower that may have knowledge of the airport, aircraft, and other technical knowledge.

e. **Animal Care/ Control**.

(1) The movement of animals through the airport as cargo or pets accompanying their owners is fairly routine. Animal Care professionals should be included in AEP development and provide professional assistance during emergencies. This can be assigned to a governmental animal control department or contract with a non-profit or volunteer organization, such as the Humane Society or Society for the Prevention of Cruelty to Animals (SPCA).

(2) Coordinate the services and assistance provided to the animal victims impacted by the emergency.

(3) Removal and care of wildlife involved in collision with aircraft.

f. **Clergy**. Provide comfort to casualties and relatives. Clergy responsibilities should be made clear to avoid conflicts or duplication of effort from other providers of such services, such as the American Red Cross (ARC) or other arrangements made by the air carrier or the National Transportation Safety Board (NTSB) under the Aviation Disaster Family Assistance Act (ADFAA).

g. **Coast Guard/Harbor Patrol**.

(1) Provide primary rescue and other support services in large bodies of water on or adjacent to the airport, as appropriate.

(2) Coordinate their services with other mutual aid rescue services.

h. **Communications Services**.

(1) Identify and designate private and public service agencies, personnel, equipment, and facilities that can be used to augment the airport's communications capabilities.

(2) Identify repair capability avail-able under emergency conditions.

(3) Coordinate and establish communications protocols, including frequency utilization, for use during emergency conditions.

i. **Coroner**. Coordinate and provide body identification and other investigative activities.

j. **Emergency Management Agencies (EMAs)**.

(1) Coordinate local EOP(s) with the AEP.

(2) Consider role airport may have in support of state or regional defense or disaster response plans.

k. **Emergency Medical Services**.

(1) Provide emergency medical services to the airport during emergency conditions to include triage, stabilization, first aid, medical care, and the transportation of injured.

(2) Coordinate planning, response, and recovery efforts with hospitals, fire and police departments, American Red Cross, Airport operator, etc.

l. **State or Local Environmental Agency**. Provide response and recovery support for environmental and other hazardous material emergencies as defined by statute.

m. **Explosive Ordnance Disposal (EOD)**. Provide technical support for related situations.

n. **Federal Aviation Administration (FAA)**.

(1) Certify and uphold the practices and procedures of the aviation industry.

(2) Provide investigation service in support of improving safety and enforcement of the regulations, as necessary.

o. **Federal Bureau of Investigation (FBI)**.

(1) Investigate any alleged or suspected activities that may involve federal criminal offenses (usually related to bomb threats, hijackings, hostages, and dignitaries).

(2) Assumes command in response to certain hijack and other criminal situations.

p. **Aircraft Rescue and Firefighting**. Manage and direct firefighting and rescue operations until life, property and safety matters have been mitigated.

q. **Government Authorities**. In order to avoid conflict and confusion between participants, the AEP should clearly define the obligation, controls and limitations placed on the airport authority by government agencies. Post-accident investigation, unlawful seizure of aircraft, bomb threats and bombings may fall into jurisdiction other than that of the airport authority.

r. **Hazardous Materials Response Team**. Provide response and recovery support for hazardous material emergencies as defined by statute.

s. **Health and Medical**. Coordinate overall planning, response, and recovery efforts with hospitals, EMS, fire and police departments, American Red Cross, Airport operator, etc. to ensure practicality and interoperability.

t. **Hospital(s)**. Coordinate the hospital disaster plan with the airport and community EOP.

u. **Mental Health Agencies**. Provide coordinated program for survivors, relatives, eyewitnesses and emergency response personnel for dealing with the possible long-term effects of the emergency.

v. Military/National Guard. Where a military facility is located on, or in the vicinity of an airport, integrate and coordinate personnel, supplies, and equipment capabilities into the AEP.

w. **Mutual Aid Agencies**.

(1) Coordinate and integrate emergency services into the AEP through mutual aid agreements and Standard Operating Procedures (SOPs).

(2) In some locations there are regulations or laws governing mutual aid activities and agreements.

x. **National Weather Service**.

(1) Provide related technical support information in support of emergency response and recovery operations.

(2) Assist with alert and warning processes, particularly with weather related emergencies.

y. **National Transportation Safety Board (NTSB)**. Conduct and control all accident investigations involving civil aircraft, or civil and military aircraft, within the United States, its territories and possessions.

z. **Police/Security**. Manage law enforcement resources and direct traffic control and law enforcement operations.

aa. **Post Office**. Ensure the security of the mails, protect postal property, and restore service.

bb. **Public Information/Media**. Gather, coordinate and release factual information.

cc. **Public Works/Engineering**.

(1) Manage public works resources and direct public works operations (e.g. road maintenance, debris/trash removal, etc.).

(2) Coordinate with private sector utilities (e.g. power and gas) on shutdown and service restoration.

(3) Coordinate with private sector utilities and contractors for use of private sector resources in public works-related operations.

dd. **Red Cross**. Coordinate and provide support services to victims, their families, and to emergency responders.

ee. **Search and Rescue**. Coordinate and provide search and rescue services as needed, usually for off-airport aircraft emergencies.

ff. **All tasked individuals/organizations**, including, but not limited to, those listed above:

(1) Maintain current internal personnel notification rosters and SOPs to perform assigned tasks.

(2) Analyze need and determine specific communications resource requirements.

(3) Identify potential sources of additional equipment and supplies.

(4) Provide for continuity of operations by taking action to:

(a) Ensure that lines of succession for key management positions are established to ensure continuous leadership and authority for emergency actions and decisions in emergency conditions.

(b) Protect records, facilities, and organizational equipment deemed essential for sustaining operational capabilities and conducting emergency operations.

(c) Protect emergency response staff:

(i) Provide appropriate protective clothing and respiratory devices.

(ii) Ensure adequate training on equipment and procedures.

(iii) Provide security.

(iv) Rotate staff or schedule time off to prevent burnout.

(v) Make stress counseling available.

(vi) Ensure the functioning of communication and other essential equipment.

5-8 ADMINISTRATION AND LOGISTICS. This section of the AEP covers general support considerations to include:

a. The availability of services and support for all types of emergencies.

b. General policies for managing resources.

c. Mutual aid agreement references.

d. Authorities for and policies on, augmenting staff by reassignment of public employees and soliciting volunteers, along with general liability provisions.

e. The airport’s general policies on financial record keeping, reporting, and tracking resources.

5-9 PLAN DEVELOPMENT AND MAINTENANCE. This section of the AEP covers considerations to include:

a. **General**. Personnel should periodically review AEP policies, procedures, and related information. Training that covers changes in policies, procedures, resource availability, etc. should be provided to ensure that all personnel stay familiar with current information.

b. **Schedule of Review**. A schedule should be developed for reviewing each part of the AEP. A suggested schedule for some of the key elements is:

(1) Telephone numbers contained in the AEP should be reviewed quarterly for accuracy by actually calling the individuals/ organizations listed. Changes should be noted, particularly in the procedures of the individual(s)/organization(s) tasked with making the calls during an emergency.

(2) Radio frequencies used in support of the AEP should be tested at least monthly. If these frequencies are used on a day-to-day basis, documentation to that effect should be provided.

(3) Emergency resources should be inspected routinely. The frequency of inspection may vary depending on the type of equipment and supplies. Consideration should be given to placing these resources on the daily or periodic Airport Self-Inspection Program.

(4) Personnel assignments to include descriptions of duties and responsibilities should be reviewed semi-annually.

(5) Mutual aid agreements should be reviewed annually or as specified in the agreement.

(6) Off-airport activity should be reviewed on an on-going basis. Maintain an open dialogue with off-airport agencies, such as utilities, public works departments, etc. to learn of activity that may affect the airport's emergency response effort, i.e. road construction and closures, major utility work, etc.

c. **Training, Drills and Exercises**. An important part of plan maintenance and validation comes from the overall training, drill, and exercise program. As training, drills, and exercises are conducted, it is important that a functional critique/feedback program be in place. These "lessons learned" should be incorporated back into the planning process. A description of the airport's training, drill, and exercise program should be included in this portion of the plan. See Chapter 3 for more information.

5-10 AUTHORITIES AND REFERENCES. The Basic Plan should indicate the legal basis for emergency operations. Laws, statutes, ordinances, regulations, and formal agreements relevant to emergencies should be listed, along with any authority that has been delegated. Citing reference materials - including local EOPs - can be valuable for indicating what has influenced the writing of the AEP. References can also reduce the size of the AEP by directing the user to the full text of other documents.

CHAPTER 6. FUNCTIONAL SECTIONS

6-1 INTRODUCTION. The ten functional sections contained within this chapter address critical services necessary to manage, communicate, respond, and mitigate airport-related emergency situations. They are generic functional responsibilities and may be applied to all emergencies. However, each is a critical component of an AEP since these functions enable an airport to cope with and respond to unforeseen emergencies.

In general, the organization of this chapter's sections parallels that of the basic Airport Emergency Plan. Specific sections can be developed to expand upon information contained in the basic Airport Emergency Plan. Plan development and content are outlined in 14 CFR §139.325, *Airport Emergency Plan*.

These functional sections provide AEP functionality and direction for AEP development. In general, and as a baseline for development, each section should:

a. Focus on specific operations, i.e., what the function is and who or what agency has responsibility for execution of the function.

b. Emphasize specific responsibilities, tasks, and operational actions that pertain to the function being performed.

c. Cover, in general terms, the activities to be performed by anyone with a responsibility under the function.

d. Identify actions that ensure effective response and aid in preparing for emergencies and disasters.

e. Clearly define and describe the policies, processes, roles and responsibilities inherent to the various functions before (mitigation/preparedness), during (response), and after (recovery) an emergency period.

f. Identify clear lines of authority, incident command structure and communications.

6-2 FUNCTIONS TO INCLUDE IN THE SECTIONS. Airports vary in size, organizational configuration and governmental structure; each has its own emergency support capabilities. Therefore, there is no single listing of functional sections that can be prescribed for all airports. There are, however, certain core functions that warrant attention for emergencies at all airports. They are:

a. Command and Control.

b. Communications.

c. Alert Notification and Warning.

d. Emergency Public Information.

e. Protective Actions.

f. Law Enforcement/Security.

g. Firefighting and Rescue.

h. Health and Medical.

i. Resource Management.

j. Airport Operations and Maintenance.

Items 6-2a-j above are not an all-inclusive list of functions, thus each airport should assess its own needs, adding functions as applicable by its airport emergency planning team. Other functional sections could include:

a. Initial and follow-on damage assessment,

b. Search and rescue,

c. Incident mitigation and recovery,

d. Mass care, and

e. Chemical, biological, radiological, nuclear and high yield explosive (CBRNE) protection.

It is critical to review the results of the airport hazards analysis, the community Emergency Operations Plan (EOP), and then develop functions accordingly.

Many airports do not have personnel resources on staff to provide a designated individual to cover each of the functions addressed in this chapter. In many instances they may have to be covered by a few people, i.e., many of the functional areas may have to be combined, or off-airport expertise may be used. The important issue is that the functions should be addressed in the plan. Further, the requirement to cover these functions will vary by the type and nature of emergency. This can be addressed in the appropriate Hazard-Specific Sections (refer to Chapter 7 of this Advisory Circular.)

6-3 DESCRIPTION OF CORE FUNCTIONS. The following sections (1 through 10) provide a brief description of each of the ten functional sections listed in 6-2a-j. They outline the types of operational activity on which each section should focus. To ensure uniformity in plan development, they follow the same general format as the Basic Plan:

a. Purpose.

b. Situation and Assumptions.

c. Operations.

d. Organization and Assignment of Responsibilities.

e. Administration and Logistics.

f. Plan Development and Maintenance.

g. Reference and Authorities.

SECTION 1. COMMAND AND CONTROL

6-1-1 GENERAL. Command and Control is the most critical element of the emergency management function. Effective central control is essential to manage an incident, provide for up/down communications, lateral functional support, and the central control of resources. Emergency response organizations (ARFF, law enforcement, EMS, public works, etc.) normally execute their respective services as a joint effort during emergencies. However, difficulties often arise in the overall management of an emergency when other agencies, disciplines, or organizations, not accustomed to working together merge to provide collateral support. This is particularly true for aircraft emergencies where, in addition to the normal airport response organizations (ARFF, law enforcement, operations, public works, EMS, air carrier, etc.) and local off-airport emergency response agencies and media, there may well be a significant number of additional agencies (e.g., Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), National Transportation Safety Board (NTSB), Federal Aviation Administration (FAA), Federal Bureau of Investigation (FBI), Environmental Protection Agency (EPA), etc.) arriving at the scene. Many of these responders do not normally work together, much less under emergency conditions, yet they all have defined responsibilities. It is, therefore, essential that all responders have an understanding of who is responsible for what during each type of emergency.

The Incident Command System (ICS)[2] is a management system designed to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure. ICS establishes common terminology, standards, and procedures that enable diverse organizations to work together effectively. These include:

- A standard set of predesignated organizational elements and functions
- Common names for resources used to support incident operations
- Common “typing” for resources to reflect specific capabilities
- Common identifiers for facilities and operational locations used to support incident operations.

The information developed for this section should address centralized Command and Control operational activities for all types of emergencies. It may be also used as the baseline upon which detailed centralized Command and Control information is developed for each hazard-specific section.

Airport emergencies can vary in type, intensity, severity and duration. Because of this, the direction and control functions can change dramatically, even during the course of a single emergency (e.g., it can change as it progresses from response activities to recovery activities). To be effective, an incident management system must be functional regardless of the type of incident or agencies involved. Business management techniques should be applied to emergency incident management. The tasks that business managers perform are very similar to those performed by an Incident Commander (IC), (e.g., planning, organizing, directing, coordinating, controlling, communicating, delegating, and evaluating).

However, while these similarities do exist and some similar management principles can be applied, there is one factor which makes emergency incident management more difficult - the elements of inherent danger, property damage, and jeopardy to life. Decisions that are made can literally make the difference between life or death. The function of incident command will be discussed later and in more detail.

[2] The Incident Command System is an element of the FEMA National Incident Management System (NIMS).

6-1-2 CONTENTS OF A COMMAND AND CONTROL SECTION. The content of a Command and Control section includes the following:

a. Purpose. This Purpose Section provides a broad overview of the mechanisms an airport may use to direct and control initial and sustained emergency response and recovery activities. It provides for the necessary and critical actions essential to saving lives, protecting property, and restoring the airport during and following emergency situations. Typically, the Purpose Section should clearly define the individual, functional element, or agency responsible for providing direction and control of responding emergency personnel during each phase of an emergency.

b. Situation and Assumptions. This section describes the situations and conditions that would initiate the notification and the mobilization of response personnel. It also describes the assumptions that are applicable to emergency response organizations such as resource shortfalls and the use of off-airport personnel or equipment or other known factors which may impact the airport's ability to respond to emergency situations.

c. Operations. This section describes the Command and Control relationships of tasked individuals/organizations or agencies, such as:

(1) The overall incident command structure, specifying who will be in charge during each phase of emergency operations (e.g., hostage or weapons situation - law enforcement in command; fire and hazardous materials situation - ARFF/Fire in command; mass casualty with no fire or rescue involvement - EMS in command, etc.).

(2) The authorities and limitations of the key response personnel, including the Incident Commander.

(3) The relationship between the Emergency Operations Center (EOC) (Centralized Command and Control) and the field Incident Command Post (ICP) (On-Scene Command and Control), when used.

(4) The provisions made to coordinate and communicate among all the jurisdictions and agencies (to include all Federal response agencies) that may be involved in the emergency response and recovery activities.

(5) It is important to establish the emergency response command structure, including resolving potential jurisdictional issues, before the emergency occurs so that, once the response effort begins, there is no confusion about who is in charge. This effort can be particularly complicated for airport operators because of the varying ways they are governed, owned, and operated, both legally and functionally (e.g., authority, city, county, state, etc.) and how they interface with other agencies on a day-to-day basis.

(6) Typically, airports and communities use two types of Command and Control systems - centralized and on-scene:

(a) Centralized Command and Control. The typical form of centralized Command and Control is an Emergency Operations Center (EOC). It is used to facilitate policy making, coordination, and overall direction of responding forces in large scale emergency situations. The two primary times the airport/community may use this form are:

(i) When they have received advanced warning that a specific event may occur within a given time period, (e.g., a hurricane will strike within 48 hours, flooding, or a tornado is imminent). In these situations, the EOC may be activated and used to coordinate those actions which may be taken before a disaster strikes, such as emergency public information, closure of public facilities, evacuation of people and equipment (e.g., airplanes), establishment of shelters, etc., and

(ii) When they have experienced a large scale disaster such as an aircraft disaster. In these situations, the EOC can be used as a central coordinating center to support the Incident Commander(s) in the field. The main roles of the EOC are:

a) To provide a centralized fixed location, preferably away from vulnerable areas, yet with reasonably accessible to those officials who will use it.

NOTE: *Provisions for an alternate EOC provide for a backup for the primary EOC, and should be considered in the planning processes.*

b) To provide support to the on-scene Incident Commander(s).

c) Act as the command center for localized emergencies such as bomb threats and unlawful seizure of aircraft.

d) To be available for operational support 24-hours a day.

(iii) The EOC should:

a) Be of sufficient size to support the number of staff members anticipated for the specific airport.

b) Physically organized to provide maximum functionality, usually in three areas: operations room, communications center, and support area.

c) Be appropriately equipped with usual furnishings (tables, chairs, lamps, etc.), displays, maps, telecommunications equipment (redundancy systems), wireless computer capability, projector and screen, fax, copier, status boards, whiteboards, and more. Name tags/position identifiers should also be provided.

d) Provide grid maps[3] for a common frame-of- reference for orientation and coordination of emergency responders. All ARFF vehicles, airport operator vehicles, and mutual aid vehicles should carry a copy of the airport grid map for reference. An example of grid maps is available in Appendix 8.

e) Be secure. Security personnel and systems keep unauthorized persons from entering the facility.

f) Be adequately staffed. The EOC staff should be carefully selected, trained, and represent members of the senior staff. Functions to be covered include: operations, maintenance, emergency medical services, law enforcement, fire,

[3] Reference:
- NFPA 424 Guide for Airport/Community Emergency Planning
- 14 CFR §139.203(b)4.

public works/logistics, public information, resource management, finance, legal, and communications. Typically, the EOC is run by an EOC Manager who is responsible for managing emergency support activities. Often, there is also a Liaison position which acts as an intermediary between the airport and other agencies, such as the air carriers or responding federal agencies. A sample Emergency Response and Recovery Organizational Chart may be found at Figure 6-1.

(b) On-Scene Command and Control. The on-scene control system places the responsibility for the direction and control of all response actions with *an individual agency* who has responded to the actual scene of the incident. This role is critical. It serves several important functions. These include the provision for directing emergency response and mitigation actions at the scene, a central focal point of contact for communications with the EOC and its support functions/agencies, and a detached, yet centralized response force in the field to potentially save lives and reduce property loss.

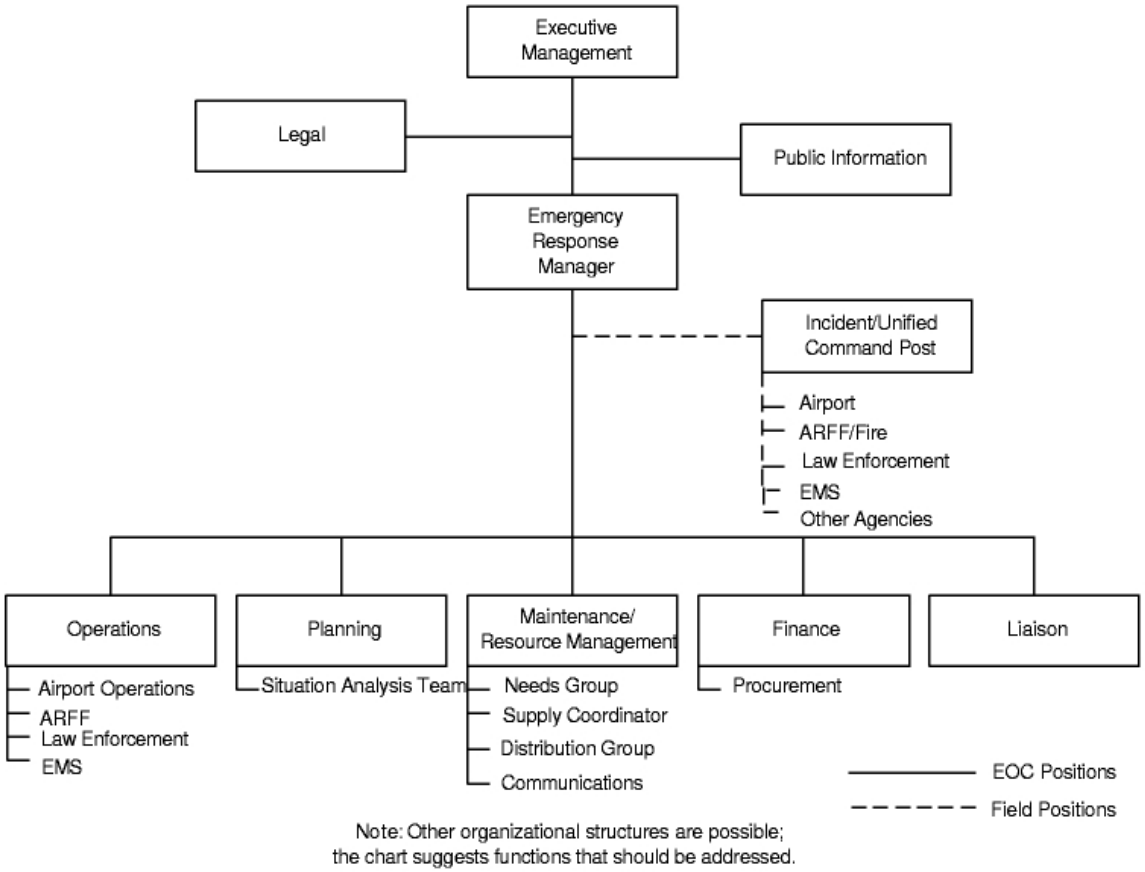


Figure 6 - 1. Sample Components of an Emergency Response and Recovery Organization

d. Emergency Response Organizations. Emergency response organizations use the generally accepted national standard for on-scene Command and Control. This national standard is the Incident Command System (ICS).

NOTE: *Several laws and standards require the use of ICS to manage emergencies. These are contained in Appendix 6, Bibliography.*

(1) The ICS was developed and designed to accommodate an "**ALL HAZARDS APPROACH**," from a minor automobile accident to significant events such as earthquakes. The ICS organizational structure evolves in a modular fashion from the top down and provides fluidity for the logical expansion as an incident becomes more complex. The basic concepts and principles of ICS include: common terminology, modular organization, integrated communications, unified command structure, consolidated action plan, manageable span of control, designated incident facilities, and comprehensive resource management. While there are several different ICS structures, varying in complexity and flexibility, most begin with the following modules which are based on five functions that should be performed at every emergency incident (reference Figure 6-2):

(a) Incident Commander.

(b) Operations.

(c) Planning.

(d) Logistics.

(e) Finance/Administration.

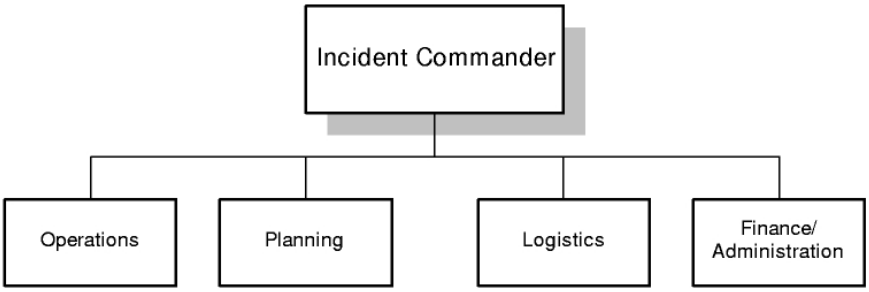


Figure 6 - 2. Sample Basic Incident Command System Structure

In a non-complex emergency situation, these five tasks can be performed by a single individual. The command function is always established. If the incident expands, the ICS expands with it. However span of control can become a significant management issue.

(i) Incident Commander. ICS is scene specific. The function of the Incident Commander is to direct and control personnel and equipment, as well as to provide overall management at a specific incident site, including public safety and public information. The goal of the IC is to obtain the maximum productivity from all on-scene resources. The individual in this position may change depending on the scope, intensity, and duration of the incident. In addition to coordination, the IC normally handles three other responsibilities at minor incidents:

a) scene safety;

b) liaison with outside agencies; and

c) dissemination of information to the news media.

An effective IC must recognize the need to delegate these functions when the incident gets to a point when he or she can no longer effectively perform them. To be effective, an IC must be decisive, objective, pro-active, calm, a quick thinker, realistic, and flexible. This is no time for egos or turf issues - lives may be a stake. The IC must be qualified to make the decisions that need to be made under stressful conditions, and most importantly, realistic about his or her limitations.

The command function within ICS may be accomplished in two general ways. The methods are single command and unified command:

- **Single command** is applicable when there is no overlap of jurisdictional boundaries or when a single IC is designated by the agency with overall management responsibility for the incident.

- **Unified command** is used if several organizations have major roles or if the incident is multi-jurisdictional in nature - it is a shared responsibility for overall incident management. Under the Unified Command process, all involved agencies contribute to the command process, including overall goals, planning tactical objectives, and maximizing the use of all available resources. An example of when Unified Command may be appropriate would be during an air carrier aircraft incident or accident.

(ii) Operations. The operations function is coordinated by the Operations Section Chief who reports directly to the IC. The operations function is responsible for tactical operations at the incident site with actions performed in accordance with an incident-specific Incident Action Plan.

(iii) Planning. The planning function is coordinated by the Planning Section Chief who reports directly to the IC. The planning function is responsible for coordinating the collection, evaluation dissemination, and use of information regarding the incident, as well as the status of resources used or needed at the incident site. The Planning Section is also responsible for the development of the Incident Action Plan (IAP). Depending on the size of the incident, this plan may be oral or written.

(iv) Logistics. The logistics function is coordinated by the Logistics Chief who reports directly to the IC. The Logistics Section is responsible for facilities, services, personnel, equipment, and material in support of the incident.

(v) Finance/Administration. The finance/administration function is coordinated by the Finance Chief who reports directly to the IC. This function is responsible for tracking all incident costs, evaluating the financial considerations of the incident, cost analysis, and assuring appropriate reimbursement processes are initiated.

e. Command Staff. During response operations and in some cases, recovery operations, the Incident Commander (IC) and staff are located at the Incident Command Post (ICP). As previously stated, some incidents may be of such magnitude or complexity that the IC cannot effectively perform all of his or her responsibilities and span of control becomes an issue. Span of control is defined as the number of subordinates one supervisor can manage effectively. Effective management becomes difficult if too many people are reporting to one supervisor.

Under emergency response conditions, this number ranges from three to seven persons. Span of control issues must be anticipated and prepared for, especially in rapidly escalating situations. Therefore, when conditions warrant, the IC should delegate certain responsibilities to other qualified personnel (Figure 6-3):

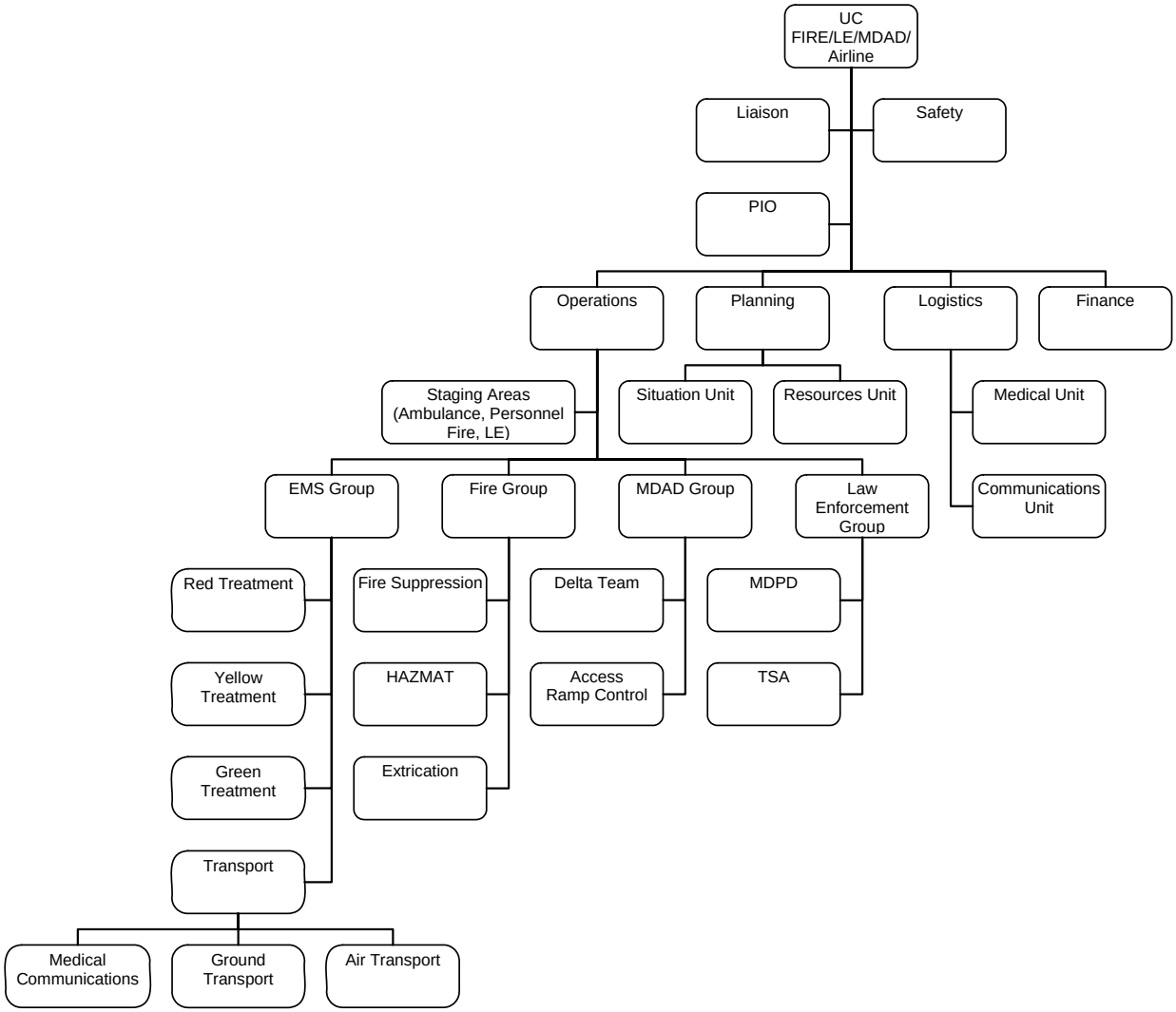


Figure 6 - 3. Sample Incident Command System Aircraft Accident

(1) A *Safety Officer* is responsible for monitoring and assessing the safety hazards and unsafe situations response personnel may be exposed to and to develop and enforce measures to ensure their safety. This individual should keep the IC informed of present problems as well as potential hazards and suggested solutions to minimize risks. The Safety Officer has the authority to bypass the chain of command when immediate correction to unsafe actions is required.

(2) A *Public Information Officer (PIO)* is responsible for interfacing with the media and other appropriate agencies. This includes developing and disseminating complete and accurate information applicable to the incident, including size, current situation, resources committed and other information pertinent to the situation at hand.

(3) A *Liaison Officer* is responsible for serving as a point of contact with assisting or coordinating agencies. Responsibilities include coordinating the management of these agencies to avoid duplication of effort and to ensure that each agency is allowed to perform what it does best. The Liaison Officer often must act as a diplomat in cases where a responding agency may lack familiarity with ICS or with their involvement with the particular incident.

f. Command Post. On-scene response operations may be conducted from a Mobile Incident Command Post (MICP) or Mobile Emergency Operations Center (MEOC). The MICP or MEOC should be readily identifiable in both day and night conditions.

g. Personnel Identification. Key responders in the Incident Command System should be readily identifiable through an identification system such as reflective vests, functional badges, safety hard hats, or other distinguishing markings that clearly indicate their respective function.

6-1-3 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. This section describes the specific direction and control responsibilities that are assigned to each tasked organization. The following are sample taskings and associated individuals:

a. **Chief Executive/Airport Manager**.

(1) Initiates the activation of the EOC (full or partial), when appropriate.

(2) Directs all tasked organizations to ensure appropriate response in accordance with established plans and procedures.

(3) Reports to the EOC, when notified.

(4) Provides overall direction of response operations until an emergency scene is established and an IC assumes this responsibility (some rapidly developing situations occur where the IC may have already responded to the scene and established command).

(5) Designates an IC to direct tactical operations at the emergency scene, as appropriate,

(6) Designates an IC to direct operations in the EOC, as appropriate.

(7) Directs implementation of protective actions (sheltering/evacuation) for airport employees, tenants, and visitors, as appropriate.

(8) Terminates response operations and releases personnel, when appropriate.

b. **Aircraft Rescue and Fire Fighting (ARFF)**.

(1) When notified of an emergency situation, responds to the incident scene with appropriate personnel and firefighting equipment in accordance with (IAW) standard operating procedures (SOP).

(2) Identifies an initial IC and establishes an ICP, if appropriate; assigns appropriate personnel to IC staff functions.

(3) Performs IC duties at the scene of the incident, as appropriate.

(4) Keeps the IC and EOC informed of scene status, as appropriate.

(5) Manages fire/rescue resources, directs fire operations, conducts necessary rescue operations, and determines the need to evacuate the area in the vicinity of the scene or to initially shelter in place.

(6) Alerts emergency response personnel of the presence of hazards at the scene, (e.g., fire, hazardous materials, safety, scene evacuation, etc.).

(7) Refer to Section 7 for additional responsibilities.

c. **Law Enforcement**.

(1) When notified of an emergency situation, responds to scene, or other location, with appropriate personnel and law enforcement equipment, IAW standard operating procedures (SOP) and as prescribed by:

(a) 49 CFR part 1542, *Airport Security*.

(b) 49 CFR part 1544, *Aircraft Operator Security: Air Carriers and Commercial Operators*.

(c) 49 CFR part 1546, *Foreign Air Carrier Security*.

(d) 49 CFR part 1548, *Indirect Air Carrier Security*.

(2) Identifies an initial IC and establishes an ICP, if appropriate; assigns appropriate personnel to IC staff functions.

(3) Performs IC duties at the scene of the incident, as appropriate. Additional information concerning law enforcement can be located at the FEMA Independent Study Program web site: *Introduction to the Incident Command System, I-100, for Law Enforcement*.

(4) Keeps the IC and EOC informed of scene status, as appropriate.

(5) Manages law enforcement resources and directs law enforcement operations, such as:

(a) Traffic control and traffic diversion.

(b) Evacuation assistance.

(c) Scene access control (both personnel and vehicular).

(d) Scene security.

(e) Damage assessment.

(f) Refer to Section 6 for additional responsibilities.

d. **Public Works**.

(1) When notified of an emergency situation, sends response teams/personnel, equipment, and vehicles to the scene, staging area, or other location, when appropriate or requested.

(2) Identifies an IC and establishes an ICP, if appropriate; assigns appropriate personnel to IC staff functions.

(3) Performs IC duties at the scene of the incident, as appropriate. Additional information concerning public works can be located at the FEMA Independent Study Program web site: *Introduction to the Incident Command System, I-100, for Public Works Personnel*.

(4) Keeps the IC and EOC informed of scene status, as appropriate

(5) Manages public works resources and directs public works operations, such as:

(a) Performing debris collection and removal.

(b) Conducting damage assessment activities

(c) Providing emergency generators, fuel, lighting, sanitation to emergency responders.

(d) Coordinates with utility companies, as necessary.

e. **Public Information Officer**.

(1) When notified, reports to EOC.

(2) Performs interface with media regarding the emergency.

(3) Refer to Section 4 for additional responsibilities.

f. **Health and Medical Coordinator**.

(1) When notified, sends a representative to the EOC.

(2) Coordinates health and medical activities of all response organizations involved in providing medical assistance at the scene. Additional information concerning medical activities can be located at the FEMA Independent Study Program web site: *Introduction to the Incident Command System for Healthcare/Hospitals*.

(3) Coordinate and provide Critical Incident Stress Management (CISM) and counseling.

(4) Refer to Section 8 for additional responsibilities.

g. **Communications Coordinator**.

(1) Supports communications operations in the EOC.

(2) Refer to Section 2 for additional responsibilities.

h. **Animal Care and Control Agency**.

(1) When requested, sends a representative to the scene and/or EOC.

(2) Manages efforts to meet animal services needs, such as:

(a) Rescue and capture of animals that have escaped confinement.

(b) Care of injured, sick, and stray; and disposal of dead animals.

(c) Activates emergency response teams, as needed.

(d) Prepares a resource list of organizations that are responsible for providing supplies needed to treat and care for injured and sick animals during large-scale emergencies and disasters.

(e) Additional information concerning animal care can be located at the FEMA Independent Study Program web site: *Animals in Disaster, Module A: Awareness and Preparedness, and Animals in Disaster, Module B: Community Planning*.

i. **Other Organizations**. The organization and assignment section should list all other agencies that have not been included above and briefly describe the services they will provide (e.g., coroner's office, air carriers, other airport tenants, etc.).

j. **Airport Operations**. Supports unified command as logistical support and airfield responsibilities.

6-1-4 Administration and Logistics.

This section describes the support requirements of the Command and Control function.

a. **Administration**. This section specifies the records that are required to be maintained and describes the frequency and types of reports that are necessary. Examples include:

(1) Reports relating to specific agencies' expenditures and obligations during emergency conditions.

(2) Requirement to submit reports to the various levels of emergency management agencies (very often, reimbursement of expenditures is dependent upon report submission).

b. **Logistics**. This section addresses the support arrangements (food, water, emergency power, fuel, equipment, supplies, etc.) of the organizations performing the direction and control functions. Letters of Agreement, if developed, should be referenced.

6-1-5 Plan Development and Maintenance. This section describes who is responsible for coordinating the revision of the Command and Control Section, including attachments and SOPs.

6-1-6 AUTHORITIES AND REFERENCES. All authorities and references should be listed as appropriate. These should include, but not be limited to:

a. Mutual Assistance Agreements (MAA)

b. Memorandum of Understanding (MOU)

c. Service Support Contracts (SSC)

d. Implementation Plans

SECTION 2. COMMUNICATIONS

6-2-1 GENERAL. This function addresses the processes used to reliably and efficiently transfer, delineate, and disseminate information from one point to another during emergency situations. The entire communication system and process is discussed in detail.

6-2-2 CONTENTS OF A COMMUNICATIONS SECTION. The content of a communications section includes the following:

a. **Purpose**. A communications section provides information on establishing, using, maintaining, augmenting, and providing redundancy for all types of communications devices needed during emergency response operations.

b. **Situation and Assumptions**. The Situation portion of this section identifies broad considerations that apply to the kinds of emergency conditions that could occur and would require the activation of emergency communications systems to support the airport's response to the situation. It must be remembered that the airport presents some unique operating conditions relative to communications, e.g., potentially high noise levels, air traffic control communications systems and requirements, security, etc.

This section also describes the assumptions that are applicable to the communications system(s) the airport will use during an emergency. Typical assumptions may address:

(1) Recognition of the fact that large-scale emergency operations usually require a communications capability beyond the normal capacities of the equipment of a typical airport. Therefore, the type required and sources (from the private and public sector) for the additional equipment needed to support response and recovery operations should be identified as a fundamental activity associated with developing this section of the plan.

(2) Depending on the type of emergency, communications support from local emergency response agencies may or may not be available.

(3) Organizations such as Radio Amateur Civil Emergency Service (RACES), Radio Emergency Associated Communications Teams (REACT), local industry, taxi and transit companies, may be available for support.

(a) Information concerning RACES can be obtained from www.races.net.

(b) Information concerning REACT can be obtained from www.reactintl.org.

(4) Designation of specific response organizations to maintain operational control of their own communications system(s) while coordinating with the Incident Command Post or Emergency Operations Center during emergency response and recovery operations.

c. **Operations**. This section should describe the methods used to communicate between the EOC, field forces at a specific incident scene (operating under an Incident Command System or other direction and control system), control centers of emergency response organizations (e.g., fire, police, EMS dispatch centers), radio/TV stations, hospitals, amateur communications networks, adjacent communities, military installations, and other private and public sector organizations. It

should address provisions for redundancy (sometimes termed primary and secondary backup systems) and integration in all areas of information flow, including equipment and the people that will operate that equipment. To facilitate the development of the overall airport communications system for emergency response and recovery operations, it may be helpful to develop a schematic depicting information flow. A sample information flow schematic is located at Figure 6-4.

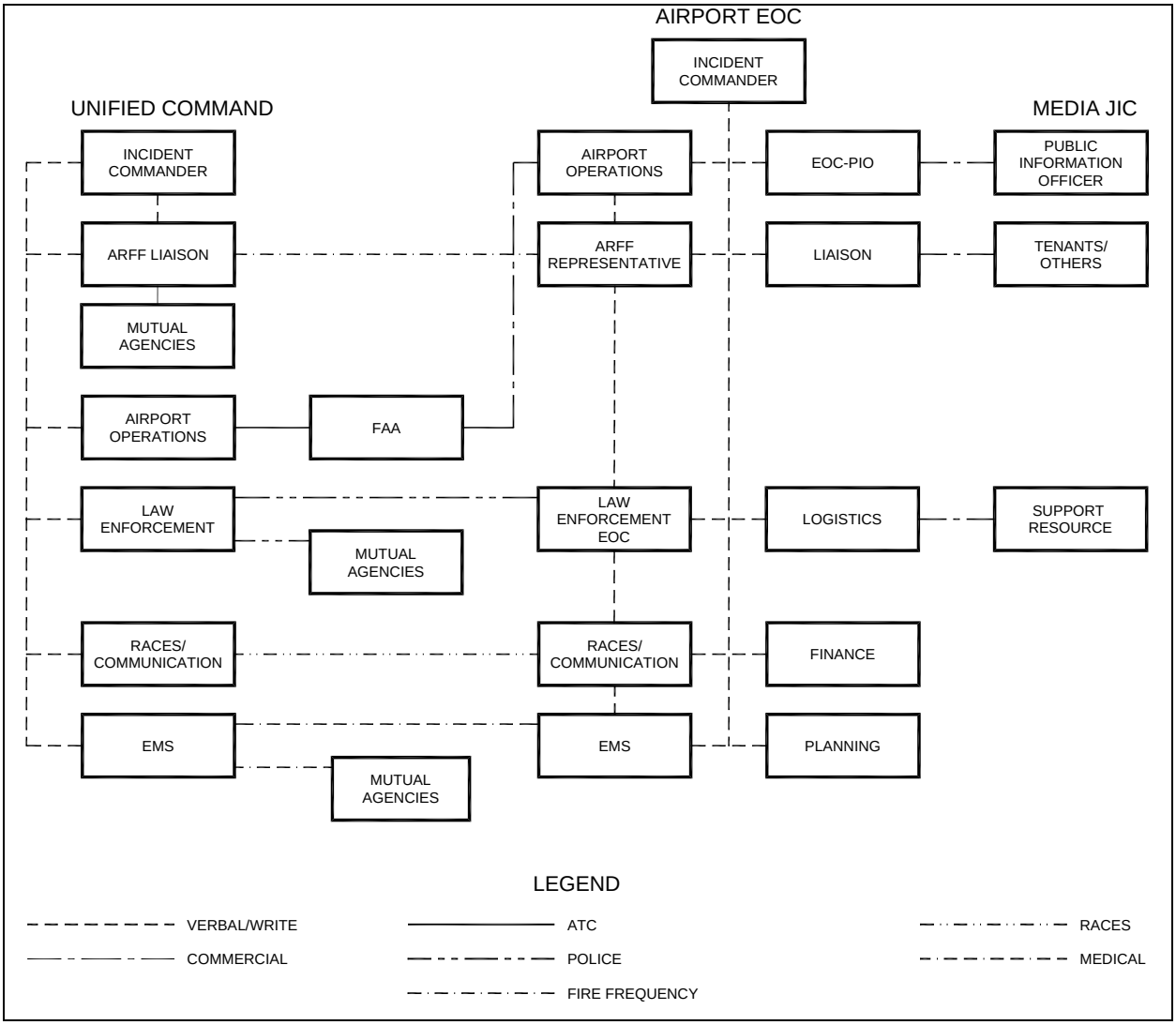


Figure 6 - 4. Sample Components of an Information Flow Chart - Airport Accident

Integrated communications involves managing communications at an incident through use of a common communications plan. SOPs should be established using *common terminology* and *clear text* (when working with varying agencies, unfamiliar words or terminology may cause problems). Effective two-way communication is essential to the efficiency and execution of an effective incident management system. Not only is it important that messages are received, it is equally important that they are acknowledged properly.

Interoperability: Communications interoperability allows emergency management/response personnel and their affiliated organizations to communicate within and across agencies and jurisdictions via voice, data or video on demand, in real time, when needed, and when authorized.

It is essential that these communications systems be capable of interoperability, as successful emergency management and incident response operations require the continuous flow of critical information.

Incident communications are facilitated through the development and use of a common communications plan and interoperable communications processes and architectures. This integrated approach links the operational and support units ofthe various agencies involved and is necessary to maintain communications connectivity and discipline and enable common situational awareness and interaction. Preparedness planning must address the equipment, systems, and protocols necessary to achieve integrated voice and data incident management communications.

d. **Organization and Assignment of Responsibilities**. This section describes the specific communications responsibilities that are assigned to tasked organizations.

(1) Airport Manager/Chief Executive.

(a) Designates a Communications Coordinator to report to the EOC, when required.

(b) Ensures adequate and appropriate communications systems are in place.

NOTE: *The Duty Airport Operations Officer involved with the Alert II will coordinate and come to a mutual agreement with the ARFF Officer and any other involved group, on when to reopen a runway closed for an Alert II response. After agreement has been reached as when to reopen the closed runway, the Duty Airport Operations Officer will confirm all vehicles responding to the Alert II, as well as the Alert II aircraft are clear of the runway and only then will the runway be reopened with the Airport Traffic Control Tower.*

(2) Communications Coordinator.

(a) Manages the communications section in the EOC and supervises all personnel assigned to it.

(b) Supports media center communications, as needed.

(c) Ensures communications section in the EOC has the capability to sustain operations around the clock.

(d) Maintains a chronological event log.

(e) Establishes a secondary communications center.

(3) All Tasked Organizations. This includes all emergency response organizations (ARFF, law enforcement, Public Works, Public Information, Health and Medical, off-airport support, etc.). During emergency response operations, all organizations should:

(a) Maintain their existing equipment and follow established procedures for communicating with their organization personnel performing field operations. All organizations should keep the EOC informed of their respective operations at all times.

(b) Ensure redundant and interoperable communications capability.

(c) Clean, repair, and perform maintenance on all equipment before returning to normal operations or storage.

e. **Administration and Logistics**. This section addresses the support requirements of the communications function.

(1) Administration. This section addresses the administrative action associated with satisfying the tasking in this section. Specific areas to be addressed include:

(a) Record and report preparation and retention.

(b) Accounting and reimbursement procedures.

(c) Reference to the telephone lists and radio frequencies in the SOPs/checklists that should be followed to notify emergency personnel during emergency situations.

(2) Logistics. This section addresses general support requirements. Specific areas to be addressed include: communications agreements with private organizations (e.g., RACES, REACT, etc.), mutual aid agreements with surrounding communities, and provisions to have damaged communications equipment repaired or replaced.

f. **Plan Development and Maintenance**. This section should identify who is responsible for coordinating the development and revision of the airport's Communications Section, keeping its attachments current, and ensuring that SOPs/check-lists and other necessary documents are developed and kept current.

g. **Authorities and References**. Authorities and references should be cited as appropriate.

SECTION 3. ALERT NOTIFICATION AND WARNING

6-3-1 GENERAL. This function addresses the processes used to notify and warn emergency response agencies, airport employees and tenants, and the general public of potential or actual emergency situations. This alert and warning process is essential for it ensures the timely notification to emergency organizations and the response of emergency forces as well as ensuring that the public has adequate time to take appropriate protective actions to avoid death, injury, and/or damage to property.

6-3-2 CONTENTS OF AN ALERT NOTIFICATION AND WARNING SECTION. The content of an Alert and Warning Section includes the following:

a. **Purpose**. This section provides information which identifies the methods and sequences to be used in notifying all appropriate airport personnel of an emergency situation on, or in the vicinity of, the airport. It describes the various alert and warning systems and equipment available at the airport, how and under what conditions they are to be used, and who is responsible for them, to include activation/de-activation and testing/maintenance.

b. **Situation and Assumptions**. This section describes the general kinds of conditions that could warrant the activation of an alert and warning system. It describes the special conditions present at the airport which may impact system design or use, i.e., emergency access doors leading to the Air Operations Area or other security area. It may also describe those situations where coordination with off-airport agencies is necessary and beneficial.

Some of the typical assumptions which may be made:

(1) Special needs groups such as people with sight or hearing, mobility impairments or unaccompanied children will require special attention to ensure a totally functional alert and warning system is established.

(2) Some people may ignore or not understand the alert and warning signal.

(3) Fire, police, other airport personnel, or outside agencies may be called upon to assist in the alert and warning process.

(4) For some types of emergencies, the local emergency management agency may activate the Emergency Alert System (EAS) to notify the public of the situation.

(5) Where available, National Oceanic and Atmospheric Administration (NOAA) Weather Radio Stations will disseminate watches and warnings issued be the National Weather Service (NWS); NOAA tone alert radios are automatically activated when such watches are issued.

(6) Where available, the local emergency management agency may activate the Mass Notification System (MNS) to notify response agencies and the public. Refer to DHS certification of MNS under the Support Anti-Terrorism and Fostering Effective Technologies Act of 2002 (SAFETY Act) located at www.safetyact.gov/DHS/SActHome.nsf.

c. **Operations**. This section provides general information on the process of how the alert and warning system is to be used at the airport. This section:

(1) Identifies the key and essential personnel and organizations to be notified of the various emergencies, to include emergency response agencies, the public, and airport personnel.

(2) Describes who is responsible to initiate and make notifications and the methods to be used for the notification of those personnel and organizations.

(3) Identifies types of alert and warning systems (crash phone, fire alarms, sirens, pagers, radios, route alerting, EAS, MNS, etc.) to be used on the airport for each type of emergency, e.g., aircraft emergency - crash phone; structural fire - fire alarm, etc., specifies the location of these systems, and the area covered.

(4) Describes procedures to be used for special locations, such as high noise areas, aircraft parked at the gate, etc.

(5) Describes procedures to be used to warn special needs populations such as the hearing and sight-impaired and non-English speaking individuals.

(6) Describes any pre-scripted public address system announcements which have been developed and included in incident-specific plans and procedures.

(7) Describes procedures to be used in the event of public address system or alert and warning system failure.

(8) Clearly defines the meaning of all warning signals.

(9) Describes the coordination processes when there is a need to involve neighboring off-airport jurisdictions, to include the local emergency response agency. The role of the EAS or MNS should be discussed.

(10) Describes the arrangements that have been made with the emergency management organizations in nearby jurisdictions, industrial complexes, and military facilities (on or adjacent to the airport) that use, store, produce, or transport hazardous materials to immediately alert the airport (who, how, when, and where) if an emergency situation involving hazardous materials occurs.

d. **Organization and Assignment of Responsibilities**. Once an emergency situation is identified, quick notification and exchange of information is crucial. This section describes specific responsibilities that are assigned to tasked organizations for each type of emergency.

(1) Chief Executive/Airport Manager.

(a) Identifies individuals who have the specific responsibility and authority to initiate manually activated alert and warning systems.

(b) Ensures preparation of contingency plans to provide alert and warning if the established system fails to work.

(2) All Tasked Organizations. Upon receipt of an alert signal or warning message, initiate internal notification procedures to:

(a) Notify all employees and other volunteers assigned to emergency response duties of the emergency situation.

(b) As appropriate to the situation:

(i) Suspend or curtail normal business activities.

(ii) Notify and recall essential off-duty employees.

(iii) Send non-critical personnel home.

(iv) Evacuate the organization's facilities.

(c) If appropriate, augment the alert and warning effort through the use of vehicles or personnel equipped with public address systems to deliver the alert signal and warning message.

e. **Administration and Logistics**. This section addresses the administrative and general support requirements associated with the alert and warning function.

(1) Administration. Areas to be addressed include, but are not limited to:

(a) Reference or attach as an appendix the SOP or checklist that contains the contact information (telephone number (office, residence, or cellular)), radio frequency, etc.) of the emergency or other personnel to be notified of an emergency situation.

(b) Attach as an appendix charts or maps that depict the alert and warning system and the area they cover. The AEP should include grid map[4] for a common frame of reference for orientation and coordination of emergency responders. All ARFF vehicles, airport operator vehicles, and mutual aid vehicles should carry a copy of the airport grid map for reference. A example of grid maps is available in Appendix 8.

(2) Logistics. Requirements to be covered include, but are not limited to:

(a) Policies, procedures, and frequencies to test and maintain alert and warning equipment.

(b) Policies, procedures, and priorities to repair or replace damaged equipment.

(c) Policies, procedures, and priorities to cover adequate alert and warning equipment should multiple incidents develop.

(d) Agreements for use of private services agencies, personnel, equipment, and facilities to augment the airport's alert and warning capabilities. Maintain augmentation agreement record copies on file.

[4] References:

- NFPA 424 Guide for Airport/Community Emergency Planning
- 14 CFR §139.203(b)4.

f. **Plan Development and Maintenance**. This section should identify who is responsible for coordinating revisions to any of the alert and warning plans, procedures, SOPs, and checklists, agreements, as well as developing new implementing documents, as necessary.

g. **Authorities and Reference**. Authorities and references should be cited as necessary.

SECTION 4. EMERGENCY PUBLIC INFORMATION

6-4-1 GENERAL. This function addresses the activities associated with providing timely, accurate, and useful information and instructions to the public throughout the emergency period. For most emergencies, the Emergency Public Information (EPI) organization will initially focus on the dissemination of information to the public at risk on the airport property. However, the EPI organization must also deal with the wider public's interest and desire to help or seek information about friends, family, employees, or co-workers. Quality and timely information can assist in preventing an overload of an airport's communications network, its transportation infrastructure, and its staff.

Most experts will agree that an ineffective, unorganized, and inaccurate public information program during an emergency can result in very serious problems. Ineffectiveness can raise the anxiety level in the community-at-large, disorganization can feed inaccurate impressions of the situation, and inaccuracy can significantly exaggerate the potential for harm.

For the airport EPI organization to develop and execute an effective information program, it must develop a mutual working partnership and relationship with the full scope local media. These include television, radio, newspapers, and web sites. These relations can carry over from strictly emergency response matters (when the airport has something to say and needs the media to relay it) into news coverage (when the media have to relay their stories and need the airport to say or show something). For most airports, media relations become a natural extension of the emergency public information function—all part of a Public Information Officer's (PIO) job. FEMA offers training resources for public information systems. Refer to the *National Incident Management System (NIMS) – Public Information Systems*.

Local media, like the EPI organization, remain after the emergency. They share concern for the airport and surrounding communities' welfare, and they answer to the communities for the service they provide. Local media, being sensitive to the communities' needs, can work with the PIO to focus on strict EPI concerns and deal with the news aspects as time and circumstance permit. Media relations can become a real challenge during major emergency events when the demand for news information overwhelms the EPI organization's ability to perform its basic mission: to provide timely, accurate, and useful information to the public. It is beneficial during such times to have pre-established strong professional relations with the local media, especially with the potential convergence of national media and "local" media from outside the immediate area. If the locals know they will get their information based on their previous experiences with the EPI organization, they may be less inclined to be a hindrance during the height of the event.

6-4-2 CONTENTS OF AN EMERGENCY PUBLIC INFORMATION SECTION. The content of an EPI Section includes the following:

a. **Purpose**. This EPI section describes the means, organization, and processes by which an airport may provide timely, accurate, and useful information and instructions throughout an emergency.

b. **Situation and Assumptions**. This section describes the overall planning environment for the EPI function and shows what uncertainties have been treated as fact. Items to be considered during the planning process include:

(1) Situation.

(a) General. A situation section should list the hazards that face the airport (i.e., the results of the hazards analysis as described in Chapter 7, Hazards, and Appendix 1 of this AC). It should note those situations which would require activation of the EPI response organization. If a given hazard, e.g., aircraft accident, requires special planning provisions, the section should mention that a Hazard-specific Section has been developed to address that particular issue. Further, because of the unique service area of the airport (i.e., potentially world-wide for many facilities), consideration must be given to media needs at point of origin and/or destination airports.

(b) Means of dissemination. A situation section should give relevant facts about the airport's ability to transmit or communicate emergency public information. Relevant facts may include:

(i) Identified resources. The section should describe the principal means by which EPI will be disseminated. These means include local and national television, radio, newspaper, and the Internet. A listing of the specific means should be attached to the section, along with contact information, hours of operation for radio/TV/cable stations, circulation (morning/evening, daily/weekly) of newspapers, and languages covered. The section should also address alternative methods (vehicle-mounted public address, door-to-door, etc).

(ii) Coverage. This section should describe the area covered by broadcast stations and give at least a rough idea of audience access to cable and newspapers (e.g., number of subscribers).

(iii) Vulnerability. This section should note how the means for disseminating EPI could be negatively impacted by hazards that face the airport. Natural phenomena such as hurricanes, tornadoes, floods, and earthquakes can render a telephone system (land line and cellular) inoperative. During major media events, the EPI section should plan for the unreliability of cellular telephone systems due to the extremely high volume of usage generated by the media and their equipment.

(c) Audience. This section should also give relevant facts about the audience for emergency public information at the airport. Relevant facts include:

(i) Special needs groups. The section should list the airport's non-English speaking population, both transient and employee, in excess of some planning threshold (e.g., five percent) and note the foreign language media or translation source that could be used to communicate with these groups. Consideration must also be given to people with sight, hearing, or mobility impairments, as well as the fact that many people at the airport may be unfamiliar with the surroundings and its hazards.

(ii) Preparedness. This section may note whether there is an ongoing preparedness program including items such as printed materials or training for new employees.

(2) Assumptions.

(a) Media. Relevant assumptions about the media include:

(i) Local cooperation. Local media will cooperate in placing the airport and communities' need for emergency public information ahead of the need for news coverage, at least in the initial response phase of the emergency.

(ii) External media interest. Some events, or even forecast events, can bring a significant number of media personnel and equipment to an airport. This will create heavy demands on the EPI organization, requiring augmentation. External media will be interested less in details than in "spectacle" and "human interest" stories of universal appeal and quick impact.

(b) Audience. Relevant assumptions about the audience may include:

(i) Preparedness. This section may note what level of preparedness is assumed. For example, emergency situations in the terminal building may assume a fairly low level of overall preparedness because of the transient nature of the population.

(ii) Demand for information. People will want more information and will call to get it if possible.

c. **Operations**. The Operations section provides general information on how emergency public information is to be disseminated to the public, as well as the transients and employee work force on the airport. It describes policies, protocols, and a sequence of activities.

(1) General. The operations section should address who has the authority to activate the EPI organization, under what situations it is activated, how the organization's members are notified, and where they should report (e.g., EOC, Public Information office, etc.). The details should set forth priorities for EPI activities: production and dissemination of information, response to public inquiry, rumor control, and media relations. It should set forth the airport's policy to have a single point of contact for the EPI center to focus on specific emergency-related information as it relates to the airport's response activities (not the response activities of other organizations), and to provide positive and reassuring information when possible.

(2) Phased Activity.

(a) Increased Readiness (e.g., a known impending Event).

(i) Actions. The following are actions that can be taken with more than a day's notice. These actions are not all-inclusive, but serve as a general guide:

a) Coordinate with the Airport Manager/Chief Executive.

b) Establish and maintain contact with the media.

c) Provide preparedness information and any instructions, as cleared by the Airport Manager/Chief Executive.

d) As necessary, arrange for accelerated printing of any required public information material (e.g., hurricane evacuation procedures).

e) Monitor the local media.

f) Augment public inquiry and/or media relations staffs, if needed.

g) Set up any additional facilities for EPI operations (e.g., separate telephone bank or media center).

(ii) Message Content. The following is a suggested general content for pre-incident messages. The message content will depend on the amount of time available for action and on the particular hazard. Hazard-specific information and instructions should be appended to the section:

a) Hazard.

b) Estimated area and time of expected incident.

c) Property protection measures (e.g., sandbagging, boarding windows, relocating aircraft, securing equipment, etc.).

d) Recommended content of disaster supply kits for surviving 72 hours, if appropriate.

e) Evacuation instructions (coordinate with the local Emergency Management Agency).

f) Other do and don't actions relevant to the emergency.

g) Telephone numbers for specific kinds of inquiry.

(b) Limited Warning Available.

(i) Actions. The following are EPI actions that may be taken with limited notice. These actions are not all-inclusive, but serve as a general guide:

a) Coordinate with the Airport Manager/Chief Executive to determine what protective action will be taken (e.g., evacuation, in-place sheltering, etc.).

b) Complete "standby" EPI instructions with particulars of the event. Coordinate with appropriate EOC staff member to ensure warning system is activated as necessary and ensure any appropriate EPI is distributed.

c) Monitor the local media.

(ii) Message Content. The following is suggested general content for pre-incident messages with limited warning available. Again, these will depend on the particular hazard. Hazard-specific information should be appended to the section:

a) Type of hazard and risk posed to people and property.

b) Area at risk and predicted time of incident.

c) Protective action instructions. Detail the information to be disseminated to the permanent and transient airport population for the emergency at hand, i.e., what are they to do, how are they to do it, etc. If the protective action is such that it

may impact the surrounding communities, e.g., evacuation, be sure it is coordinated with the appropriate community emergency management agency staff.

d) Reference any visual information at-hand (e.g., pre-printed instructions that may have been distributed to the airport tenants and employees.

(c) After impact.

(i) Actions. The following EPI actions may be taken following the initial incident. These actions are not all-inclusive, but serve as a general guide and should be tailored to the specific airport:

a) Establish and maintain contact with the local media. Provide relevant information and instructions as approved by the Airport Manager/Chief Executive.

b) Monitor local media reports and telephone inquiries for accuracy and respond as appropriate to prevent and/or correct rumors.

c) Augment public inquiry and/or media relations staffs, if needed.

d) Compile a chronology of incident-related events.

(ii) Message Content.

a) Provide an assessment of the current situation.

b) Provide current response actions initiated and those in progress by the airport.

c) In coordination with the local community emergency management agency, provide information as needed on:

- Where/how to get help.
- Health hazards information.
- Key telephone numbers. Include a “hotline”, if applicable.
- Web site address, if applicable.
- Current response actions.

NOTE: *Consideration should be given to the development of a generic airport Family Plan for use by airport employees. Situations such as a hurricane, tornado, blizzard, earthquake, flood, or other major catastrophe or emergency which affect the airport and surrounding communities may leave employees concerned about the safety and overall welfare of their families. This concern may negatively impact their ability to function properly and safely and otherwise carry out their responsibilities. The completion of a Family Plan, which provides for pre-planning family action in the event of an emergency, may ease the overall concern of the employee. Organizations such as the American Red*

Cross have sample Family Plans available which may serve as a guide to the development of an airport-specific plan for use by EPI personnel.

(3) Internal Coordination. The Operations section should address how the airport will coordinate EPI efforts in order to "speak with one voice." The section should provide for one PIO and an alternate, designated by the Airport Manager/Chief Executive, for the dissemination of official emergency public information and instructions through the media to the public. It should provide for the central management of information flow from one specified location. It should provide for coordination between individual agencies' public information officers and the designated airport PIO. It should also provide for the coordination between public information representatives at the scene of the event and the central EPI location. Coordination must also include procedures for verifying and authenticating information and for approval before the release of information.

The Operations section should also address mechanisms for dealing with convergence of the media to the airport resulting from large-scale events. Provisions should be made for:

(a) Transferring some of the media relations responsibilities to pre-designated meeting rooms in the terminal or more suitable site.

(b) Depending on the scale of the crisis, retention of an external public relations personnel with aviation experience to support the PIO or obtaining assistance from another agency's public relations staff.

(c) Providing credentials to media representatives.

(d) Coordinating with law enforcement to allow media access to the scene (if it is safe to do so). The section should make clear who decides to implement such provisions.

(4) Inter-jurisdictional Coordination.

(a) Airport-Local. The Operations section should address coordination between the airport and the local government or other agencies which rely on the same media resources. It should also address those situations which involve airport tenants such as the air carriers and the processes for handling the media where the tenant is a major player. It is important to remember that, even if the airport is not the location of an event such as an aircraft accident, if it happens to be the point of origin or destination for such an event, there will be significant media and public inquiry.

(b) Airport-Local-State. State laws and plans often define the framework for local and state coordination on emergency public information. The airport should consider how they will coordinate their EPI efforts with local and state emergency management officials for those events which may involve the state, such as a disaster that involves a declaration of emergency by the Governor.

(c) Airport-Local-State-Federal. There may be situations where the Federal government becomes involved, such as major aircraft accidents or a disaster that threatens to overwhelm a state's capabilities to respond and support the local community efforts. In some cases, the Federal Response Plan (FRP) may be activated. The FRP calls for maximum coordination of agencies' information releases through a Joint Information Center (JIC) to ensure consistency and accuracy. The JIC is a single location where the

media have access to information and the public affairs personnel of various agencies can consult with one another. If a single JIC is not a viable option, public affairs personnel, decision-makers, and news centers may be connected by electronic mail, fax, and telephone in an electronic "Joint Information System" (JIS). In a JIS, releases of information should be coordinated to ensure that everyone is using the most recent and accurate data. Information concerning establishing a JIC can be obtained from the report entitled *Joint Information Center Model – Collaborative Communications during Emergency Response*. The report is located at www.nrt.org.

d. **Organization and Assignment of Responsibility**. An organizational chart should be developed depicting the EPI organization and lines of communication. Consideration should be given to building the organization around the functional areas of information gathering and production, monitoring and rumor control, public inquiries, and media relations (reference Figure 6-5). It is not always necessary to fill each box with a different person; it is necessary to be *able* to staff each box as the situation dictates. The following types of tasking may be assigned in support of the overall EPI function:

(1) Airport Manager/Chief Executive.

(a) Serves as the primary spokesperson before media, or delegates the function to PIO.

(b) Serves as the final approval authority to release of emergency instructions and information, or delegates function to PIO.

(c) In cases where Incident Command has been established, provides policy guidance on the transfer of authority to release information from the Incident Command Post to the Emergency Operations Center.

(d) Designates location for media briefings.

(e) Approves implementation of any special provisions for media convergence.

(2) Public Information Officer (PIO).

(a) Manages all aspects of EPI on behalf of the Airport Manager/Chief Executive.

(b) Assumes EPI functions delegated by the Airport Manager/Chief Executive.

(c) Ensures timely preparation of EPI materials and their dissemination.

(d) Ensures timely and appropriate coordination with off-airport emergency public information personnel.

(e) Briefs public affairs officers who go to the incident site.

(f) Schedules news conferences, interviews, and other media access.

(g) Supervises the media center.

(h) Assigns personnel to monitor all media reports for accuracy.

(i) Coordinates rumor control activity.

(j) Maintains a chronological record of emergency events.

(3) Local Media Organizations.

(a) Store/maintain advance emergency information packets for release at the airport PIO's request.

(b) Verify field reports of the emergency's development with the PIO.

(c) Cooperate in any public education efforts (e.g., the airport's triennial emergency exercise).

(4) Voluntary Organizations.

(a) Provide support to public inquiry telephone lines, as requested by the PIO.

(b) Provide support in disseminating printed EPI material, as requested by PIO.

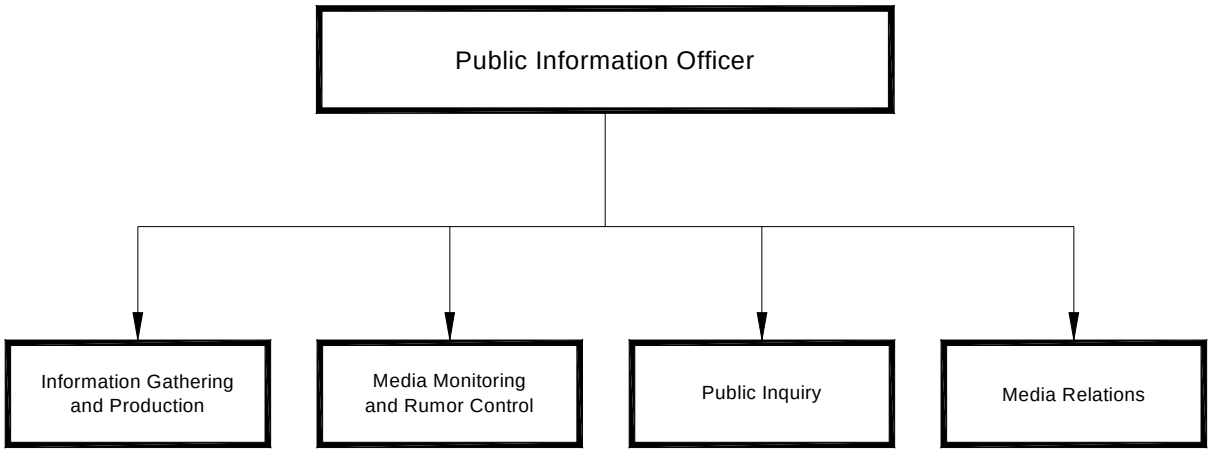
(5) All Tasked Organizations.

(a) Provide information as requested by the PIO.

(b) Clear all emergency-related news releases with the airport's PIO.

(c) Provide public affairs officers to support EPI activities, as requested by the PIO.

(d) Refer media inquiries to the PIO.



Notes:

1. Other organizational structures are possible; this chart suggests functions that should be addressed.
2. Airport Manager/Chief Executive's office may assume media lead if there is extensive media presence.
3. Depending on the type of emergency, coordination with another tenant, e.g. air carrier may be in order.

Figure 6 - 5. Sample Components of an Emergency Public Information Organization

e. **Administration and Logistics**. The administration and logistics section addresses the administrative and general support requirements for the EPI function.

(1) Administration. This section should address reporting and information flow for the EPI function, or reference the relevant SOPs and/or checklists. Common reports from EPI would include:

(a) Press coverage summaries and/or clips.

(b) Public reaction and concerns (based on telephone inquiries or post-disaster critiques).

(c) Final chronology of events.

(2) Logistics.

(a) Staffing. The section should indicate how a core EPI staff is to be augmented to handle a surge in the public/media's demands for information.

(b) Facilities and Equipment. This section should describe what facilities are to be used for EPI and where they are located. The basic facility is the EOC and a nearby conference room or media center. Other possible facilities include a telephone bank and a separate, larger media center. This section describes how additional facilities will be obtained, and who obtains them. This effort should be coordinated with the air carriers and other appropriate airport tenants to avoid possible duplication of effort and other potential conflicts. SOPs/checklists should be developed for setting up these facilities and referenced here. This section should also describe any special equipment needs for the EPI facilities and how they will be met.

(c) Suppliers/Agreements. This section should reference agreements with suppliers (e.g., printers, copiers). An attachment to the section should list day and night points of contact for such suppliers, as well as for media outlets.

f. **Plan Development and Maintenance**. This section should define who is responsible for coordinating development and revision of the airport's EPI section, keeping its attachments current, and ensuring that SOPs and/or Checklists, and other supporting documents are developed and kept current.

g. **Authorities and References**. Authorities and references may include the local government's emergency management statute or ordinance. FEMA and the American Red Cross have produced several emergency and disaster-related documents/brochures. These could be referenced if used.

SECTION 5. PROTECTIVE ACTIONS

6-5-1 GENERAL. This function addresses those actions to be taken to protect the health and safety of the transient and employee population at the airport.

6-5-2 CONTENTS OF A PROTECTIVE ACTIONS SECTION. The content of a Protective Actions Section includes the following:

a. **Purpose**. Protective actions for the public are emergency measures intended to eliminate and/or reduce exposure to the consequences of an emergency or disaster through either:

(1) Leaving the area (evacuation), or

(2) Going indoors (sheltering-in-place).

The protective actions section describes the provisions that have been made to address those actions, i.e., ensuring the safe and orderly evacuation of people (and equipment, if appropriate – e.g., aircraft) threatened by the hazards the airport faces, or if time does not permit evacuation, then providing for sheltering-in-place.

This section should cover those events which may require a protective action involving the entire airport (hurricane or extensive hazardous materials) to those involving more local events (terminal building evacuation-fire/bomb incident or a more localized hazardous materials).

b. **Situation and Assumptions**. The airport, just like its surrounding communities, can face situations that may require some type of protective action for its permanent and transient population. This section identifies:

(1) Emergency conditions that could occur at the airport that may require implementation of protective actions.

(2) Areas subject to potential protective actions (areas prone to flood, seismic activity, wildfire, etc.)

(3) Areas on or near the airport that use, store, produce, or transport hazardous materials.

(4) Site-specific evacuation plans and maps (e.g., terminal building evacuation plans, grid maps).

(5) Provisions for the identification of population groups requiring special assistance (e.g., people with sight, hearing, or mobility impairment).

This section should address the need for coordination with evacuation plans of the communities immediately adjacent to the airport. This should be accomplished to ensure compatibility with the airport's plan and to ensure the airport is adequately addressed in the communities' overall evacuation processes as contained in their Emergency Operations Plan (EOP).

Assumptions should focus on probable operational situations under emergency conditions, cover unanticipated contingencies, and establish the parameters within which the planning for evacuation will take place. Typical assumptions include:

(1) A focus on hazards that provide sufficient warning time to implement a planned protective action for people identified as being at risk.

(2) The response organizations are well aware of all resources required to implement protective actions, including the availability of transportation, communications equipment, and personnel.

(3) Transient personnel may need assistance and guidance in carrying out a protective action.

(4) Some people will ignore the protective action recommendation, regardless of the threat.

(5) For some seasonal hazards, such as a hurricane, standard designated evacuation routes will be used to evacuate people once they are off airport property.

(6) Evacuation of people at risk for emergency situations that occur with little or no warning may be implemented on an ad hoc basis. The individual responsible for implementing it should be the Incident Commander at the scene of the emergency. Evacuation instructions should be based on known or assumed health risks associated with the hazard and a determination made that sheltering is not a viable alternative.

(7) There will be some situations where it will be more prudent to shelter people rather than evacuate.

c. **Operations**. There are several factors which must be considered when planning for protective actions. These factors include the characteristics of the hazard or the threat itself; magnitude, intensity, speed of onset, duration; and impact on the airport. Such factors will determine the type of protective action (shelter or evacuate), whom will be impacted, how they will be notified, duration of impact, and in the case of evacuation, destination.

(1) General. A description of the decision-making policies and procedures for determining the most prudent protective action should be developed. Generally speaking, sheltering is best suited for those situations where there is little to no lead time, the nature of the event is external, and its duration is relatively short. Evacuation can be partial or full, i.e., a part of the airport or the entire facility, and is generally more long-term.

(2) Sheltering. To make an in-place sheltering protective action decision, there should be a reasonable assurance that the evacuation of people from the airport facility or facilities will endanger their health and safety more so than allowing them to remain in place. An evacuation decision is a resource intensive decision. The availability of transportation, medical, and other resources, including designated destination shelters, may factor heavily in the protective action decision-making process. This section:

(a) Identifies the scope of authority granted to an IC to act under standing orders from the Airport Manager/Chief Executive.

(b) Describes the processes used for notifying the public of the need for taking a protective action.

(c) Describes the methods used to secure the building(s) used for sheltering, including the processes for shutting off all sources of outside air (e.g., shutting down air conditioning systems).

(3) Evacuation. The provisions that have been made for carrying out a complete or partial evacuation of people from the airport are addressed. The areas likely to be evacuated should be defined. The travel routes are specified and the destination of evacuees identified. The means used to transport evacuees are described. This section:

(a) Identifies the scope of authority granted to an IC to act under standing orders from the Airport Manager/Chief Executive.

(b) Describes the provisions that have been made for evacuating special needs populations.

(c) Describes the evacuation options and the primary and alternate evacuation routes which were developed to protect and move the people away from the different types of hazards the airport faces.

(d) Describes the modes of transportation which will be used to relocate evacuees.

(e) When appropriate, describes the processes used to coordinate evacuation processes with the surrounding communities.

(f) Describes the processes used to control access to evacuated areas.

(g) Describes the provisions made to provide security for the protection of property that has been evacuated or remains in place.

(4) Inter-jurisdictional Relationships. This section describes the formal written arrangements and institutionalized plans that have been made with the emergency management organization(s) in the neighboring communities to facilitate the movement of evacuees from the hazard area and, if appropriate, provide them shelter and other services in a mass care facility.

d. **Organization and Assignment of Responsibilities**. This section describes the protective action responsibilities that are assigned to tasked organizations. The following types of tasking may be assigned in support of the overall protective action function:

(1) Airport Manager/Chief Executive.

(a) Issues a statement on the airport's policy on evacuation, including the policy regarding those people who do not comply with evacuation instructions.

(b) Issues protective action instructions when appropriate.

(c) Designates a Protective Action Coordinator.

(2) Protective Action Coordinator.

(a) Reviews known information about the emergency situation and makes recommendations to the Airport Manager/Chief Executive.

(b) Identifies methods of transportation, evacuation routes and coordinates with surrounding communities emergency management organizations.

(3) Law Enforcement/Security.

(a) Provides traffic control during evacuation operations.

(b) Provides security to evacuated/ sheltered areas/facilities.

(c) Controls access to evacuated/sheltered areas.

(4) Public Information Officer. Disseminates protective action instructions materials and information.

(5) All Tasked Organizations.

(a) Make provisions to protect and secure facilities in the area(s) affected by the protective action.

(b) Identify and make provisions to relocate the organizational equipment and supplies that will be moved from an evacuated area.

e. **Administration and Logistics**. This section addresses the administrative and general support requirements for the protective action function.

(1) Administration. Specific areas to be addressed include:

(a) Records and reports associated with tracking the status of protective action events.

(b) Attaching as an appendix maps that depict the routes that have been designated as primary and alternate evacuation routes.

(2) Logistics. Specific areas to be addressed include:

(a) Provisions that have been made to move from the area being evacuated those essential supplies and equipment items that are needed to sustain operations and to meet the needs of evacuees.

(b) Mutual assistance/aid agreements with neighboring jurisdictions that address the support (law enforcement personnel, medical services, vehicles to transport evacuees, etc.) to be provided by the jurisdictions to facilitate evacuation operations.

(c) Procedures and equipment necessary to close off outside sources of air to buildings used for sheltering.

f. **Plan Development and Maintenance**. This section should identify who is responsible for coordinating the development and revision of the airport's Protective Action Section, keeping its attachments current, and ensuring that SOPs and/or Checklists are current, and other necessary implementing documents are developed.

g. **Authorities and References**. Authorities and references should be cited as appropriate.

SECTION 6. LAW ENFORCEMENT/SECURITY

6-6-1 GENERAL. This function addresses law enforcement services available to the airport. For the purposes of this section, law enforcement services address response capabilities for response to emergency and disaster situations.

6-6-2 CONTENTS OF A LAW ENFORCEMENT/SECURITY SECTION. The content of a Law Enforcement Section includes the following:

a. **Purpose**. This section provides information which identifies the methods used in mobilizing and managing law enforcement services in response to emergencies. It includes a summary of the personnel and equipment, where they are located, general notification procedures, and overall statement of capabilities.

b. **Situation and Assumptions**. This section describes the current airport law enforcement situation.

49 CFR §1542.1-307, *Airport Security*, requires certain airport operators to provide law enforcement, and specifies crimes and felonies that require law enforcement action. For an airport regulated under part 1542, law enforcement procedures are already defined in its TSA-approved Airport Security Program (ASP). Such airports are required to specify in their ASP law enforcement response and procedures which support the airport's security program, and air carrier passenger screening activities. To ensure consistency, situations and assumptions included in the Law Enforcement Section should be coordinated with law enforcement procedures specified in the ASP.

While 14 CFR part 139 does not have specific law enforcement requirements, events requiring law enforcement response under part 1542 overlap with those events to which airports also regulated under part 139 are required to provide emergency response. In preparation for such events, the ASP and the Law Enforcement Section should be in sync.

The Law Enforcement Section should also address limitations or situations which may impact law enforcement support. Some of the typical assumptions that may be made include:

(1) On-airport and off-airport law enforcement emergency response support organizations will be available to assist in accordance with established agreements, plans, and procedures.

(2) All responding law enforcement units will be familiar with their responsibilities.

(3) Large scale emergencies may require law enforcement support of mutual aid agencies from long distances.

(4) Some emergencies, such as bomb incidents or hijacking situations, will require specialized law enforcement and other technical support such as Explosive Ordnance Disposal (EOD), military specialists, or the FBI. At airports regulated under 49 CFR part 1542, the support will be specified in the ASP.

(5) Public and private law enforcement/security services, including human resources, located at the airport and the communities it serves, may themselves be impacted by the disaster.

(6) There may be some situations (e.g., wide area disaster) where the airport law enforcement services will be operating without the benefit of mutual aid support due to their commitment elsewhere.

c. **Operations**. This section provides general information on the process of how law enforcement and related security services are to be provided at the airport and how those efforts will be coordinated with off-airport response organizations during times of emergency. It must also provide for the mobilization processes of law enforcement agencies as they relate to the airport environment, including security and operations in the air operations area. It addresses all phases of emergency response from planning, response, and post-event considerations. It identifies who has ICS responsibilities for directing these operations, the interaction with other emergency response organizations, and provides an overview of how these activities will be accomplished. Where appropriate, reference should be made to the Hazard-specific Sections of the Airport Emergency Plan and the ASP. It is recommended that the pre-emergency planning and coordination, as well as response and post-emergency planning and coordination be vested in one qualified person. An appropriate title for the individual tasked with this responsibility is "Law Enforcement Coordinator."

The Operations section should include provisions for:

(1) General overall policies, plans and procedures of the airport law enforcement response to emergency situations, both on and off the airport. Response efforts to specific incidents may be referenced to the Hazard-specific Sections.

(2) Law enforcement personnel and equipment available on the airport to respond to emergencies.

(3) The airport's process for coordinating its plan with other law enforcement agencies that have responsibilities under the plan.

(4) Overall airport familiarization and training program for designated on and off-airport rescue and fire fighting personnel.

(a) Provide training to reduce the potential for Vehicle/Pedestrian Deviations (V/PD)[5] and Runway Incursions. See the FAA briefing entitled *Reducing the Potential for Vehicle/Pedestrian Deviations (V/PD) and Runway Incursions* located at www.faa.gov.

(b) Provide grid maps for each vehicle.

(5) Mobilization processes for designated on and off-airport law enforcement personnel and equipment including the specialized response support agencies such as EOD and the FBI (this may be in the form of referencing the appropriate Hazard-specific Sections, such as bomb threat or hijack).

(6) Process for coordinating law enforcement operations with other emergency response agencies.

(7) Overall airport familiarization and training program for designated on and off-airport law enforcement personnel, including the specialized support agencies.

[5] Reference *Reducing the Potential for Vehicle/Pedestrian Deviations (V/PD) and Runway Incursions*, August 2007, FAA Office of Airport Safety and Standards

(8) Incident Command System to be used for law enforcement/security-related incidents at the airport.

d. **Organization and Assignment of Responsibilities**. This section describes the specific organizational structure and associated responsibilities that are assigned to law enforcement for each type of emergency. At airports regulated under 49 CFR part 1542, these items may be identified in the ASP.

(1) Airport Manager/Chief Executive.

(a) Designate a Law Enforcement Coordinator (LEC) to report to the EOC, when appropriate.

(b) Establishes airport policy regarding off-airport response by airport law enforcement personnel and equipment.

(2) Police Chief/Law Enforcement Coordinator.

(a) Ensures availability of sufficient numbers of qualified and trained law enforcement / security personnel to sustain support around the clock.

(b) Ensures compliance with all standards and regulations involving law enforcement, including those involving bomb situations, civil unrest, hazardous materials, and other related matters.

(c) Ensures availability and operability of all necessary emergency response equipment.

(d) Ensures representation of a qualified law enforcement person in the EOC, when required.

(e) Coordinates the response of multi-jurisdictional law enforcement response efforts on the airport.

(f) Maintains a chronological event log.

(3) Military. Provides personnel and equipment to support non-law enforcement-related operations during emergencies, such as EOD. The provision of military personnel is normally at the direction of the Governor during disaster situations or in accordance with existing mutual aid agreements or existing MOA's at joint use facilities.

(4) Tasked Organizations.

(a) Adhere to all professional and legal standards in the performance of duties.

(b) Provide ongoing status reports to the Law Enforcement Coordinator.

(c) As needed, coordinate with other emergency services such as medical/EMS, fire, and public works.

(d) Refer all media requests for information to the Law Enforcement Coordinator or PIO, as appropriate.

(e) Maintain updated resource inventories of emergency supplies, equipment, and personnel resources, including possible sources of replacements.

(f) Designate staff to perform emergency duties.

(g) Prepare detailed SOPs and checklists that include: contact information and mechanisms for notifying personnel; step-by-step procedures for performing assigned tasks; contact information for similar services in other jurisdictions, to include contact information for law enforcement resources (air, land, water); and a listing of the radio communications call signs and frequencies used by responding organizations.

e. **Administration and Logistics**. This section addresses the administrative and general support requirements associated with the Law Enforcement function.

(1) Administration. Areas to be addressed include:

(a) Reference or attach as an appendix the SOP(s) or checklist(s) containing the contact information (telephone number, radio frequency, etc.) of the emergency or other personnel to be notified of an emergency situation.

(b) Attach as an appendix map(s) that depict the off-airport response area of the airport, to include access and traffic control locations, if applicable.

(2) Logistics. Areas to be addressed include:

(a) Policies and procedures to test and maintain law enforcement support equipment.

(b) Policies and procedures to repair or replace damaged equipment.

(c) Policies and procedures to provide adequate law enforcement coverage should multiple incidents develop.

(d) Agreements for use of private services agencies, personnel, equipment, and facilities to augment the airport's law enforcement capabilities.

f. **Plan Development and Maintenance**. This section should identify who is responsible for coordinating revisions to any of the Law Enforcement plans, procedures, SOPs, and checklists, as well as developing new implementing documents, as necessary.

g. **Authorities and References**. Authorities and references, such as the Airport Security Program, should be cited as necessary.

SECTION 7. FIREFIGHTING AND RESCUE

6-7-1 GENERAL. The firefighting and rescue function addresses emergency services available to the airport and any other emergency responses that may effect life, property and safety mitigation. For the purposes of this section, fire and rescue includes response capabilities for: Aircraft Rescue and Fire Fighting (ARFF), structural fire, rescue situations, and hazardous materials incidents.

6-7-2 CONTENTS OF A FIRE AND RESCUE SECTION. The contents of a Fire and Rescue Section include the following:

a. **Purpose**. This section provides information which identifies the methods used in mobilizing and managing fire and rescue services in response to emergencies. It includes:

(1) A summary of the available personnel

(2) The availability of fire fighting vehicles, agents and equipment

(3) The location of personnel, vehicles, and support equipment

(4) An overall statement of response and mitigation capabilities

(5) The incident command structure

(6) Outside resource/agency support

b. **Situation and Assumptions**. This fire and rescue section describes the overall ARFF situation at the airport, to include the certification elements of 14 CFR §§139.315-319. Fire fighting and rescue capabilities at airports provide support for emergencies involving aircraft. In addition, they provide fire and rescue support for emergencies involving structures, hazardous material incidents, and in some cases emergency medical services. The types and volume of emergency responses can overwhelm a fire organization's capabilities. Thus, support from communities surrounding the airport may be necessary. This section should describe the arrangements made with, and the capabilities of, the surrounding fire and rescue organizations and the limitations or situations which may impact fire and rescue support. Typical assumptions may include:

(1) On-airport and off-airport fire and rescue emergency response support organizations will be available to assist in accordance with established agreements, plans, and procedures.

(2) All responding fire and rescue units will be familiar with their responsibilities.

(3) Large scale emergencies may require fire and rescue support of mutual aid agencies from long distances.

(4) Public and private fire and rescue services, including human resources, located at the airport and the communities it serves, may themselves be impacted by the disaster.

(5) There may be some situations (e.g., wide area disaster) where the airport fire and rescue services will be operating without the benefit of mutual aid support due to their commitment elsewhere.

c. **Operations**. This section provides general information on the process of providing fire fighting and rescue services at the airport and how those efforts will be coordinated with off-airport response organizations during times of emergency. The Operations section should include descriptions of:

(1) The mobilization processes of fire and rescue services as they relate to the airport environment, including such things as security and vehicular operations on the Airport Operations Area (AOA).

(2) Phases of emergency response from planning through response to post-event considerations.

(3) The identification of who will be in charge of directing operations (e.g., Incident Command System).

(4) The interaction with other emergency response organizations (e.g., law enforcement, EMS, etc.) and provides an overview of how these activities will be accomplished. Where appropriate, reference should be made to the Hazard-specific Sections of the Airport Emergency Plan. It is recommended that the pre-emergency planning and coordination, as well as response and post-emergency planning and coordination be vested in one qualified person. An appropriate title for the individual tasked with this responsibility is "Fire and Rescue Coordinator."

(5) General overall policies, plans and procedures of the airport fire and rescue response to emergency situations, both on and off the airport. Response efforts to specific incidents may be referenced to the Hazard-specific Sections.

(6) Rescue and fire fighting personnel and equipment available on the airport to respond to emergencies.

(7) The airport's process for coordinating its plan with other rescue and fire fighting agencies who have responsibilities under the plan (§139.325(g)).

(8) Mobilization processes for designated on and off-airport rescue and fire fighting personnel and equipment.

(9) Process for coordinating fire and rescue operations with other responding agencies, such as EMS and law enforcement.

(10) Overall airport familiarization and training program for designated on and off-airport rescue and fire fighting personnel.

(a) Provide training to reduce the potential for Vehicle/Pedestrian Deviations (V/PD) and Runway Incursions.

(b) Provide grid maps for each vehicle, as appropriate.

(11) Incident Command System to be used for fire and rescue incidents at the airport.

d. **Organization and Assignment of Responsibilities**. The specific organizational structure and associated responsibilities that are assigned to ARFF for each type of emergency are described in this section.

(1) Airport Manager/Chief Executive.

(a) Designate a Fire and Rescue Coordinator (FRC) to report to the EOC, when appropriate.

(b) Establishes airport policy regarding off-airport response by Aircraft Rescue and Fire Fighting (ARFF) personnel and equipment.

(2) ARFF Chief/Fire and Rescue Coordinator.

(a) Ensures availability of sufficient numbers of qualified and trained ARFF personnel IAW:

(i) AC 150/5200-12, *Fire Department Responsibility in Protecting Evidence at the Scene of an Aircraft Accident*

(ii) AC 150/5210-7, *Aircraft Rescue and Fire Fighting Communications*

(iii) AC 150/5210-13, *Water Rescue Plans, Facilities and Equipment*

(iv) AC 150/5210-14, *Aircraft Rescue Fire Fighting Equipment, Tools and Clothing*

(v) AC 150/5210-17, *Programs for Training of Aircraft Rescue and Firefighting Personnel*

(vi) AC 150/5220-4, *Water Supply Systems for Aircraft Fire and Rescue Protection*.

(b) Ensures compliance with all standards and regulations involving fire and rescue response, which may include hazardous materials.

(c) Ensures availability and operability of ARFF equipment as required by 14 CFR part 139.

(d) Ensures representation of a qualified FRC in the EOC, when required.

(e) Coordinates the response of multi-jurisdictional fire and rescue response efforts on the airport.

(f) Provides information regarding the fire and rescue response effort through and to the Public Information Officer (PIO) for release to the news media.

(g) Ensures emergency fire and rescue response information is provided to the EOC, as appropriate.

(h) Maintains a chronological event log.

(3) Law Enforcement/Security.

(a) Provides traffic and personnel access control, and security assistance to fire and rescue scene operations.

(b) Assists in the identification of any fatalities.

(4) Military. Provides personnel and equipment to support non-law enforcement-related operations during emergencies, such as fire and rescue operations. The provision of military

personnel is normally at the direction of the Governor during disaster situations or in accordance with existing mutual aid agreements or existing MOA's at joint use facilities.

(5) All Tasked Organizations.

(a) Adhere to all professional and legal standards in the performance of duties.

(b) Provide ongoing status reports to the Fire and Rescue Coordinator.

(c) As needed, coordinate with other emergency services such as medical/EMS, law enforcement, and public works.

(d) Refers all media requests for information to the Fire and Rescue Coordinator or PIO, as appropriate.

(e) Maintains updated resource inventories of emergency fire and rescue supplies, equipment, and personnel resources, including possible sources of replacements.

(f) Designates staff to perform emergency duties.

(g) Prepares detailed SOPs and checklists that include: contact information and mechanisms for notifying personnel; step-by-step procedures for performing assigned tasks; contact information for similar services in other jurisdictions, to include contact information for fire and rescue resources (air, land, water); and a listing of the radio communications call signs and frequencies used by responding organizations.

e. **Administration and Logistics**. This section addresses the administrative and general support requirements associated with the Fire and Rescue function.

(1) Administration. Areas to be addressed include:

(a) Reference or attach as an appendix the SOP(s) or checklist(s) containing the contact information (telephone number, radio frequency, etc.) of the emergency or other personnel to be notified of an emergency situation.

(b) Attach as an appendix map(s) that depict the off-airport response area of the airport ARFF Department, if applicable.

(2) Logistics. Areas to be addressed include:

(a) Policies and procedures to test and maintain ARFF equipment.

(b) Policies and procedures to repair or replace damaged ARFF equipment.

(c) Policies and procedures to provide adequate ARFF coverage should multiple incidents develop.

(d) Agreements for use of private services agencies, personnel, equipment, and facilities to augment the airport’s ARFF capabilities.

f. **Plan Development and Maintenance**. This section should identify who is responsible for coordinating revisions to any of the ARFF plans, procedures, SOPs, and checklists, as well as developing new implementing documents, as necessary.

g. **Authorities and References**. Authorities and references should be cited as necessary.

SECTION 8. HEALTH AND MEDICAL

6-8-1 GENERAL. The Health and Medical function addresses the activities associated with the provision of emergency health and medical services at the airport. For the purposes of this section, health and medical include emergency medical service (EMS), public health, environmental health, mental health, and mortuary services. Related activities include:

a. Treatment, transport, and evacuation of the injured

b. Removal of the dead; and disease control activities related to sanitation.

c. Prevention of contamination of water and food supplies during response operations during and after an emergency.

d. Depending on the needs and resources of a particular airport, consideration may be given to the preparation of separate sections for these functions.

6-8-2 CONTENTS OFA HEALTH AND MEDICAL SECTION. The content of a Health and Medical Section includes the following:

a. **Purpose**. This section provides information which identifies the methods used in mobilizing and managing health and medical services in response to emergencies.

b. **Situation and Assumptions**. This section provides an overview and general assessment of the health and medical capabilities of the airport to support emergency situations. Since most airports cannot sustain on-airport deliberate health and medical capabilities, this section should describe the capabilities of the surrounding communities it serves. This section should focus on:

(1) The airport's capability to provide medical care, treatment, and transportation.

(2) The overall support to victims, response personnel, and the general public during the emergency response and recovery phases.

(3) Limitations or situations which may limit health and medical support. For example, those airports located in more remote areas may have limited medical/hospital support. Any such limitations should be discussed in this section.

(4) Assumptions may include:

(a) Maximum coordination and efficient use of off-airport medical resources will be required since this section addresses primarily large scale emergency and disaster events that would involve sufficient casualties and/or fatalities which may overwhelm local medical, health, and mortuary services capabilities.

(b) Public and private medical, health, and mortuary services resources located at the airport, and the communities it serves, will be available.

(c) Large-scale emergencies and disaster threat situations (hurricane, earthquake, flood, etc.) may affect large areas, requiring use of mutual aid from long distances.

(d) Public and private health and medical resources, including human resources, located at the airport and the communities it serves may themselves be impacted by the disaster.

(e) Emergency services to protect life and health during the first 12 to 24 hours after the disaster will probably be exclusively dependent on local and area resources.

(f) Suspected Communicable Diseases. In the case of persons exhibiting signs/symptoms of a possible disease requiring quarantine, the airport will be required to contact state and/or federal Centers for Disease Control (CDC). The diseases subject to quarantine are established by Presidential Executive Order 13295. In the event that quarantine is required to protect public health, the emergency should be conducted in two phases: Short-term (approximately 6-8 hours) and Long-term (lasting several days).

(g) Volunteers will come forward to help perform essential tasks; their presence and efforts must be anticipated and coordinated.

c. **Operations**. This section provides general information on the process of delivering health and medical operations and how those efforts will be coordinated with those of off-airport medical organizations. The Operations section should include descriptions of:

(1) The mobilization of health and medical services mainly as it relates to the airport environment.

(2) Phases of emergency response from planning through response to post-event considerations.

(3) The mobilization processes of medical services as they relate to the airport environment, including such things as security and vehicular operations on the Airport Operations Area (AOA).

(4) The identification of who will be in charge of directing operations (e.g., Senior medical officer)

(5) The interaction with other emergency response organizations (e.g., law enforcement, fire, public works, etc.) and provides an overview of how these activities will be accomplished. Where appropriate, reference should be made to the Hazard-specific Sections of the Airport Emergency Plan. It is recommended that the pre-emergency planning and coordination, as well as response and post emergency planning and coordination be vested in one qualified person. An appropriate title for the individual tasked with this responsibility is “Health and Medical Coordinator (HMC).”

The Operations should include provisions for:

(1) To the extent practicable, medical services including transportation and medical assistance for the maximum number of persons that can be carried on the largest air carrier aircraft that the airport reasonably can be expected to serve.

(2) Phases of emergency response from planning through response to post-event considerations.

(3) The airport’s process for coordinating its plan with other rescue and fire fighting agencies which have responsibilities under the plan (§139.325(g)).

(4) The establishment of a medical command post at the emergency scene.

(5) Coordinating health and medical response team efforts.

(6) Identifying each hangar or other building on the airport or in the communities it serves that will be used to accommodate uninjured, injured, and deceased persons.

(7) Providing the name, location, contact information, and emergency capability of each hospital and other medical facility that agrees to provide medical assistance or transportation.

(8) Triage of the injured, if appropriate.

(9) The transportation of the critically injured to medical facilities as quickly as possible, with a goal of within 60 minutes of the injury's occurrence.

(10) Providing for the identification, transportation, and disposition of the deceased.

(11) Isolating, decontaminating, and treating victims of hazardous materials, as needed.

(12) Describing the overall airport familiarization and training program for designated on and off-airport health and medical personnel.

(13) Mobilization processes for designated on and off-airport medical personnel and equipment.

(14) Process for coordinating medical operations with other responding agencies, such as fire rescue and law enforcement.

(15) Overall airport familiarization and training program for designated on and off-airport medical personnel.

(a) Provide training to reduce the potential for Vehicle/Pedestrian Deviations (V/PD) and Runway Incursions. See the FAA briefing entitled *Reducing the Potential for Vehicle/Pedestrian Deviations (V/PD) and Runway Incursions* located at www.faa.gov.

(b) Provide grid maps for each vehicle.

(16) Process for requesting support of Disaster Medical Assistance Teams (DMATs).

NOTE: *AEP planners at those remote airports which have indicated in the Situation and Assumptions section that there is limited emergency medical/ hospital support within the local communities should consider including contact information for local colleges or universities which may have medical personnel on staff. In areas such as ski resorts, investigate the possibilities of using the medical assistance of ski patrols, etc. Consideration should also be given to contacting local hotels to determine if there are any guests who may have medical expertise.*

d. **Organization and Assignment of Responsibilities**. This section describes the responsibilities of those individuals and organizations tasked with providing emergency health and medical services at the airport.

(1) Chief Executive/Airport Manager.

(a) Designates a Health and Medical Coordinator (HMC) to send a representative to the EOC when notified of an emergency situation, as appropriate.

(b) Establishes airport policy regarding off-airport response by medical personnel and equipment, when assigned.

(2) Health and Medical Coordinator.

(a) Upon notification of an actual or imminent emergency or disaster take appropriate action.

(b) Reports to the Airport EOC or other designated location; sends a representative if unable to report in person.

(c) Coordinates efforts with local jurisdiction EOC, if appropriate.

(d) Provides initial assessment of health and medical needs.

(e) Oversees and coordinates the activated health and medical organizations to assess their needs, helps them obtain resources, and ensures that necessary services are provided.

(f) Ensures a medical command post is established by emergency medical teams responding to an emergency site.

(g) Coordinates multi-jurisdictional health and medical response efforts (e.g., CDC).

(h) Ensures proof of licensure is made for all responding volunteers.

(i) Maintains a patient/casualty tracking system. If an air carrier aircraft is involved, coordinates this effort with appropriate air carrier personnel.

(j) Provides information regarding the health and medical response effort, including the number of injuries, deaths, etc. to the news media through the Public Information Officer (PIO). If an air carrier aircraft is involved, coordinates this effort with appropriate air carrier personnel.

(k) Ensures emergency health and medical response information is provided to the EOC, as appropriate.

(l) Coordinates support to the appropriate agency's (e.g. air carrier, airport, etc.) efforts to respond to inquiries from family members.

(3) Emergency Medical Services.

(a) Respond to the emergency scene with appropriately trained emergency medical personnel and equipment.

(b) Upon arrival at scene, assume appropriate role within the ICS. If ICS has not been established, initiate in accordance with established local standards.

(c) Organize the necessary actions for triage, stabilization, and treatment of casualties and prepare for their eventual transport.

(d) Provide control and dispatch of the casualties to the appropriate medical facilities. Coordinate with the local and regional medical facilities to ensure casualties are transported to appropriate locations.

(e) If an aircraft is involved, coordinate with the owner/operator representative the transportation of the uninjured to the designated holding area.

(f) Establish and maintain field communications and coordination with other responding emergency teams (medical, fire, law enforcement, public works, etc.), and radio or telephone communications with medical facilities, as appropriate.

(g) Maintain an accurate list of casualties, to include their names and destination medical facilities.

(h) Arrange for restocking of medical supplies, as necessary.

(4) Hospitals. Hospitals and other medical facilities designated in the emergency plan should be prepared to:

(a) Implement the appropriate hospital disaster plan.

(b) Advise the Health and Medical Coordinator or appropriate EOC representative of the number and type of available beds. If an area-wide disaster is involved, also provide information regarding the condition of the hospital.

(c) Provide medical care to casualties as they arrive.

(d) Establish and maintain inter-hospital communications, as appropriate.

(e) Provide medical guidance to EMS.

(f) Coordinate with EMS, other hospitals, and any medical response personnel at the scene to ensure casualties are transported to the appropriate medical facility. Take into account special requirements such as trauma or burn centers. Consider use of clinics to treat less than acute injuries.

(g) Coordinate with local emergency responders to isolate and decontaminate incoming patients, if needed, to avoid the spread of chemical or bacterial agents to other patients and staff.

(h) Depending on the situation and pre-emergency planning efforts, deploy medical personnel, supplies, and equipment to the emergency scene(s) or retain them at the hospital for incoming patients.

(i) Establish and staff a reception and support center at each hospital for the relatives and friends of victims. If an air carrier aircraft is involved, coordinate this effort with appropriate air carrier personnel.

(j) Provide patient identification information to the American Red Cross, air carrier, or other agency having a need for the information (e.g., NTSB).

(5) Environmental Health Officer (EHO).

(a) Provides for the monitoring and evaluation of environmental health risks or hazards as needed. Ensure appropriate actions are taken to protect the health and safety of disaster victims, responders, and the general public.

(b) Inspects damaged buildings for health hazards.

(c) Detects and inspect sources of contamination.

(d) Coordinates with animal care and control agency to dispose of dead animals.

(e) Ensures that adequate sanitary facilities are provided in emergency shelters and for response personnel.

(6) Mental Health Agencies.

(a) Ensure that appropriate mental health services are available for disaster victims, survivors, bystanders, responders and their families, and other airport care-givers during response and recovery. Services may include crisis counseling, critical incident stress debriefings, information and referral to other resources, and education about normal, predictable reactions to a disaster experience and how to cope with them. There should be specialized family crisis assistance available for those affected by a traumatic event or who become traumatized by cumulative stress related to the disaster experience.

(b) Provide outreach services to identify and serve those in need of mental health support.

(c) Coordinate with the PIO to arrange for dissemination of information to the public.

(d) Coordinate with the American Red Cross (ARC) to identify victims who may require assistance.

(7) Mortuary Services.

(a) Provide for the collection, identification, and care of human remains, determining the cause of death, inventorying and protecting deceased's personal effects, and locating and notifying next of kin, as appropriate.

(b) Establish temporary morgue sites.

(c) Obtain refrigeration vehicles for temporary storage of remains.

(d) Establish and maintain a comprehensive record-keeping system for continuous updating and recording of fatality data.

(e) Coordinate with:

(i) Search and rescue teams, hospitals, EMS, and other emergency responders.

(ii) Funeral directors, morticians, and transportation assets for the movement of the deceased.

(iii) Other pathologists.

(iv) The American Red Cross for location and notification of relatives.

NOTE: *If this effort is in response to an aircraft accident, actions taken should be coordinated with the air carrier's plan developed under the PL 104-264, Title VII - Aviation Disaster Family Assistance Act (ADFAA) of 1996. Details of the ADFAA can be obtained at www.ntsb.gov.*

(v) Dentists and x-ray technicians for purposes of identification.

(vi) Law enforcement agencies for security, property protection, and evidence collection.

(8) American Red Cross (ARC).

(a) Provide food for emergency medical responders and patients, if desired.

(b) Maintain a record-keeping sys-tem in coordination with hospitals, aid stations, and field triage/transportation units to collect, receive, and report information about the status of victims.

(c) Assist in the notification of next of kin of the injured and deceased.

(d) Assist with the reunification of the injured with their families.

(e) Provide first aid and other related medical support at temporary treatment centers, as requested, and within capability.

(f) Provide supplementary medical, nursing aid, and other health services upon request, and within capability.

(g) Provide assistance for the special needs of the people with sight, hearing, or mobility impairments, elderly, and those children separated from their parents, within capability.

(9) Social Service Agencies. Assist in providing for the special needs of the people with sight, hearing, or mobility impairments, elderly, and children separated from their parents; also provide for special needs of orphaned children.

(10) Animal Care and Control Agency.

(a) Coordinate with veterinarians and animal hospitals to arrange for animal services, as needed.

(b) Maintain a list of phone numbers of local animal hospitals, veterinarians, and animal control shelters for use during regular and non-regular business hours.

(c) Coordinate with environmental health personnel regarding the location, collection, and disposal of dead animals.

(11) Law Enforcement.

(a) Provide security assistance to medical facilities and to health and medical field personnel upon request.

(b) Assist in the identification of fatalities.

(12) Military. Provides personnel and equipment to support non-law enforcement-related medical operations during emergencies. The provision of military personnel is normally at the direction of the Governor during disaster situations or in accordance with existing mutual aid agreements or existing MOA's at joint use facilities.

(13) All Tasked Organizations.

(a) Adhere to all professional and legal standards in the performance of duties.

(b) Provide ongoing status reports to the HMC, including number of deaths, injuries, and other appropriate information, etc.

(c) As needed, coordinate with other emergency services such as fire, law enforcement, and public works.

(d) Refer all media requests for information to the HMC or PIO, as appropriate.

(e) Maintain updated resource inventories of emergency medical supplies, equipment, and personnel resources, including possible sources of replacements.

(f) Designate staff to perform emergency duties.

(g) Prepare detailed SOPs and checklists that include:

(i) Contact information and mechanisms for notifying personnel.

(ii) Step-by-step procedures for performing assigned tasks.

(iii) Contact information for similar services in other jurisdictions

(iv) Area and local stores (grocery and drug), and medical warehouses that could provide pharmaceutical and medical supplies.

(v) Contact information for transportation resources (air, land, water).

(vi) Listing of the radio communications call signs and frequencies used by responding organizations.

e. **Administration and Logistics**. This section describes administrative and general support requirements for accomplishing emergency health and medical tasks.

(1) Administration. This section focuses on the general support requirements and identifies sources that will be relied upon to obtain personnel, equipment and supplies, transportation, facilities, services, and other resources necessary to support emergency response and recovery operations. In most cases, these support requirements, such as Medical Response Teams and Augmentation Personnel will already be identified in the local jurisdictions' Emergency Operations Plan and in the local medical facilities' disaster plans. Mechanisms for activating these resources should also be identified.

(2) Logistics. This section address the arrangements that have been made to provide for the support needs of the emergency health and medical response organizations.

(a) Sources of medical supplies and equipment:

(i) Local area resources/stores (hospitals, pharmacies, emergency vehicles, local government resources, etc.).

(ii) County-stored emergency aid stations, where available and usable.

(iii) Mutual assistance/aid from jurisdictions not affected by the disaster.

(iv) Private sector suppliers.

(v) Private sector health care organizations that maintain a supply system for medical supplies and equipment.

(vi) National Disaster Medical System (NDMS) - includes Department of Defense, Department of Health and Human Services, and FEMA.

NOTE: *Access to these federal resources must be initiated through the local jurisdiction to the state emergency management agency and FEMA.*

(b) Acquisition of medical/health equipment and supplies including:

(i) Initial supply and resupply for field medical operations.

(ii) Initial supply and resupply for health and mortuary services.

(c) Transportation of medical/health supplies, personnel and equipment:

(i) Local airport/government-owned and commercial aircraft, trucks, and buses.

(ii) Armed Forces aircraft and trucks.

(iii) Private and public ambulance companies.

(iv) Water transport.

(v) Limousine and taxi companies.

(vi) Mortuaries (for hearses).

(vii) Four-wheel drive and high-centered vehicles for medical evacuations under bad weather or terrain conditions.

(d) Identification of buildings suitable for providing shelter for injured and non-injured victims.

(e) Identification of buildings suitable for serving as temporary morgues.

(f) Acquisition of embalming supplies, body bags and/or heavy-duty plastic and heavy equipment suitable for dealing with a mass fatality situation.

f. **Plan Development and Maintenance**. This section should identify who is responsible for coordinating revision of the airport's Health and Medical Section, keeping its attachments current, ensuring coordination with the local jurisdictions' program, keeping its attachments current, and ensuring that SOPs and checklists are developed.

g. **Authorities and References**. This section should highlight those statutes, regulations, administrative orders, etc. which provide authority for the preparation of medical and health services disaster plans and for designating the name of the agency and/or title of the officials responsible for management of medical and health services during disaster response and recovery operations. It should also cite:

(1) Authorities as applicable to coroner/medical examiner and mortuary services during disaster response and recovery operations.

(2) Authorities that provide for access to, use of, and reimbursement for private sector resources in an emergency and for emergency procurement procedures.

(3) Authorities that provide for emergency powers under which emergency medical and public health activities are authorized. Also, the extent of liability and/or immunity status of emergency medical, public health, and mortuary services workers.

(4) Other references used to prepare the airport's Health and Medical Section.

SECTION 9. RESOURCE MANAGEMENT

6-9-1 GENERAL. Responses to emergencies involve a myriad of diverse resources. All emergencies, regardless of their severity, will require the dispatch of well qualified and trained personnel with unique specialties, equipment, supplies, and facilities. The resource management function is necessary to ensure that:

a. A comprehensive list of resources required to support potential emergencies to which the airport is vulnerable (reference the Airport's Hazards Analysis) is developed.

b. A complete picture of these resources and their availability is known to decision-makers.

c. All resources are used appropriately and arrive where and when they are most needed.

d. Additional resources can be obtained for responders as their own resources are expended or damaged.

e. Accountability is maintained for the airport's use of resources.

6-9-2 CONTENTS OF A RESOURCE MANAGEMENT SECTION. The content of resource management section includes the following:

a. **Purpose**. The resource management section should describe the processes by which an airport will identify requirements, expeditiously locate, acquire, allocate and distribute those resources to satisfy needs that are generated by an emergency.

b. **Situation and Assumptions**. The situation and assumptions section describes the planning environment for the resource management function. These factors directly impact the ability of the airport to satisfy resource demand and manage support activities during response and recovery operations. Factors to be considered include:

(1) Situation.

(a) Hazards. The situation and assumptions section should outline the potential for emergencies which will require activation of the resource management function. In particular, the section should highlight

(i) Potential critical resource shortages (e.g., power, potable water, fire fighting agents, portable equipment).

(ii) Credible emergency scenarios that would deplete responding agencies' resources.

(iii) Possible effects on the transportation infrastructure (e.g., bridge collapses, restricted airport access highways, etc).

(b) Resources. A complete listing of resources and planned requirements should be maintained in attachments to the plan, a resource database/manual, or in the functional SOPs/checklists, as appropriate. This section should summarize the airport's status for general resource categories, such as:

(i) Personnel (including skilled labor, task specialists and professionals).

(ii) Communications equipment.

(iii) Vehicles (land, air, water) for passengers (injured and non-injured), cargo, and debris removal (e.g., dump trucks, flatbeds, lowboys, buses, mini-vans).

(iv) Heavy equipment for public works applications (e.g., cranes, road graders, front-end loaders, bobcats, etc.) and for handling materials (e.g., fork lifts, conveyor belts, mechanical and manual dollies, etc.).

(v) Portable pumps and hoses.

(vi) Post incident recovery materials and tools such as fuel, sand and sandbags, plastic sheeting, plywood, lumber, shovels, picks, chainsaws, etc.

(vii) Mass care supplies such as first aid supplies; potable water; blankets; sanitation serivces and supplies (e.g., portable toilets); lighting (lanterns, light sticks, candles, etc.).

(viii) Portable power generators.

(c) Mutual Aid. The situation and assumptions section could also note the airport's participation in mutual aid agreements. To resolve those emergency situations where airport resources will not meet requirements, airport operators should search the community in order to obtain the services that can produce the desired level of protection. Where appropriate, agreements should be in place to ensure availability of necessary support. Sample mutual aid agreements are located at Appendix 7 of this AC.

(2) Assumptions. Assumptions might include the following:

(a) Information. A resource inventory or database will be maintained by the designated Resource Manager.

(b) Initial sustainability. Response agencies will sustain themselves during the first 24 hours of an emergency.

NOTE: *This may vary from airport to airport, depending on their size and type of emergency.*

(c) Availability of volunteers. Performance of the resource management function will depend on the availability of a large pool of volunteers.

(d) Access to Mutual Aid. Some parties to mutual aid agreements to cover resource shortfall may be unavailable at the time of the airport emergency and unable to provide the resources.

c. **Operations**. This section should establish resource management policies; describe the process of the resource management organization activation and the sequence of tasks it will perform.

(1) General. General policies might include:

(a) Priorities. Emergency victims will take precedence in the allocation of resources. Specific priorities will be established by the designated Resource Manager in consultation with the Airport Manager/Chief Executive.

(b) Supplier of last resort. Emergency response organizations should exhaust their own channels of support (e.g., mutual aid agreements with similar organizations in other locations) before resorting to the resource management function.

(c) Costs. Purchase prices and contract costs, where possible, should be established during plan development. Even if eligible for reimbursement, costs should initially be considered the responsibility of the requesting agency.

(2) Sequence of Activities.

(a) Notification. The designated Resource Manager should be among those initially notified of an emergency. When advance warning is available, suppliers with whom agreements exist should be notified of the potential intent to activate the agreements.

(b) Activation and deployment. The section should specify who (Airport Manager/Chief Executive, Emergency Manager) has the authority to activate the resource management function. It should also identify staff that will perform this function and where it will be performed.

(c) Emergency activity. This section should address four basic concerns of emergency resource management activity:

(i) Determining needs.

(ii) Obtaining the resources.

(iii) Distributing the resources.

(iv) Maintaining financial and legal accountability.

A suggested organizational structure is presented in Figure 6-6.

(d) Determining needs.

(i) Needs assessment. This section should provide an explanation of communicating known requirements that exist in the field to the resource management organization. At first, this may be a matter of anticipating needs based on preliminary damage assessments and past experience. All agencies should be tasked to report to the resource management section - directly or indirectly - any needs they are unable to meet through their own channels as the emergency progresses. The resource management organization must extract the following essential information from those who report a need:

a) WHAT specific item(s) is required to support the emergency

b) WHY is a specific item(s) required (will an alternative item perform the same task)

c) HOW MUCH of the item(s) is required (specify quantities in pounds, feet, sq yards, gallons, number, etc.)

d) WHO needs the item(s) (provide the organization needing the item(s)

e) WHERE is the item(s) required to be delivered to or used (precise location)

f) WHEN is the item(s) required to be in-place (provide a time line).

(ii) Prioritization (ongoing). The designated Resource Manager will apprise "the Needs Group" of established priorities. A formal classification system may be useful.

(iii) Follow-up. Resource requests should be logged, prioritized, passed on to those responsible for obtaining and committing resources, and then tracked from "the Supply Group" and "the Distribution Group," and the requesting party. A recommendation is to use a "Resource Request" display board or automated resource request information program in the EOC on which each request can be visually monitored by the EOC staff.

(e) Obtaining supplies.

(i) Notification of suppliers. When warning is available, the Supply Group should notify suppliers with whom agreements exist of the airport's intent to activate the agreement. Availability of supplies should be validated and key items should be reserved.

(ii) Evaluation of requests against known supplies (ongoing). Upon receipt of a request, the Supply Group should attempt to fill the need with airport resources or resources for which agreements are in place. If the needed resource is on hand, the Supply Group contacts the supplier, confirms transportation responsibilities, notifies the Distribution Group of the incoming resource (or of the need to pick it up) and its priority, and informs the Needs Group that action has been taken on the request. If the needed resource is not available from prearranged suppliers, the next step is to procure (or hire) or solicit a donation of the needed resource.

(iii) Procurement and hiring. When requests are of high priority for the airport, an expedited procurement or hiring process may be in order. Procurement involves contacting suppliers, negotiating terms (in coordination with the Financial Officer and Legal Advisor, if necessary), making transportation arrangements, notifying the Distribution Group and Needs Group of the action taken. Often during a declared state of emergency, procurement procedures can be streamlined.

(f) Maintaining financial and legal accountability. The Finance Officer should keep the Resource Manager and Supply Group aware of their authorized budget, log and process transactions, track accounts, and secure access to more funding if necessary and feasible. The Legal Advisor should keep them aware of their legal obligations—and, as mentioned above, of any special powers granted by law to expedite their tasks under declared emergency conditions.

(i) Distributing goods and services.

a) Activating and operating key facilities. The Resource Manager should determine where incoming resources should be received. If possible, a Central Resource Receiving Point should be determined during the planning stage. The Distribution Group should be responsible for operating the receiving facility.

b) Traffic control. The Distribution Group should ensure that high priority resources are dispatched quickly to where they need to be.

c) Hauling. Procurement efforts should try to ensure that provisions are made for transport of procured resources.

d) Reporting and co-ordination. From the EOC, the Distribution Group would notify the receiving facility of incoming resources to expect, as well as their priority designation. The receiving facility should provide regular reports to the Distribution Group regarding the arrival of resources, allowing the Distribution Group to track the status of the resources.

(g) Post-emergency activity (recovery). When needs have largely been met, the crisis subsides, and the airport can begin to function as normal, the resource management function will have to address four areas:

(i) Disposal of excess stocks. Loaned equipment will have to be returned to its owners. Surplus property can be dealt with through normal procedures – except perhaps where hazardous materials are involved.

(ii) Stand down (Return to normal duties). Facilities and staff should be deactivated as soon as is feasible, with all necessary reports and documentation completed and filed.

(iii) Financial settlement. The airport may need to reimburse or compensate the owners of private property. It may also have to submit required reports that address requests for any available financial assistance.

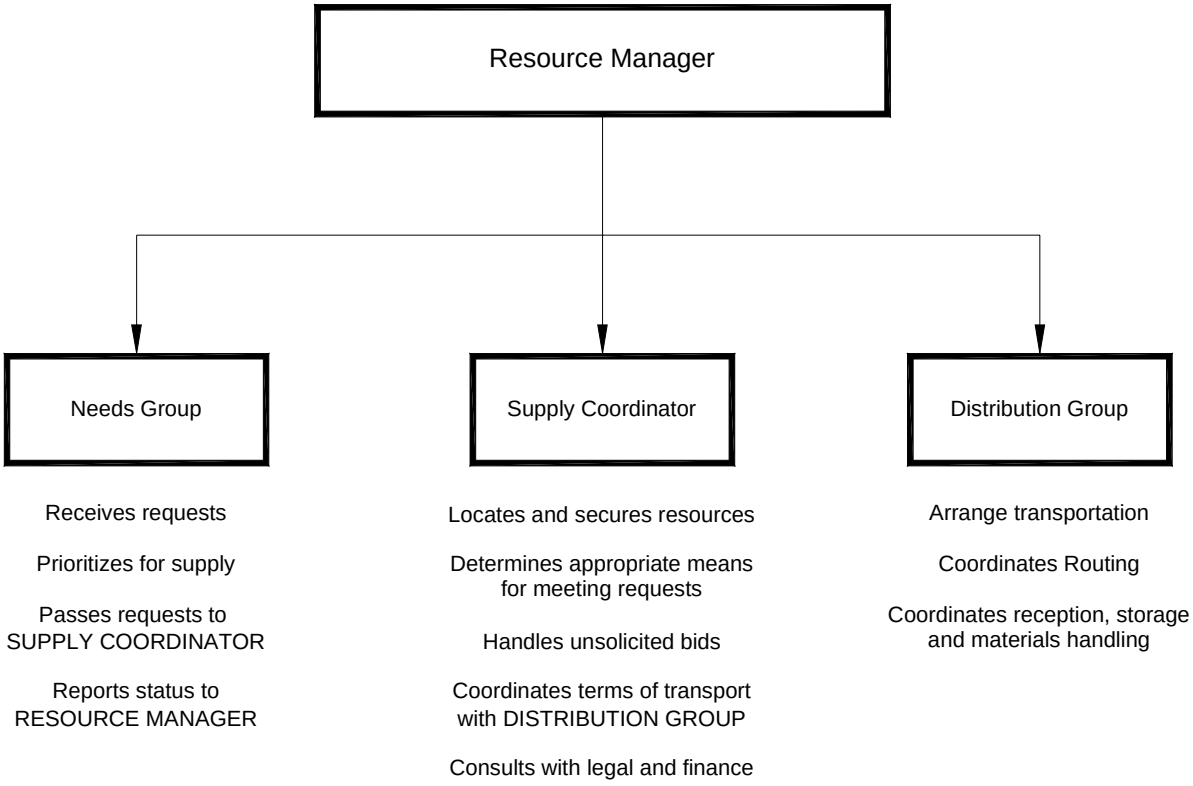
(iv) Support Acknowledgement. Suppliers and donors should receive acknowledgment for their support. This should be coordinated with the Airport Manager/Chief Executive. New suppliers might be approached regarding their interest in developing an agreement in time for the next emergency.

(h) Coordination with Voluntary Agencies. A resource management section should address how the airport will coordinate its resource management activities with voluntary agencies. It should also address policies and liability on the use of volunteer labor.

NOTE: *Caution should be exercised when allowing untrained volunteers access to areas where they may be exposed to traumatic events.*

d. **Organization and Assignment of Responsibilities**. The sample organizational structure depicted in Figure 6-6 is conceptual and is meant to reflect the resource management function: determine needs; find a source for meeting the needs, transporting and distributing the resources, and ensuring financial and legal accountability. It should be adapted to conditions at the specific airport. For example, at some locations, one person could perform the entire resource management function; at another, it may take a significant group. The important thing is to

ensure that the entire process of resource management is well coordinated, however it is structured.



Note: Other organizational structures are possible; this chart suggests functions that should be addressed.

Figure 6 - 6. Sample Components of a Resource Management Organization

The following types of tasking should be performed for resource management.

(1) Resource Manager. Upon arrival at EOC:

(a) Directs and supervises the activities of the Needs, Supply, and Distribution Groups.

(b) Coordinates with the Emergency Manager and staff regarding needs and priorities in meeting them.

(c) During the emergency, monitors potential resource shortages at the airport and advises the Emergency Manager of the need for action.

(d) Identifies locations that may be used for storage of resources, if needed.

(2) Needs Group.

(a) Receives requests and reports on the function's success in meeting needs.

(b) Receives specific requests, eliciting essential information from requesting parties.

(c) During multiple scene emergencies or disasters, monitors resource demands from Incident Command Logistics Officers and maintains list of all staging area resources, itemized by incident location.

(d) Provides regular reports to the Resource Manager on the status of resource requests.

(3) Supply Group.

(a) Locates and secures resources. As needed, includes teams for procurement, personnel, and donations. Should be supported with financial information and legal advice.

(b) Determines appropriate means for satisfying requests.

(c) Handles unsolicited bids.

(d) Keeps Needs Group informed of action taken on requests.

(e) Keeps Distribution Group informed of expected movement of resources, along with priority designation for the resource.

(f) Requests transportation support from Distribution Group, as needed.

(g) Undertakes procurement using database and/or resource listings to fill requests through prearranged supply channels.

(h) When advance warning is available, notifies private industry parties to any agreements of the airport's intent to activate the agreement, confirms availability of those resources, and reserves supply.

(i) Contacts suppliers, settles terms for transportation, and provides necessary delivery information.

(4) Financial Officer. Oversees the financial aspects of resource management, including record-keeping, budgeting for procurement and transportation, and facilitating any donations.

(5) Legal Officer. Advises resource management team on contracts and other relevant legal matters.

(6) Distribution Group.

(a) Ensures delivery of resources by overseeing routing, transportation, collection, sorting, storage, and inventory.

(b) When multiple scene emergencies or disasters occur, establishes liaison with all Incident Command Staging Officers to monitor location, passage, and inventory of resources.

(7) All Airport Agencies. Provide knowledgeable staff to support Resource Management, as requested.

e. **Administration and Logistics**. This section addresses the administrative and general support requirements for carrying out resource management tasking.

(1) Administration. The following areas should be addressed:

(a) Reports and records. The section should address what kinds of records must be kept, for how long, and in what form (hard copy, database, etc.), format, source documents, from whom to whom, and how they will be protected.

(b) Finance. The section should address the airport's financial policies regarding the use of existing funds and how contingency funds will be made available.

(c) Procurement. The section should note the jurisdiction's policies on emergency procurement.

(d) Hiring and other personnel matters. The section should note waivers of normal procedures for matters of hiring, assigning of work outside the normal job description, etc.

(2) Logistics. The following areas should be addressed:

(a) Staffing.

(i) Core cadre. The section should identify those resource management functions which should be staffed, regardless of the size of the emergency.

(ii) Maximum complement. The section should attempt to address the number and kind of resource management facilities which may need to be activated and the maximum number of personnel that would be needed to support them. A breakdown by facility would be helpful.

(iii) Augmentation. The section should address how the airport will address resource management function staffing shortfalls, including reassignment of other airport employees, use of airport tenant personnel, or assistance from off the airport.

(3) Facilities.

(a) Minimums. The section should describe where basic resource management activities will be conducted, especially if areas other than the EOC will be used. If remote areas will be involved, discuss communications links.

(b) Significant influx of resources expected. The Resource Manager may establish other facilities such as the following:

(i) Central Resource Receiving Point. Consideration should be given to a convenient, yet secure location to which all resources can be directed initially.

(ii) Staging Areas. Staging areas are locations to which personnel and/or equipment can report and receive briefings, and assignment to an operational location. Size and accessibility are important considerations when determining staging area locations.

(iii) Warehousing. There may be a need to store excess resources until needed after the emergency. This should be discussed in advance with appropriate airport tenants.

(iv) Lodging. Consideration should be given during the planning stages for each type of emergency as to whether or not there will be a need for lodging support for the influx of additional volunteers and government workers.

(c) Communications. Because of the multi-location nature of resource management, a successful operation will depend on reliable communications. The number of telephones, telephone lines, fax machines, computer terminals, two-way radios, and other standard equipment will depend on the anticipated size of the airport's resource management operation.

(d) Computers and software. Resource management can potentially involve large amounts of information best handled with automation such as databases and spreadsheet programs.

(e) Office equipment and supplies.

(f) Forms. At many locations, there is a form for everything. Make sure there is a sufficient supply to get things started, as well as a mechanism to obtain or produce more.

(g) Transportation. The section should discuss the transportation resources available to support the resource management function.

f. **Plan Development and Maintenance**. There is much ongoing activity necessary to support the resource management function, including: planning meetings; updating resource listings; monitoring potential resource crises; developing and negotiating standard contracts and leases, memoranda of understanding, and mutual aid agreements; developing pre-scripted public information materials; writing and refining SOPs and checklists; training; and exercising the function. Responsibility for these activities should be assigned in this section.

g. **Authorities and References**. Authorities and references might include:

(1) Authorities.

(a) State and local emergency legislation.

(b) Appropriate sections of airport, local, and/or state procurement regulations, particularly any provisions for an expedited process.

(c) Airport, local, and/or state personnel regulations, especially those addressing any special hiring practices and authorities.

(2) References.

(a) Airport, local, and/or state resource listings.

(b) A compilation of Airport, local and/or state memoranda of agreement.

(c) Other resource directories.

(d) Suggested attachments:

(i) Map(s) identifying key facilities and transportation routes.

(ii) Organizational chart.

(iii) Staffing information.

(iv) Sample forms.

SECTION 10. AIRPORT OPERATIONS AND MAINTENANCE

6-10-1 GENERAL. This function addresses Operations and Maintenance at the airport. For the purposes of this section, Operations and Maintenance will be presented as a single entity. The day-to-day roles of an Operations and Maintenance function are different as they are often separate within the airport's organizational structure.

6-10-2 CONTENTS OF AN OPERATIONS AND MAINTENANCE SECTION. The contents of an Operations and Maintenance Section includes the following:

a. **Purpose**. This section provides information which identifies the roles and responsibilities of operations and maintenance personnel during an airport emergency. It includes a summary of:

(1) personnel and equipment

(2) where they are located

(3) general notification procedures

(4) overall statement of capabilities.

b. **Situation and Assumptions**. The situation and assumptions section describes the overall Operations and Maintenance situation at the airport. This includes the staffing and general schedules and manning levels and limitations or situations which may impact operations and maintenance support during emergencies. Some of the typical assumptions that may be made include:

(1) All responding operations and maintenance personnel will be familiar with their responsibilities.

(2) Airport operations and/or maintenance personnel may be the first to respond to many airport emergencies.

(3) Airport operations personnel may have to represent airport management during the initial stages of some emergencies.

(4) Operations and/or maintenance functions may not be covered 24-hours a day, 7 days a week.

(5) For some emergencies, airport maintenance personnel may have to make an initial determination if airport structures are safe to use.

c. **Operations**. The Operations section should include provisions for:

(1) Personnel from airport operations will respond to the emergency, while airport maintenance personnel will standby to respond to requests for assistance.

(2) Airport operations personnel will evaluate the situation and its impact (real and/or potential) on overall airport functions.

(3) Airport operations personnel will ensure appropriate personnel/organizations are notified of the emergency.

(4) Airport operations personnel will make initial determinations regarding the requirement for the issuance of Notices to Airman (NOTAMs) to include the potential need for closing the airport to safely accommodate the movement of emergency response vehicles.

d. **Organization and Assignment of Responsibilities**. This section describes the specific organizational structure and associated responsibilities that are assigned to airport operations and maintenance personnel for each type of emergency.

(1) Airport Manager/Chief Executive.

(a) Designate an Airport Operations Coordinator (AOC) to report to the EOC, when appropriate.

(b) Designate an Airport Maintenance Coordinator (AMC) to report to the EOC, when appropriate.

(c) Establishes airport policy regarding off-airport response by airport operations and maintenance personnel and equipment.

(2) Airport Operations Coordinator.

(a) Ensure compliance with all appropriate aviation standards and regulations.

(b) Ensure that the command vehicle (e.g. mobile command center, bus, etc.) is provided at the scene as soon as possible.

(c) Coordinate emergency response efforts with air traffic control personnel.

(d) Ensure any and all required NOTAMs have been issued.

(e) Provide overall airport familiarization and training program for designated on and off-airport maintenance personnel.

(i) Provide training to reduce the potential for Vehicle/Pedestrian Deviations (V/PD) and Runway Incursions.

(ii) Provide grid maps for each vehicle, as appropriate.

(f) Ensure completion of necessary airport inspections upon emergency termination.

(g) Prepare detailed SOPs and checklists that include:

(i) Contact information and mechanisms for notifying personnel.

(ii) Step-by-step procedures for performing assigned tasks.

(iii) Contact information for agency notification (e.g. air traffic control, FAA, NTSB, etc.).

(iv) Listing of the radio communications call signs and frequencies used by responding organizations.

(v) Provide means (e.g. buses), to evacuate people from the accident scene.

(h) Provide information regarding the status of the airport to the news media through the Public Information Officer (PIO).

(i) Maintain a chronological event log.

(3) Airport Maintenance Coordinator.

(a) Prepares and maintains an airport resource list.

(b) Ensures the restoration of utilities to critical and essential facilities, when necessary.

(c) Ensures the safety of facilities (e.g. post-fire, flood, earthquake, tornado, hurricane, explosion).

(d) Provides backup electrical power.

(e) Clears debris, as necessary.

(f) Ensures availability of potable water supply.

(g) Prepares detailed SOPs and checklists that include:

(i) Contact information and mechanisms for notifying personnel.

(ii) Step-by-step procedures for performing assigned tasks.

(h) Provides sanitation services.

(i) Maintains a chronological event log.

(3) Law Enforcement/Security.

(a) Provides access control to the air operations area.

(b) Provides other law enforcement support, as required

(4) All Tasked Organizations.

(a) Adhere to all airport rules and regulations in the performance of duties.

(b) Provide related status reports to the Operations and/or Maintenance Coordinator, as appropriate.

e. **Administration and Logistics**. This section describes administrative and general support requirements for accomplishing emergency health and medical tasks.

(1) Administration. This section focuses on the general support requirements and identifies sources that will be relied upon to obtain personnel, equipment and supplies. In some instances, supporting resource information may be available through the Resource Manager; in some instances, airport maintenance may perform the role of Resource Manager. SOPs/checklists should be developed for obtaining these resources should be referenced here.

(2) Logistics. This section addresses the arrangements that have been made to provide for the support needs of the basic overall emergency response operation. It should be coordinated with, but should not be duplicative of, the efforts of the other functional areas.

(a) Facilities and Equipment. Necessary resources may include:

(i) Portable emergency shelters.

(ii) Portable lavatories.

(iii) Portable lighting.

(iv) Portable power supplies.

(v) Cones, stakes, flags, and signs.

(vi) Machinery, heavy equipment, cranes, etc.

(vii) Transportation resources (e.g. buses, vans, trucks).

(viii) Fuel removal equipment.

(ix) Portable heating equipment.

(b) Suppliers/Agreements. This section should reference agreements with suppliers. An attachment to the section should list day and night points of contact for such suppliers.

f. **Plan Development and Maintenance**. This section should identify who is responsible for coordinating revision of the airport's Operations and Maintenance Section, keeping its attachments current, ensuring coordination with the local jurisdictions' program, keeping its attachments current, and ensuring that SOPs and checklists are developed.

g. **Authorities and References**. This section should highlight those statutes, regulations, standards, administrative orders, etc. which provide authority for the preparation of the Operations and Maintenance Section for disaster response and recovery operations:

(1) Federal Aviation Regulations

(2) Advisory Circulars

(3) OSHA Standards

(4) NFPA Standards

(5) ICAO Standards

(6) Mutual Aid/Assistance Agreements

CHAPTER 7. HAZARDS

7-1 INTRODUCTION. Through the Hazards Analysis Program, guidance has been provided to assist in the identification of those hazards and disasters specific to an airport that warrant planning attention.

§139.325, *Airport Emergency Plan*, requires the airport operator to develop plans and procedures response to the following emergencies:

a. Aircraft incidents and accidents.

b. Bomb incidents, including designated parking areas for the aircraft involved.

c. Structural fires.

d. Fires at fuel farms or fuel storage areas.

e. Natural disasters.

f. Hazardous materials/dangerous goods incidents.

g. Sabotage, hijack incidents, and other unlawful interference with operations.

h. Failure of power for movement area lighting.

i. Water rescue situations, as appropriate.

NOTE: *In the event of an accident or significant incident, the airport should be closed immediately either by the airport operator and/or the appropriate FAA air traffic facilities through letters of agreement with the airport operator. Further, the airport, or portions thereof, should not be reopened until the airport operator has ensured that:*

(1) aircraft operating areas are secure;

(2) aircraft movement areas that are to be reopened have been properly inspected; and

(3) adequate aircraft rescue and fire fighting protection is available for aircraft operations.

The opening or closure of an airfield, or portion thereof, is the responsibility of the airport operator. However, in the fast developing dynamics that occur immediately after an accident or incident, the airport operator may not be in the best position to assess the situation and make a decision on continuing operations or closing the airfield. To ensure the safety of airfield operations, it may be beneficial to establish procedures with the Airport Traffic Control Tower (ATCT) which gives the authority for closing the airfield under defined circumstances and guidelines to controllers. This can be accomplished through a Letter of Agreement with the ATCT. Such procedures must provide safeguards to ensure that airport operations are continued or resumed only after it is determined that there is no adverse effect on persons or property on the airfield and that appropriate level of ARFF coverage is available. In addition, operations should resume:

(1) only after it can be ascertained that the rescue and evacuation activities associated with the event will not be impacted negatively by resumption of airfield operation, and

(2) the accident event does no pose a hazard to the resumption of airfield operations.

This chapter addresses the application of this information to airport specific needs through the development of functional hazard-specific plans and procedures. It explains how each airport can address its respective preparedness priorities as identified through the hazards analysis while at the same time meet regulatory requirements.

Figure 7-1 shows the steps in the Airport Emergency Plan Flow Chart for typical airport incidents.

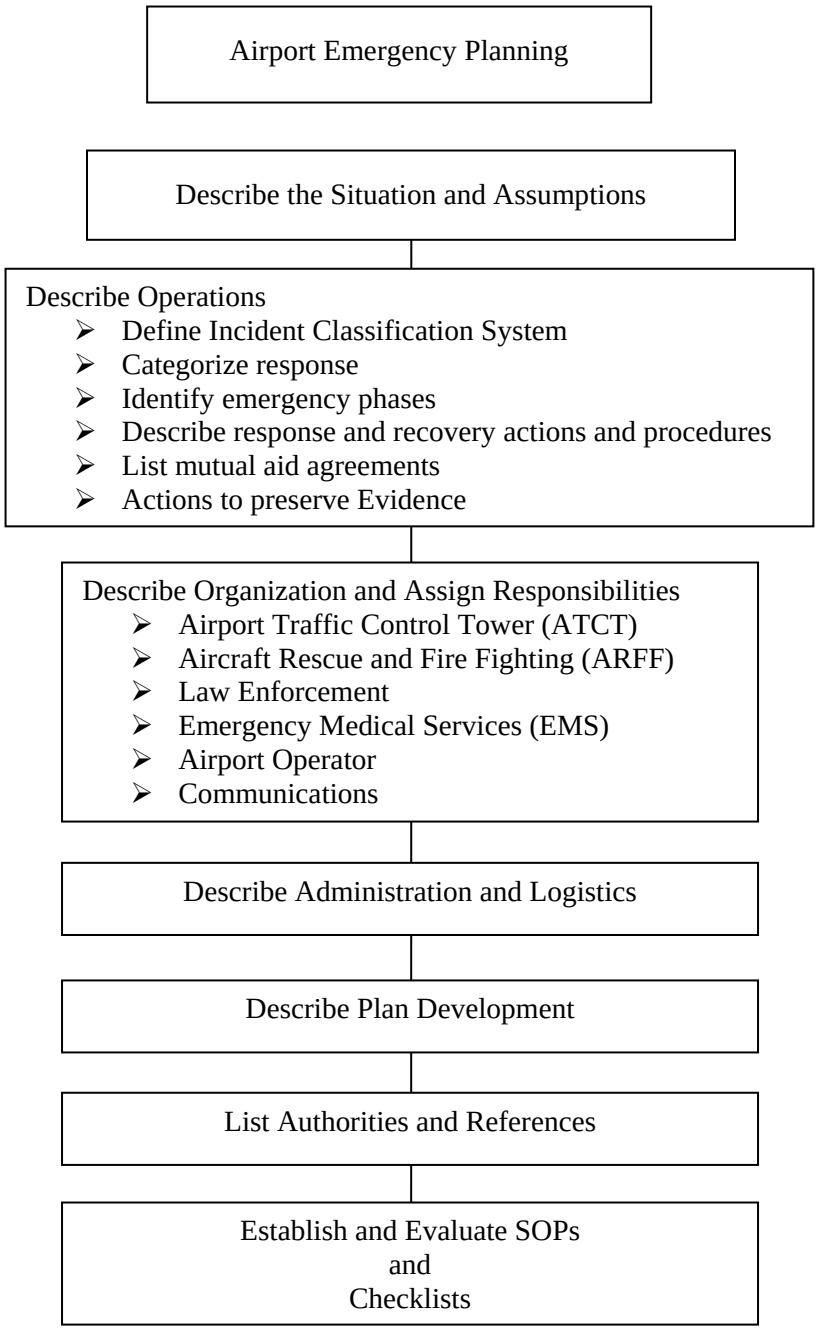


Figure 7 - 1. Airport Emergency Plan Flow Chart

7-2 CONTENT OF A HAZARD SPECIFIC SECTION. The content of a hazard-specific section should focus on the special planning needs of the particular hazard and not duplicate the information in the functional section. The section contains unique and regulatory response planning details that apply to a particular hazard. It addresses the essential operational actions that must be accomplished to facilitate the successful completion of a particular response function.

It is recommended that the hazard-specific appendices follow the same structure -- i.e. include, as appropriate, the same content, sections (Purpose, Situation and Assumptions, Operations, Organization and Assignment of Responsibilities, Administration and Logistics, Plan Development, and Authorities and References) – as the functional section. Tabs may be used to supplement the information and include such things as maps, resource inventories, checklists, etc.

NOTE: *The responsibility for making the decision on what to include in a hazard-specific section is vested with the airport's planning team. The flexibility of the planning approach described in this AC should make it possible to accommodate and satisfy:*

a. The planning requirements associated with unique aspects of the airport and with the various regulatory authorities.

b. The different constituencies in the airport's emergency response organizations.

c. The members of the planning team.

Table 7-1 identifies the core functional areas discussed in Chapter 6 and provides a synopsis of the typical hazard-specific planning considerations associated with each. The planning team should consider this information when making its decisions on the kinds of information to be included in the appendices.

NOTE: *It is important to remember that there are other regulations and standards related to emergency preparedness which may be available for use by your airport (e.g. OSHA 1919.120, SARA Title III, NFPA, etc.). Consider including them in this planning process.*

Table 7 - 1. Typical Content of Hazard-Specific Appendices as related to Core Functional Section

Functional Section	***Hazard-Specific Section Topics***
Command and Control	✈ Response actions keyed to specific time periods and phases
	✈ HAZMAT assessment
	✈ Damage assessment
	✈ Debris removal
	✈ Facilities inspection
	✈ Protective equipment for emergency responders
	✈ Detection equipment and techniques
	✈ Utilities and lifeline repairs
	✈ Search and rescue
	✈ Actions to ensure the area is safe and secure for the return of evacuated populations or for scene investigation personnel
Communications	✈ Provisions that have been made to ensure that effects associated with a particular hazard do not prevent or impede the ability of response personnel to communicate with each other during response operations
Alert Notification and Warning	✈ Hazard-unique public alert and warning protocols
	✈ Required or recommended notifications of specific emergency response agencies, to include local, State, and Federal
Emergency Public Information	✈ Information the public (employee and transient) will need to know about the particular hazard (e.g. special evacuation routes, in-place sheltering)
	✈ Means that will be used to convey that information to the public
Protective Actions	✈ Evacuation or in-place sheltering options and their timing
	✈ Special exclusion zones for the particular hazard (e.g. down- and cross-wind areas for nearby nuclear power and major chemical plants; low-lying/coastal areas subject to flooding caused by storms, hurricane, tidal surge)
	✈ Evacuation routes
	✈ Transportation resources to support mass evacuations
Law Enforcement/Security	✈ Special traffic and/or access control requirements
	✈ Special or secure communications procedures
	✈ Special or unique resource, equipment, and/or supplies requirements
Firefighting and Rescue	✈ Special or unique response force (e.g. HAZMAT Team) requirements
	✈ Special or unique resource, equipment, and/or supplies requirements
Health and Medical	✈ Special or unique health consequences and treatment options for people exposed to the hazard
	✈ Environmental monitoring and decontamination requirements
	✈ Special or unique resource, equipment, and/or supplies requirements
Resource Management	✈ Provisions for purchasing, stockpiling, or otherwise obtaining special protective gear, equipment, medical supplies needed for response operations and to meet the immediate needs of disaster victims
Airport Operations and Maintenance	✈ Special or unique notification requirements (e.g. NOTAM, FAA, NTSB, etc.)
	✈ Provisions for conducting necessary facility inspections

SECTION 1. AIRCRAFT INCIDENTS AND ACCIDENTS

7-1-1 INTRODUCTION.

a. **Definitions**.

(1) **Aircraft Accident**. Any occurrence associated with the operation of an aircraft that takes place between the time a person boards the aircraft with the intention of flight and the time such person has disembarked, in which a person suffers death or serious injury as a result of the occurrence or in which the aircraft, including cargo aircraft, receives substantial damage. (See 49 CFR part 830.) (Refer to *Reporting an Accident to the NTSB* at www.ntsb.gov.)

(2) **Aircraft Incident**. An *incident* is an occurrence other than an accident that affects or could affect the safety of operations.

b. **General**. Airport operators should have an emergency preparedness plan for an aircraft incident or accident, including cargo aircraft, under a number of circumstances:

(1) On the airport.

(2) Off the airport on adjacent property and within the authority and responsibility of the airport to respond (e.g. Mutual Aid Agreement).

NOTE: *The degree of involvement may vary from situation to situation.* (See *Responding to an Aircraft Accident - How to Support the NTSB (A Guide for Police and Public Safety Personnel* at www.ntsb.gov*)*.

7-1-2 PURPOSE. The information contained in this hazard-specific section is intended to supplement the Basic Plan and Functional Section of the Airport Emergency Plan. It defines responsibilities and describes actions to be taken in the event an aircraft incident/accident affects the airport in any of the situations. Further, this document, in conjunction with the Basic Plan and Functional Section, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and Checklists.

7-1-3 SITUATION AND ASSUMPTIONS.

This section should describe the airport's situation to include:

a. ARFF Index. Refer to §139.315 Aircraft Rescue and Fire Fighting: Index Determination:

b. Hours of operations.

c. Airport Traffic Control Tower (ATCT) hours of operation.

d. Number of runways (to include the numerical headings, e.g. 23L, 05R, etc.)

e. A summary of daily operations by aircraft category, i.e. air carrier, cargo, commuter, general aviation.

f. A summary of aircraft types normally using the airport, e.g. B-757, B-767, L-1011, Saab 340, B-737, MD-880, CRJ, including cargo aircraft, etc. For planning purposes, the maximum number of passengers each type of aircraft carries should be indicated.

g. A summary of airport staffing, i.e. ARFF, Law Enforcement, Operations, Maintenance, Administration, etc. Indicate how each is provided, i.e. employee, contracted service, cross-trained (Police/ARFF; Maintenance/ARFF, etc.),

h. Describe the airport's policies and procedures for ARFF response during periods of low visibility, such as pre-positioning.

i. It is recommended that, for the purposes of emergency response, each aircraft incident/ accident should be considered a potential hazardous materials incident.

j. Describe the airport's policy regarding the activation of the Emergency Operations Center for aircraft incidents/accidents.

7-1-4 OPERATIONS. This section should describe actions to be taken if an aircraft incident/ accident should occur on or adjacent to the airport.

a. **Classifications**. It is recommended that an incident/accident classification system be developed. Examples are described below and are available in International Civil Aviation Organization (ICAO), *Airport Services Manual*, *Part 7, Airport Emergency Planning*, and NFPA 424, *Guide for Airport Community Planning.* For example:

(1) Alert I (Local Standby Alert): An aircraft that is known or suspected to have an operational defect that should not normally cause serious difficulty in achieving a safe landing. This is notification only. No response is required. All units involved will be manned and will standby in quarters.

(2) Alert II (Full Emergency Alert): An aircraft that is known or is suspected to have an operational defect that affects normal flight operations to the extent that there is danger of an accident. All units respond to pre-designated positions.

NOTE: *The Duty Airport Operations Officer involved with the Alert II will coordinate and come to a mutual agreement with the ARFF Officer and any other involved group, on when to reopen a runway closed for an Alert II response. After agreement has been reached as when to reopen the closed runway, the Duty Airport Operations Officer will confirm all vehicles responding to the Alert II, as well as the Alert II aircraft are clear of the runway and only then will the runway be reopened with the Airport Traffic Control Tower.*

(3) Alert III (Aircraft Accident Alert): An aircraft incident/accident has occurred on or in the vicinity of the airport. All designated emergency response units proceed to the scene in accordance with established plans and procedures.

b. **Response Description**. Airport fire departments may respond to a variety of emergency situations on an airport. These responses are designed to render immediate control and mitigation of an aircraft incident, perform rescue or other life saving services, prevent property damage to structures or equipment, and may warrant the medical treatment of injured personnel.

(1) Inflight or Airborne Emergency: An emergency condition that affects the operational integrity of an aircraft while in flight. The degree of importance of these conditions can be defined by using alert status guidelines stated in FAA terms, and aircraft emergencies for which services may be required, as defined in International Civil Aviation Organization *Airport Services Manual*, Part 1, "Rescue and Fire Fighting."

(2) Medical Emergency: Any condition or situation in which an individual perceives a need for immediate medical attention.

(3) Ground Emergency: An emergency condition involving aircraft operations while on the ground and is not incident to flight operations nor classed as an in-flight or airborne emergency. These emergencies may involve ground servicing, maintenance activities, pre-departure checks, and or support equipment operations.

(4) Structural Emergency: An emergency condition (other than those involving aircraft or other transportation mediums) that warrants the delivery of emergency services (including rescue, fire suppression, emergency medical care, special operations, law enforcement, and other forms of hazard control and mitigation) involving structures, infra-structures, and or utility systems or services.

c. **Categories**. In order to better manage limited resources, some airports may wish to categorize their response based on the actual number of occupants (passengers and crew) of the aircraft involved. All airport ARFF vehicles should respond to all potential/actual incidents/ accidents, regardless of size of aircraft. However, it may not be necessary to respond with the same number of off-airport fire and emergency medical vehicles for a small commuter aircraft as for a large frame air carrier. Decisions such as this may be left with the Incident Commander based upon the specific incident. Planners may wish to use the largest aircraft normally serving their particular airport to determine required resources. For planning purposes, the casualty numbers in Table 7-3 may be used. These figures are based on an extract from ICAO Airport Services Manual, Part 7, *Airport Emergency Planning*, Appendix 3, *Airport Medical Services*.

Table 7 - 2. Estimated Casualties

Aircraft Occupants	*Number of Casualties*	*20 % casualties Immediate Care Priority I*	*30 % casualties Delayed Care Priority II*	*50 % casualties Minor Care Priority III*
500	375	75	113	187
450	338	68	101	169
400	300	60	90	150
350	263	53	79	131
300	225	45	68	112
250	188	38	56	94
200	150	30	45	75
150	113	23	34	56
100	75	15	23	37
50	38	8	11	19
These figures are based on the assumption that the maximum number of surviving casualties at an aircraft accident occurring on or in the vicinity of the airport is estimated to be about 75 % of the aircraft occupants.				

d. **Emergency Phases**. Due to the unique nature of an aircraft accident, AEP planners may wish to base their activities on the following emergency phases:

(1) Response Phase. That portion of the initial response effort where activities are focused on the dispatch and arrival of emergency first responders, initial fire suppression, rescue operations, and dealing with any hazardous materials issues.

(2) Investigatory Phase. Unlike many other types of emergencies, an aircraft incident or accident may require some type of activity specific to the gathering and analysis of information, the drawing of conclusions, including the determination of cause. This activity may, depending upon conditions, begin during the Response Phase and continue through the Recovery Phase. The investigation is normally the responsibility of the National Transportation Safety Board (NTSB). However, emergency first responders should adhere to the criteria contained in AC 150/5200-12, *Fire Department Responsibility in Protecting Evidence at the Scene of an Aircraft Accident*.

(3) Recovery Phase. Returning the airport to a normal operational condition as soon as possible is extremely important. AEP planners should consider a separate set of plans, SOPs, and Checklists to cover this activity. Recovery activities can begin during the Response Phase and continue through the Investigatory Phase, depending upon the situation. Describe the relationship between the AEP and other emergency response plans (e.g. the local jurisdiction(s) EOP) regarding aircraft accidentresponse and recovery actions on the airport.

e. Describe the aircraft incident/accident response and recovery actions and procedures of airport personnel.

f. Describe the response and recovery actions of all the local response organizations in the vicinity of the airport, including public and private sector, as well as volunteer and charitable organizations as they relate to response on the airport. This information should already be available in local plans, particularly in the area mass casualty response.

g. List mutual aid agreements or other arrangements for sharing data and response resources.

h. **Preservation of Evidence**. Airport fire fighters and other rescue personnel should understand the basic need for, and the techniques and procedure used, in aircraft accident investigation. Emergency first responders should adhere to the criteria contained in AC 150/5200-12, *Fire Department Responsibility in Protecting Evidence at the Scene of an Aircraft Accident*.

Whenever possible, the wreckage should remain undisturbed until the arrival of the first National Transportation Safety Board (NTSB) accident investigator. Prior to the time the NTSB or its authorized representative takes custody of aircraft wreckage, mail, or cargo, such wreckage, mail, or cargo may not be disturbed or moved except to the extent necessary:

(1) To remove persons injured or trapped;

(2) To protect the wreckage from further damage; or

(3) To protect the public from injury.

Where it is necessary to move aircraft wreckage, mail, or cargo, sketches, descriptive notes, and photographs will be made, if possible, of the original position and condition of the wreckage and any significant impact marks. (Refer to 49 CFR part 831, *Accident/Incident Investigation Procedures*.)

7-1-5 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. This section should describe actions to be taken if an aircraft incident/ accident should occur on or adjacent to the airport Examples of responsibilities may include:

a. **Airport Traffic Control Tower**.

(1) Activate the appropriate alarm notification system.

(2) Issue appropriate NOTAMs as requested by the airport operator or as established by Letter of Agreement.

(3) Control aircraft and ground vehicle operations on the airport in support of the emergency response, if the airport remains open.

(4) Control airspace in the vicinity of the incident/accident to ensure other aircraft do not interfere with emergency response activities.

(5) Make appropriate FAA notifications.

(6) Use of a Discrete Emergency Frequency during in-flight emergencies whenever possible provides precise communications between the ARFF IC and emergency aircraft.

b. **Firefighting and Rescue**.

(1) Respond to aircraft incident/ accident location in accordance with established policies and procedures.

(2) Assume lead in Incident/Unified Command System for initial fire and rescue operations in accordance with established policies and procedures.

(3) Ensure appropriate mutual aid emergency response organizations have been notified and are taking appropriate action.

c. **Law Enforcement/Security**.

(1) Initiate and maintain appropriate Traffic and Access Control.

(2) Provide scene support and security.

(3) Assist with/provide AOA access control and escort.

(4) Ensure appropriate mutual aid organizations have been notified and are taking appropriate action.

(5) Provide necessary investigative support.

d. **Emergency Medical Services**.

(1) Provide necessary triage and on-scene initial treatment of casualties.

(2) Ensure appropriate mutual aid organizations have been notified and are taking appropriate action.

(3) Provide for the movement (land, water, air) of casualties to appropriate treatment facilities as expeditiously as possible.

(4) Maintain an accurate list of casualties and their respective destination treatment facilities.

(5) Coordinate with the involved air carrier the transportation of the uninjured to the designated holding area.

(6) Arrange for restocking of medical supplies, as necessary.

e. **Airport Operator**.

(1) General.

(a) Designate hangars or other key buildings on the airport or in the communities it serves that will be used to accommodate uninjured, injured, and deceased persons.

(b) Activate the EOC, as needed.

(c) Ensure all appropriate notifications have been made, including:

(i) National Transportation Safety Board (NTSB).

(ii) FAA.

(iii) Airport response personnel.

(iv) FEMA, FBI, Military Services, etc.

(d) Provide emergency support services, as requested, through the EOC.

(e) Ensure emergency response personnel have received appropriate equipment and training.

NOTE: *PL 104-264, Title VII - Aviation Disaster Family Assistance Act (ADFAA) requires each air carrier to have a plan in place to deal with the families of victims involved in an aircraft accident. However, there may be some instances where it may take some time before the air carrier can fully implement its plan. In the interim, family members may look to the airport operator for information and assistance. While there may be no legal obligation to do so, each airport operator should consider including provisions for basic family support in the AEP to deal with these situations. These enhancements will allow for a reduction of stress and trauma of family members and allow for a smoother transition once the affected air carrier arrives with the necessary personnel and logistical resources. The following are a number of basic issues that, if addressed, can improve the first 12 hours of a local community response:*

- *Establish a group of all air carriers serving the airport which would respond to assist the affected carrier during the first 12 hours. This group could also respond to charter carriers or emergency diversions that involve non-tenant air carriers.*

- *Utilize local emergency service resources for specific functions at pre-designated areas, such as collecting names, addresses, and telephone numbers of passengers that do not receive medical attention.*

- *Pre-determine locations for key facilities, such as a "Friends and Relatives" reception area, and other areas where families may gather.*

- *Incorporate existing security plans to include the affected air carrier ticket counter, "Friends and Relatives" reception area, and other areas where families may gather.*

- *Identify information that station managers and airport operator may need concerning passengers, their families, and the accident site. Establish a process by which this information is relayed to the affected air carrier and emergency operations centers.*

- *Review procedures for emergency access to the terminal by air carrier employees and emergency service providers during an event.*

- *Pre-arrange or assist in securing hotel rooms in the local area for non-tenant air carriers involved in an emergency diversion or for charter carriers that have no employees at the airport.*

(2) Airport Operations.

(a) Through the Unified/Incident Command System:

(b) Ensure that supporting emergency response agencies (fire, medical, law enforcement, etc.) have responded.

(c) Coordinate response actions, with the ATCT.

(d) Determine need to totally/ partially close the airport and issue appropriate NOTAMs.

NOTE: *In the event of an accident or significant incident that impacts airport operations or public safety, the airport should be closed immediately either by the airport operator and/or the appropriate FAA air traffic facilities through pre-agreed upon formal letters of agreement with the airport operator. Further, the airport, or portions thereof, should not be reopened until the airport operator has ensured that:*

- *Aircraft operating areas are safe and secure;*

- *Aircraft movement areas that are to be reopened have been properly inspected;*

- *Adequate aircraft rescue and fire fighting protection is available for aircraft operations and;*

- *Public safety is assured.*

(3) The opening or closure of an airfield, or portion thereof, is the responsibility of the airport operator. However, in the fast developing dynamics that occur immediately after an accident or incident, the airport operator may not be in the best position to assess the situation, and it may be beneficial to establish procedures with the ATCT which gives the authority for closing the airfield under defined circumstances and guidelines to controllers. This can be accomplished through a Letter of Agreement with the ATCT. Such procedures must provide safeguards to ensure that airport operations are continued or resumed only after it is determined that there will be no adverse effect on persons or property on the airfield and that appropriate level of ARFF coverage is available. In addition, operations should resume;

(a) Only after it is ascertained that the rescue and evacuation activities associated with the event will not be impacted negatively by resumption of airfield operation, and

(b) The accident event does not pose a hazard to the resumption of airfield operations.

(i) Ensure that a representative of the affected aircraft owner/operator has been notified.

(ii) Provide technical assistance to the Incident Commander.

(iii) Participate in EOC activities.

(iv) Monitor, and coordinate as required, other concurrent airport activities.

(c) Maintenance

(i) Assist/provide critical services, including utility support (activation/cut-off), as needed.

(ii) Provide sanitation services for extended operations.

(iii) Assist in the provision of required resources.

(iv) To the extent possible, arrange to have available the following equipment/ supplies/services:

a) Portable lavatories.

b) Drinking water.

c) Ropes, barricades, barrier tape, etc.

d) Portable lighting.

e) Cones, stakes, flags and signs.

f) Portable shelter(s), as needed.

g) Machinery, heavy equipment, and extraction tools.

h) Fuel removal equipment.

i) Portable public address system.

j) Communications equipment (cellular telephones, two-way radios, etc.).

k) Participate in EOC activities.

(d) Administration.

(i) Provide budgeting, payment and other financial support.

(ii) Provide procurement services.

(iii) Participate in EOC activities.

(iv) Provide tracking of expenses for potential reimbursement.

(e) Public Information/Community Relations.

(i) Develop and provide press releases relative the airport's responsibilities and activities, as needed.

(ii) Interface with the media, as well as with air carrier and emergency response on-scene public relations personnel.

(iii) Participate in EOC activities.

f. **Aircraft Owner/Operator or Designated Representative**.

(1) Provide pertinent information to Incident Commander, to include:

(a) Number of persons on board.

(b) The presence and location of any dangerous goods.

(2) Provide EOC representation.

(3) Make necessary notifications, to include the FAA and NTSB.

(4) Arrange for appropriate passenger services[6], to include:

(a) The transportation of uninjured passengers/crew members.

(b) Adequate holding facilities for uninjured passengers/crew members.

(c) Commissary items, telephone facilities, clothing, and additional medical services, as needed.

(d) Facilities for friends and families of victims/passengers.

NOTE: *PL 104-264, Title VII - Aviation Disaster Family Assistance Act (ADFAA) requires each air carrier to have a plan in place to deal with the families of victims involved in an aircraft accident.*

(e) Passenger/crew accountability and tracking.

(f) Hotel and/or other alternative travel arrangements for passengers.

(g) Critical Incident Stress Management (CISM) support.

(5) Implement approved plan in compliance with the requirements established in the AFDAA.

(6) Coordinate news releases with Airport Community/Public Relations personnel.

(7) Provide for the timely removal of the wrecked or disabled aircraft as soon as authorized by the appropriate authority.

[6] Refer to PL 104-264, Title VII - *Aviation Disaster Family Assistance Act (ADFAA).*

g. **Other Airport Tenants**. Continue to provide services based upon conditions.

h. **National Transportation Safety Board (NTSB)**. The NTSB "...is responsible for the organization, conduct, and control of all accident investigations involving civil aircraft, or civil and military aircraft, within the United States, its territories and possessions. It is also responsible for investigation of accidents which occur outside the United States, and which involve U.S. civil aircraft, at locations determined to be not in the territory of another state (i.e. in international waters)." (Refer to *Responsibility of the Board*, 49 CFR §831.2.)

7-1-6 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to aircraft incidents and/or accidents. Specialized resources, policies and procedures may be appropriate because of the unique nature of aircraft incidents/accidents.

7-1-7 PLAN DEVELOPMENT. This section should identify who (agency or department) is responsible for coordinating revisions of the Aircraft Incident/Accident Section, keeping its attachments current, and ensuring that SOPs and checklists are developed and maintained.

7-1-8 AUTHORITIES AND REFERENCES. This section should identify any aircraft incident / accident-specific statutes, regulations, etc. that are applicable to the airport.

7-1-9 UNIQUE PLANNING CONSIDERATIONS. This section identifies many of the unique planning considerations that should be identified by the AEP Planning Team.

a. **General**. For the most part, the primary planning role of the airport operator will be to coordinate the planning, response, and recovery efforts with the local emergency response organizations.

b. **Command and Control**.

(1) Due to the complex and specialized nature of aircraft incidents/accidents, consideration should be given to using some type of Unified Command System (reference Chapter 6, Section 1, *Command and Control)*. This provides for joint field participation and coordination with all agencies having an interest in the operation, including the airport operator and the aircraft owner/operator.

(2) It may be prudent to consider using the three different Phases (Response, Investigatory, and Recovery) when dealing with Command and Control planning. For example, ARFF should probably take the lead during the initial fire suppression and rescue activities.

(3) Each aircraft incident/accident should be treated as a potential hazardous materials site and all emergency response activity should treat it as such, i.e. an ICS should be used and levels of training should be considered when determining response personnel.

(4) Upon determination that the incident/accident site no longer poses a fire or hazardous materials threat to the health and safety of untrained personnel, the IC may consider terminating the Response Phase of the emergency and allowing the Investigatory Phase to begin. However, consideration should be given to having ARFF/Hazardous Materials/Fire remaining as the lead agency until all injured and deceased have been removed from the scene and during any hazardous materials mitigation activities, such as aircraft defueling.

(5) Once that has been completed, and upon consultation with other Unified Command representatives, IC lead may be transferred to the investigating agency.

(6) The appropriate investigating agency(s) (e.g. NTSB, FAA, DHS (FEMA) etc.) may provide IC lead during the Investigatory Phase of the emergency.

(7) Upon determination by the agency(s) that the airport can begin site recovery, and upon consultation with other Unified Command representatives, IC lead may be transferred to the airport.

(8) The airport may provide the lead during the Recovery Phase.

(9) Whatever the form of an Incident Command System (ICS) used, it is essential that it be determined and agreed upon by all participating agencies during the planning stages. The plan should be very specific in its designation of all responsible entities, their authority and function in the ICS. It should also clarify the functions of the on-scene Incident Command Post (ICP) and the Emergency Operations Center (EOC), particularly if both the airport and any off-airport organization(s) activate one.

c. **Communications**.

(1) Communications at an aircraft incident/accident site can be very complex and go beyond those described in Chapter 6, Section 2, Communications. Multiple jurisdictions, multiple agencies (fire, police EMS, etc.), large and sometimes inhospitable geographic areas and weather conditions, high noise levels, etc. all contribute to the difficulty.

(2) A communications network should consist of a sufficient number of radio transceivers, telephones (land line and mobile), and other communications equipment sufficient to establish redundant communications capability. This network should link all participating agencies, including the ICP and EOC(s).

(3) Because of the high volume of communications traffic, it is essential that radio procedures/protocols be established and related training programs provided. Radio and telephone communications should be limited to those which are essential; they should be concise.

(4) Every effort should be made to include the air carrier(s) communications capability in the plan.

(5) Runners should be included in the plan to augment the communications system, especially in high noise areas.

(6) Consider use of amateur radio operators (RACES, REACT) as source of communications, including Packet radio and TV capabilities.

(7) Many telephone companies have mobile telephone banks which can be brought to the scene of a disaster.

(8) The AEP should include provisions for ARFF communications with the aircraft cockpit as referenced in AC 150/5210-7. ATCT personnel should also be familiar with and be trained accordingly in the use of the Discrete Emergency Frequency (DEF).

(9) The air carrier should be able to assist with this resource.

(10) A dedicated communications vehicle/ mobile command post with self-contained electrical power can be an asset to a reliable and functional communications system. Many local government emergency management agencies have one available.

d. **Alert Notification and Warning**.

(1) For airports certificated under 14 CFR part 139, *Certification of Airports*, 14 CFR §139.325, *Airport Emergency Plan*, §139.325(e) requires that procedures be in place "...for notifying the facilities, agencies, and personnel who have responsibilities under the plan of the location of an aircraft accident, the number of persons involved in that accident, or any other information necessary to carry out their responsibilities, as soon as that information is available."

(2) The plan should specify:

(a) *Who is responsible* for initiating the process for notifying both on and off-airport emergency response organizations of an aircraft incident/accident. Normally, the ATCT will be the first facility aware of an aircraft accident and will initiate a notification process. However, the possibility exists that another agency such as a 9-1-1 Center or local fire department dispatcher may have to initiate the notifications. AEP planners must consider all of the possibilities and ensure that the process is well-documented and understood by all participants.

(b) *How notifications are made*. A description of the system(s) used to include types of equipment, such as:

(i) Crash phone/direct line.

(ii) Pager.

(iii) Commercial telephone.

(iv) Cellular telephone.

(v) Radio system.

(vi) Public address system.

(c) A back-up system or process. Describe the notification processes in the event the primary notification system becomes inoperative.

(d) The information to be transmitted during the initial notification. This should include:

(i) Type of aircraft.

(ii) Number of persons on board (including passengers and crew).

(iii) Fuel quantity.

(iv) The nature of the emergency.

(v) The presence of any known dangerous goods by type, amount, and location.

(vi) The location of the accident, if known. If possible, use a grid map to describe the location.

(e) Refer to Chapter 6, Section 3, *Alert and Warning*, for more information.

e. **Emergency Public Information**. Emergency Public Information (EPI) is a very important part of the overall response program. Because of the potential for major media coverage and a significant number of involved agencies, many with their own EPI programs, it is essential that the airport plan include:

(1) Provisions for coordinating news releases with other participating agencies, such as the air carrier and NTSB.

(2) Provisions for controlled scene access for the media.

(3) Specific criteria relating to the types and forms of information to be released by the airport. Generally speaking, the airport should speak only to those activities for which they are responsible.

(4) Refer to Chapter 6, Section 4, *Emergency Public Information*, for more information.

f. **Protective Actions**.

(1) The AEP should contain provisions regarding protective action recommendations (evacuation/sheltering) in the event the aircraft incident/accident occurs in such a manner or location that it may threaten the health and safety of other personnel on the airport. Of primary concern is determining who is authorized to make those recommendations.

(2) Refer to Chapter 6, Section 5, Protective Actions, for more information.

g. **Law Enforcement/Security**.

(1) Describe the major law enforcement tasks and responsibilities related to responding to an aircraft incident/accident. Planning elements to be discussed include:

(a) Primary law enforcement agency responsible for establishing, and methods used to establish, site security.

(b) Availability of mutual aid support.

(c) Provisions for establishing traffic control points and access control points to facilitate the movement of emergency response vehicles in and out of the airport/ accident site.

(d) Method(s) used to identify authorized responders at the accident site (e.g. ID vests, armbands, escort, etc.).

h. **Firefighting and Rescue**.

(1) Describe the major fire and rescue tasks and responsibilities related to responding to an aircraft incident/accident. Planning elements to be discussed include:

(a) A description of pre-established access routes to staging areas for each runway.

(b) Methods used to advise mutual aid emergency response organizations of:

(i) Accident location.

(ii) Access routes.

(iii) Staging area(s)/rendezvous point(s).

(iv) Additional equipment/manpower.

(v) Water re-supply points.

(c) Method used to identify the on-scene Command Post.

(d) Protection of evidence.

i. **Health and Medical**.

(1) On-scene.

(a) The purpose of on-scene medical services is to provide triage, initial medical care, and transportation to health care facilities.

(b) It is essential that the AEP medical plans and procedures:

(i) Are coordinated with and integrated into the local community plan(s).

(ii) Describe how the designated medical facilities and personnel are notified of the accident.

(iii) To the extent practical, provide for medical services including transportation and medical assistance for the maximum number of persons that can be carried on the largest air carrier aircraft that the airport reasonably can be expected to serve. The plan should list the type of aircraft and capacity.

(iv) Provide an inventory of personnel and equipment, including contact information, of those rescue squads, ambulance services, military installations, and government agencies on the airport or in the community it serves, that agree to provide medical assistance or transportation.

(v) Designate a Medical Coordinator who should assume command of emergency medical operations at the accident site and whose responsibilities, in coordination with the Medical Transportation Officer, may include:

a) Verifying that mutual aid medical and ambulance services have been alerted and verify their subsequent arrival at the designated Staging Area.

b) Organizing the necessary action for triage and treatment of the casualties and their eventual evacuation to a health care facility.

c) Arranging for the re-stocking of medical supplies, if necessary.

d) Providing medical analysis of the walking wounded or traumatized.

(vi) Designate a Medical Transportation Officer whose responsibilities may include:

a) Ensuring that hospitals and medical personnel have been notified of the emergency.

b) Directing transportation of casualties to health care facilities suited for the particular injury.

c) Accounting for casualties by recording the victim's name, destination health care facility, and transporting agency.

d) Advising hospitals when casualties are enroute.

(2) Hospitals. The plan should include:

(a) The name, location, emergency capacity, and contact information of each hospital and other medical facility on the airport and in the community it serves agreeing to provide medical assistance or transportation.

(b) The distance of each hospital from the airport and its ability to receive helicopters.

(c) Where practical, provisions for the hospital(s) to communicate through a central control point to facilitate the distribution of the critically injured.

j. **Resource Management**. The plan should include provisions for identifying agencies and contractors that could be involved in aircraft removal and/or clean-up of any hazardous materials associated with the emergency.

7-1-10 SOPS AND CHECKLISTS. The following provides examples of the types of information that may be included in functional SOPs and Checklists.

a. **Before the Emergency**. Include routine testing of communications equipment, including EOC telephone lines in the Airport Self-Inspection Checklist.

b. **During the Emergency.** Develop response SOPs and/or checklists which outline anticipated actions to be taken by each airport function, i.e. Operations, Maintenance, ARFF, Law Enforcement, EMS, tenants, etc.

The following are examples of the types of checklists that may be developed. These examples are not intended to be comprehensive, but only to present a concept. Each airport operator should design checklists suited to their specific organization and situation.

(1) Airport Operations

(a) Proceed to scene.

(b) Report to Incident Commander. Participate in Unified Command System.

(c) Issue appropriate NOTAM

(d) Make appropriate notifications.

(i) FAA (xxx) 555-1234

(ii) NTSB (xxx) 555-4321

(iii) Airport Administration

a) Airport Manager 555-5678

b) Maintenance Supt. 555-8765

(e) Through discussions within the Unified Command System, ensure supporting emergency response units have been notified and are responding.

(f) Ensure arrangements have been made for the transportation of the uninjured to the designated holding area.

(g) Monitor site security and escort operations.

(h) Provide periodic status updates to the EOC.

(i) Assess the need for additional airport resources.

(2) Law Enforcement/Security.

(a) Send a representative to the scene to participate in the Unified Command System.

(b) Establish site security.

(c) Activate Traffic Control and Access Control Plan.

(d) Activate necessary mutual aid resources.

(e) Monitor site security and escort operations.

(f) Assist in the marshaling of emergency response vehicles.

(g) Assist in any investigations, as necessary.

(h) Assist, to the extent practical, in the preservation of evidence.

c. **After the Emergency (Recovery)**. The recovery effort will be dependent upon the severity of the incident, the amount of damage, facilities/equipment systems impacted, and the availability of resources.

(1) As with other emergencies, consider the formation of a Situation Analysis Team consisting of representatives from appropriate airport organizations, functional areas, tenants, etc. The Team:

(a) When safe to do so, ensures periodic damage assessments are conducted.

(b) Prepares an Incident Action Plan, to include long and short term considerations for:

(i) Final damage assessment (written, pictorial, including video).

(ii) Public information announcements.

(iii) Facility repair.

(iv) Supply inventory and restoration.

(v) Cost documentation.

(vi) Economic impact.

(vii) Documentation of actions taken.

(viii) Personnel utilization by time on duty.

(ix) Critical Incident Stress Debriefing requirements, if necessary.

(x) Equipment utilization documentation.

(xi) Overall cleanup activities.

NOTE: *Clean up activities for many hazardous materials associated with an aircraft incident/ accident should be accomplished by approved contractors/organizations.*

(xii) Air Operations Area (AOA) inspections, if appropriate.

(2) Issue appropriate NOTAMs.

(3) Critique the overall operation and apply lessons learned to planning and training program.

SECTION 2. TERRORISM INCIDENTS

7-2-1 INTRODUCTION. The history of terrorism incidents is such that no report or rumor, however vague, can be ignored. Each case must be thoroughly investigated in a manner that will safeguard the public and minimize damage if a bomb is actually present.

Specific information regarding terrorism incidents is considered Sensitive Security Information (SSI). Specific information is contained in the appropriate sections in the Airport Security Program. As SSI the information is published and distributed on a need-to-know basis only.

a. **Jurisdiction**. The U.S. Department of Justice has jurisdiction to investigate cases involving airline sabotage, attempted sabotage, or bomb threats. State and local ordinances might also apply.

   The assistance the Department of Defense Explosive Ordnance Disposal (EOD) personnel may offer is governed by the Posse Comitatus Act of 1878. This act is United States Federal Law: 18 U.S.C. §1385. This Act prohibits Army/Air Force personnel from assisting civil authorities in the execution of civil law enforcement. Rendering a bomb harmless does not violate the Posse Comitatus Act; however, searching the area does, because the search can be construed as an act contributing to the enforcement of a law. As a result, EOD personnel can not be expected to assist with this task.

   Airports regulated under 49 CFR part 1542, *Airport Security*, (www.tsa.gov), will have procedures for responding to bomb threats already specified in their Airport Security Program (ASP). Similarly, air carriers have bomb threat procedures specified in their security plans as required by 49 CFR part 1544, *Aircraft Operator Security*, (www.tsa.gov). Any terrorism threat response procedures should be coordinated with procedures in these TSA-approved security plans.

7-2-2 PURPOSE. The information contained in this hazard-specific section is intended to supplement the Basic Plan and Functional Section of the Airport Emergency Plan. It defines responsibilities and describes actions to be taken in the event a bomb threat or actual incident occurs at the airport. Further, this document, in conjunction with the Basic Plan and Functional Section, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-2-3 SITUATION AND ASSUMPTIONS. Every airport is a potential target for a terrorism threat. Threats may be received against the airport, an aircraft, an aircraft owner/operator, or any other agency operating at the airport.

a. Airports regulated under 49 CFR part 1542 have established response procedures for bomb threats as specified in their ASP. Air carriers regulated under 49 CFR part 1544 also have established procedures in their FAA approved security program to respond to bomb threats.

b. All terrorism threats will be taken seriously until the validity of the threat can be determined.

c. Describe the location of the designated parking area for the aircraft involved. The designated parking area should be in a remote area, away from terminals, hangars, and other public areas.

d. Describe the availability of Explosive Ordnance Disposal personnel and equipment, to include name, location, and travel time to the airport.

e. Describe any bomb threat mitigation programs in place, such as facility design features and employee training programs.

7-2-4 OPERATIONS. This section should describe actions to be taken if a bomb threat or incident should occur at the airport. This section should:

a. Describe the relationship between the AEP and other emergency response plans (e.g. the Federal Bureau of Investigation, and state/local law enforcement, and the airport's ASP, as appropriate) regarding bomb incident response and recovery actions on the airport.

b. Describe the terrorism incident response and recovery actions and procedures of airport personnel.

c. List mutual aid agreements, including those with Air Traffic Control.

NOTE: *Airports regulated under 49 CFR part 1542 have response procedures for terrorism threats specified in the Airport Security Program.*

7-2-5 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. This section should describe organizations, and their responsibilities, that would respond to a terrorism incident.

7-2-6 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to bomb threat incidents. Because of the specialized nature of bomb incident response, specialized resources (e.g. EOD services), policies, and procedures would be appropriate.

7-2-7 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of the Terrorism Incident Section, keeping its sections current, and ensuring that SOPs and checklists are developed and maintained.

7-2-8 AUTHORITIES AND REFERENCES. This section should identify and terrorism threat-specific statutes, regulations, MOUs, etc. that are applicable.

7-2-9 UNIQUE PLANNING CONSIDERATIONS. This section contains a listing of the functional section that would typically require the preparation a hazard-specific section for terrorism incidents. It identifies many of the unique and/or planning considerations that should be identified by the AEP Planning Team.

7-2-10 SOPS AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and Checklists:

a. **During the Emergency (Response)**. The degree of response will depend upon the situation, i.e. a threat vs. an actual detonation.

(1) Threat.

(a) A checklist for a person receiving a Bomb Threat by telephone should follow the DHS Bomb Threat Call Procedures (refer to Figure 7-2 for an example).

NOTE: *When developing the checklist, check with the local telephone service provider company to determine the availability of services such as Call Trace or Caller ID. Consider including them in the checklist, as appropriate.*

(b) A procedure for a person receiving a threat through personal contact. Instructions to be included are:

(i) Keep the person who has made or conveyed the threat under surveillance until relieved by airport police.

(ii) Note the number of persons involved, their ages, height, weight, color of eyes, skin, hair, clothing, and any peculiarities.

(iii) Note the type of vehicle, the model, license number, and any other characteristics if the person(s) leave(s) the scene by any type of ground transportation (taxi, bus, or private car).

(iv) Call the airport police and report all available information.

BOMB THREAT CALL PROCEDURES

Most bomb threats are received by phone. Bomb threats are serious until proven otherwise. Act quickly, but remain calm and obtain information with the checklist on the reverse of this card.

If a bomb threat is received by phone:

1. Remain calm. Keep the caller on the line for as long as possible. DO NOT HANG UP, even if the caller does.
2. Listen carefully. Be polite and show interest.
3. Try to keep the caller talking to learn more information.
4. If possible, write a note to a colleague to call the authorities or, as soon as the caller hangs up, immediately notify them yourself.
5. If your phone has a display, copy the number and/or letters on the window display.
6. Complete the Bomb Threat Checklist (reverse side) immediately. Write down as much detail as you can remember. Try to get exact words.
7. Immediately upon termination of the call, do not hang up, but from a different phone, contact FPS immediately with information and await instructions.

If a bomb threat is received by handwritten note:

- Call _____
- Handle note as minimally as possible.

If a bomb threat is received by e-mail:

- Call _____
- Do not delete the message.

Signs of a suspicious package:

- No return address
- Excessive postage
- Stains
- Strange odor
- Strange sounds
- Unexpected Delivery
- Poorly handwritten
- Misspelled Words
- Incorrect Titles
- Foreign Postage
- Restrictive Notes

DO NOT:

- Use two-way radios or cellular phone; radio signals have the potential to detonate a bomb.
- Evacuate the building until police arrive and evaluate the threat.
- Activate the fire alarm.
- Touch or move a suspicious package.

WHO TO CONTACT (select one)

- **Follow your local guidelines**
- **Federal Protective Service (FPS) Police 1-877-4-FPS-411 (1-877-437-7411)**
- **911**

BOMB THREAT CHECKLIST

Date: _____ **Time:** _____

Time Caller Hung Up: _____ **Phone Number where Call Received:** _____

Ask Caller:

- Where is the bomb located? (Building, Floor, Room, etc.) _____
- When will it go off? _____
- What does it look like? _____
- What kind of bomb is it? _____
- What will make it explode? _____
- Did you place the bomb? Yes No _____
- Why? _____
- What is your name? _____

Exact Words of Threat:

_____

_____

_____

_____

Information About Caller:

- Where is the caller located? (Background and level of noise) _____
- Estimated age: _____
- Is voice familiar? If so, who does it sound like? _____
- Other points: _____

Caller's Voice

- ❑ Accent
- ❑ Angry
- ❑ Calm
- ❑ Clearing throat
- ❑ Coughing
- ❑ Cracking voice
- ❑ Crying
- ❑ Deep
- ❑ Deep breathing
- ❑ Disguised
- ❑ Distinct
- ❑ Excited
- ❑ **Female**
- ❑ Laughter
- ❑ Lisp
- ❑ Loud
- ❑ **Male**
- ❑ Nasal
- ❑ Normal
- ❑ Ragged
- ❑ Rapid
- ❑ Raspy
- ❑ Slow
- ❑ Slurred
- ❑ Soft
- ❑ Stutter

Background Sounds:

- ❑ Animal Noises
- ❑ House Noises
- ❑ Kitchen Noises
- ❑ Street Noises
- ❑ Booth
- ❑ PA system
- ❑ Conversation
- ❑ Music
- ❑ Motor
- ❑ Clear
- ❑ Static
- ❑ Office machinery
- ❑ Factory machinery
- ❑ Local
- ❑ Long distance

Threat Language:

- ❑ Incoherent
- ❑ Message read
- ❑ Taped
- ❑ Irrational
- ❑ Profane
- ❑ Well-spoken

_____

_____

_____

Other Information:

_____

_____

Homeland Security

Figure 7 - 2. Bomb Threat Procedures

SECTION 3. STRUCTURAL FIRES, FUEL FARM AND FUEL STORAGE AREAS

7-3-1 INTRODUCTION.

a. **Definition**. Structural fires are fires occurring at or in airport properties, structures, facilities, buildings, equipment, and or infrastructure support systems. Fuel farm and fuel storage area fires are fires occurring in fuel storage facilities.

b. **Risk Assessment**. A risk assessment should be prepared by the AEP Planning Team which identifies the facilities, properties, equipment, etc. that may be vulnerable to a structural or fuel fire. The assessment provides the team with the essential data it needs to determine the type of equipment and other resources necessary to effectively respond to the various types of structures or fuel facilities. The assessment should identify those facilities which may present special response concerns, such as the terminal, cargo buildings or fuel storage areas.

7-3-2 PURPOSE. The information contained in this hazard-specific section is intended to supplement the Basic Plan and Functional Section of the Airport Emergency Plan. It defines responsibilities and describes actions to be taken in the event a structural fire. Further, this document, in conjunction with the Basic Plan and Functional Section, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-3-3 SITUATION AND ASSUMPTIONS. Assumptions are the advance judgments concerning what might happen in the event of a structural or fuel fire at the airport. The situation includes major findings from the Hazard Analysis and Risk Assessment; identifies facilities that may be impacted; include maps and descriptions of geographic features; sensitive environmental areas, and access routes; pertinent climate and weather factors; and any critical time variables which may impact the emergency response, e.g. time of day, month of year, and seasonal weather conditions.

This section should include information about the airport, including:

a. A listing of buildings on the airport and their respective fire protection system(s), e.g. sprinklers, alarms, etc.

b. A description of structural and fuel fire responsibilities, capabilities, and training of the airport ARFF department.

c. The name(s), location(s), dispatching agency, and approximate response time(s) of fire departments tasked with on-airport structural or fuel fire support.

d. A description of the water supply system, including hydrant locations, and supporting structural fire response operations.

7-3-4 OPERATIONS.

a. **General**. This section explains the airport's overall approach to structural and fuel fire emergencies, i.e. what should happen, when, and at whose direction. Topics should include:

(1) Division of airport and local responsibilities, to include roles and relationships of emergency response organizations.

(2) A list of mutual aid agreements relative to structural and fuel fires.

(3) Criteria for activation of the EOC.

(4) A description of sequence of actions before, during and after the emergency situation.

b. **Checklists and SOPs**. As with other emergencies, emergency-specific SOPs and checklists should be prepared.

c. **Training**. Associated training programs should be developed and implemented. A brief discussion on related training programs should be provided.

7-3-5 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. Some examples include:

a. **Airport Traffic Control Tower**.

(1) If involved in a fire emergency, inspect FAA owned/operated/maintained facilities for damage and operability.

(2) Provide information and directions to aircraft operators, as appropriate.

(3) Provide necessary air and ground traffic control support for emergency response activities, as necessary.

(4) Issue appropriate NOTAM if requested by authorized airport personnel.

b. **Airport Operator**.

(1) Provide notification to appropriate agencies.

(2) Implement protective actions for the public and employees, when necessary.

(3) Coordinate response activities with airport tenants and local jurisdictions, as needed.

(4) Coordinate/provide news releases and other interface with the media, as needed.

(5) Activate the EOC, as needed.

c. **Firefighting and Rescue**.

(1) Respond to alarms/fires in accordance established policies and procedures.

(2) Provide Incident Command at fires involving airport structures.

(3) Determine need to evacuate, or perform other public protective action, for the occupants of any facility impacted by the fire.

(4) Apply appropriate fire fighting agents to any fire involving fuel, if requested by the Incident Commander.

d. **Law Enforcement/Security**.

(1) Provide crowd and traffic control, as needed.

(2) Provide continued law enforcement and security services on the airport, as needed, including those prescribed in the Airport Security Program required by 49 CFR part 1542, *Airport Security*.

e. **Emergency Medical Services**. Provide emergency medical services, as needed.

f. **Airport Maintenance**.

(1) Assist/provide critical services, including utility support (activation/cut-off), as needed.

(2) Provide safety inspections, as needed.

(3) Assist in facility restoration.

g. **Airport Public Information/Community Relations**.

(1) Interface with the media, as conditions warrant.

(2) Provide news releases relative to the airport's operational capability.

(3) Assist with the interface with other airport tenants.

h. **Airport Tenants**. Provide assistance on a voluntary basis or in accordance with established agreements.

7-3-6 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to a structure or fuel fire on the airport.

7-3-7 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of the Structural and Fuel Fire Section, keeping its sections current, and ensuring that SOPs and Checklists are developed and maintained.

7-3-8 AUTHORITIES AND REFERENCES. This section should identify any structural fire-specific statutes, regulations, etc. that address related authority, (e.g. Building Codes, Fire Codes, OSHA, Public Law). Any documents used as guidance or for information should be mentioned.

7-3-9 UNIQUE PLANNING CONSIDERATIONS. This section contains a listing of the functional section that would typically be required in the preparation of a hazard-specific section for structural or fuel fires. It also identifies the unique and/or regulatory planning considerations that should be used by the airport AEP planning team.

a. **Command and Control**. Provisions should be made to address the following planning considerations in one or more appendices to a Direction and Control Section, such as:

(1) Determine when additional response organizations should be placed on standby or dispatched to the scene.

(2) Determine the need to activate the Airport Emergency Operations Center (EOC).

(3) Determine the need to suspend or curtail day-to-day functions and services and focus on emergency response tasks.

(4) Determine timing for action taking on the following critical concerns:

(a) Alert the public.

(b) Close businesses and terminating operations.

(c) Evacuate the involved facility, or adjacent facilities, in conjunction with recommendations from the Incident Commander.

(5) Remove trapped and injured persons from burning/collapsed structures, administering first aid, and assist in transporting the seriously injured to medical facilities.

(6) Conduct surveys to determine the scope of damage.

(7) Identify, remove, and dispose of rubble, wreckage, and other material.

(8) Control access to the involved facility and surrounding area until it has been inspected and determined to be safe and/or will not impede emergency response operations. Only personnel directly involved in emergency response operations and subsequent investigations should be allowed to enter.

(9) Cut-off/restore electrical power, natural gas, and water, as necessary.

(10) Inspect the involved building(s) or facility(s) for safety of occupancy.

(11) Conduct any necessary investigations.

b. **Alert and Warning**.

(1) Describe which emergency response organizations are notified for structural or fuel fires and how it is accomplished, to include:

(a) The existence and location of fire alarm pull boxes. Describe the destination of the alarm signal (e.g. ARFF station, local emergency dispatch, central 9-1-1 center, etc.).

(b) The availability of 9-1-1 capability. Describe the destination of those calls and the method by which the appropriate emergency response organizations are notified (e.g. telephone, pager, siren, radio, etc.).

(c) If a commercial telephone service provider is used, identify the destination of the call, (e.g. ARFF station, local emergency dispatch, etc.) and the method by which the appropriate emergency response organizations are notified, including:

(i) Instructions given to the general public on how to report a fire or request emergency assistance (e.g. signs posted on or near the telephones).

(ii) Warnings given to the affected general public and airport employees of a structural fire emergency. See SOPs and checklists for an example.

(d) Notification of the hearing impaired.

c. **Emergency Public Information**. This section addresses provisions that should be made to prepare and disseminate notifications, updates, and instructional messages.

The following planning considerations can be addressed, if appropriate, in one or more appendices to an EPI Section:

(1) Instructions to the general public for calling for emergency assistance, to include notification of a structure or fuel fire.

(2) Instructions for evacuating a specific airport facility.

(3) Pre-scripted public address system announcements which provide guidance to the public. Reference Chapter 6, Section 4, Emergency Public Information, for additional information.

d. **Protective Actions**. Generally speaking, evacuation is the normal protective action for occupants of a building involved in a structural fire.

(1) Evacuation. In the development of evacuation procedures for airport buildings, the following should be considered:

(a) The nearest emergency exit may lead to the Air Operations Area (AOA). Consideration must be given to the related safety and security issues.

(b) State and local Fire Codes may establish standards for facility evacuation, to include posting of evacuation route diagrams, drills, etc.

(c) Reference Chapter 6, Section 5, Protective Actions, for additional information.

7-3-10 SOPS AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and checklists:

a. **Before the Emergency**.

(1) Review applicable laws, regulations, standards, etc.

(2) Establish pre-fire plans for all appropriate airport structures, to include:

(a) Evaluation of fire suppression capabilities.

(b) Evaluation of water supplies, fire flow capabilities.

(c) Establishment of appropriate mutual aid agreements.

b. **During the Emergency (Response)**. The degree of response will depend upon the severity of the fire. Develop response SOPs and/or checklists which outline anticipated actions to be taken by each airport function, such as Operations, Maintenance, Administration, ARFF, Law Enforcement, EMS, tenants, etc.

c. **After the Emergency (Recovery)**. The recovery effort will be dependent upon the severity of the fire, the amount of damage, facilities/equipment/systems impacted, and the availability of resources. Recovery efforts should involve:

(1) If the situation is serious enough, consider the formation of a Situation Analysis Team consisting of representatives from appropriate airport organizations, functional areas, tenants, etc., that:

(a) When safe to do so, ensures periodic damage assessments are conducted;

(b) Prepares an Incident Action Plan, to include long and short term considerations for:

(i) Final damage assessment (written, pictorial, including video).

(ii) Public information announcements.

(iii) Facility repair.

(iv) Supply inventory and restoration.

(v) Cost documentation.

(vi) Economic impact.

(vii) Documentation of actions taken.

(viii) Personnel utilization by time on duty.

(ix) Critical Incident Stress Debriefing requirements, if necessary.

(x) Equipment utilization documentation.

(xi) Overall cleanup activities.

(xii) Air Operations Area (AOA) inspections.

(2) Issuance of appropriate NOTAMs.

(3) Critique of the overall operation and apply lessons learned to planning and training programs.

SECTION 4. NATURAL DISASTERS

HURRICANE

7-4-1 INTRODUCTION. A hurricane is a severe tropical storm that has sustained winds of 74 miles per hour (mph) or greater and primarily occurs along the United States gulf coast, the eastern Atlantic seaboard, and the Pacific west coast, Hawaii, in the Caribbean, or in the Pacific and along the west coast of Mexico. They are often referred to as cyclones or typhoons in other parts of the world.

The hurricane season runs from the first of June until the end of November, but a hurricane can happen in any month.

Information pertaining to hurricanes is available from the National Hurricane Center, FEMA, and from the American Red Cross. Training on hurricane preparedness is also available from FEMA.

a. **Risk Area**. The airport's AEP Planning Team in the hurricane high-risk states should use the Hurricane Evacuation Technical Data Report. Several reports are available from the Department of Transportation (DoT) online library at dotlibrary.dot.gov. The Team should also use other local information sources such as historical data on other hurricanes and other storms that may have caused loss of life or major damage.

b. **Risk Assessment**. A risk assessment should be prepared by the AEP Planning Team which identifies the facilities, properties, equipment, etc. that may be vulnerable to the hazards associated with a hurricane. The assessment provides the team with the essential data it needs to determine the hurricane category for which the airport should prepare. It is important that the team plan for the highest possible category of hurricane that is likely to strike that particular airport. The assessment should:

(1) Describe and identify any part of the airport which may be subject to flooding caused by storm surge. Maps should also be developed depicting this information.

(2) Identify those facilities which may be particularly at risk such as buildings that contain large amounts of exterior glass, e.g. the terminal.

(3) Identify resources such as essential equipment, tools, vital records, etc. that may need to be moved to a safe location. Include a list of Fixed Base Operators, aircraft owners and operators, hangar owners/tenants, etc.

(4) Identify essential automation systems and determine availability of Uninterruptible Power Supply (UPS) and auxiliary generators to provide power to essential equipment and key facilities. Determine which system(s) should be routinely backed-up and/or shutdown until the hurricane passes.

(5) Identify any facilities which should be evacuated.

7-4-2 PURPOSE. The information contained in this hazard-specific appendix is intended to supplement the Basic Plan and Functional Sections of the Airport Emergency Plan. It defines responsibilities and describes actions to be taken in the event a hurricane occurs. Further, this document, in conjunction with

the Basic Plan and Functional Sections, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and Checklists.

7-4-3 SITUATION AND ASSUMPTIONS. Assumptions are the advance judgments concerning what might happen in the event of a hurricane. The situation includes major findings from the Hazard Analysis and Risk Assessment; identifies facilities that may be impacted; include maps and descriptions of geographic features; sensitive environmental areas, and transportation routes; pertinent climate and weather factors; and any critical time variables which may impact the emergency response, e.g. time of day and month of year.

This section should include information about the airport's susceptibility to a hurricane (reference the Hazards Analysis Program) including:

a. T**he impact of such an event on the community as a whole**, particularly in terms of overall impact on response and recovery resource availability, i.e. a major hurricane will impact a wide geographic area - off-airport resource accessibility may be extremely limited and should be planned for accordingly.

b. **A review of airport access**. Determine the vulnerability of access roads and bridges to flooding and what the impact would be if some or all of them were rendered impassable.

c. **A review of airport structures**. Describe those airport structures which have been certified as capable of withstanding the wind loads specified by the American Society of Civil Engineers or the American National Standards Institute guidelines; describe which structures are susceptible to wind damage and/or flooding. Information on wind load and/or flooding is available at www.ansi.org.

d. **A review of airport utilities**. Describe the type of utilities along with their respective susceptibility to wind and/or flooding damage; which serve key facilities and what is the availability of alternative sources (e.g. power - generators, communications - RACES, REACT, etc.).

e. **A review of worse case scenarios**. What would the impact be if the effects of a hurricane should occur before non-essential airport personnel can be sent home or you have a terminal full of transients.

f. **A review of communications capabilities**. Many systems will be rendered inoperable during and after a hurricane. Systems which rely on hard wires or antenna to antenna for operation, such as cellular phone services and two-way radio repeaters cannot be relied upon.

7-4-4 OPERATIONS.

a. **General**. This section explains the airport's overall approach to the emergency situation, i.e. what should happen, when, and at whose direction. Topics should include:

(1) Division of airport and local responsibilities, to include roles and relationships of emergency response organizations.

(2) A list of mutual aid agreements relative to the specific emergency.

(3) Criteria for activation of the EOC.

(4) A description of the sequence of actions before, during and after the emergency situation.

b. **Checklist and SOPs**. As with other emergencies, emergency-specific SOPs and checklists should be prepared.

c. **Training**. Associated training programs should be developed and implemented. A brief discussion on related training programs should be provided. Training on hurricane preparedness is also available from FEMA.

7-4-5 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. Some examples include:

a. **Airport Traffic Control Tower**. As specified in the letter of agreement:

(1) Inspect FAA owned/operated/ maintained facilities for damage and operability.

(2) Restrict aircraft operations on the airport until the runway(s), taxiways, and ramps have been inspected by the airport owner/operator.

(3) Issue appropriate Notice to Airmen (NOTAM) upon receipt of information from authorized airport personnel, if requested.

b. **Firefighting and Rescue**.

(1) Conduct fire suppression and rescue operations, as needed.

(2) Assist in providing emergency medical assistance, as needed.

(3) Check for petroleum leaks and other potential HAZMAT problems.

(4) Survey ARFF property, to:

(a) Determine integrity of building(s).

(b) Assess status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(g) Prepare sand bags to prevent entry of water into key station areas.

(h) Secure outside storage areas and equipment.

(5) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(6) Review personnel requirements and adjust accordingly.

(7) To the degree communications systems will permit, coordinate activities with local community fire departments, if necessary.

(8) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

c. **Law Enforcement/Security**.

(1) Provide for overall traffic control in support of evacuation operations, as needed.

(2) Provide continued law enforcement and security services on the airport, as needed, including those required by 49 CFR part 1542, *Airport Security*.

(3) Survey law enforcement property, to:

(a) Determine integrity of building(s).

(b) Assess status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(g) Prepare sand bags to prevent entry of water into key building areas.

(h) Secure outside storage areas and equipment.

(4) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(5) Review personnel requirements and adjust accordingly.

(6) To the degree communications systems will permit, coordinate activities with local community law enforcement agencies, if necessary.

(7) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

d. **Emergency Medical Services**.

(1) Organize the necessary action for triage and treatment of any casualties.

(2) Provide for the transportation (air, land, or water) of casualties to designated medical facilities.

NOTE: *Ensure medical facilities are capable of handling casualties - those facilities may have also been damaged).*

(3) Survey EMS property, to:

(a) Determine integrity of building(s).

(b) Assess status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(g) Prepare sand bags to prevent entry of water into key facility areas.

(h) Secure outside storage areas and equipment.

(4) Assist in support operations, to include search, inspections, personnel account-ability, and protective action implementation.

(5) Review personnel requirements and adjust accordingly.

(6) To the degree communications systems will permit, coordinate activities with local community EMS units, if necessary.

(7) Maintain an accurate list of the casualties to include names and addresses.

(8) Provide medical analysis of walking wounded or traumatized patients.

(9) Provide for the restocking of medical supplies, as needed.

(10) Provide Critical Incident Stress Management support, as appropriate.

(11) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

e. **Airport Operator**.

(1) Operations.

(a) Conduct airfield inspections, as needed.

(b) Issue appropriate NOTAM(s), if conditions warrant and permit.

(c) Activate the Airport Emergency Operations Center (EOC), as appropriate.

(d) Provide emergency support services through the EOC.

(e) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(f) Review personnel requirements and adjust accordingly.

(g) To the degree communications systems will permit, coordinate activities with local community emergency management agencies, if necessary.

(h) Coordinate activities with the ATCT, as needed.

(i) Interface with, coordinate, and utilize as needed, the resources made available by other airport tenants, including air carriers.

(j) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(2) Maintenance.

(a) Assist/provide critical services, including utility support (activation/cut-off), as needed.

(b) Provide safety inspections, as needed.

(c) Assist in facility restoration.

(d) Provide sanitation support services.

(e) Assist in the provision of required resources.

(f) Participate in EOC operations.

(g) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(3) Administration.

(a) Provide procurement services.

(b) Provide appropriate budgeting, payment, and cost recovery authorization and services.

(c) Provide personnel services.

(d) Participate in EOC operations.

(4) Public Information/Community Relations.

(a) Interface with the media, as conditions warrant.

(b) Provide news releases relative to the airport's operational capability.

(c) Assist with the interface with other airport tenants.

(d) Participate in EOC activities.

f. **Aircraft Owners/Operators**.

(1) Provide EOC representation, as needed.

(2) Provide for the initial notification to families of casualties.

(3) Provide for passenger casualty tracking.

(4) Inspect tenant owned, operated, or maintained facilities for damage and operability.

g. **Airport Tenants**.

(1) Provide assistance on a voluntary basis or in accordance with established agreements.

(2) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(3) Inspect tenant owned, operated, or maintained facilities for damage and operability.

7-4-6 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to a hurricane. Because of the unique nature of this type emergency and its potential for involving a wide geographic area and potentially limiting the availability of resources, there may be a need for adjusting standard policies and procedures for items such as resource management and mutual aid.

7-4-7 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of the Hurricane Appendix, keeping its attachments current, and ensuring that SOPs and checklists are developed and maintained.

7-4-8 AUTHORITIES AND REFERENCES. This section should identify any hurricane-specific statutes, regulations, etc. that address related authority, (e.g. Building Codes). Any documents used as guidance or for information, such as FEMA or the American Red Cross should be mentioned.

7-4-9 UNIQUE PLANNING CONSIDERATIONS. This section contains a listing of the functional sections that would typically be required in the preparation of a hazard-specific appendix for hurricanes. It also identifies the unique and/or regulatory planning considerations that should be used by the airport AEP planning team.

a. **General Response Schedule**. A Hurricane Response Schedule may be developed and used to describe emergency response actions for hurricane response. The schedule establishes phases for the approaching hurricane, describes the activities to be completed during each phase, and establishes some priorities for actions to be taken. Each phase covers a specified period of time and details the actions that should be included in the phase.

Usually, phases correspond to hours before the estimated time of arrival of high winds, immediate response actions after landfall of hurricane force winds, through termination of all response activities. Typical phases include:

(1) Awareness. 60-72 hours before the arrival of gale force winds (35-54 mph).

(2) Standby. 48-60 hours before the arrival of gale force winds. It is likely that a tropical storm watch would be issued during this period.

(3) Response. 48 hours before the arrival of gale force winds through termination of the emergency. Hurricane watches and warnings would be issued by the National Weather Service (NWS) during this period. Weather warnings are available at www.weather.gov

b. **Actions**. Each phase in the schedule:

(1) Describes actions to be taken in the phase.

(2) Identifies the official responsible for the action.

(3) Defines the hours needed before arrival of gale force winds to carry out the activity.

(4) Describes the priority of the action to be taken.

(5) Contains other critical information that is needed by tasked organizations to complete assigned responsibilities.

c. **Command and Control**. Actions to be taken can begin before the awareness phase when it appears likely that a specific storm could threaten the airport. Therefore, provisions should be made to address the following planning considerations in one or more appendices to a Command and Control Section:

(1) Determine when response organizations should:

(a) Be placed on standby, partial activation, or full activation.

(b) Activate the Emergency Operations Center (EOC).

(c) Suspend or curtail day-to-day functions and services and focus on emergency response tasks. This should include discussing with the air carriers modifications to flight schedules in order to minimize the number of transient passengers who might be stranded at the airport.

(2) Ensure response organizations can continue to perform assigned operational tasks throughout all three phases (e.g. maintain airport security, disperse or relocate operations centers, vehicles, equipment, vital records, and other essential resources).

(3) Determine timing for action taking on the following critical concerns:

(a) Alerting the public.

(b) Closing businesses and terminating operations.

(c) Evacuating the facility in conjunction with recommendations from the local emergency management agency.

(4) Assign specific tasking to each response organization for each phase. Some critical concerns include:

(a) Decision for and timing to:

(i) Initiate coordination and implement mutual aid agreements with off-airport emergency response agencies.

(ii) Suspend non-essential operations and services.

(iii) Release non-essential employees from work.

(b) Reporting status/observations to the EOC.

(5) Search and Rescue/Fire Suppression. Removal of trapped and injured persons from collapsed structures, administering first aid, fire suppression, and assisting in transporting the seriously injured to medical facilities. This activity involves the use of both professional and volunteer personnel, including the use of search and rescue dog teams. Normally, this is a function of the ARFF/Fire/EMS Department(s).

(6) Damage Assessment. Conduct of ground and aerial surveys to determine the scope of damage, casualties, and status of key facilities. This effort, which is typically a function of Airport Maintenance/Facilities/ Engineering personnel with assistance from ARFF/Fire/EMS Departments, is intended to determine the overall safety status of the airport and to ultimately be the basis for the development of the recovery program.

(7) Debris Clearance. The identification, removal, and disposal of rubble, wreckage, and other material which block or hamper the performance of emergency response activities should be given a high priority. Some of these activities include:

(a) Demolition and other clearance activities.

(b) Repair or temporary reinforcement of key buildings roads, and bridges.

(c) Construction of emergency facilities and roadways. This effort is typically guided by Airport Maintenance/Facilities/ Engineering personnel.

(8) Access Control. Immediate actions to be taken, as soon as conditions permit, to:

(a) Control access to an area until it has been inspected and determined to be safe. Only personnel directly involved in emergency response operations should be allowed to enter. This involves the entire airport, not just the AOA.

(b) Establish guidelines for determining when the public and employees will be allowed to re-enter the area. This is normally a function of airport law enforcement personnel.

(9) Utilities and Lifeline Repairs. Restoration and repair of electrical power, natural gas, water, sewer, and all communications systems to minimize the impact on critical services.

(10) Inspection, Condemnation, and Demolition. Inspections of buildings and other structures to determine to inhabit or use them after a hurricane has occurred. Some activities may include:

(a) Inspection of buildings and structures which are critical to airport operations (e.g. terminal, tower, fueling systems, etc.). Designate those which may be occupied and identify those which are unsafe.

(b) Inspection of buildings and structures which may threaten public safety. Identify those that are unsafe and may not be occupied.

(c) Inspection of all other facilities and structures. Designate those which may be occupied and identify those which are unsafe.

(d) Arrangements for the demolition of condemned structures.

d. **Alert and Warning**. Hurricanes are typically slow moving, thus sufficient warning time is normally available to allow those people at risk to evacuate. It should also allow time for the air carriers to adjust their operations in order to minimize disruption to schedules and damage to equipment.

The following provisions for notifying the public should be addressed, as appropriate, in one or more appendices to an Alert and Warning Section:

(1) Roles and responsibilities of airport spokespersons during each phase.

(2) Coordination with the local emergency management agency Public Information representatives to ensure timely and consistent warning information is provided.

e. **Emergency Public Information**. This section addresses provisions that should be made to prepare and disseminate notifications, updates, and instructional messages. While many of the businesses operating on the airport can and will receive emergency information regarding the weather through the local media, there may be a need to inform the transient population on the airport.

The following planning considerations can be addressed, if appropriate, in one or more appendices to an EPI Section:

(1) Instructions for preparing businesses (inside and outside) to weather the storm.

(2) Hurricane-specific survival tips for those who choose not to evacuate (e.g. a reminder that the eye of the hurricane is not the end of the storm).

(3) Instructions on implementing any hurricane-specific provisions for evacuation of the facility (e.g. where they are to go, when to leave, and how to get there).

f. **Protective Actions**. Usually, there should be enough lead time to minimize the number of people at the airport who may be impacted by a hurricane. The air carrier schedules should have been adjusted sufficiently to avoid having large numbers of passengers in the terminal building. From a planning perspective, however, it is always prudent to prepare for the worse case scenario. In this instance, the airport may have to provide for a significant number of stranded transient and/or non-essential airport personnel. As with other emergency situations, there are two basic protective actions:

(1) evacuate, or

(2) shelter-in-place.

It is usually best to remove people from harms way, and then only after determining that the evacuation process itself will not be more hazardous than not evacuating. Reference Chapter 6, Section 5, *Protective Actions*, for more information.

Considering the geographic area involved with a hurricane, however, evacuation is not always practical. The airport may, determine that it may be best to relocate stranded passengers to a designated shelter.

(1) Evacuation. In the development of airport evacuation procedures, consideration should be given to:

(a) The local emergency management agency role and responsibilities.

(b) Number of people requiring transportation.

(c) Availability of transportation.

(d) Susceptibility of local roads to flooding.

(e) Clearance times needed to conduct a safe and timely evacuation under various hurricane threats. Consider the following complications that could impede or delay the evacuation process:

(i) Heavy rains and localized flooding may slow traffic movement.

(ii) Stranded transient personnel may have no transportation.

(iii) Airport businesses that may need time to close (e.g. some manufacturing firms have lengthy shut down procedures.

(2) Sheltering. In the development of airport sheltering procedures, ensure the following safety considerations are in place.

(a) Facilities designated for use are located outside of the Category 4 storm surge inundation zone (131-155 mph winds and 13-18 foot storm surge).

(b) Facilities are located outside of the 100 year floodplain as deemed appropriate. Definitions of floodplain-related information is described below (Figure 7-3) and is available at www.dnr.ne.gov/floodplain/flood/flood100.html.

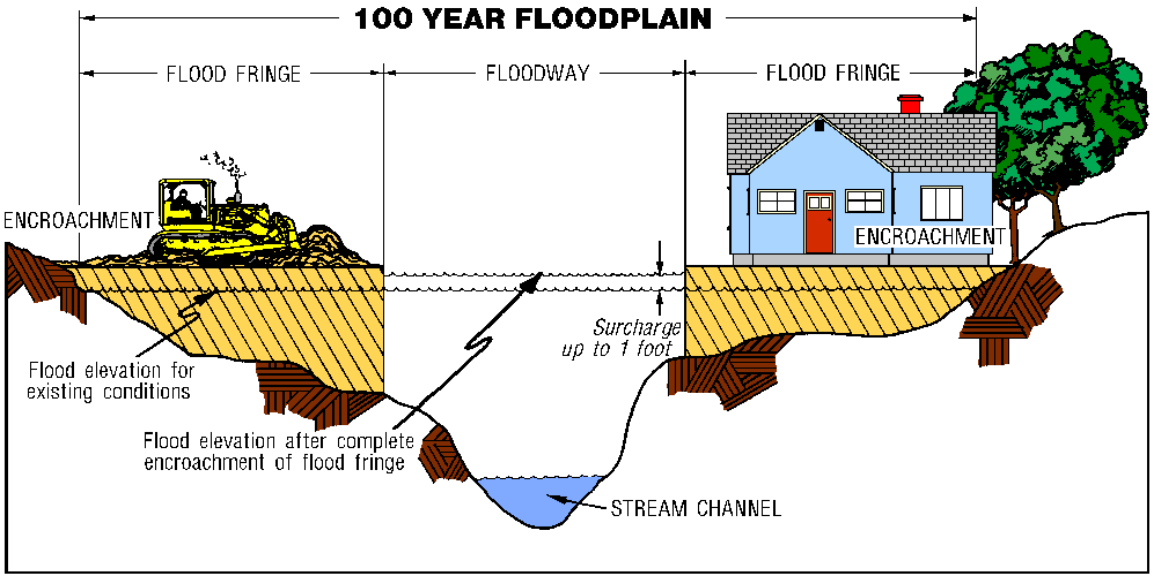


Figure 7 - 3. Flood Plain Description

(c) Facilities designated as a shelter has been certified as capable of withstanding the wind loads specified by the American Society of Civil Engineers or the American National Standards Institute guidelines. If it is necessary to use uncertified facilities, ensure that a structural engineer knowledgeable of the criteria contained in the guidelines cited, identifies and ranks the facilities that offer the best protection available.

g. **Resource Management**. The following planning considerations should be addressed, if appropriate, in one or more appendices to a resource management section:

(1) Provisions for purchasing, stockpiling, or otherwise obtaining essential hurricane response items, such as ice machines, water purification systems, polyethylene sheeting, sand bags, fill, pumps (of the right size and type, with necessary fuel, etc.), generators, light sets, etc.

(2) Resource lists which identify the quantity and location of the items mentioned above, as well as points of contact (day, night, and weekend) for obtaining them.

7-4-10 SOPS AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and checklists:

a. **Before the Emergency**.

(1) A facility inspection SOP that is specific to high winds and/or abnormal rainfall situations. This is a document that can be used by airport employees as a preliminary inspection process for evaluating facility safety for public use following a hurricane until it can be inspected by qualified engineers, if deemed necessary.

(2) A checklist of pre-storm actions, such as:

(a) Inspecting storm drains for obstructions.

(b) Securing loose objects which might cause damage in heavy winds.

(c) Implementation of special fastening or tie down methods for equipment.

(d) Inspecting airport facilities which meet the construction criteria described earlier and may be used as shelters.

(e) Applying special protection to glass.

(f) Ensuring all aircraft have relocated or are securely tied down.

(g) Testing emergency generators and filling fuel reservoirs.

(h) Inventory of resources, including any special supply storage lockers which may be in place.

(i) Providing of any hurricane-specific training programs, drills, and exercises.

b. **During the Emergency (Response)**. The degree of response will depend upon the severity of the hurricane. Develop response SOPs and/or checklists which outline anticipated actions to be taken by each airport function, such as Operations, Maintenance, Administration, ARFF, Law Enforcement, EMS, tenants, etc.

c. **After the Emergency (Recovery)**. The recovery effort will be dependent upon the severity of the hurricane, the amount of damage, facilities, equipment, or systems impacted, and the availability of resources. Recovery efforts should involve:

(1) As with other emergencies, the formation of a Situation Analysis Team consisting of representatives from appropriate airport organizations, functional areas, tenants, etc., that:

(a) When safe to do so, ensures periodic damage assessments are conducted.

(b) Prepares an Incident Action Plan, to include long and short term considerations for:

(i) Final damage assessment (written, pictorial, including video).

(ii) Public information announcements.

(iii) Facility repair.

(iv) Supply inventory and restoration.

(v) Cost documentation.

(vi) Economic impact.

(vii) Documentation of actions taken.

(viii) Personnel utilization by time on duty.

(ix) Critical Incident Stress Debriefing requirements, if necessary.

(x) Equipment utilization documentation.

(xi) Overall cleanup activities.

(xii) Air Operations Area (AOA) inspections.

(2) Issuance of appropriate NOTAMs.

(3) Critique of the overall operation and apply lessons learned to planning and training programs.

EARTHQUAKE

7-4-11 INTRODUCTION. An earthquake is a sudden, violent shaking or movement of part of the earth's surface caused by the abrupt displacement of rock masses, usually with the upper 10 to 20 miles of the earth's surface and can occur in any portion of the world. Areas of the United States primarily subjected to the probability of an earthquake are located on the USGS web site (earthquake.usgs.gov).

a. **Secondary Hazards**. Additional consequences of an earthquake may include fire, hazardous materials release, landslides, and/or dam failures.

b. **Seismic Intensity**. Seismic intensity is the felt effect of an earthquake at a particular location. The various effects on buildings, furnishings, etc. at a given location are subjective and are usually expressed with a numerical value. The effect of an earthquake on the Earth's surface is called the intensity. The intensity scale consists of a series of certain key responses such as people awakening, movement of furniture, damage to chimneys, and finally - total destruction. Although numerous *intensity scales* have been developed over the last several hundred years to evaluate the effects of earthquakes, the one currently used in the United States is the Modified Mercalli (MM) Intensity Scale. It was developed in 1931 by the American seismologists Harry Wood and Frank Neumann. This scale, composed of 12 increasing levels of intensity which range from imperceptible shaking to catastrophic destruction, is designated by Roman numerals. It does not have a mathematical basis; instead it is an arbitrary ranking based on observed effects. The Modified Mercalli Intensity value assigned to a specific site after an earthquake has a more meaningful measure of severity to the nonscientist than the magnitude because intensity refers to the effects actually experienced at that place. The **lower** numbers of the intensity scale generally deal with the manner in which the earthquake is felt by people. The **higher** numbers of the scale are based on observed structural damage. Structural engineers usually contribute information for assigning intensity values of VIII or above.

c. **Risk Area**. Thirty nine States face the threat of a major damaging earthquake and are considered to be earthquake hazard areas. The airport's AEP planning team should use information from their State's earthquake hazard identification study to quantify the seismic hazard their airport/community faces. This may be done as a part of your Hazards Analysis Program. Additionally, an Earthquake Safety Checklist is available from FEMA.

d. **Risk Assessment**. A risk assessment should be prepared by the AEP planning team which identifies the facilities, properties, equipment, etc. that may be vulnerable to an earthquake. It is important that the team plan for the worst earthquake scenario. The assessment should include a narrative description that identifies those airport facilities that may be more susceptible to earthquake damage.

7-4-12 PURPOSE. The information contained in this hazard-specific appendix is intended to supplement the Basic Plan and Functional Sections of the Airport Emergency Plan. It defines responsibilities and describes actions to be taken in the event an earthquake occurs. Further, this document, in conjunction with the Basic Plan and Functional Sections, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-4-13 SITUATION AND ASSUMPTIONS. Assumptions are the advance judgments concerning what might happen in the event of an earthquake at the airport. The situation includes major findings from the hazard analysis; identifies facilities that may be impacted; includes maps and descriptions of geographic features such as fault lines ; sensitive environmental areas, and transportation routes; pertinent climate

and weather factors; and any critical time variables which may impact the emergency response, (e.g. time of day and month of year.)

This section should include information about your airport as it relates to such issues as:

a. The airport's susceptibility to an earthquake event, such as proximity to a fault line (reference the Hazards Analysis Program).

b. The impact of such an event on the community as a whole, particularly in terms of overall impact on response and recovery resource availability, i.e. a major earthquake will impact a wide geographic area - off-airport resource accessibility may be extremely limited and should be planned for accordingly.

c. The vulnerability of access roads and bridges to earthquake damage and what would be the impact if some or all of them were rendered unusable.

d. Airport structures which have earthquake resistant construction.

e. Airport utilities that serve key facilities and the availability of alternative sources (e.g. power - generators, communications - RACES, REACT, etc.).

f. Worst case scenarios: i.e., What is the impact if an earthquake should occur during your airport's peak period? What if it occurred in the middle of the night?

g. Communications capabilities that may be rendered inoperable during and after an earthquake. Systems which rely on hard wires or antenna to antenna for operation, such as cellular phone services and two-way radio repeaters cannot be relied upon.

7-4-14 OPERATIONS.

a. **General**. This section explains the airport's overall approach to the emergency situation, i.e. what should happen, when, and at whose direction. Topics should include:

(1) Division of airport and local responsibilities, to include roles and relationships of emergency response organizations.

(2) Mutual aid agreements relative to the specific emergency.

(3) Criteria for activation of the EOC.

(4) Sequence of actions before, during and after the emergency situation. Obviously, for this type event, almost all activities will be after the event.

b. **Checklists and SOPs**. As with other emergencies, emergency-specific SOPs and checklists should be prepared.

c. **Training**. Associated training programs should be developed and implemented. A brief discussion on related training programs should be provided.

7-4-15 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. Some examples include:

a. **Airport Traffic Control Tower**. In accordance with the letter of agreement:

(1) Inspect FAA owned, operated, or maintained facilities for damage and operability.

(2) Restrict aircraft operations on the airport until the runway(s), taxiways, and ramps have been inspected by the airport owner/ operator.

(3) Issue appropriate Notice to Airmen (NOTAM) upon receipt of information from authorized airport personnel, if requested.

b. **Firefighting and Rescue**.

(1) Move equipment outside.

(2) Conduct fire suppression and rescue operations, as needed.

(3) Assist in providing emergency medical assistance, as needed.

(4) Check for petroleum leaks and other potential hazardous materials problems.

(5) Survey ARFF property, to:

(a) Determine integrity of building(s).

(b) Assess status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(6) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(7) Review personnel requirements and adjust accordingly.

(8) To the degree communications systems will permit, coordinate activities with local community fire departments, if necessary.

(9) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

c. **Law Enforcement/Security**.

(1) Provide for overall airport security as soon as possible.

(2) Provide for overall traffic control, including coordination with mutual aid law enforcement agencies.

(3) Provide continued law enforcement and security services on the airport, as needed, including those required by 49 CFR part 1542, *Airport Security*.

(4) Survey law enforcement property, to:

(a) Determine integrity of building(s).

(b) Assess status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(5) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(6) Review personnel requirements and adjust accordingly.

(7) To the degree communications systems will permit, coordinate activities with local community law enforcement agencies, if necessary.

(8) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

d. **Emergency Medical Service**.

(1) Move equipment outside.

(2) Organize the necessary action for triage and treatment of the casualties.

(3) Provide for the transportation (air, land, or water) of casualties to designated medical facilities.

NOTE: *Ensure medical facilities are capable of handling casualties since those facilities may have also been damaged.*

(4) Survey EMS property, to:

(a) Determine integrity of building.

(b) Determine status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(5) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(6) Review personnel requirements and adjust accordingly.

(7) To the degree communications systems will permit, coordinate activities with local community EMS units, if necessary.

(8) Maintain an accurate list of the casualties to include names and addresses.

(9) Provide medical analysis of walking wounded or traumatized.

(10) Provide for the restocking of medical supplies, as needed.

(11) Provide Critical Incident Stress Disorder support, as appropriate.

(12) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

e. **Airport Operator**.

(1) Operations.

(a) Conduct airfield inspections, as needed.

(b) Issue appropriate NOTAM(s), if conditions warrant and permit.

(c) Activate the Airport Emergency Operations Center (EOC), as appropriate.

(d) Provide emergency support services through the EOC.

(e) Assist in support operations, to include search, inspections, personnel account-ability, and protective action implementation.

(f) Review personnel requirements and adjust accordingly.

(g) To the degree communications systems will permit, coordinate activities with local community emergency management agencies, if necessary.

(h) Coordinate activities with the ATCT, as needed.

(i) Interface with, coordinate, and utilize as needed, the resources made available by other airport tenants, including air carriers.

(j) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(2) Maintenance.

(a) Assist/provide critical services, including utility support (activation/cut-off), as needed.

(b) Provide safety inspections, as needed.

(c) Assist in facility restoration, including debris removal.

(d) Provide sanitation support services.

(e) Assist in the provision of required resources.

(f) Participate in EOC operations.

(g) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(3) Administration.

(a) Provide procurement services.

(b) Provide appropriate budgeting, payment, and cost recovery authorization and services.

(c) Provide personnel services.

(d) Participate in EOC operations.

(4) Public Information/Community Relations.

(a) Interface with the media, as conditions warrant.

(b) Provide news releases relative to the airport's operational capability.

(c) Assist with the interface with other airport tenants.

(d) Participate in EOC activities.

(5) Aircraft Owners/Operators.

(a) Provide EOC representation, as needed.

(b) Provide for the initial notification to families of casualties, if appropriate.

(c) Provide for passenger casualty tracking.

(d) Inspect facilities owned/operated or maintained by these tenants.

(6) Airport Tenants.

(a) Provide assistance on a voluntary basis or in accordance with established agreements.

(b) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(c) Inspect facilities owned/operated or maintained by these tenants.

7-4-16 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to an earthquake. Because of the unique nature of this type

emergency and its potential for involving a wide geographic area and potentially limiting the availability of resources, there may be a need for adjusting standard policies and procedures for items such as resource management and mutual aid.

7-4-17 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of the Earthquake Appendix, keeping its attachments current, and ensuring that SOPs and Checklists are developed and maintained.

7-4-18 AUTHORITIES AND REFERENCES. This section should identify any earthquake-specific statutes, regulations, etc. that address related authority, (e.g. Building Codes). Any documents used as guidance or for information, such as FEMA or the American Red Cross should be mentioned.

7-4-19 UNIQUE PLANNING CONSIDERATIONS. This section contains a listing of the functional sections that would typically be required in the preparation of a hazard-specific appendix for earthquakes. It also identifies the unique and/or regulatory planning considerations that should be used by the airport AEP planning team.

a. **Command and Control**. For the earthquake hazard, it is essential for airport personnel to take immediate action to gather damage assessment information. Due to the multi-faceted nature of the response and recovery efforts required for response to an earthquake, a Unified Command System is recommended. Provisions should be made, as necessary, to address the following planning considerations in one or more appendices to a Command and Control Section:

(1) Search and Rescue/Fire Suppression: Remove trapped and injured persons from collapsed structures. Administer first aid, fire suppression, and assist in transporting the seriously injured to medical facilities. This activity involves the use of both professional and volunteer personnel, including the use of search and rescue dog teams. It is likely that in the event of a major earthquake, particularly in a metropolitan area, requests for emergency services would overwhelm the local capabilities. In order to assist the state and local governments in critical lifesaving activity, the Federal Government has established Federal Urban Search &Rescue (US&R) teams which can help efforts to locate, extract, and provide for the immediate medical treatment of victims trapped in collapsed structures. Normally, this is a function of the ARFF/Fire/EMS Department(s).

(2) Damage Assessment: Conduct ground and aerial surveys to determine the scope of damage, casualties, and status of key facilities. This effort, which is typically a function of Airport Maintenance/Facilities/ Engineering personnel with assistance from ARFF/Fire/EMS Departments, is intended to determine the overall safety status of the airport and to ultimately be the basis for the development of the recovery program.

(3) Debris Clearance: The identification, removal, and disposal of rubble, wreckage, and other material which block or hamper the performance of emergency response activities should be given a high priority. Some of these activities include:

(a) Demolition and other clearance activities.

(b) Repair or temporary reinforcement of key buildings roads, and bridges.

(c) Construction of emergency facilities and roadways. This effort is typically guided by Airport Maintenance/Facilities/ Engineering personnel.

(4) Access Control: Immediate actions to be taken, as soon as conditions permit, to:

(a) Control access to an area until it has been inspected and determined to be safe. Only personnel directly involved in emergency response operations should be allowed to enter. This involves the entire airport, not just the AOA.

(b) Establish guidelines for determining when the public and employees will be allowed to re-enter the area. This is normally a function of airport law enforcement personnel.

(5) Utilities Repair: Restoration and repair of electrical power, natural gas, water, sewer, and all communications systems to minimize the impact on critical services.

(6) Inspection, Condemnation, and Demolition: Inspections of buildings and other structures to determine to inhabit or use them after an earthquake has occurred. Some activities may include:

(a) Inspection of buildings and structures which are critical to airport operations (e.g. terminal, tower, fueling systems, etc.). Designate those which may be occupied and identify those which are unsafe.

(b) Inspection of buildings and structures which may threaten public safety. Identify those that are unsafe and may not be occupied.

(c) Inspection of all other facilities and structures. Designate those which may be occupied and identify those which are unsafe.

(d) Arrangements for the demolition of condemned structures.

b. **Alert Notification and Warning**. Earthquakes normally occur with no warning. While some have been predicted, there is no reliable warning system. This must be taken into consideration during planning.

c. **Emergency Public Information**. The flow of accurate and timely information is critical to the protection of lives and property following a catastrophic earthquake. This section should deal with updates, warnings and instructional messages to those personnel at the airport. Planning consideration should be given to:

(1) The development of airport-specific public information brochures for airport employees describing survival tips and other response actions during and immediately following an earthquake.

(2) Warnings and advice on the continuing threat of fire, unsafe areas, and aftershocks.

(3) As the initial response shifts to recovery, the airport operator, through its Incident Action Plan, being prepared to provide guidance to returning airport employees and tenants regarding safety precautions associated with:

(a) Sanitary conditions.

(b) Unsafe drinking water.

(c) Use of utilities.

d. **Protective Actions**. Consideration must be given to relocating people from damaged structures, particularly those facilities which may receive more damage when hit by subsequent aftershocks. The relocation of transient personnel to designated mass care facilities should be coordinated with the local emergency management agency.

7-4-20 SOPS AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and checklists:

a. **Before the Emergency**. In preparation for an earthquake, the planning team should develop:

(1) A facility inspection SOP that is specific to potential earthquake damage. This is something that can be used by airport employees as a preliminary inspection process for evaluating facility safety for public use following an earthquake until it can be inspected by qualified engineers.

(2) A listing of those airport facilities which have special earthquake-resistant construction.

(3) A personnel accountability SOP. Encourage airport tenants to develop the same type SOP.

(4) A resource needs list, including:

(a) The availability of emergency generators.

(b) Special resource storage lockers for disaster supplies.

(c) Special fastening or anchoring methods for equipment.

(5) Earthquake-specific training programs, drills, and exercises.

b. **During the Emergency (Response)**.

(1) Degree of response for each level of the earthquake severity.

(2) Anticipate actions to be taken by each airport function, such as Operations, Maintenance, Administration, ARFF, Law Enforcement, EMS, tenants, etc.

c. **After the Emergency (Recovery)**. The recovery effort will be dependent upon the severity of the earthquake, the amount of damage, facilities/equipment/systems impacted, and the availability of resources. Recovery efforts should involve:

(1) As with other emergencies, consider the formation of a Situation Analysis Team consisting of representatives from appropriate airport organizations, functional areas, tenants, etc., that:

(a) Ensures personnel account-ability procedures have been implemented.

(b) Ensures periodic damage assessments are conducted.

(c) Prepares an Incident Action Plan, to include long and short term considerations for:

(i) Final damage assessment (written, pictorial, including video).

(ii) Public information announcements.

(iii) Facility repair.

(iv) Supply inventory and restoration.

(v) Cost documentation.

(vi) Economic impact.

(vii) Documentation of actions taken.

(viii) Personnel utilization by time on duty.

(ix) Critical Incident Stress Debriefing requirements.

(x) Equipment utilization documentation.

(xi) Overall cleanup activities.

(xii) Air Operations Area (AOA) inspections.

(2) Issuance of appropriate NOTAMs.

(3) Critique of the overall operation and apply lessons learned to planning and training programs.

TORNADO

7-4-21 INTRODUCTION. A tornado is a violent storm phenomenon that consists of violent whirling wind accompanied by a funnel-shaped cloud. Usually, tornadoes are associated with severe weather conditions such as thunderstorms and hurricanes. Tornadoes can be extremely destructive. The average width of a tornado is 300 to 500 yards. Their path may extend up to fifty miles, and the funnel cloud moves at ground speeds between 10 and 50 mph. The wind speed within the funnel cloud has been estimated at between 100 and 500 mph. Roughly two percent of all tornadoes are "violent" tornadoes, with wind speeds of 300 mph or more, an average path width of 425 yards, and an average path length of 26 miles. Tornado season runs from March to August in the United States, with peak activity from April to June; however, tornadoes can occur year-round. Information concerning tornadic activity can be located online from the National Weather Service and FEMA.

The Enhanced Fujita Scale (EF Scale) is a widely recognized and accepted tool which planners rely on to estimate the intensity of tornados. For background, the Fujita Scale was developed as a scale that used damage caused by a tornado and related the damage to the fastest 1/4-mile wind at the height of a damaged structure. F-scale winds are estimated from structural and/or tree damage, the estimated wind speed applies to the height of the apparent damage above the ground. The system was later enhanced and incorporated twenty eight damage indicators. It classifies tornados into six categories (0-6) based on wind speed and damage.

a. **Risk Area**. Tornadoes have occurred in every State. Historically, they have been most frequent in Texas, Oklahoma, Florida, Kansas, Nebraska, Iowa, South Dakota, Illinois, Missouri, Mississippi, Louisiana, Colorado, Wisconsin, Arkansas, Georgia, North Dakota, Minnesota, Indiana, and Michigan. More than 50 percent of the land mass in the United States is within the area of tornado risk.

b. **Risk Assessment**. A risk assessment should be prepared by the AEP Planning Team which identifies the facilities, properties, equipment, etc. that may be vulnerable to the hazards associated with a tornado. The assessment should:

   (1) Identify resources such as essential equipment, tools, vital records, etc. that may need to be moved to a safe location.

   (2) Identify essential automation systems and determine Uninterruptible Power Supply (UPS) availability. Determine which system(s) should be routinely backed-up and/or shutdown until the tornado threat passes.

   (3) Identify any facilities which should be evacuated.

7-4-22 PURPOSE. The information contained in this hazard-specific appendix is intended to supplement the Basic Plan and Functional Annexes of the Airport Emergency Plan. It defines responsibilities and describes actions to be taken in the event a tornado is forecast or occurs. Further, this document, in conjunction with the Basic Plan and Functional Annexes, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-4-23 SITUATION AND ASSUMPTIONS. This section should include information about as it relates to such issues as:

a. The airport's susceptibility to a tornado (reference the Hazards Analysis Program).

b. Airport structures suitable to serve as a tornado shelter.

c. Airport utilities along with their respective susceptibility to wind damage; which serve key facilities and what is the availability of alternative sources (e.g. power - generators, communications - RACES, REACT, etc.).

7-4-24 OPERATIONS.

a. **General**. This section explains the airport's overall approach to responding to a forecasted or actual tornado, i.e. what should happen, when, and at whose direction. Topics should include:

(1) Division of airport and local responsibilities, to include roles and relationships of emergency response organizations.

(2) Mutual aid agreements relative to the specific emergency.

(3) Criteria for activation of the EOC.

(4) Sequence of actions before, during and after the emergency situation.

b. **Checklist and SOPs**. Tornado specific SOPs and checklists should be prepared.

c. **Training**. Associated training programs should be developed and implemented. A brief discussion on related training programs should be provided.

7-4-25 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. Some examples include:

a. **Airport Traffic Control Tower**. In accordance with the letter of agreement:

(1) Inspect FAA owned, operated, and maintained facilities for damage and operability.

(2) Restrict aircraft operations on the airport until the runway(s), taxiways, and ramps have been inspected by the airport owner/ operator.

(3) Issue appropriate Notice to Airmen (NOTAM) upon receipt of information from authorized airport personnel, if requested.

b. **Firefighting and Rescue**.

(1) Conduct fire suppression and rescue operations, as needed.

(2) Assist in providing emergency medical assistance, as needed.

(3) Check for petroleum leaks and other potential hazardous materials problems.

(4) Survey ARFF property, to:

(a) Determine integrity of building(s).

(b) Assess status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(5) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(6) Review personnel requirements and adjust accordingly.

(7) To the degree communications systems will permit, coordinate activities with local community fire departments, if necessary.

(8) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

c. **Law Enforcement/Security**.

(1) Provide continued law enforcement and security services on the airport, as needed, including those required by 49 CFR part 1542, *Airport Security*.

(2) Survey law enforcement property, to:

(a) Determine integrity of building(s).

(b) Assess status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(3) Assist in support operations, to include search, inspections, personnel account-ability, and protective action implementation.

(4) Review personnel requirements and adjust accordingly.

(5) To the degree communications systems will permit, coordinate activities with local community law enforcement agencies, if necessary.

(6) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

d. Emergency Medical Service.

(1) Organize the necessary action for triage and treatment of any casualties, as necessary. Provide for the transportation (air, land, or sea) of casualties to designated medical facilities.

NOTE: *Ensure medical facilities are capable of handling casualties - those facilities may have also been damaged.*

(2) Survey EMS property, to:

(a) Determine integrity of building.

(b) Determine status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(3) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(4) Review personnel requirements and adjust accordingly.

(5) To the degree communications systems will permit, coordinate activities with local community EMS units, if necessary.

(6) Provide Critical Incident Stress support, as appropriate.

(7) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

e. **Airport Operator**.

(1) Operations.

(a) Conduct airfield inspections, as needed.

(b) Issue appropriate NOTAM(s), if conditions warrant and permit.

(c) Activate the Airport Emergency Operations Center (EOC), as appropriate.

(d) Provide emergency support services through the EOC.

(e) Assist in support operations, to include search, inspections, personnel account-ability, and protective action implementation.

(f) Review personnel requirements and adjust accordingly.

(g) To the degree communications systems will permit, coordinate activities with local community emergency management agencies, if necessary.

(h) Coordinate activities with the ATCT, as needed.

(i) Interface with, coordinate, and utilize as needed, the resources made available by other airport tenants, including air carriers.

(j) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(2) Maintenance.

(a) Assist/provide critical services, including utility support (activation/cut-off), as needed.

(b) Provide safety inspections, as needed.

(c) Assist in facility restoration.

(d) Provide sanitation support services.

(e) Assist in the provision of required resources.

(f) Participate in EOC operations.

(g) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(3) Administration.

(a) Provide procurement services.

(b) Provide appropriate budgeting, payment, and cost recovery authorization and services.

(c) Provide personnel services.

(d) Participate in EOC operations.

(4) Public Information and Community Relations.

(a) Interface with the media, as conditions warrant.

(b) Provide news releases relative to the airport's operational capability.

(c) Assist with the interface with other airport tenants.

(d) Participate in EOC activities.

f. **Aircraft Owners/Operators**.

(1) Provide EOC representation, as needed.

(2) Provide for the initial notification to families of casualties, as appropriate.

(3) Provide for passenger/casualty tracking.

(4) Inspect facilities owned/operated or maintained by these tenants.

g. **Airport Tenants**.

(1) Provide assistance on a voluntary basis or in accordance with established agreements.

(2) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

(3) Inspect facilities owned/operated or maintained by these tenants.

7-4-26 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to a tornado. Because of the unique nature of this type emergency and its potential for involving a wide geographic area and potentially limiting the availability of resources, there may be a need for adjusting standard policies and procedures for items such as resource management and mutual aid.

7-4-27 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of the Tornado Appendix, keeping its attachments current, and ensuring that SOPs and checklists are developed and maintained.

7-4-28 AUTHORITIES AND REFERENCES. This section should identify any tornado-specific statutes, regulations, etc. that address related authority, (e.g. building codes). Any documents used as guidance or for information, such as those by FEMA or the American Red Cross should be mentioned.

7-4-29 UNIQUE PLANNING CONSIDERATIONS. This section contains a listing of the functional annexes that typically would require the preparation of a hazard-specific appendix for tornadoes. It also identifies many of the unique planning considerations that should be examined by the planning team and used, as appropriate, when preparing tornado-specific appendices.

a. **Command and Control**. For this particular hazard, it is essential that emergency response personnel take immediate action based upon information received, particularly in the area of protective action decision making. If a tornado should strike the airport, immediate action is again needed, as soon as conditions permit, to gather initial damage assessment information in the area that was impacted by the tornado. This information is necessary to determine the severity and extent of injuries and damages.

High risk airports may want to use trained spotters, or if the local jurisdiction uses a network of trained spotters, consideration should be given to participating with them. This spotting network would be relied on to rapidly communicate information that can be helpful to the appropriate authorities responsible for making the decision for when to upgrade from a Tornado Watch to a Tornado Warning. The network can also assist in tracking the tornado's path.

This data gathering effort should provide much of the information decision makers will need to implement and prioritize response actions for: search and rescue activities; access control; debris clearance; resumption of airport operations; restoration of utilities; and the inspection, condemnation, and/or demolition of buildings and other structures.

Provisions should be made, as appropriate, to address the following planning considerations in one or more appendices to a Command and Control Annex:

(1) Damage Assessment. Conduct immediate ground, and if available and feasible, air surveys to determine the extent of damages.

(2) Search and Rescue. Use of damage assessment information to identify the facilities where search and rescue may need to be conducted and to establish a priority for these operations.

(3) Access Control. Access to areas severely impacted by the tornado should be restricted to emergency response personnel until the area can be inspected.

(4) Debris Clearance. Actions taken to identify, remove, and dispose of rubble, wreckage, and other material which block or hamper emergency response activities. Functions may include:

(a) Demolition and other actions to clear obstructed runways, taxiways, ramps, and obstructed roads.

(b) Repairing or temporarily reinforcing any damaged airport paved surfaces, to include roads and bridges.

(c) Construction of emergency detours and access roads.

(5) Inspection, Condemnation, and Demolition. Take actions to inspect airport facilities and determine whether they are safe to inhabit or to support the use by airport operations after a tornado has occurred. Activities may include the inspection of those facilities which may be critical to emergency operations.

b. **Alert Notification and Warning**. Warning of the public is critical for this hazard. The NWS will place areas under a Tornado Watch when conditions are particularly favorable for tornadoes and severe storms. NWS will issue a Tornado Warning when a tornado has been visually spotted or picked up on radar. Television, radio, and NOAA tone alert radio are sources of information for the public. The following planning considerations should be addressed, if appropriate, in one or more appendices to a warning annex:

(1) Provisions for the airport to obtain timely Tornado Watch and Warning information (direct link to area weather stations or local EMA, continuously monitor NWS and other sources, etc.).

(2) Provisions for notifying airport employees, tenants, and transient personnel.

c. **Emergency Public Information**. The flow of accurate and timely information is critical to the protection of lives and property. This section addresses the provisions made to prepare and disseminate notifications, updates, and instructional messages to follow up on the initial warning.

d. The following planning considerations should be addressed, if appropriate, in one or more appendices to an EPI Annex. During a Tornado Watch, information should be disseminated to airport employees, tenants, and transients providing guidance on the appropriate protective actions to take if a Tornado Warning is issued.

e. **Protective Actions**. Evacuation is not a practical option for this hazard since the point of touchdown and the track of a tornado are unpredictable. The typical protective action for a tornado is shelter-in-place.

7-4-30 SOPS AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and checklists:

a. **Before the Emergency**. In addition to the planning elements found in your Basic Plan and the building structure review discussed above, consideration should be given to the development of:

(1) Post-event facility inspection guidance that is specific to high winds and/or abnormal rainfall situations. This is a document that can be used by airport employees as a preliminary inspection process for evaluating facility safety for public use following a tornado until it can be inspected by qualified engineers, if deemed necessary.

(2) A checklist of pre-storm actions such as:

(a) Testing of emergency generators.

(b) Looking for loose objects which might cause damage in heavy winds.

(c) Coordinating potential protective actions with airport tenants and the local EMA.

(d) Tornado-specific training programs, drills, and exercises.

b. **During the Emergency (Response)**. The degree of response will depend upon the severity of the tornado.

(1) Consideration should be given to the development of response SOPs and/or checklists which outline anticipated actions to be taken by each airport function, such as Operations, Maintenance, Administration, ARFF, Law Enforcement, EMS, tenants, etc.

c. **After the Emergency (Recovery)**. The recovery effort will be dependent upon the severity of the tornado, the amount of damage, facilities/equipment/systems impacted, and the availability of resources. Recovery efforts should involve:

(1) As with other emergencies, consider the formation of a Situation Analysis Team consisting of representatives from appropriate airport organizations, functional areas, tenants, etc., that:

(a) When safe to do so, ensures periodic damage assessments are conducted.

(b) Prepares an Incident Action Plan, to include long and short term considerations for:

(i) Final damage assessment (written, pictorial, including video).

(ii) Public information announcements.

(iii) Facility repair.

(iv) Supply inventory and restoration.

(v) Cost documentation.

(vi) Economic impact.

(vii) Documentation of actions taken.

(viii) Personnel utilization by time on duty.

(ix) Critical Incident Stress Debriefing requirements, if necessary.

(x) Equipment utilization documentation.

(xi) Overall cleanup activities.

(xii) Air Operations Area (AOA) inspections.

(2) Issuance of appropriate NOTAMs.

(3) Critique of the overall operation and apply lessons learned to planning and training programs.

VOLCANO

7-4-31 INTRODUCTION. Volcanic ash injected into the atmosphere to altitudes exceeding 30km 100,000') may impact areas for hundreds to thousands of kilometers downwind from the volcano.

The physical properties of volcanic ash which make it especially harmful to aviation operations include its small grain size, hardness and abrasive nature, ability to hold an electrostatic charge, and ability to absorb water and droplets of corrosive acid aerosol. Because of these properties, ash presents a number of unique problems when efforts are made to remove it during the cleaning process. Volcanic ash is also slippery when wet. Accordingly, aircraft operations should not be permitted on a runway that has been contaminated with wet ash unless friction testing determines that they can be conducted safely. Ash fall on airport facilities will also affect other areas of the airport, including taxiways, ramps, buildings, ground services, electric utilities, communications facilities and airplanes parked on the ground.

a. **Risk Area**. There are almost 70 active and potentially active volcanoes in the United States. They are located on the West Coast of the contiguous 48 states from California to Washington State; there are also volcanoes in Alaska and Hawaii. The airports AEP planning team should contact the U.S. Geological Survey (USGS) to quantify the volcanic hazard their airport/community faces. This may be done as a part of the Hazards Analysis Program. The US Geological Survey has information concerning aviation safety and volcanic activity available online.

b. **Risk Assessment**. A risk assessment should be prepared by the AEP planning team which identifies the facilities, properties, equipment, etc. which may be vulnerable to volcanic ash. It is important that the team plans for the worst case volcanic scenario, i.e. heavy ash fall plus heavy rain. The assessment should include a narrative description that identifies those airport facilities that may be more susceptible to volcanic ash damage.

7-4-32 PURPOSE. The information contained in this hazard-specific appendix is intended to supplement the Basic Plan and Functional Annexes of the Airport Emergency Plan. It defines responsibilities and describes actions to be taken in the event volcanic ash reaches your airport. Further, this document, in conjunction with the Basic Plan and Functional Annexes, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-4-33 SITUATION AND ASSUMPTIONS. Assumptions are the advance judgments concerning what might happen in the event of volcanic ash fall on the airport. The situation includes major findings from the hazards analysis; identification of facilities that may be impacted including sensitive environmental areas and transportation routes; pertinent climate and weather factors; and any critical time variables which may impact the emergency responses, e.g. time of day and month of year.

This section should include information as it relates to such issues as:

a. **Susceptibility**. The airport's susceptibility to a volcanic ash event, such as proximity to a volcano(es) and the prevailing wind direction (reference the Hazards Analysis Program).

b. **Impact**. The impact of such an event on the community as a whole, particularly in terms of overall impact on response and recovery resource availability, i.e. a major volcanic ash fall will impact a wide geographic area resulting in limited resource availability.

c. **A review of airport access**. Determine the vulnerability of access roads and bridges to volcanic ash, mud slides, and eruption debris damage and the potential impact if some or all of them are rendered unusable.

d. **A review of airport structures**. Determine those airport structures which have high roof-load construction.

e. **A review of airport utilities**. Determine those utilities which serve key facilities and the availability of alternative source, e.g. power generators, communications - RACES, REACT, etc.

f. **A review of worst case scenarios**. What is the impact if a volcanic eruption and heavy ash fall occurs during the airport's peak period? What if it occurs in the middle of the night?

g. **A review of communications capabilities**. Some systems may be rendered inoperable during and after a volcanic eruption and ash fall. It is important to shut down all nonessential equipment; short circuits by conductive dust and abrasion of moving parts are the major concerns.

7-4-34 OPERATIONS.

a. **General**. This section explains the airport's overall approach to the emergency situation, i.e. what should happen, when, and at whose direction. Topics should include:

(1) Division of airport and local responsibilities, to include roles and relationships of emergency response organizations.

(2) A list of mutual aid agreements relative to the specific emergency.

(3) Criteria for activation of the EOC.

(4) A description of sequence of actions before, during and after the emergency situation. Obviously, for this type event, many of the activities will be after the event.

(5) Checklist and SOPs. As with other emergencies, emergency-specific SOPs and Checklists should be prepared.

(6) Training. Associated training programs should be developed and implemented. A brief discussion on related training programs should be provided. The USGS provides valuable information that may be of use in training personnel on volcano actions. This information is available online.

7-4-35 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. Some examples include:

a. **Airport Traffic Control Tower**.

(1) Inspect FAA owned, operated, and maintained facilities for damage and operability.

(2) Restrict aircraft operations on the airport until the runway(s), taxiways, and ramps have been inspected by the airport owner/ operator.

(3) Issue appropriate Notice to Airmen (NOTAM) upon receipt of information from authorized airport personnel, if requested.

b. **Firefighting and Rescue**.

(1) Survey ARFF property, to include:

(a) Determine integrity of building(s).

(b) Assess status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(2) Assist in support operations to include search, inspections, personnel accountability, and protective action implementation.

(3) Review personnel requirements and adjust accordingly.

(4) To the degree communications systems will permit, coordinate activities with local community fire departments, if necessary.

(5) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

c. **Law Enforcement/Security**.

(1) Provide continued law enforcement and security services on the airport, as needed, including those required by 49 CFR part 1542, *Airport Security*.

(2) Survey law enforcement property, to:

(a) Determine integrity of building(s).

(b) Assess status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(3) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(4) Review personnel requirements and adjust accordingly.

(5) To the degree communications systems will permit, coordinate activities with local community law enforcement agencies, if necessary.

(6) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

d. **Emergency Medical Services**.

(1) Provide emergency medical assistance, as needed.

(2) Survey EMS property, to include:

(a) Integrity of building.

(b) Gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(3) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(4) Review personnel requirements and adjust accordingly.

(5) To the degree communications systems will permit, coordinate activities with local community EMS units, if necessary.

(6) Provide Critical Incident Stress Disorder support, as appropriate.

(7) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

e. **Airport Operator**.

(1) Operations.

(a) Conduct airfield inspections, as needed.

(b) Conduct runway friction tests, as needed.

(c) Issue appropriate NOTAM(s), if conditions warrant and permit.

(d) Activate the Airport Emergency Operations Center (EOC), as appropriate.

(e) Provide emergency support services through the EOC.

(f) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(g) Review personnel requirements and adjust accordingly.

(h) To the degree communications systems will permit, coordinate activities with local community emergency management agencies, if necessary.

(i) Coordinate activities with the ATCT, as needed.

(j) Interface with, coordinate, and utilize as needed, the resources made available by other airport tenants, including air carriers.

(k) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(2) Maintenance.

(a) Assist/provide critical services, including utility support (activation/cut-off), as needed.

(b) Provide safety inspections, as needed.

(c) Assist in facility restoration, including debris removal.

(d) Provide sanitation support services.

(e) Assist in the provision of required resources.

(f) Participate in EOC operations.

(g) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(3) Administration.

(a) Provide procurement services.

(b) Provide appropriate budgeting, payment, and cost recovery authorization and services.

(c) Provide personnel services.

(d) Participate in EOC operations.

(4) Public Information and Community Relations

(a) Interface with the media, as conditions warrant.

(b) Provide news releases relative to the airport's operational capability.

(c) Assist with the interface with other airport tenants.

(d) Participate in EOC activities.

(5) Aircraft Owners/Operators.

(a) Provide EOC representation, as needed.

(6) Airport Tenants.

(a) Provide assistance on a voluntary basis or in accordance with established agreements.

(b) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

7-4-36 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to volcanic ash. Like many other natural disasters, it has a potential for involving a wide geographic area and potentially limiting the availability of resources. Therefore, there may be a need for adjusting standard policies and procedures for items such as resource management and mutual aid.

7-4-37 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of the Volcanic Ash Appendix, keeping its attachments current, and ensuring that SOPs and checklists are developed and maintained.

7-4-38 AUTHORITIES AND REFERENCES. This section should identify any specific statutes, regulations, etc. that address related authority, (e.g. Building Codes). Any documents used as guidance or for information, such as FEMA, USGS, or the American Red Cross should be mentioned.

7-4-39 UNIQUE PLANNING CONSIDERATIONS. This section contains a listing of the functional annexes that would typically be required in the preparation of a hazard-specific appendix for volcanic ash. It also identifies the unique and/or regulatory planning considerations that should be used by the airport AEP planning team.

a. **Command and Control**. The extent of the initial response will depend on warning time, which varies with the cause and the source of the volcanic ash. Provisions should be made, as appropriate, to address the following planning considerations in one or more appendices to a Command and Control Annex.

(1) Damage Assessment. Conduct of immediate ground, and if available and feasible, air surveys to determine the extent of damages.

(2) Search and Rescue. Use of damage assessment information to identify the facilities where search and rescue may need to be conducted and to establish a priority for these operations.

(3) Access Control. Access to areas severely impacted by the volcanic ash should be restricted to emergency response personnel until the area can be inspected.

(4) Debris Clearance. Actions taken to remove and dispose of volcanic ash which may hamper airport operations and emergency response activities. Some procedures which may be considered include:

(a) Clear the runway first; tow aircraft to/from the terminal.

(i) Dusting (less than ¼ inch)

- mechanically sweep while dry

(ii) Accumulation (more than ¼ inch)

- Start on runway centerline
- Wet the ash and road-grade into berms (Worst case is dry ash; wet the ash for control; grade into windrows; load up and remove; use emulsions to stabilize berms and infields)
- Move ash only once (identify approved dump site; cap with emulsion or soil and seed it; document volume and consider it as a future aggregate resource)
- High-pressure water to clean surface

(5) Inspection, Condemnation, and Demolition. Actions taken to inspect airport facilities to determine whether they are safe to inhabit or otherwise use in support of airport operations after a volcanic ash situation has occurred. Structures may have been weakened by the weight of the volcanic ash. It will be necessary, therefore, to inspect facilities to determine if they are structurally safe to inhabit. Activities may include the inspection of those facilities which may be critical to emergency operations.

b. **Alert and Warning**. Volcanic eruptions can occur with no warning. For those volcanoes that have a monitoring system in place, it is possible to give warning of an eruption

c. **Emergency Public Information**. The flow of accurate and timely information is critical to the protection of lives and property following a major volcanic eruption. This section should deal with updates, warnings and instructional messages to those personnel at the airport.

d. **Planning Considerations**. The following planning considerations can be addressed, if appropriate, in one or more appendices to an EPI Annex:

(1) Instructions for preparing businesses (inside and outside) for mitigating the effects of volcanic ash.

(2) The development of airport specific information brochures for airport employees and tenants regarding the hazards associated with volcanic ash and steps that can be taken to mitigate those hazards.

e. **Protective Actions**. Consideration should be given to relocating people out of those facilities which have been previously identified as being potentially structurally weak.

7-4-40 SOPs AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and checklists:

a. **Before the Emergency**.

(1) A facility inspection SOP that is specific to potential volcanic ash damage. This is something that can be used by airport employees as a preliminary inspection process for evaluating facility safety for public use following a volcanic ash event until it can be inspected by qualified engineers.

(2) A listing of those airport facilities which have been constructed with a high roof loading.

b. **During the Emergency**.

(1) The degree of response will depend upon the severity of the volcanic ash fall.

(2) Develop response SOPs and/or checklists which outline anticipated actions to be taken by each airport function (Operations, Maintenance, Administration, ARFF, Law Enforcement, EMS, tenants, etc.) during the emergency.

c. **After the Emergency**. The recovery effort will be dependent upon the severity of the ash fall, the amount of damage, facilities/equipment/systems impacted, and the availability of resources.

(1) As with other emergencies, consider the formation of a Situation Analysis Team consisting of representatives from appropriate airport organizations, functional areas, tenants, etc. The Team:

(a) Ensures periodic damage assessments are conducted.

(b) Prepares an Incident Action Plan, to include long and short term considerations for:

(i) Final damage assessment (written, pictorial, including video).

(ii) Public Information announcements.

(iii) Sanitary issues.

(iv) Facility repair.

(v) Supply inventory and restoration.

(vi) Cost documentation.

(vii) Economic impact.

(viii) Documentation of actions taken.

(ix) Personnel utilization by time on duty.

(x) Critical Incident Stress Debriefing requirements.

(xi) Equipment utilization documentation.

(xii) Overall cleanup activities.

(xiii) Air Operations Area (AOA) inspections (AC 150/5200-18, *Airport Safety Self-Inspection*).

(2) Issuance of appropriate NOTAMs.

(3) Critique of the overall operation and apply lessons learned to planning and training programs.

FLOOD

7-4-41 INTRODUCTION. Flooding occurs when normally dry land becomes inundated with water. Sources of the water may be the result of natural bodies of water overflowing their banks, including artificial ones like dams or levees; structural failure of dams and levees, rapid accumulation of runoff or surface water; hurricane-caused storm surges or earthquake-caused tsunamis; or erosion of a shoreline. The two major planning parameters for flooding are:

a. suddenness of onset (e.g. flash floods or dam failure), and

b. flood elevation in relation to structures and topography. Other factors to consider include debris movement, velocity of water flow, and extended duration of flood conditions.

Floods are the result of a multitude of naturally occurring and human-induced factors, but they all can be defined as the accumulation of too much water in too little time in a specific area. Several types of floods can occur. These include regional, flash, ice-jam, storm-surge, dam and levee-failure, and debris, landslide, and mudflow floods.

a. **Risk Area**. All States and territories are at risk from flooding as indicated. To obtain information concerning your particular location consult the FEMA web site.

b. **Risk Assessment**. An airport's susceptibility to flooding will be a matter of historical record, as will flood elevations. However, planners should monitor upstream development and extensive paving over ground that used to absorb runoff. The NWS maintains a list of communities with potential flash flood problems, and the USGS maintains stream flow data for large watersheds in cooperation with State and local agencies. Additionally, the National Flood Insurance Program (NFIP) has Flood Insurance Rate Maps and Flood Hazard Boundary Maps. Information is available from FEMA. Flood warnings are available from the National Weather Service.

7-4-42 PURPOSE. The information contained in this hazard-specific section is intended to supplement the Basic Plan and Functional Annexes of the Airport Emergency Plan. It defines responsibilities and describes actions to be taken in the event a flood occurs at your airport. Further, this document, in conjunction with the Basic Plan and Functional Annexes, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-4-43 SITUATION AND ASSUMPTIONS. This section should include information as it relates to such issues as:

a. **Susceptibility**. The airport's susceptibility to flooding (reference the Hazards Analysis Program).

b. **Impact**. The impact of such an event on the community as a whole, particularly in terms of overall impact on response and recovery resource availability, i.e. a major flood may impact a wide geographic area - off-airport resource accessibility may be extremely limited and should be planned for accordingly.

c. **A review of airport access**. Determine the vulnerability of access roads and bridges to flooding and what is the impact if some or all of them are rendered unusable.

d. **A review of airport structures**. Describe those airport structures which are potentially subject to flooding.

e. **A review of airport utilities**. Major floods can negatively impact many utilities, including electric, water and sewer. Describe the type of utilities which serve key facilities and the availability of alternative sources (e.g. power - generators, communications - RACES, REACT, cell phones, etc.).

f. **A review of worse case scenarios**. What is the impact of a flash flood on your airport vs. a more slowly escalating event? How will access roads be impacted?

7-4-44 OPERATIONS.

a. **General**. This section explains the airport's overall approach to responding to a forecasted or actual flood, i.e. what should happen, when, and at whose direction. Topics should include:

(1) Division of airport and local responsibilities, to include roles and relationships of emergency response organizations.

(2) Mutual aid agreements relative to the specific emergency.

(3) Criteria for activation of the EOC.

(4) Sequence of actions before, during and after the emergency situation. Obviously, for this type event, almost all activities will be after the event.

b. **Checklist and SOPs**. Flood specific SOPs and checklists should be prepared.

c. **Training**. Associated training programs should be developed and implemented. A brief discussion on related training programs should be provided.

7-4-45 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. Some examples include:

a. **Airport Traffic Control Tower**. In accordance with the letter of agreement:

(1) Inspect FAA owned, operated, and maintained facilities for damage and operability.

(2) Restrict aircraft operations on the airport until the runway(s), taxiways, and ramps have been inspected by the airport owner/ operator.

(3) Issue appropriate NOTAM upon receipt of information from authorized airport personnel, if requested.

b. **Firefighting and Rescue**:

(1) Move equipment to higher ground, if necessary.

(2) Assist in providing emergency medical assistance, as needed.

(3) Check for petroleum leaks and other potential hazardous materials problems.

(4) Survey ARFF property, to include:

(a) Determine integrity of building.

(b) Determine status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(5) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(6) Review personnel requirements and adjust accordingly.

(7) To the degree communications systems will permit, coordinate activities with local community fire departments, if necessary.

(8) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

c. **Law Enforcement/Security**.

(1) Move equipment to higher ground, if necessary.

(2) Provide for overall airport security as soon as possible.

(3) Provide for overall traffic control, including coordination with mutual aid law enforcement agencies.

(4) Provide continued law enforcement and security services on the airport, as needed, including those required by *Airport Security*, 49 CFR 1542.

(5) Survey law enforcement property, to:

(a) Determine integrity of building.

(b) Determine status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(6) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(7) Review personnel requirements and adjust accordingly.

(8) To the degree communications systems will permit, coordinate activities with local community law enforcement agencies, if necessary.

(9) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

d. **Emergency Medical Services**.

(1) Move equipment to higher ground, if necessary.

(2) Provide emergency medical assistance, as needed.

(3) Survey EMS property, to include:

(a) Determine integrity of building.

(b) Determine status of gas, electricity, water, and sanitation.

(c) Test all telephones and notification systems.

(d) Test apparatus mounted radios.

(e) Test station and portable radios.

(f) Test alerting system(s).

(4) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(5) Review personnel requirements and adjust accordingly.

(6) To the degree communications systems will permit, coordinate activities with local community EMS units, if necessary.

(7) Provide Post Traumatic Stress Disorder support, as appropriate.

(8) Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

e. **Airport Operator**.

(1) Operations.

(a) Conduct airfield inspections, as needed.

(b) Issue appropriate NOTAM(s), if conditions warrant and permit.

(c) Activate the Airport Emergency Operations Center (EOC), as appropriate.

(d) Provide emergency support services through the EOC.

(e) Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.

(f) Review personnel requirements and adjust accordingly.

(g) To the degree communications systems will permit, coordinate activities with local community emergency management agencies, if necessary.

(h) Coordinate activities with the ATCT, as needed.

(i) Interface with, coordinate, and utilize as needed, the resources made available by other airport tenants, including air carriers.

(j) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(2) Maintenance.

(a) Assist/provide critical services, including utility support (activation/cut-off), as needed.

(b) Provide safety inspections, as needed.

(c) Assist in facility restoration, including debris removal.

(d) Provide sanitation support services.

(e) Assist in the provision of required resources.

(f) Participate in EOC operations.

(g) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(3) Administration.

(a) Provide procurement services.

(b) Provide appropriate budgeting, payment, and cost recovery authorization and services.

(c) Provide personnel services.

(d) Participate in EOC operations.

(4) Public Information and Community Relations.

(a) Interface with the media, as conditions warrant.

(b) Provide news releases relative to the airport’s operational capability.

(c) Assist with the interface with other airport tenants.

(d) Participate in EOC activities.

(5) Aircraft Owners/Operators.

(a) Provide EOC representation, as needed.

(b) Relocate aircraft, as needed.

(c) Inspect facilities owned/operated and maintained by these tenants.

(6) Airport Tenants.

(a) Provide assistance on a voluntary basis or in accordance with established agreements.

(b) Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

(c) Inspect facilities owned/operated and maintained by these tenants.

7-4-46 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to flooding. Like many other natural disasters, it has a potential for involving a wide geographic area and potentially limiting the availability of resources. Therefore, there may be a need for adjusting standard policies and procedures for items such as resource management and mutual aid.

7-4-47 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of the Flood Appendix, keeping its attachments current, and ensuring that SOPs and Checklists are developed and maintained.

7-4-48 AUTHORITIES AND REFERENCES. This section should identify any flood-specific statutes, regulations, etc. that address related authority, (e.g. Building Codes). Any documents used as guidance or for information, such as FEMA or the American Red Cross should be mentioned.

7-4-49 UNIQUE PLANNING CONSIDERATIONS. This section contains a listing of the functional annexes that would typically be required in the preparation of a hazard-specific appendix for floods. It also identifies the unique and/or regulatory planning considerations that should be used by the airport AEP planning team.

a. **Direction and Control**. The extent of the initial response will depend on warning time, which varies with the cause and the source of the flooding. Intense storms may produce a flood in a few hours or even minutes for upstream locations, while areas downstream may have from 12 hours to several weeks to prepare. Flash floods occur within six hours of the beginning of heavy rainfall, and dam failure may occur within hours of the first signs of breaching, but floods from snowmelt can take months to develop.

The AEPs of airports downstream of a heavy flood source should, in coordination with the local emergency management agencies' EOPs, address the following planning considerations in one or more appendices to a Direction and Control Annex:

(1) Flood Control. Preparation to control flooding should include:

(a) Coordination with a dam's staff during disaster or disaster threat situations to facilitate expeditious notifications and exchange of information.

NOTE: *This should be done through the local jurisdiction's EOC.*

(b) Mapping of areas likely to be flooded.

(c) Identification of potential locations for the placement of temporary levees and the inclusion of this information on the appropriate maps.

(d) Arrangements for a labor force to perform flood fighting tasks associated with building a levee (i.e. fill and place sand bags to prevent flooding).

(2) Continuity of Operations. Address the relocation, as necessary, of key operations, resources, vital records, and equipment to assure continuation of services and to prevent damage and loss.

(3) Inspection and Condemnation. Structures left standing may have been weakened by water pressure or debris flow. Building interiors may be filled with mud and filth. It will be necessary, therefore, to inspect facilities to determine if they are structurally safe to inhabit. There also may be associated health issues.

b. **Alert Notification and Warning**. The NWS is responsible for most flood warning efforts in the United States. For larger river systems, hydrological models are used by River Forecast Centers. For many—not all—smaller streams, the NWS has developed a system called ALERT (Automated Local Evaluation in Real Time) that does not rely on volunteer observers. However, some communities may still need to us volunteer observers to monitor water levels. This information, and related notifications, will normally flow into the local Emergency Management Agency and may be broadcast over NOAA weather channels. The airport operator should be aware of how flood warnings in that area are disseminated and ensure that the airport is on the alert and warning notification list of the local jurisdiction.

c. **Emergency Public Information**. The main source of public information for flooding conditions should come from the local jurisdictions. The airport operator should be prepared to provide information regarding the status of the airport. The following planning considerations should be addressed, if appropriate, in one or more appendices to an EPI Annex:

(1) When a Flood Develops Slowly. The flood emergencies that develop slowly enough to permit evacuation, the airport operator should have enough time to determine the potential impact on the airport and coordinate appropriate decisions concerning restrictions on, or termination of, operations, as well as any airport-specific protective actions.

(2) Transition to Recovery. As the initial response shifts to recovery, the airport operator, through its Incident Action Plan, should be prepared to provide guidance to returning airport employees and tenants regarding safety precautions associated with:

(a) Sanitary conditions.

(b) Unsafe drinking water.

(c) Use of utilities.

d. **Protective Actions**.

If fast- and slow-developing floods are possible at a particular airport, protective action decisions must be based on the estimated time necessary for evacuation and the availability of shelter space above the estimated flood level. When complete evacuation is not feasible, directions to high ground facilities should be provided. Consideration must be given to the potential that there may be transient personnel on the airport with no transportation. When evacuation is feasible, planning should have accounted for routes facing possible inundation. These routes should be coordinated with the local EMA.

The following planning considerations should be addressed, if appropriate, in one or more appendices to a Protective Actions Annex:

(1) Maps that detail probable flood inundation areas and designated evacuation routes.

(2) Designated relocation facilities.

(3) Transportation resources needed for transient personnel, as well as for the relocation of vital resources, records, and supplies.

e. **Health and Medical**.

Health and medical information related to flood response and recovery operations is normally the responsibility of appropriate state and local officials.

The following planning considerations should be addressed, if appropriate, in one or more appendices to a Health and Medical Annex:

(1) Provisions to keep people informed of the health and sanitary conditions created by floods. Flood waters may carry untreated sewage, dead animals, disinterred bodies, and hazardous materials.

f. **Resource Management**. The following planning considerations should be addressed, as appropriate, in one or more appendices to a Resource Management Annex:

(1) Provisions for purchasing, stockpiling, or otherwise obtaining essential flood fighting items such as sand bags, fill, polyethylene sheeting, and pumps (of the right sized and type, with necessary fuel, set-up personnel, operators, and tubing/pipes).

(2) Resource lists that identify the quantity and location of the items mentioned above, as well as points of contact (day, night, and weekend) to obtain them.

7-4-50 SOPS AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and checklists:

a. **Before the Emergency**.

(1) Develop a facility inspection SOP that is specific to potential flood damage. This is something that can be used by airport employees as a preparatory inspection process, such as checking and testing flood pumps, checking levees and dikes, inspecting flood control devices, etc.

(2) Develop a list of airport facilities which are in low lying areas and potentially subject to flooding, including:

(a) The availability of emergency generators.

(b) Just-in-time flood-specific training programs, drills, and exercises.

b. **During the Emergency (Response)**.

(1) The degree of response will depend upon the severity of the flooding.

(2) Provide an overview or outline of actions taken by each airport function, such as Operations, Maintenance, Administration, ARFF, Law Enforcement, EMS, tenants, etc. This may be used as a base for the development of operational checklists. Such actions might include:

(a) Monitor water supplies for potability.

(b) Monitor fire hydrant water pressures.

(c) Establish food service for airport emergency workers.

(d) Arrange for dry clothing, as required.

c. **After the Emergency (Recovery)**. The recovery effort will be dependent upon the severity of the flooding; the amount of damage; facilities, equipment, and systems impacted; and the availability of resources. Recovery efforts should involve:

(1) As with other emergencies, consider the formation of a Situation Analysis Team consisting of representatives from appropriate airport organizations, functional areas, tenants, etc., that:

(a) Ensures periodic damage assessments are conducted.

(b) Prepares an Incident Action Plan, to include long and short term considerations for:

(i) Final damage assessment (written, pictorial, including video).

(ii) Safety issues (e.g. downed power lines, unsafe drinking water, etc.).

(iii) Sanitary issues.

(iv) Public information announcements.

(v) Facility repair.

(vi) Supply inventory and restoration.

(vii) Cost documentation.

(viii) Economic impact.

(ix) Documentation of actions taken.

(x) Personnel utilization by time on duty.

(xi) Critical Incident Stress Debriefing requirements.

(xii) Equipment utilization documentation.

(xiii) Overall cleanup activities.

(xiv) Air Operations Area (AOA) inspections.

(2) Issuance appropriate NOTAMs.

(3) Critique of the overall operation and apply lessons learned to planning and training programs.

SECTION 5. HAZARDOUS MATERIALS INCIDENTS

7-5-1 INTRODUCTION. The types and quantities of hazardous materials produced, processed, used and stored in this country have increased the need for emergency preparedness at all points in the production, utilization, and distribution system. A hazardous material spill or release can pose a risk to life, health, or property. An incident can result in the evacuation of a few people, part of a building, or a whole neighborhood. Significant information is available concerning hazardous materials through the Department of Transportation's (DOT) Pipeline and Hazardous Materials Safety Administration web site at www.phmsa.dot.gov Likewise, the DOT publishes the *Emergency Response Guide (ERG)* that is primarily a guide to aid first responders in:

- quickly identifying the specific or generic classification of the material(s) involved in the incident, and
- protecting themselves and the general public during this initial response phase of the incident.

The ERG is updated every three to four years to accommodate new products and technology.

Hazardous Material Emergency Preparedness Training that addresses response, planning and prevention is available from the US Fire Administration (www.usfa.dhs.gov). Additionally, OSHA provides online hazardous materials training.

a. **Definition**. Hazardous Materials are defined as any substance or material that, when involved in an accident and released in sufficient quantities, poses a risk to people's health, safety, and/or property. These substances and materials include explosives, radioactive materials, flammable liquids or solids, combustible liquids or solids, poisons, oxidizers, toxins, and corrosive materials. Detailed definitions as well as lists of hazardous materials can be obtained from the Environmental Protection Agency (EPA) and the Occupational Health and Safety Administration (OSHA) established requirements for hazardous material operations in 29 CFR part 1910, *Hazardous Waste Operations and Emergency Response* (OSHA 1910.120 – HAZWOPER).

NOTE: *For the purposes of this document, the term hazardous material includes those substances defined as "dangerous goods" as presented in related ICAO documents, including Technical Instructions, and the International Air Transport Association (IATA) Dangerous Goods Regulations. Planning consideration should also be given to weapons of mass destruction, such as nuclear devices, poisonous gases, bacteriological weapons, etc.*

b. **Risk Area**. The primary areas at risk for hazardous materials transportation incidents involve movement of products along highways, rail lines, pipelines, rivers, and port areas. A large number of states also are potentially involved with nuclear waste incidents related to shipment routing incidents. Jurisdictions with facilities that produce, process, or store hazardous materials are at risk, as are jurisdictions with facilities for the treatment, storage, or disposal of hazardous wastes. These risks are compounded by natural hazards (e.g. floods, earthquakes, etc.).

   Further, many types of hazardous materials can be shipped by air. These include explosives, compressed or liquefied gases (which may be flammable or toxic), flammable liquids or solids, oxidizers, poisonous substances, infectious substances, radioactive material, or corrosives. Packages containing hazardous goods can be found in airport cargo buildings, fuel storage farms, on aircraft loading ramps, in aircraft cargo compartments, etc.

c. **Risk Assessment**. It is important to understand that the risk to the airport operator for a hazardous materials incident comes from many sources. Of concern is not only the threat from the materials that are being shipped by air to and from the airport but the threat from other sources as well. Many airports are located in or near the primary risk areas as described above (e.g. highways, railroads, manufacturing/processing facilities, etc.). Accordingly, AEP planners should include in their planning:

(1) Major findings from the Hazards Analysis.

(2) Facilities in the vicinity of the airport which may present a threat.

(3) Maps and descriptions of geographic features, sensitive environmental areas, and transportation routes.

(4) Major demographic features.

(5) Climate and weather.

(6) Critical time variables which may impact emergencies, (e.g. time of day and month of year).

(7) The airport operator should also assess the hazardous materials on, and transiting, the airport. Representatives of airport tenants, including air freight and the air carriers should be contacted and involved in the planning process.

d. **Regulations**. There are several regulations and standards which address emergency response to hazardous materials emergencies:

(1) 29 CFR part 1910, *Hazardous Waste Operations and Emergency Response* (OSHA 1910.120 – HAZWOPER). This rule regulates the safety and health of employees involved in, among other things, any emergency response to incidents involving hazardous substances. These standards apply to all private employees, and to all Federal employees through Executive Order No. 12196 - *Occupational Safety and Health Programs for Federal Employees*.

(2) 40 CFR part 311, *Worker Protection*. This rule applies the same substantive provisions of OSHA 1910.120 to state and local employees in States that do not have a Plan approved under the OSH Act. Further, EPA has defined the term "employee" of state and local governments to include both compensated and non-compensated workers.

(3) State Regulations. Many states have promulgated their own regulations and standards that meet or exceed those of OSHA.

e. **Training**. Based upon the role of the emergency responder, certain levels of training are required.

(1) First responder awareness level. This covers individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying proper authorities of the release. Examples of these individuals on the airport might be Operations personnel conducting inspections, security personnel on patrol, air cargo employees.

(2) First responder operations level. This covers individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Many ARFF personnel have received this level of training.

(3) Hazardous Materials Technician/Specialist. This covers individuals who try to stop the release. This is usually accomplished by members of a local or State-certified Hazardous Materials Response Team.

(4) Certain levels of training must be certified by employers and annual refresher training is required.

f. **Emergency Preparedness Organizations**. Because the regulations covering emergency response to hazardous materials incidents may vary from State to State, AEP planners should work closely with the local emergency preparedness organizations. Most, if not all, of these organizations have already identified the potential risk areas. For example, Title III of the Superfund Amendments and Reauthorization Act (SARA) requires facilities to notify the State Emergency Response Commission (SERC) and the Local Emergency Planning Commission (LEPC) if they have present any of the substances designated by the EPA as an "extremely hazardous substance" when the amount on hand exceeds the EPA-defined "threshold planning quantity." These facilities must submit information regarding the presence and location of these materials to the LEPC, SERC, and local fire department. The LEPC is also entitled to information from facilities subject to SARA Title III that may be necessary for emergency planning, and the LEPC is required by SARA Title III to address routes for transportation of extremely hazardous substances in emergency planning.

g. **Vulnerable Zones**. Knowing the location of facilities and the types of materials involved, planners can estimate vulnerable zones. (It should be noted that, in many cases, the local emergency preparedness organization or the facilities themselves may have already accomplished this). The widest area of vulnerability would be for an airborne release. For airborne releases of acutely toxic substances, vulnerable zones would be plotted as circles around facilities – given uncertainty about wind direction – and as corridors along land transportation routes. These vulnerable zones, the size of which can vary widely, can then be looked at in terms of their potential impact on the airport, i.e. particular facilities and areas can be identified as being at risk and, accordingly, planned for. A review of identified facilities as they relate to published aircraft approach and departure routes should also be conducted with consideration given to the potential impact of airborne releases.

7-5-2 PURPOSE. The information contained in this hazard-specific appendix is intended to supplement the Basic Plan and Functional Annexes of the AEP. It defines responsibilities and describes actions to be taken in the event a hazardous materials incident occurs. Further, this document, in conjunction with the Basic Plan and Functional Annexes, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-5-3 SITUATION AND ASSUMPTIONS.

a. This section should include information about the airport's vulnerability to a hazardous materials incident. It should:

(1) Describe by name, location, and name of substance(s), those facilities located on the airport which have been identified as processing, using, storing, and/or shipping hazardous materials (e.g. fuel farm, air cargo, etc.).

(2) Describe by name, location, and name of substance(s), those facilities and transportation corridors in the vicinity of the airport which have been identified as posing a threat to the airport.

(3) Identify by name and location the Hazardous Materials Response Team(s) designated to respond to hazardous materials incidents at the airport.

(4) Describe the level of training provided to airport personnel to meet federal, state, and local regulations governing personnel responding to emergencies involving hazardous materials.

(5) Describe the conditions under which the airport EOC will be activated for a hazardous materials incident.

b. For the purposes of emergency response, each aircraft accident should be considered a potential hazardous materials incident. Response activities should be in accordance with established hazardous materials standards.

7-5-4 OPERATIONS. This section should describe actions to be taken if a hazardous materials incident should occur at the airport. This section should:

a. Describe the relationship between the AEP and other emergency response plans (e.g. the EOP of the local jurisdictions regarding hazardous material response and recovery actions on the airport.

b. Describe the hazardous materials incident response and recovery actions and procedures of airport personnel.

c. Describe the response and recovery actions of all the local response organizations in the vicinity of the airport, including public and private sector, as well as volunteer and charitable organizations as they relate to response on the airport. This information should already be available in local plans.

d. List mutual aid agreements or other arrangements for sharing data and response resources.

7-5-5 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. Some examples might include:

a. **Airport Traffic Control Tower (ATCT)**. In accordance with the letter of agreement:

(1) Provide relevant information (fuel, persons-on-board, composite hazardous cargo) and directions to aircraft operators.

(2) Provide necessary air and ground traffic control support for emergency response activities.

b. **Firefighting and Rescue**.

(1) Respond to fuel spills and other hazardous materials incidents in accordance with established policies and level of training.

(2) Provide response and recovery support in accordance with level of training and established airport policies and procedures.

(3) Determine need for, and initiate as needed, local Hazardous Materials Response Team response.

(4) Assist in Alert and Warning process in the event a Protective Action is required.

(5) Provide Hazardous Materials Response Team personnel with appropriate personal protective equipment.

c. **Law Enforcement/Security**.

(1) Assist with scene security as requested by the Incident Commander.

(2) Assist in Alert and Warning process in the event a Protective Action is required.

(3) Provide for overall traffic control, including coordination with mutual aid law enforcement agencies.

(4) Assist with Air Operations Area escort services, as needed.

(5) Provide crowd control, as needed.

(6) Provide continued law enforcement and security services on the airport, including those required by 49 CFR part 1542, *Airport Security*.

d. **Emergency Medical Services (EMS)**.

(1) Provide on-scene emergency medical services in accordance with established plans and procedures to include the following:

(a) Collect, triage, and treat casualties.

(b) Transport to, and coordinate with, appropriate medical care facilities.

(c) Provide for the deceased.

(d) Restock of medical supplies, as needed.

(e) Initiate Critical Incident Stress Management debriefing support, as needed.

(2) Initiate and coordinate as needed, mutual aid EMS support.

e. **Airport Operator**.

(1) General.

(a) Activate EOC, as needed.

(b) Participate in response and recovery operations as training levels permit.

(c) Provide emergency support services, as requested, through the EOC.

(d) Prepare for, and accomplish, return to normal operations.

(e) Ensure airport response personnel have received appropriate training.

(2) Airport Operations

(a) Provide scene representation, to include participation in the Incident Command System.

(b) Coordinate Protective Actions, as needed.

(c) Make required notifications, including NOTAMs, as needed.

(d) Conduct airfield inspections, as needed.

(e) Participate in EOC operations.

(f) Coordinate operations with the ATCT, as needed.

(g) Monitor, and coordinate as required, other concurrent airport activities.

(h) Interface with, coordinate, and utilize resources made available by airport tenants.

(3) Maintenance.

(a) Assist/provide critical services, including utility support (activation/cut-off), as needed.

(b) Assist in the implementation of protective actions (e.g. shutting off air circulation systems for affected facilities if in-place sheltering is recommended).

(c) Provide safety inspections, as needed.

(d) Provide sanitation services for extended operations.

(e) Assist in the provision of required resources.

(f) Participate in EOC operations.

(g) Assist in facility restoration.

(4) Administration.

(a) Provide budgeting, payment, and cost recovery support.

(b) Provide procurement services.

(c) Provide personnel services.

(d) Participate in EOC activities.

(e) Form a Policy Group for the overall administration of the event, to include approval of airport media releases, when appropriate.

(5) Public Information and Community Relations.

(a) Interface with the media, as well as any emergency response organization on-scene public relations personnel.

(b) Provide news releases relative to the airport's responsibilities and activities.

(c) Participate in EOC operations.

f. **Aircraft Operator or designated representative**. If an aircraft is directly involved in the incident, the aircraft operator or designated representative should do the following:

(1) Provide on-scene support, as requested by the Incident Commander.

(2) Participate in EOC operations.

(3) Provide for timely news releases.

g. **Airport Tenants**. Airport tenants may provide assistance on a voluntary basis.

7-5-6 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to hazardous materials incidents. Because of the unique nature of hazardous materials response, specialized resources, policies, and procedures would be appropriate.

7-5-7 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of the Hazardous Materials Appendix, keeping its attachments current, and ensuring that SOPs and checklists are developed and maintained.

7-5-8 AUTHORITIES AND REFERENCES. This section should identify any hazardous materials-specific statutes, regulations, etc. that are applicable to the airport (e.g. 40 CFR part 311, SARA, OSHA 1910.120, etc.).

7-5-9 UNIQUE PLANNING CONSIDERATIONS. This section identifies many of the unique planning considerations that should be identified by the AEP Planning Team.

a. **General**. For the most part, the primary planning role of the airport operator will be to coordinate the planning, response, and recovery efforts with the local community hazardous materials planning officials. Facilities and transportation corridors on and in the vicinity of the airport which present a hazardous materials threat should have already been identified. AEP planners should review this information to determine the level of threat and the potential response efforts which may be necessary.

b. **Command and Control**. For this hazard, OSHA's Hazardous Waste Operations and Emergency Response Standard (29 CFR part 1910) requires that an ICS be used for on-scene management of response activities. A description of ICS is found in Chapter 6, Command and Control.

(1) Response Actions. Provisions should be made, as appropriate, to describe the on-scene management structure and address the following planning considerations in one or more appendices to a Command and Control Annex, including:

(a) Procedures for notifying response organizations, airport and local officials, as appropriate, that are directly involved in the response, such as:

(i) From the initial incident report, dissemination of as much information as possible.

(ii) If possible, identification of the hazardous material involved and the severity (degree of threat to people, property, environment, etc.) of the accident before exposing response personnel to possible health hazards.

a) For transportation accidents, information sources include placards, container labels, cargo manifests, and shipping papers. These items can be checked against the Emergency Response Guide and shipping papers should also include an emergency contact number. If the above information is not visible or available, an interview with the vehicle driver or aircraft pilot could provide the information needed. For general transportation accidents, the Emergency Response Guide recommends contacting the Chemical Manufacturer's Association's Chemical Transportation Emergency Center (CHEMTREC) with initial requests for assistance. For immediate 24-hour assistance, they may be contacted by toll free telephone at 1-800-262-8200. Web access to CHEMTREC is at www.chemtrec.com/Chemtrec.

b) For fixed facility incidents, this information should be readily available from the responsible party.

(b) ICS to be used at hazardous materials accidents on the airport to include:

(i) The IC is identified and the EOC is notified of the identity of the IC and the location of the ICP.

NOTE: *If both the airport and local jurisdiction activate their EOCs, the respective roles should be identified and documented in advance as a part of the planning process.*

(ii) Response personnel have and wear the appropriate protective gear (Proximity clothing and Self Contained Breathing Apparatus [SCBA]).

(iii) Unnecessary personnel at the site are moved away (in a crosswind direction) and denied entry.

(iv) Qualified personnel only are involved in the response effort.

(v) Protective Action Zone is established, if necessary. This is an area in which people can be assumed to be at risk of harmful exposure and in need of either in-place protective shelter or evacuation.

(vi) Hazardous materials are contained. For liquids, it may be necessary to use ditches or dikes to contain spread, so that removal may take place later. It may also be necessary to cover some materials with tarps to prevent vapors from rising.

(2) Additional Notifications. Various Federal laws and regulations on hazardous materials require notifications from the responsible party (employer, transporter, facility manager) and not necessarily from local or state agencies. Local and state agencies may have also

established notification requirements. AEP planners should establish for what, if any, of these notifications the airport operator is responsible.

For general transportation accidents, the Emergency Response Guide recommends contacting the Chemical Manufacturer's Association's Chemical Transportation Emergency Center (CHEMTREC) at with initial requests for assistance.

(a) If radioactive materials are involved, notification is typically made to the State Department of Public Health or Department of the Environment so that detection and monitoring can take place. For incidents involving nuclear weapons, notification should be made to the nearest military base and to the Joint Nuclear Accident Coordinating Center (JNACC) at (703) 325-2102. Information concerning JNACC can be obtained online.

(b) If infectious (etiological) agents are involved, local and/or State Health Departments should be notified. Officials in these departments have the responsibility for notifying the Emergency Response Coordinator for the CDC at (404) 639-0615. Information concerning support from the CDC is located at emergency.cdc.gov.

(3) Reentry to Areas Directly Affected by the HAZMAT.

(a) Describe the process for identifying when an area is safe to reenter.

(b) Describe the process for control-ling access to the area until it is safe. Only those people directly involved in the emergency should be allowed to enter.

(c) Describe the process for monitoring of the environment and compliance with State and Federal regulations regarding disposal of the wastes.

c. **Alert Notification and Warning**. Hazardous materials incidents generally occur without warning, and the speed at which events develop and the spread of the effects varies from incident to incident. For small scale incidents on the airport, public notification may be made through public address systems, portable megaphones, telephone, two-way radio, or person-to-person. Consideration must be given to the fact that some areas on the airport are subject to high noise levels. Large scale incidents will more than likely be initiated through an off-airport event. For these events, a jurisdiction-wide warning system should be used and activated by the local authorities. The airport should be prepared to deal with whatever protective action is recommended.

The following planning considerations should be addressed, if appropriate, in one or more appendices to an Alert and Warning Annex:

(1) Responsible officials and describe the methods by which they will provide a timely notification to airport personnel, transients, and aircraft operators of a release from any facility or along any transportation corridor which may affect the airport.

(2) The process by which the airport operator will coordinate the alert and warning process with the local community (ies).

d. **Emergency Public Information (EPI)**.

The flow of accurate and timely emergency information is critical to the protection of lives and property immediately following a hazardous materials incident. This section deals with the provisions that should be included in the plan for the preparation and dissemination of notifications, updates, and instructional messages as a follow-up to the initial warning. The following planning considerations should be addressed, if appropriate, in one or more appendices to an EPI Annex:

(1) Methods used, prior to emergencies, for educating airport personnel about possible emergencies and planned protective actions.

(2) Role and organizational position of the airport public relations officer during emergencies.

(3) Public notification of health hazards associated with the HAZMAT involved in the accident.

(4) Personal protective actions instructions, including:

(a) Instructions for in-place protection (when to stay, where to stay, and what to do) when that option is chosen.

(b) Event-specific evacuation instructions and information (routes, road closures, available transportation) when that option is chosen.

e. **Protective Actions**.

(1) Evacuation. The only difference in hazardous materials evacuation planning from other emergencies is that initial movements should be coordinated. These decisions are made by the IC based upon conditions for the specific incident.

(2) In-place Sheltering. Evacuation may not always be advisable. In-place sheltering may be the preferred option. For some chemical hazards, using wet towels and shutting off air circulation systems may suffice; sometimes airborne releases may move more quickly than the evacuation can be effected. Also, if the hazardous materials accident results from another hazard event (such as an earthquake, flood, etc.), any protective action decision will have to factor in related additional concerns.

(3) The following planning considerations should be addressed, if appropriate, in one or more appendices to an evacuation annex:

(a) Decision-making process and criteria, including the decision-making authority, for protective actions.

(b) Methods used for educating airport employees on protective actions.

(c) Methods for in-place sheltering that would be recommended for airport personnel, including transients and aircraft operators, present at the airport at the time of a hazardous materials incident.

f. **Law Enforcement/Security**. List the major law enforcement tasks related to responding to hazardous materials releases.

g. **Firefighting and Rescue**.

(1) List the major tasks to be performed by firefighters related to responding to hazardous materials releases.

(2) Identify the public and private sector fire protection organizations with a response capability and responsibility for hazardous materials incidents.

(3) List the available support systems, e.g. protective equipment and emergency response guides, Emergency Response Guide, mutual aid agreements and Good Samaritan provisions.

(4) List and describe HAZMAT teams in the area.

h. **Health and Medical**. If appropriate, in one or more appendices to a Health and Medical Annex, the following planning considerations should address provisions for:

(1) Keeping people informed of the health risks created by a HAZMAT release.

(2) Designating medical facilities that have the capability to:

(a) Decontaminate and medically treat exposed persons.

(b) Dispose of contaminated items (clothing, medical supplies, and other waste material).

(3) Monitoring of water quality and sanitary conditions in the area affected by the hazardous materials release.

(4) Continuing medical surveillance of personnel performing decontamination tasks (including radiological monitoring, if appropriate).

i. **Resource Management**. SARA requires hazardous materials emergency planning to include a description of emergency equipment at each facility in the community subject to Title III, along with identification of persons responsible for the equipment and facilities. If the airport operator is responsible for any such facilities, the following planning considerations should address provision for, as appropriate, in one or more appendices to a Resource Management Annex:

(1) Purchasing, stockpiling or otherwise obtaining essential hazardous materials response items. In most cases, these items are the responsibility of the designated Hazardous Materials Response Team, however the airport operator may wish to maintain an inventory of support resources specific to the hazards at the airport. The name and contact information for the suppliers of these items should be included in the planning document.

(2) Identifying agencies and contractors that could be involved in cleanup operations and related tasks (including storage, cleaning, and reconditioning of response equipment and supplies). The local hazardous materials planning organization should already have this information.

7-5-10 SOPS AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and checklists:

a. **Before the Emergency**.

(1) A routine inspection checklist for those on-airport facilities identified as being a potential threat.

(2) Pre-fire plans for those on-airport facilities identified as being a potential threat.

b. **During the Emergency (Response)**. Develop response SOPs and/or checklists which outline anticipated actions to be taken by each airport function, such as Operations, Maintenance, Administration, ARFF, Law Enforcement, EMS, tenants, etc.

c. **After the Emergency (Recovery)**. The recovery effort will be dependent upon the severity of the incident, the amount of damage, facilities/equipment/systems impacted, and the availability of resources. Recovery efforts should involve:

(1) As with other emergencies, the formation of a Situation Analysis Team consisting of representatives from appropriate airport organizations, functional areas, tenants, etc., that:

(a) When safe to do so, ensures periodic damage assessments are conducted;

(b) Prepares an Incident Action Plan, to include long and short term considerations for:

(i) Final damage assessment (written, pictorial, including video).

(ii) Public information announcements.

(iii) Facility repair.

(iv) Supply inventory and restoration.

(v) Cost documentation.

(vi) Economic impact.

(vii) Documentation of actions taken.

(viii) Personnel utilization by time on duty.

(ix) Critical Incident Stress Debriefing requirements, if necessary.

(x) Equipment utilization documentation.

(xi) Overall cleanup activities.

NOTE: *Clean up activities for many hazardous materials incidents should be accomplished by approved contractors/organizations.*

(xii) Air Operations Area (AOA) inspections, if appropriate.

(2) Issuance of appropriate NOTAMs.

(3) Critique of the overall operation and apply lessons learned to planning and training programs.

SECTION 6. SABOTAGE, HIJACK, AND OTHER UNLAWFUL INTERFERENCE WITH OPERATIONS

7-6-1 INTRODUCTION. It is the intent of this Section to provide guidance to the airport operator for any situation which involves the unlawful interference with the operation of an aircraft such as sabotage, hijack, terrorism, etc. as it may potentially impact that airport.

Specific information regarding these incidents is Sensitive Security Information (SSI). Specific information is contained in the appropriate sections in the Airport Security Program. As SSI the information is published and distributed on a need-to-know basis only.

7-6-2 PURPOSE. The information contained in this hazard-specific appendix is intended to supplement the Basic Plan and Functional Annexes of the AEP. It defines responsibilities and describes actions to be taken in the event of sabotage, hijack, or other unlawful interference with operations incident occurs. Further, this document, in conjunction with the Basic Plan and Functional Annexes, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-6-3 SITUATION AND ASSUMPTIONS.

a. **General**.

(1) Agencies and organizations other than the airport operator are tasked by laws, regulations, and other documents to respond to hijack and sabotage incidents.

(2) Because the response time of these other agencies and organizations may be significant, the airport operator should be prepared to take action in the interim.

b. **Regulations**. Airports regulated under 49 CFR part 1542, *Airport Security*, have established response procedures for sabotage, hijack and other criminal interference of Civil Aviation as specified in their Airport Security Program (ASP).

c. **Memorandum of Understanding - Federal Aviation Administration and the Federal Bureau of Investigation**. Existing Memorandum of Understandings between the FAA and the Federal Bureau of Investigation, and between the Department of Transportation and the U.S. State department, have established specific lines of responsibility and jurisdiction involving hijack and sabotage incidents.

7-6-4 OPERATIONS.

a. **General**. This section should describe actions to be taken if a hijack, sabotage, or other unlawful interference with operations incident should occur at the airport.

b. As incidents of hijacking, sabotage and other unlawful interference involve so many different organizations, i.e. FAA, FBI, air carrier etc., and as each situation will be unique, the airport operator should conduct planning sessions involving all of the potential players to further define roles and responsibilities. At airports regulated under 49 CFR part 1542, *Airport Security*, such roles and responsibilities will be specified in their ASP.

c. **Items to be discussed should include**:

(1) Guidance to the airport operator/law enforcement personnel as to actions to be taken until the agency or organization of jurisdiction arrives.

(2) The need for and location of an EOC or other Command Center from which operations will be conducted.

(3) The need for additional or specialized resources, such as additional telephone lines or other means of communications.

(4) The need for, and location of, remote aircraft parking.

(5) Responsibilities regarding the media.

7-6-5 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. This section describes organizations, and their responsibilities, that would respond to sabotage or hijack incidents, or other unlawful interference of operations.

7-6-6 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to sabotage, hijack and other unlawful interference incidents. Because of the unique nature of these incidents, specialized resources, policies, and procedures may be appropriate.

7-6-7 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of this Appendix, keeping its attachments current, and ensuring that SOPs and Checklists are developed and maintained.

7-6-8 AUTHORITIES AND REFERENCES. This section should identify any sabotage/hijack-specific statutes, regulations, etc. that are applicable. At airports regulated under 49 CFR part 1542, *Airport Security*, and Air Carrier security programs, as appropriate, should be referenced.

SECTION 7. FAILURE OF POWER FOR MOVEMENT AREA LIGHTING

7-7-1 INTRODUCTION. It is the intent of this Section to provide guidance to the airport operator for any situation which involves the failure of power for movement area lighting that may potentially impact that airport. Airfield lighting criteria are contained in the Advisory Circular series 150-5345.

7-7-2 PURPOSE. The information contained in this hazard-specific appendix is intended to supplement the Basic Plan and Functional Annexes of the AEP. It defines responsibilities and describes actions to be taken in the event a failure of power for movement area lighting. Further, this document, in conjunction with the Basic Plan and Functional Annexes, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-7-3 SITUATION AND ASSUMPTIONS. In this section, provide a description of:

a. The name of the primary power source supplier for movement area lighting.

b. The name of any/all secondary or alternate power provider(s).

c. A description of any back-up power generator(s), to include:

(1) Location.

(2) Size, fuel type and capacity.

(3) Area served.

(4) Special features (automatic/manual start).

(5) Testing schedule.

(6) Preventive maintenance schedule.

7-7-4 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. In this section, describe the responsibilities of the appropriate organizations/functions. For example:

a. **Airport Traffic Control Tower**.

(1) Issue appropriate NOTAM.

(2) Notify appropriate maintenance personnel.

(3) Keep aviation users informed of the situation, as necessary.

b. **FAA Facilities/Maintenance**.

(1) Conduct routine/preventive maintenance.

(2) Conduct/document regular tests.

(3) Operate generator, as necessary.

(4) After the emergency, determine cause and take corrective action.

c. **Airport Maintenance**.

(1) Conduct routine/preventive maintenance.

(2) Conduct/document regular tests.

(3) Operate generator, as necessary.

(4) After the emergency, determine cause and take corrective action.

d. **Airport Operations**.

(1) Ensure that power generator and circuit resistance tests are being conducted.

(2) Ensure required NOTAMs are issued.

7-7-5 SOPS AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and checklists:

a. **Before the Emergency**.

(1) A checklist for conducting routine/ preventive maintenance on the generator(s), including checking and servicing fuel supplies and documenting corrective actions, as necessary.

(2) An item on the Airport Safety Self-Inspection checklist (Periodic Condition Evaluation).

b. **During the Emergency (Response)**. Checklists that assure:

(1) Appropriate personnel are notified of an outage in a timely manner, including repair personnel.

(2) NOTAM issuance in a timely manner, if required.

(3) Generator(s) start-up in a timely manner.

c. **After the Emergency (Recovery)**.

(1) A change to the airport inspection checklist, as deemed necessary, based on the cause of the emergency.

(2) Critique the overall operation and apply lessons learned to planning and training programs.

SECTION 8. WATER RESCUE SITUATIONS

7-8-1 INTRODUCTION. This section prescribes procedures to respond to water rescue situations, including those in *Certification of Airports*, 14 CFR §139.325(f), *Airport Emergency Plan* (www.access.gpo.gov) which states that: "The plan required by this section shall contain provisions, to the extent practicable, for the rescue of aircraft accident victims from significant bodies of water or marsh lands adjacent to the airport that are crossed by the approach and departure flight paths of air carriers. A body of water or marsh land is significant if the area exceeds one-quarter square mile and cannot be traversed by conventional land rescue vehicles. To the extent practicable, the plan should provide for rescue vehicles with a combined capacity for handling the maximum number of persons that can be carried on board the largest air carrier aircraft that the airport can reasonably be expected to serve." Additionally, Advisory Circular 150/5210-13, *Water Rescue Plans, Facilities, and Equipment*, provides requirements for airports located near water bodies.

a. **Risk Area**. Significant bodies of water as defined above located within at least 2 miles of the end of an airport runway should be included in the emergency plan area of response.

7-8-2 PURPOSE. The information contained in this hazard-specific appendix is intended to supplement the Basic Plan and Functional Annexes of the Airport Emergency Plan. It defines responsibilities and describes actions to be taken in the event of an aircraft accident occurs in a body of water in the vicinity of the airport as described above. Further, this document, in conjunction with the Basic Plan and Functional Annexes, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and Checklists.

7-8-3 SITUATION AND ASSUMPTIONS. This section should include specific information about the airport's vulnerability to a water rescue situation. It should:

a. Describe the body or bodies of water involved, to include:

(1) Type: lake, river, bay, harbor, sea, ocean, tidal, marsh, etc.

(2) Approximate size.

(3) Average depth.

(4) Seasonal weather/climatic variations:

(a) Ice.

(b) Water temperatures.

(c) Wave height.

(d) Hours of daylight.

(e) Prevailing winds.

b. Include maps of the area(s) involved.

c. Include the name, address, and telephone number of each water rescue squad, service, or Federal / State / local agency (i.e. U.S. Coast Guard, Coast Guard Auxiliary, or Harbor Patrol) responsible for conducting water rescue operations in the significant body of water.

NOTE: *If the significant body of water is located off airport property, it is very likely the airport will not be the primary response agency. In such cases, it is the responsibility of the airport to ensure that the appropriate rescue agency/agencies are formally notified of the possibility of an aircraft accident in the significant body of water.*

d. Ensure response activities are in accordance with established hazardous materials standards. For the purposes of emergency response, each aircraft accident should be approached as a potential hazardous materials incident.

7-8-4 OPERATIONS. This section should describe actions to be taken if an aircraft incident/ accident should occur in the water on or adjacent to the airport. It should:

a. **Describe the relationship between the AEP and other emergency response plans** (e.g. the local jurisdiction(s) EOP) regarding water aircraft emergencies, particularly if the airport is not the primary response agency.

b. **Describe the disposition of survivors**. The plan should set forth policies and procedures for the rescue of survivors from floating and/or submerged sections of the fuselage. The airport or primary response agency should establish specific docking/landing areas (primary and alternate) onshore, where survivors can be brought for triage and transportation to health care facilities. In selecting the docking/landing areas, it should be kept in mind that routes through the airport proper may not provide the most direct access to the hospital with facilities appropriate for treating survivors.

c. **Describe policies and procedures for**:

(1) Notification of jurisdictional authority.

(2) Hazardous materials.

(3) Personnel recall.

(4) Security.

(5) Traffic and Access Control.

(6) Emergency Medical Services.

(7) Firefighting and Rescue.

(8) Triage.

(9) Services for uninjured.

(10) Air carrier support.

(11) Removal of deceased.

(12) Resumption of normal operations.

d. **Describe the incident response** and recovery actions and procedures of airport personnel, including Firefighting and Rescue, Law Enforcement/Security, Operations, and Emergency Public Information.

e. If the primary response agency responsibilities and duties are being assumed by another entity, describe those responsibilities and duties in a Mutual Aid Agreement.

f. **List mutual aid agreements** or other arrangements for sharing data and response resources.

7-8-5 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. The AEP should set forth expected actions of all participating agencies and establish what agency will assume primary response role. If the airport will not assume the primary response role, the airport's support role to the primary response agency should be clearly defined. The following examples are typical entries in this section:

a. **Airport Traffic Control Tower**. In accordance with the letter of agreement:

(1) Activate the appropriate alarm system, as appropriate.

(2) Issue appropriate NOTAMs as requested by the airport operator or as established by Letter of Agreement.

(3) Control aircraft and ground vehicle operations on the airport in support of the emergency response, if the airport remains open.

(4) Control airspace in the vicinity of the incident/accident to ensure other aircraft do not interfere with emergency response activities.

(5) Make appropriate FAA notifications.

b. **Firefighting and Rescue**.

(1) Respond to aircraft incident/ accident location in accordance with established policies and procedures.

(2) If the airport is the primary response agency, assume lead in Incident/Unified Command System for initial fire and rescue operations in accordance with established policies and procedures.

(3) Ensure appropriate mutual aid emergency response organizations have been notified and are taking appropriate action.

c. **Law Enforcement/Security**.

(1) Initiate and maintain appropriate Traffic and Access Control in accordance with established policies and procedures.

(2) Provide scene support and security if within jurisdictional authority.

(3) Assist with/provide AOA access control and escort, as necessary.

(4) Ensure appropriate mutual aid organizations have been notified and are taking appropriate action.

(5) Provide necessary investigative support.

d. **Emergency Medical Services**.

(1) Provide necessary triage and on-scene initial treatment of casualties.

(2) Ensure appropriate mutual aid organizations have been notified and are taking appropriate action.

(3) Provide for the movement (land, water, air) of casualties to appropriate treatment facilities.

(4) Maintain an accurate list of casualties and their respective destination treatment facility.

(5) Coordinate with the involved air carrier the transportation of the uninjured to the designated holding area.

(6) Arrange for restocking of medical supplies, if necessary.

e. **Airport Operator**.

(1) General.

(a) Designate each hangar or other building on the airport or in the communities it serves that will be used to accommodate uninjured, injured, and deceased persons.

(b) Activate the EOC, as needed.

(c) Ensure all appropriate notifications have been made, including:

(i) National Transportation Safety Board (NTSB).

(ii) FAA.

(iii) Airport response personnel.

(iv) US Coast Guard

(d) Provide emergency support services, as requested, through the EOC.

(e) Ensure emergency response personnel have received appropriate training.

NOTE: *Public Law 104-264, Title VII - Aviation Disaster Family Assistance Act (ADFAA) of 1996 requires each air carrier to have a plan in place to deal with the families of victims involved in an aircraft accident. However, there may be some instances where it may take some time before the air carrier can fully implement its plan. In the interim, family members may look to the airport operator for information and assistance. This may be applicable even if the accident occurs off the airport in a nearby body of water. Therefore, while there is no legal obligation to do so, each airport operator should consider including provisions in the Water Rescue portion of the AEP to deal with these situations. At a minimum, consideration should be given to providing a secure, private location for these individuals until*

the air carrier plan becomes operational. Prior to developing any plans, it is recommended that the airport operator review each air carrier Disaster Family Assistance Plan with the appropriate carrier(s), as well as the designated response agencies for the purpose of discussing the potential roles and responsibilities of all parties concerned.

(2) Operations. Through the Incident Command System:

(a) Ensure that supporting emergency response agencies (fire, medical, law enforcement, etc.) have responded.

(b) Coordinate response actions, with the ATCT.

(c) Determine need to totally/ partially close the airport and issue appropriate NOTAMs.

NOTE: *In the event of an aircraft accident in the water in close proximity to the airport, consideration should be given to closing the airport. This should be accomplished either by the airport operator and/or the appropriate FAA air traffic facilities through letters of agreement with the airport operator. Further, the airport, or portions thereof, should not be reopened until the airport operator has ensured that:*

- *aircraft operating areas are secure;*
- *aircraft movement areas that are to be reopened have been properly inspected; and*
- *adequate aircraft rescue and fire fighting protection is available for aircraft operations.*

(3) The opening or closure of an airfield, or portion thereof, is the responsibility of the airport operator. However, in the fast developing dynamics that occur immediately after an accident or incident, the airport operator may not be in the best position to assess the situation and make a decision on continuing operations or closing the airfield. To ensure the safety of airfield operations, it may be beneficial to establish procedures with the airport traffic control tower which gives the authority for closing the airfield under defined circumstances and guidelines to controllers. This can be accomplished through a Letter of Agreement with the Airport Traffic Control Tower. Such procedures must provide safeguards to ensure that airport operations are continued or resumed only after it is determined that there is no adverse effect on persons or property on the airfield and that appropriate level of ARFF coverage is available.

In addition, operations should resume:

(a) Only after it can be ascertained that the rescue and evacuation activities associated with the event will not be impacted negatively by resumption of airfield operation, and

(b) The accident event does no pose a hazard to the resumption of airfield operations.

(i) Ensure that a representative of the affected aircraft owner/operator has been notified.

(ii) Provide technical assistant to the Incident Commander.

(iii) Participate in EOC activities.

(iv) Monitor, and coordinate as required, other concurrent airport activities.

(c) Maintenance.

(i) Assist/provide critical services, including utility support (activation/cut-off), as needed.

(ii) Provide sanitation services for extended operations.

(iii) Assist in the provision or required resources.

(iv) To the extent possible, arrange to have available the following equipment/ supplies/services:

a) Portable lavatories.

b) Drinking water.

c) Ropes, barricades, barrier tape, etc.

d) Portable lighting.

e) Portable shelter(s), as needed.

f) Fuel removal equipment.

g) Portable public address system.

h) Communications equipment (cellular telephones, two-way radios, etc.).

i) Participate in EOC activities.

(d) Administration.

(i) Provide budgeting, payment and other financial support, as appropriate.

(ii) Provide procurement services.

(iii) Participate in EOC activities.

(e) Public Information and Community Relations.

(i) Develop and provide press releases relative the airport's responsibilities and activities, as needed.

(ii) Interface with the media, as well as with air carrier and emergency response on-scene public relations personnel.

(iii) Participate in EOC activities.

f. **Aircraft Owner/Operator or Designated Representative**.

(1) Provide pertinent information to Incident Commander, to include:

(a) Number of persons on board.

(b) Presence and location of any dangerous goods.

(2) Provide EOC representation.

(3) Make necessary notifications, to include the FAA and NTSB.

(4) Arrange for appropriate passenger services, to include:

(a) Transportation of uninjured passengers/ crew members.

(b) Adequate holding facilities for uninjured passengers/crew members.

(c) Commissary items, telephone facilities, clothing, and additional medical services, as needed.

(d) Facilities for friends and families.

NOTE: *Public Law 104-264, Title VII - Aviation Disaster Family Assistance Act (ADFAA) of 1996 requires each air carrier to have a plan in place to deal with the families of victims involved in an aircraft accident.*

(e) Passenger/crew accountability/ tracking.

(f) Hotel and/or other alternative travel arrangements for passengers.

(g) Critical Incident Stress Management support.

(5) Implement approved plan in compliance with the requirements established in the AFDAA.

(6) Coordinate news releases with Airport Community/Public Relations personnel.

(7) Provide for the timely removal of the wrecked or disabled aircraft as soon as authorized by the appropriate authority.

7-8-6 ADMINISTRATION AND LOGISTICS. This section of the document should cover those support requirements specific to aircraft accident water rescue situations.

7-8-7 PLAN DEVELOPMENT. This section of the plan should identify who is responsible for coordinating revisions to the Water Rescue Appendix, keeping its attachments current, and ensuring that SOPs and checklists are developed and maintained. If the airport is not the primary response agency, then identify the person(s) responsible for monitoring the airport's support role policies and procedures.

7-8-8 AUTHORITIES AND REFERENCES. This section should identify those statutes and regulations that are applicable to aircraft water rescue situations, particularly those which assign jurisdiction. For example, the U.S. Coast Guard exercises jurisdiction over all navigable waters of the United States, including those subject to tidal influence. If the Coast Guard is the primary response agency, the appropriate regulation should be cited.

7-8-9 UNIQUE PLANNING CONSIDERATIONS. This section identifies many of the unique planning considerations that should be identified by the AEP Planning Team.

a. **General**. The planning role for the airport operator in this instance will depend on whether or not the airport is assuming the role of primary response agency.

b. **Command and Control**.

(1) Due to the complex and specialized nature of aircraft incidents/accidents, particularly in this situation where the airport may not be the primary response agency, it is important to give consideration to some type of Incident Command System (reference Chapter 6, Section 1, Command and Control). This provides for joint field participation and coordination with all agencies having an interest in the operation, including the airport operator, the primary response agency, and the aircraft owner/operator.

(2) As with the aircraft accident on land, it may be prudent to consider using the three different Phases (Response, Investigatory, and Recovery) when dealing with Command and Control planning.

(3) Remember that each aircraft incident/accident, even in the water, should be treated as a potential hazardous materials site and all emergency response activity should handle it as such, i.e. an ICS should be used and levels of training should be considered when determining response personnel.

(4) Upon determination that the incident/accident site no longer poses a fire or hazardous materials threat to the health and safety of untrained personnel, the IC may consider terminating the Response Phase of the emergency and allowing the Investigatory Phase to begin. However, consideration should be given to having the primary response agency, i.e. Coast Guard/ARFF/Hazardous Materials/Fire remaining as lead agency until all injured and deceased have been removed from the scene and during any hazardous materials mitigation activities, such as aircraft defueling.

(5) Once that has been completed, and upon consultation with other Unified Command representatives, IC lead may be transferred to the investigating agency.

(6) The appropriate investigating agency(s) (e.g. NTSB, FAA, etc.) may provide IC lead during the Investigatory Phase of the emergency.

(7) Upon determination by the agency(s) that the airport, or other responsible agency, can begin site and aircraft recovery, and upon consultation with other Incident Command representatives, IC lead may be transferred to the appropriate organization.

(8) If the location of the accident is on airport property, the airport may provide the lead during the Recovery Phase.

(9) Whatever the form of Incident Command used, it is essential that it be determined and agreed upon by all participating agencies during the planning stages. The plan should be very specific in its designation of all responsible entities, their authority and function in the ICS. It should also clarify the functions of the on-scene Incident Command Post (ICP) and the Emergency Operations Center (EOC), particularly if both the airport and any off-airport organization(s) activate one.

c. **Communications**.

(1) Communications at an aircraft incident/accident site can be very complex and go beyond those described in Chapter 6, Communications. Multiple jurisdictions, multiple agencies (Coast Guard, Harbor Patrol, fire, police EMS, etc.), large and sometimes inhospitable water and weather conditions, etc. all contribute to the difficulty.

(2) A communications network should consist of a sufficient number of radio transceivers, telephones (land line and mobile), and other communications equipment sufficient to establish redundant communications capability. This network should link all participating agencies, including the ICP and EOC(s).

(3) Because of the high volume of communications traffic, it is essential that radio procedures/protocols be established and related training programs provided. Radio and telephone communications should be limited to those which are absolutely essential; they should be concise and to the point.

(4) Every effort should be made to include the air carrier(s) communications capability in the plan.

(5) Consider use of amateur radio operators (RACES, REACT) as source of communications, including Packet radio and TV capabilities.

(6) Many telephone companies have mobile telephone banks which can be brought to the scene of a disaster. In the case of an aircraft accident in the water, it may be appropriate to place additional telephones at the nearest dock or other shore point to support the transition of victims from the water to land vehicles.

(7) A dedicated communications vehicle/ mobile command post with self-contained electrical power can be an asset to a reliable and functional communications system. Many local government emergency management agencies have one available.

d. **Alert Notification and Warning**.

(1) §139.325(e) requires that procedures be in place "...for notifying the facilities, agencies, and personnel who have responsibilities under the plan of the location of an aircraft accident, the number of persons involved in that accident, or any other information necessary to carry out their responsibilities, as soon as that information is available."

(2) The plan should specify:

(a) Who is responsible for initiating the process for notifying both on and off-airport emergency response organizations of an aircraft accident? Normally, the Control Tower will be the agency first aware of an aircraft accident and will initiate a notification process, even for water situations. However, the possibility exists that another agency such as a 9-1-1 Center or local fire department dispatcher may have to initiate the notifications. AEP planners must consider all of the possibilities and ensure that the process is documented and understood by all participants as to who is the primary response.

(b) How the notifications are made. A description of the system(s) used to include types of equipment, such as:

(i) Crash phone/direct line.

(ii) Pager.

(iii) Commercial telephone.

(iv) Cellular telephone.

(v) Radio system.

(c) A back-up system or process. Describe the notification processes in the event the primary notification system becomes inoperative.

(d) The information to be transmitted during the initial notification. This should include:

(i) Type aircraft.

(ii) Number of persons on board.

(iii) Fuel quantity.

(iv) The presence of any known dangerous goods.

(v) The location of the accident, if known. If possible, use a grid map to describe the location.

(e) Refer to Chapter 6, Section 3, Alert and Warning, for more information.

e. **Emergency Public Information**. Emergency Public Information (EPI) is a very important part of the overall response program. Because of the potential for major media coverage and a significant number of involved agencies, many with their own EPI program, it is essential that the airport plan include:

(1) Provisions for coordinating news releases with other participating agencies, such as the air carrier and NTSB.

(2) Provisions for controlled scene access for the media.

(3) Specific criteria relating to the types and forms of information to be released by the airport. Generally speaking, the airport should speak only to those activities for which they are responsible.

(4) Refer to Chapter 6, Section 4, Emergency Public Information, for more information.

f. **Protective Actions**.

(1) The AEP should contain provisions regarding protective action recommendations (evacuation/ sheltering) in the event the aircraft incident/accident occurs in such a manner or

location that it may threaten the health and safety of other personnel on the airport. Of primary concern is determining who is authorized to make those recommendations.

(2) Refer to Chapter 6, Section 5, Protective Actions, for more information.

g. **Law Enforcement/Security**.

(1) Describe the major law enforcement tasks and responsibilities related to responding to an aircraft incident/accident. Planning elements to be discussed include:

(a) Primary law enforcement agency responsible for establishing, and methods used to establish, site security. This may be the responsibility of the Coast Guard or primary response agency. Although the accident is in the water, site security must still be provided.

(b) Availability of mutual aid support.

(c) Provisions for establishing Traffic Control Points and Access Control Points to facilitate the movement of emergency response vehicles in and out of the airport/ accident site.

(d) Method(s) used to identify authorized responders at the accident site (e.g. ID vests, armbands, escort, etc.).

h. **Firefighting and Rescue**. Describe the major fire and rescue tasks and responsibilities related to responding to an aircraft incident/accident. Planning elements to be discussed include:

(1) Pre-established access routes to staging areas for each runway or water area access point(s).

(2) Methods used to advise mutual aid emergency response organizations of:

(a) Accident location.

(b) Access routes.

(c) Staging area(s)/rendezvous point(s).

(d) Additional equipment/man-power.

(3) Method used to identify on-scene Command Post

i. **Health and Medical**.

(1) On-scene.

(a) The purpose of on-scene medical services is to provide triage, initial medical care, and transportation to health care facilities. This may be accomplished at a point along the shore line, such as a dock.

(b) It is essential that the AEP medical plans and procedures:

(i) Coordinate with and integrated into the local community plan(s).

(ii) Describe how the designated medical facilities and personnel are notified of the accident.

(iii) To the extent practical, provide for medical services including transportation and medical assistance for the maximum number of persons that can be carried on the largest air carrier aircraft that the airport reasonably can be expected to serve. The plan should list the type aircraft and capacity.

(iv) Provide an inventory of personnel and equipment, including contact information, of those rescue squads, ambulance services, military installations, and government agencies on the airport or in the communities it serves, that agree to provide medical assistance or transportation.

(v) Designate a Medical Coordinator who should assume command of emergency medical operations at the accident site whose responsibilities, in coordination with the Medical Transportation Officer, may include:

a) Verify that mutual aid medical and ambulance services have been alerted and verify their subsequent arrival at the designated Staging Area.

b) Organize the necessary action for triage and treatment of the casualties and their eventual evacuation to a health care facility.

c) Arrange for restocking of medical supplies, if necessary.

d) Provide medical analysis of the walking wounded or traumatized.

(vi) Designating a Medical Transportation Officer whose responsibilities may include:

a) Ensuring that hospitals and medical personnel have been notified of the emergency.

b) Directing transportation of casualties to health care facilities suited for the particular injury.

c) Accounting for casualties by recording casualty's name, destination health care facility, and transporting agency.

d) Advising hospitals when casualties are enroute.

(2) Hospitals. The plan should include:

(a) The name, location, emergency capacity, and contact information of each hospital and other medical facility on the airport and in the communities it serves agreeing to provide medical assistance or transportation.

(b) The distance of each hospital from the airport and the ability to receive helicopters.

(c) Where practical, provisions for the hospital(s) to communicate through a central control point to facilitate the distribution of the critically injured.

j. **Resource Management**. The plan should include provisions for identifying agencies and contractors that could be involved in aircraft removal and/or clean-up of any hazardous materials associated with the emergency.

SECTION 9. CROWD CONTROL

7-9-1 INTRODUCTION. Crowds of people may assemble at the airport for many reasons, including civil unrest, peaceful assembly or the result of an accident or natural disaster. In either event, a crowd could inadvertently or deliberately disrupt airport operations.

7-9-2 PURPOSE. The information contained in this hazard-specific appendix is intended to supplement the Basic Plan and Functional Annexes of the AEP. It defines responsibilities and describes actions to be taken in the event a crowd control incident or problem occurs. Further, this document, in conjunction with the Basic Plan and Functional Annexes, forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

7-9-3 SITUATION AND ASSUMPTIONS.

a. **Nature of assembly**. The purpose and mental attitude of the assembly may vary considerably. The arrival or departure of popular public figures may attract crowds who will, in most cases, be good-natured and easily controlled. The arrival or departure of more controversial persons may draw groups that are hostile and prone to disorderly conduct.

b. **Peaceful assembly at the airport**. Peaceful assemblies often are impromptu, particularly if a VIP is suddenly recognized. The following are a partially listing of peaceful assemblies that may happen at an airport:

(1) Arrival or departure of VIPs, celebrities, athletes, or other public or elected figures

(2) A welcoming reception given by a new carrier to the terminal

(3) Community air shows and static displays of aircraft for public viewing

(4) Aircraft incidents and accidents

c. **Disruption for Hostile Reasons**. There are circumstances that bring people to the airport to protest, voice dissatisfaction or vent their anger. Such circumstances may stimulate deliberate attempts to interfere with operations or to commit sabotage – for instance:

(1) Arrival of a controversial person or group

(2) A period of civil unrest nationally, regionally, or locally

(3) A period of serious international tension

(4) Labor/union supported strikes

7-9-4 OPERATIONS. This section should describe actions to be taken if a crowd control incident should occur at the airport. Topics to be covered include:

a. A list of mutual aid agreements relative to crowd control situations

b. Criteria for activation of the EOC

c. A description of the crowd control incident response and recovery actions and procedures of airport personnel

7-9-5 ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES. Some examples might include:

a. **Airport Traffic Control Tower (ATCT)**. In accordance with the letter of agreement:

(1) Provide relevant information and directions to aircraft operators.

(2) Provide necessary air and ground traffic control support for emergency response activities.

b. **Airport Operator**.

(1) Friendly Crowds. In some situations, airport operators know in advance that a situation is likely to bring friendly crowds to the airport. Through proper planning and experience, appropriate steps may be taken to minimize the effort required to control a friendly crowd.

(2) Hostile Assemblies. For hostile situations, it is difficult to determine in advance the degree of disturbance that may result at the airport. Therefore, before any specific steps are taken to increase security, intelligence information, which has been received from all reliable sources, must be evaluated. With that input, operators can make decisions concerning the kind and extent of security measures to take.

(a) Intelligence. Typically there is advance warning or lead time with the assembly of large crowds. In times of civil disorder or international tension, airport operators should be especially alert to dissidents. While trained saboteurs will operate with great secrecy, untrained dissidents usually talk, threaten, or boast, and their plans either become known in detail or can be predicted.

(b) Briefings. If appropriate, airport operators should brief air carrier representatives and other tenants on the actions airport security will take to deal with the anticipated demonstration. The briefing should specify the actions that the airport operator, other agencies, and tenants should take to insure both the safety of the public and continued operation of the airport.

(c) Vulnerable locations. The following locations are potentially vulnerable:

(i) Apron entrances and exits. All apron entrances and exits should be closed. One entrance or exit may be kept open depending upon the degree of security required. A security guard with radio communications will be stationed at access and other critical points for surveillance.

(ii) Fuel farms. If an assembly is anticipated to be hostile, fuel farms should be secured until the period of expected violence and the potential for a fire hazard has passed.

(iii) Areas between parking lots and terminals. It is advisable to control the automobile parking lots and the pathways between the lots and the terminal(s).

(d) Lighting. Lighting should be provided around buildings that house critical facilities. At entrance gates, the lighting should be bright enough to permit guards to identify persons

and inspect identification cards. Controls and power sources should be installed where they are inaccessible to unauthorized persons. Floodlights mounted on airport emergency or service vehicles may be used for patrolling fences in times of disorder. Authorized personnel should regularly check that field, ramp, taxiway, terminal, and roadway lighting is functioning properly. Portable floodlights may be used to provide positive surveillance capability at those areas used on an infrequent or temporary basis.

(e) Building and apron security.

(i) Emergency entrances. All apron emergency entrances should be secured.

(ii) Gates. Gates should be locked except during actual enplaning and deplaning operations. In critical areas, guards should be posted. Only properly identified and authorized persons such as air carrier personnel, owners or pilots of general aviation aircraft on the field, airport staff, security, emergency response personnel, and passengers should be permitted to pass through check points.

(iii) Alarm systems. Alarm system specifications have been developed by various manufacturers. Information on any installed alarm system should be closely controlled.

c. **Firefighting and Rescue**. Observe law enforcement problems closely for possible development into fire problems; the time interval between law enforcement and fire problems may be a matter of an hour or days.

d. **Law Enforcement/Security**.

(1) Assume primary responsibility for crowd control actions.

(2) Give due consideration to the rights of individuals and the protection of private property.

(3) Coordinate with mutual aid organizations, as necessary.

(4) Augment security forces if intelligence reports and type of demonstration warrant.

e. **Emergency Medical Services**. Monitor the situation and provide services as required. For anticipated large crowds, an airport should set up extra first aid, medical booths, and have ambulances standing by.

f. **Airport Tenants**. Tenant security should be increased commensurate with the anticipated problem. All office doors should be closed and, if practical, locked when tenant employees are working inside. During off-duty hours, all doors should be locked.

7-9-6 ADMINISTRATION AND LOGISTICS. This section of the document should cover those general support requirements specific to crowd control incidents.

7-9-7 PLAN DEVELOPMENT. This section should identify who is responsible for coordinating revisions of the Crowd Control Appendix, keeping its attachments current, and ensuring that SOPs and checklists are developed and maintained.

7-9-8 AUTHORITIES AND REFERENCES. This section should identify any bomb threat-specific statutes, regulations, MOUs, etc. that are applicable.

7-9-9 UNIQUE PLANNING CONSIDERATIONS. This section contains a listing of the functional annexes that would typically require the preparation a hazard-specific appendix for crowd control incidents. It identifies many of the unique and/or planning considerations that should be identified by the AEP Planning Team.

a. **General.** For the most part, the primary planning role of the airport operator will be to coordinate the planning, response, and recovery efforts with local law enforcement agencies.

b. **Command and Control**. For this hazard, law enforcement should assume the lead.

(1) It is recommended that an ICS be used for on-scene management of response activities. A description of ICS is found in Chapter 6, Command and Control.

(2) Response Actions. Provisions should be made, as appropriate, to describe the on-scene management structure and address the following planning considerations in one or more appendices to a Command and Control Annex:

(a) Procedures used to identify the validity of the threat.

(b) ICS to be used at crowd control incidents on the airport.

c. **Emergency Public Information**. The following planning considerations should be addressed, if appropriate, in one or more appendices to an EPI Annex:

(1) Methods used, prior to emergencies, for educating airport personnel about potential crowd control incidents.

(2) Role and organizational position of the airport public relations officer during a crowd control incident.

d. **Firefighting and Rescue**. Fire Department apparatus should be deployed to pre-identified dispersal locations throughout the airport and will be readily available to respond as required.

e. **Resource Management**.

(1) At the onset of any given airport emergency, important support personnel and equipment, including key airport employees, may be located off the airport. Therefore, the AEP Planning Team should consider the following:

(a) Airport access roads may be closed and/or traffic/access control established to prevent entry by unauthorized personnel. Procedures should be developed that will provide for the timely access to the airport by response personnel, including designated airport employees who may be off the airport at the time of the incident.

(b) Response to many emergencies, particularly those involving aircraft, often attract emergency responders from a wide geographic area. Many of these responders, while well-intentioned, do not have an official role in the planned response effort and can create a significant resource management problem.

(2) The AEP Planning Team should provide for resource management during plan development. Planning elements to be considered include:

(a) The development of an official emergency responder identification pass/badge/card to be distributed to airport response personnel.

(b) The designation of a remote staging area for those emergency response personnel who do not have a designated role in the AEP.

(c) Coordination of these pro-visions with the local Emergency Management Agency (EMA).

(d) Dissemination of the information contained in these planning elements through community emergency responder training programs and emergency management newsletters.

7-9-10 SOPS AND CHECKLISTS. The following provides some examples of the types of information that may be included in functional SOPs and checklists:

a. **During the Emergency (Response)**. The degree of response will depend upon the nature of the assembly, i.e. a friendly vs. a hostile crowd.

b. **After the Emergency (Recovery)**. If needed, checklists may be developed for return to normal operations (e.g. cancel any NOTAMs that may have been issued).

APPENDIX 1. AIRPORT/COMMUNITY HAZARDS ANALYSIS PROGRAM

Disasters are becoming more frequent and more complex. Technology is constantly providing new types of problems, particularly in the area of hazardous materials including radiological pharmaceuticals, infectious biohazards and explosives. Many hazardous materials are now being shipped through airports, and in order to deal with this type of environment, airports must have in place a strong, dynamic emergency preparedness program.

The first step in developing a program is to determine planning priorities by systematically identifying and prioritizing the natural and technological hazards that may threaten the airport and its surrounding community. This is accomplished through the completion of a hazards analysis. It is important to remember that every airport/ community is unique. No single hazards analysis applies to all.

Airports certificated under 14 CFR part 139 must ensure that their AEP required by §139.325 contain procedures and instructions for responses to the following potential hazards:

- Aircraft Incidents and Accidents
- Bomb Incidents, including designated parking area(s) for any aircraft involved;
- Structural Fires
- Fuel farm fire or fuel storage areas;
- Natural Disasters
- Hazardous Materials/dangerous goods incidents;
- Sabotage, Hijack, and other Unlawful Interference with Operations
- Failure of Power for Movement Area Lighting , and
- Water Rescue Situations, as appropriate

Because airports play a prominent role in any community, and because community resources are essential in the response to any major disaster, the airport operator must involve local government, emergency management, and emergency service officials in the emergency planning hazards analysis process. Being involved with these agencies will enhance emergency plans, show what plans are already in place, and nurture a strong working relationship with the local community. It will also help airport operators identify potential hazards which are not necessarily located on airport property or otherwise fall outside the jurisdiction of the airport operator, but which are close enough to potentially impact the airport should a problem develop. Examples would be industrial complexes, highways, or railroads nearby which could conceivably be the source of a hazardous materials disaster resulting in the need to alter air traffic routes or to evacuate all or part of the airport.

There are many ways of conducting a hazards analysis, from sophisticated methodologies involving the incorporation of probability values, exposure and vulnerability estimates, to the more simplistic ones. What follows is a hazards analysis program which, while fairly simplistic, should be sufficient for most airports/communities.

It is recommended that a broad-based team approach be used for hazard analysis. In addition to airport employees and tenants, involve representatives from local emergency management, emergency services, hospitals, business and industry, as well as elected officials, the media and anyone who may have a stake in emergency planning, mitigation, response or recovery activities. The more people and diverse organizations involved, the better the results will be.

Before beginning, it is important to familiarize yourself with several terms:

- Hazard: a situation or natural event having the potential for doing damage to life, property, resources, and the environment.

- Analysis: assessment performed to estimate the effects of hazards on the airport/community.

- Probability: the likelihood that a hazard will occur (expressed in terms of a given time frame).

- Response Management Difficulty: the effect of the magnitude and duration of a hazard occurrence on the airport/community's capability to manage response activities.

- Impact-Risk Exposure: the degree to which people, property, or valued activities are susceptible to injury, disruption, or loss of life

- Vulnerability: a broad statistical measure that accounts for the likelihood of hazard occurrence, population susceptibility, and the extent of potentially adverse affects to the community.

- Disaster: a situation that occurs when a hazard becomes active and its effects surpass the airport/ community's tolerance to these effects.

GENERAL PROCEDURES FOR HAZARDS ANALYSIS

Step 1 - Hazards Identification

Start by reviewing the list on the attached Work Sheet. Add or modify as conditions permit. Keep in mind that hazard lists pose two problems. The first is the possibility of exclusion or omission; there is always a potential for new and unexpected hazards (which is why maintaining an all-hazard capability is important). The second is that such lists involve groupings, which can affect subsequent analysis. A list may give the impression that hazards are independent of one another, when in fact they are often related (e.g. an aircraft crash might also initiate a major structure fire; or an earthquake might involve building or bridge failures).

Step 2 - Probability Rating

Probability is the number of chances per year that an incident of a specific or greater size will occur. This can be based on historical factors, experience, and to some degree, scientific reasoning. In this category, estimate frequency and apply the following scoring system:

0 Points - Not possible in our community (volcanic eruption in Manhattan)

1 Point - It is possible, but probably won't happen

2 Points - It will probably happen, but not very often

3 Points - It is possible and is likely to happen

Step 3 - Response Management Difficulty Rating

This step is mainly concerned with the magnitude and duration of the hazard occurrence, the airport / community's capabilities to direct and control response activities, and the effects of time on those activities. For example, a long term incident such as extensive flooding or an earthquake would tax resources more than a multi-vehicle accident. Also, since some incidents (such as flooding or an earthquake) cover wide geographic areas, local community emergency response assistance to the airport may be very limited; the airport may be more on its own in terms of response and recovery. This where it is important to have the local community involved in the process in order that mutually agreeable priorities regarding resource utilization may be established as a part of the planning process. Another example would be an aircraft accident on the airport may be easier to handle than if the same incident would occur off the airport in the water or rough terrain. The scoring system for this step is as follows:

0 Points - Absolutely no problem, routine

1 Point - Can be managed with local resources

2 Points - Would require assistance from local communities

3 Points - Would require considerable support from state and federal agencies

Step 4 - Vulnerability Factor

The vulnerability factor is determined by adding the points across the row of categories (Probability Rating plus Response Management Difficulty equals Vulnerability Factor) for each hazard. Write the total in the Vulnerability Factor column.

Step 5 - Ranking the Hazards

All completed work sheets should be collected and an average Vulnerability Factor for each hazard calculated. A list should then be developed ranking the hazards from the highest score to the lowest. This will provide rankings and help you determine which hazards pose the greatest threat to the airport / community and, therefore, where to place planning and resource priorities. Threshold score may be developed. From a planning standpoint, scores above this threshold will provide data for planning, and scores falling below may be disregarded.

Summary

The completed Hazards Vulnerability Analysis can be used to:

- Develop planning priorities;
- Develop hazard maps;
- Educate emergency response personnel, elected officials and other decision-makers, as well as the general public;
- Develop realistic plans and resource management strategies; and
- Prepare mitigation programs.

As previously stated, this program is very simplistic. There may be certain identified hazards for which a more detailed analysis is appropriate. It is also recommended that the analysis be accomplished at regular intervals to accommodate changing situations and technologies.

Table A1 - 1. Hazards Vulnerability Analysis Work Sheet

HAZARDS VULNERABILITY ANALYSIS WORK SHEET			
Hazard	**Probability**	**Response Difficulty**	**Vulnerability Factor**
Aircraft accident - off airport			
Aircraft accident - on airport			
Aircraft accident - rough terrain			
Aircraft accident - water			
Boating accident			
Bomb threat/found			
Bridge collapse			
Building collapse			
Civil disturbance			
Communications system failure			
Computer system failure			
Dam/levee failure			
Drought			
Earthquake			
Epidemic, disease			
Fire - major structure			
Fire - brush, forest, prairie			
Flood			
Food poisoning - extensive			
Fuel shortage			
Hazardous materials incident			
Hostage situation (non-terrorist)			
Hurricane			
Labor problems - serious			
Landslide			
Lost person(s)			

HAZARDS VULNERABILITY ANALYSIS WORK SHEET			
Hazard	**Probability**	**Response Difficulty**	**Vulnerability Factor**
Mass casualty incident			
Natural gas outage			
Nuclear attack			
Nuclear facility incident			
Pollution - air			
Pollution - water			
Power failure			
Radiological Incident			
Rapid transit accident			
Sandstorm/Dust storm			
Sewer explosion			
Sewer system failure			
Ship incident - harbor			
Terrorist			
Tornado			
Train accident - freight			
Train accident - passenger			
Tsunami (tidal wave)			
Vehicular accident - major			
Volcano eruption			
Water supply failure			
Winds - damaging			
Winter storm - severe			

APPENDIX 2. AIRPORT EMERGENCY PLAN REVIEW CHECKLIST

INTRODUCTION

AIRPORT OPERATOR (CERTIFICATE HOLDER)

The following checklist is intended to be a guide for those certificated airports which are tasked with developing an Airport Emergency Plan (AEP). To assist in the development of the AEP, as well as the review and approval process by the FAA, the airport operator should complete tl page reference column on the checklist and submit it with the AEP.

NOTE: *The letters and numbers contained in parentheses on the checklist are references to the appropriate requirements found in §139.325.*

AIRPORT CERTIFICATION AND SAFETY INSPECTORS (ACSI)

The following checklist in Table A2-1 is intended to be a guide for the ACSI during the review and approval of the Airport Emergency Plan (AEP). He/she is required to ensure that all elements of checklist are properly addressed within the AEP and documented on the checklist. Any elements which are not properly addressed should be referred back to the airport operator.

NOTE: *This checklist is based on Part 139 not the NIMS.*

Table A2 - 1. Airport Emergency Plan Review Checklist

Inspector: _____ Airport: _____ Date: _____

Incident & Action	**Aircraft incidents and accidents**	**Bomb incidents**	**Structural fires**	**Fuel farm fire or fuel storage areas**	**Natural disasters**	**Hazardous materials/ dangerous goods incidents**	**Sabotage, hijacking incidents**	**Airfield Power Failure**	**Water rescue situations**
A. Plans									
1. Largest air carrier type (c)(1)[7]	X[8]								
2. Identification of response agencies/personnel	X	X	X	X	X	X	X	X	X
a) Hospitals/Medical Facilities	X								
(1) Name (c)(2)	X								
(2) Location (c)(2)	X								
(3) Telephone # (c)(2)	X								
(4) Emergency capacity (c)(1)	X								
b) Medical personnel (doctors, nurses, etc.)	X								
(1) Business Address (c)(2)	X								
(2) Telephone # (c)(2)	X								
c) Rescue squad, ambulance service, military installation, government agency	X	X	X						X
(1) Name (c)(3)	X	X	X	X	X	X	X		
(2) Location (c)(3)	X	X	X	X	X	X	X		
(3) Telephone # (c)(3)	X	X	X	X	X	X	X		
d) Law Enforcement (c)(6)	X	X	X	X	X	X	X		
e) Rescue and Firefighting	X	X	X	X	X	X	X		
(1) Name (c)(3)	X	X	X	X	X	X	X		

[7] **NOTE:** The letters and numbers contained in parentheses on the checklist are references to the appropriate requirements found in Part 139.325.

[8] "X" indicates actions related to specific incidents.

Incident & Action	**Aircraft incidents and accidents**	**Bomb incidents**	**Structural fires**	**Fuel farm fire or fuel storage areas**	**Natural disasters**	**Hazardous materials/ dangerous goods incidents**	**Sabotage, hijacking incidents**	**Airfield Power Failure**	**Water rescue situations**
(2) Location (c)(3)	X	X	X	X	X	X	X		
(3) Telephone # (c)(3)	X		X	X	X	X	X		
f) Principle tenants (including air carriers and Control Tower)	X		X	X	X	X	X		
(1) Name (c)(3)	X		X	X	X	X	X		
(2) Telephone # (c)(3)	X		X	X	X	X	X		
g) Equipment inventory	X	X	X	X	X	X	X		
(1) Surface vehicles/aircraft to transport injured/ deceased	X	X	X	X	X	X	X		
(2) Hangars/buildings to accommodate uninjured, injured, and deceased (c)(5)	X	X	X	X	X	X	X		
(3) Designated parking area – Bomb/hijacking Incident		X					X		
h) Removal of disabled aircraft agencies (responsibilities or capabilities)	X								
(1) Name (c)(7)	X								
(2) Location (c)(7)	X								
(3) Telephone # (c)(3)	X								
i) Agreements (c)(2,3,6)	X	X	X	X	X	X	X		
j) Communications network (a)(1)	X	X	X	X	X	X	X		
k) Plan Coordination (g)(1)	X	X	X	X	X	X	X		
l) Plan development (g)(2)	X	X	X	X	X	X	X		
m) Training (airport personnel only) (g)(3)			X	X	X	X	X		
n) Annual review (g)(4)		X	X	X	X	X	X		
o) Triannual full scale exercise (h)	X								

Incident & Action	**Aircraft incidents and accidents**	**Bomb incidents**	**Structural fires**	**Fuel farm fire or fuel storage areas**	**Natural disasters**	**Hazardous materials/ dangerous goods incidents**	**Sabotage, hijacking incidents**	**Airfield Power Failure**	**Water rescue situations**
B. Procedures	X	X	X	X	X	X	X		
1. Injured and uninjured accident survivors	X	X	X	X	X	X	X		X
a) Marshaling (d)(1)	X								
b) Transportation (d)(1)	X								
c) Care (d)(1)	X								
2. Removal of disabled aircraft (d)(2)	X								
3. Emergency alarm systems (d)(3)	X	X	X	X	X		X		X
4. Airport/Control Tower emergency action coordination	X	X	X	X	X	X	X	X	X
5. Notification of support agencies	X	X							X
a) Hospitals/Medical facilities (e)	X	X	X	X	X	X	X		X
b) Medical personnel (e)	X	X	X	X	X	X	X		X
c) Rescue squad, ambulance services, military installation, government agency (e)	X	X	X	X	X	X	X		X
d) Crowd control agencies (e)	X	X	X	X	X	X	X		
e) Disabled aircraft removal agencies (e)	X								
6. Water rescue (f)	X								X
a) Sufficient water rescue vehicles (f)	X								X
REMARKS									

APPENDIX 3. AIRPORT EMERGENCY PLAN ACCIDENT/EXERCISE EVALUATION CHECKLIST

INTRODUCTION

The Checklist that follows is intended to be a guide for those individuals tasked with planning for, or evaluating, airport Emergency Operations Plan accidents/drills and exercises. The FAA encourages airport operators to critique each accident that takes place on their airports within 60 days after each accident involving an air carrier.

In planning for a full scale exercise, the minimum number of "casualties" to be used should be based on the following:

Airport Index	*Minimum # "Casualties"*	
A	20	- 30
B	40	- 50
C	60	- 70
D	80	- 90
E	100 or more	

When evaluating the response for aircraft accident provide a summary of the accident and information about the conditions at the time of the accident.

Date/time of the accident:	Location:
Description of the accident:	
Weather: Ceiling/Visibility Wind velocity & direction	Surface Conditions:

Table A3 - 1. Exercise Evaluation Checklist

Airport Name:_____

Date:_____

Review Item	**Yes ( )**	**No ( )**	**N/A ( )**	**N/O ( )**
I. Pre-exercise activities				
A. Was an exercise planning committee established?				
B. Were drills/tabletops conducted in preparation for the full scale exercise?				
C. Were exercise objectives developed?				
1. Did they adequately test the emergency plan?				
2. Were they realistic?				
3. Were they measurable?				
4. Were they coordinated with participating agencies?				
D. Was a scenario developed?				
1. Was it realistic?				
2. Was there a time line?				
3. Did the scenario support the objectives?				
E. Was the site satisfactory?				
1. If no, explain: _____ _____				
F. Were evaluators assigned?				
1. Were there enough?				
2. Were they qualified?				
3. Were they trained?				
4. Was an evaluation checklist provided?				
G. Were exercise safety guidelines established?				
1. Did they include:				
a) An emergency termination procedure?				
b) A code word for individuals in the event an actual injury occurs?				
2. Was there a safety briefing for all participants?				
3. Briefly describe the termination procedure. _____				
H. Were liability issues addressed in advance?				
I. Was advance notice of the exercise given to:				
1. the public?				
2. the media?				
3. airport tenants?				
J. Were there exercise controllers?				
1. Were there enough?				
2. Were they qualified?				
3. Were they trained?				
K. “Casualties”				
1. Was there a sufficient number?				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
a) Number of "injured" _____				
b) Number of "uninjured" _____				
c) Number of "deceased" _____				
2. Were they briefed on responsibilities?				
3. Were they given a safety briefing?				
4. Were they moulaged?				
5. Were adequate sanitary facilities available?				
6. Was food/drink available?				
7. Was there a "casualty" accountability/tracking plan?				
8. Was first aid available?				
9. Were there comfort provisions for inclement weather?				
L. Spectators				
1. Were there adequate provisions for viewing the exercise?				
2. Were they given a safety briefing?				
3. Were they adequately controlled?				

REMARKS:

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
II. Exercise Activities				
A. Personnel Mobilization				
1. Describe initial exercise activation procedure: _____				
a) Note time exercise commenced: _____				
2. Indicate mobilization procedure(s) for on-airport response personnel: ___Pager ___Radio Call ___Telephone Call List ___Alarm System ___Other_____				
a) Note time mobilization commenced:				
b) Note time first unit arrived on scene:				
3. Indicate mobilization procedure for off-airport response personnel: ___Pager ___Radio Call ___Telephone Call List				
___Other				
a) Note mobilization time commenced: ___				
b) Note time first units/personnel arrived at the scene/staging area: _____				
c) Describe who made the notifications: _____				
d) Were contacts made in accordance with established plans/procedures?				
4. Were contact lists current and complete?				
5. Was there a system to track responding agencies/personnel?				
a) Describe the system: _____ _____ _____ _____				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
6. Did all agencies called for in the scenario respond?				
a) If not, who was missing: _____ _____ _____				

REMARKS:

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
B. Direction and Control				
1. Was an individual in charge?				
a) If yes, Name:_____ Title:_____				
(1) Did this individual provide effective leadership?				
(2) Was this individual readily identifiable? If yes, describe how:				
2. Was decision-making coordinated with key staff?				
3. Was decision-making coordinated with other participating agencies?				
a. Air Traffic Control				
(1) Communications				
(2) Notification				
(3) Operational control				
(4) Guidance				
4. Were periodic briefings held?				
5. Was a copy of the emergency plan/procedures available?				
a) Were they current?				
b) Were they used?				
6. Was an Incident Command System (ICS) used?				
a) If yes, was it effective?				
7. Were there any direction and control problems? If yes, describe:_____ _____ _____				
REMARKS:				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
C. Communications				
1. Identify the systems used: Radio ____Fire/EMS Net ____Police Net ____Ground Control ____Airport ____Emergency Management ____Air/ground ____Amateur Radio ____Other ____Discrete Emergency Frequency[9] Telephone ____Commercial _____Cellular ____Computer links ____Other ____Facsimile				
2. Was there a common dedicated frequency for managing the emergency?				
a) If no, should there be one?				
3. Could the primary communications system(s) handle the flow of information with undue delay?				
4. Were back-up systems available?				
a) Were they demonstrated?				
5. Were communications protocols for information gathering/dissemination developed?				
a) If yes, were they properly used?				
b) If no, should they be developed?				
6. Was there a message flow system for incoming/ outgoing messages?				
a) Were copies of all messages kept?				
7. Were messengers used in high noise areas?				
8. Were there any communications problems? If yes, describe: _____ _____ _____				
REMARKS:				

N/A = Not Applicable N/O = Not Observed

[9] See AC 150/5210-7, *ARFF Communications*

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
D. Facilities, Equipment, and Displays				
1. Was a mobile command post established?				
a) Was it easily identifiable?				
b) Was it properly equipped?				
(1) Was adequate communications equipment available?				
(2) Was a copy of the emergency plan/ procedures available?				
(a) Were they current?				
(b) Were they used?				
2. Was an Emergency Operations Center (EOC) established?				
a) Was it properly equipped?				
(1) Were adequate communications available?				
(2) Was a copy of the emergency plan/ procedures available?				
(a) Were they current?				
(b) Were they used?				
b) Was access controlled?				
c) Was back-up power available?				
d) Were maps and status boards available?				
(1) Were they prominently displayed?				
e) Was a computer used in support of the emergency operation?				
(1) If yes, describe how: _____ _____				
f) Was a log of events/actions taken maintained?				
3. Was there a remote staging area for vehicles (ambulances/buses, etc.)				
a) If yes:				
(1) How many were there? _____				
(2) Was each readily identifiable?				
(3) Was each one adequate in terms of:				
(a) Location?				
(b) Size?				
(c) Ingress/egress routes?				
(4) Was there an individual in charge of the staging area?				
(a) If yes, was this individual readily identifiable? If yes, describe how: _____				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
(5) Were adequate communications available?				
(6) Was the flow of vehicles to the scene from the staging area adequately controlled?				
(7) Did drivers remain with their vehicles at all times?				
b) If no, is a transportation staging area needed?				
4. Was there a staging area for support aircraft (helicopters, fixed wing)?				
a) If yes:				
(1) How many were there? _____				
(2) Was each readily identifiable?				
(3) Was each one adequate in terms of:				
(a) Location?				
(b) Size?				
(c) Ingress/egress routes?				
(4) Was there an individual in charge of the staging area				
(a) If yes, was this individual readily identifiable? If yes, describe how: _____				
(5) Were adequate air/ground communications available?				
b) If no, is an aircraft staging area needed?				
5. Was there a staging area for personnel				
a) If yes:				
(1) How many were there? _____				
(2) Was each readily identifiable?				
(3) Was each one adequate in terms of:				
(a) Location?				
(b) Size?				
(c) Ingress/egress routes?				
(4) Was there an individual in charge of the staging area				
(a) If yes, was this individual readily identifiable? If yes, describe how: _____				
(5) Were adequate communications available?				
b) If no, is a personnel staging area needed?				
REMARKS:				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
E. Emergency Response				
1. Aircraft Rescue and Firefighting (ARFF)				
a) Identify how they were notified about the emergency: ___Alarm system ___Telephone ___Radio ___Other_____				
b) Was their response timely?				
Identify the first unit to arrive: ____ Time first unit arrived:_____ Time last unit arrived:_____				
c) Did all designated units arrive at the scene?				
(1) If no, explain:				
d) Was their response effective and accomplished in accordance with established procedures?				
e) Was the ARFF IC able to communicate with the Flight Crew?				
f) Was the Desecrate Emergency Frequency used?				
g) Were ARFF personnel properly equipped?				
h) Was all proper protective gear worn?				
i) Was an individual clearly in charge?				
(1) Was this individual readily identifiable? Describe how: _____				
i) Was the situation properly assessed?				
j) Was a passenger manifest available?				
k) Was a cargo manifest available?				
(1) Were any hazardous materials involved? If yes, Describe: _____				
(a) Were they properly handled?				
i) Were preservation of evidence rules followed? ___Notes/diagrams ___Pictures ___Video ___Other _____				
j) Were uninjured “casualties” directed to safe areas?				
k) Were ARFF personnel able to reliably communicate with:				
(1) the Command Post/EOC?				
(2) each other?				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
2. Medical Assistance				
a) Hospitals, medical facilities				
(1) Did any participate in the exercise?				
(a) If yes, list: _____ _____ _____				
(2) Were they given regular status reports?				
(a) If yes, By whom? _____				
(b) How? _____				
(3) Could they communicate with:				
(a) the Command Post/EOC?				
(b) transport units?				
b) Medical personnel (doctors, nurses)				
(1) Did any medical personnel participate in the exercise at the scene?				
(a) If yes, Approximate number of doctors:___				
(b) Approximate number of nurses:___				
(c) Did they arrive in a timely manner? Time first medical person arrived:____				
(d) Were they familiar with their responsibilities under the emergency plan/procedures (where to go/what to do)?				
(e) Was an individual in charge?				
(f) Was this individual readily identifiable? Describe how: _____				
(g) Could this individual communicate with: _____				
(i) the Command Post/EOC?				
(ii) the hospital(s)				
c) Rescue squads, ambulance services				
(1) Did any rescue squads, ambulance services				
(a) Were they familiar with their responsibilities under the emergency plan/procedures (where to go/what to				
(b) Was an individual in charge?				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
(d) Was the individual readily identifiable? Describe how:_____				
(e) Could this individual communicate with:				
(i) the Command Post/EOC?				
(ii) the hospital(s)?				
(iii) field personnel?				
(iv) other agencies? Identify:_____ _____				
b) Were there adequate emergency medical supplies?				
c) Were the injured transported from the scene? Time started:_____				
(1) By what means? _____				
(2) To what location? _____				
(3) Was there an accountability system for the uninjured (who went where)? Describe:_____				
d) Was a triage system used?				
(1) If yes, Was it set up effectively?				
(2) Were triage tags used?				
(3) Were “casualties” properly classified?				
e) Were injured “casualties” segregated from uninjured and deceased?				
f) Were the injured “casualties” safely and efficiently moved from the scene to a staging area?				
(1) Was the area readily identifiable?				
(a) If yes, describe how:_____				
b) Were there sufficient trained personnel on hand to move the “casualties” in a timely manner?				
c) Was there sufficient equipment available to safely and efficiently move the “casualties”? Describe: ___Backboards ___Stretchers ___Other_____				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
d) Were the "casualties" transported from the staging area in a safe, timely and orderly manner? Time first "casualty" transported:_____				
e) Was there an accountability system for the injured (who went where)? Describe: _____ _____				
f) Were drivers provided with maps to hospitals				
3. Coroner				
a) Did the Coroner's office participate in the exercise?				
(1) If yes, Did they arrive in a timely manner?				
(2) Were they familiar with their responsibilities under the emergency plan/procedure (where to go/what to do)?				
(3) Was an individual in charge?				
(4) Was this individual readily identifiable? Describe how: _____				
(5) Could this individual communicate with:				
(a) the Command Post/EOC?				
(b) the morgue?				
(c) other agencies?				
(6) Was a temporary morgue established?				
(a) Location: _____ _____				
(7) Were adequate measures taken to mark the location of "dead" before they were moved?				
(8) Were preservation of evidence rules followed? ___Notes/diagrams ___Pictures ___Video ___Other _____				
4. Clergy/Critical Incident Stress Personnel				
a) Did any clergy/critical incident stress personnel participate in the exercise?				
(1) If yes:_____ Approximately how many? _____				
(2) Did they arrive in a timely manner?				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
(3) Were they familiar with their responsibilities under the emergency plan/procedures (where to go/what to do)?				
(4) Were they readily identifiable? Describe how: _____				
(5) Was someone designated to observe responders for critical incident stress?				
(6) Was an area away from the site designated as a rest and relaxation area for responders?				
(7) Were responders rotated out of the response area to rest and recuperate from the stress imposed by the accident?				
5. Law enforcement				
a) Did any law enforcement personnel participate in the exercise?				
(1) If yes: Approximately how many: _____				
(2) Did they arrive in a timely manner? Identify the first unit to arrive: _____ Time first unit arrived: _____				
(3) Were they familiar with their responsibilities under the emergency plan/procedure (where to go/what to do)?				
(4) Was an individual in charge?				
(5) Was this individual readily identifiable? Describe how:				
(6) Could this individual communicate with:				
(a) the Command Post/EOC?				
(b) traffic control points?				
(c) access control points/site security?				
b) Was access control/site security established?				
(1) If yes, describe: _____ _____				
c) Were traffic control points established?				
6. Supplementary Assistance				
a) Did off-airport fire companies participate in the exercise?				
(1) If yes, Did they arrive in a timely manner? __ Identify the first unit to arrive:_____ Time first unit arrived:_____				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
(2) Were they familiar with their responsibilities under the emergency plan/procedure (where to go/what to do)?				
b) Did the local emergency management agency participate in the exercise?				
(1) If yes, describe their role: _____ _____				
c) Did any air carriers or other aircraft owners/operators participate in the exercise?				
(1) If yes, Identify: _____				
(2) Were they familiar with their responsibilities under the emergency plan/procedures (where to go/what to do)?				
d) Did any support aircraft (helicopters/fixed wing) participate in the exercise?				
(1) If yes, Did they arrive in a timely manner? Identify the first unit to arrive: _____ Time first unit arrived:_____				
(2) Were they familiar with their responsibilities under the emergency plan/procedures (where to go/what to do)?				
e) Did any other organizations/personnel participate in the exercise?				
(1) If yes, Was it in accordance with established plans/procedures?				
(2) Describe who they were: _____ _____				
REMARKS:				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
F. Public Information				
1. Was the local community informed about the ongoing exercise?				
a) If yes, describe the method used: _____				
2. Was the traveling public informed about the ongoing exercise?				
a) If yes, describe the method(s) used: _____ _____				
3. Were airport tenants informed about the ongoing exercises?				
a) If yes, describe the method used: _____				
4. Were there provisions for handling the media?				
a) If yes, Describe: ___Joint Information Center (JIC) ___Media Center ___Informational briefings ___Other _____				
(1) Was the facility adequately equipped?				
(a) Were sufficient telephone lines available?				
(b) Were status boards and maps displayed?				
(c) Was a public address system available?				
(2) Was an individual clearly in charge?				
(a) Name: _____ Title: _____				
(3) Were representatives from all involved agencies present? Name agencies: _____ _____				
(4) Did the briefer(s) have access to timely and accurate information?				
(5) Identify by name and title those individuals authorized to make press releases: _____ _____				
(6) Were regular briefings held?				
(7) Was the media allowed access to the accident site?				
(a) If yes, describe how access was controlled: _____ _____				

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
G. Exercise Termination				
1. Was the exercise terminated on schedule? Time terminated: _____				
2. Was it clear to all participants when and how the exercise was to be terminated? Describe termination procedure: _____ _____				
3. Were all participants, including "casualties," accounted for?				
4. Was all equipment inventories and accounted for?				

REMARKS:

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
III. Critique				
A. Immediate				
1. Were all participating groups, including the "casualties," assembled immediately after the exercise to solicit their comments?				
a) If yes, were their comments recorded?				
(1) By whom? _____				
(2) Did the critique appear to be productive?				
B. Follow-up Critique				
1. Was a follow-up critique scheduled for a later date?				
C. Evaluators				
1. Was the exercise adequately evaluated?				
2. Were evaluator reports collected and reviewed?				

REMARKS:

N/A = Not Applicable N/O = Not Observed

Review Item	Yes ( )	No ( )	N/A ( )	N/O ( )
IV. Conclusions				
A. Was the scenario followed?				
B. Were the objectives met?				
1. If not, what changes are needed? _____ _____ _____				
C. Were the plans/procedures followed?				
1. If no, explain: _____ _____ _____				
D. Is there a process for putting lessons learned back into the planning process?				
E. Was there any safety problems noted during the exercise?				
1. If yes, describe: _____ _____ _____				
F. Was the exercise an overall success?				
1. If no, explain: _____ _____ _____				
REMARKS:				

N/A = Not Applicable N/O = Not Observed

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APPENDIX 4. DEFINITIONS

There are many different terms which may be specific to emergencies, particularly airport emergencies. The following is intended to provide information relative to the terminology used in the Advisory Circular.

Aircraft Accident – Any occurrence associated with the operation of an aircraft that takes place between the time person boards the aircraft with the intention of flight and the time such person has disembarked, in which a person suffers death or serious injury as a result of the occurrence or in which the aircraft receives substantial damage.

Aircraft Incident – Any occurrence, other than an accident, associated with the operation of an aircraft that affects or could affect continued safe operation if not corrected. An incident does not result in serious injury to persons or substantial damage to aircraft.

Aircraft Operator – A person, organization, or enterprise engaged in, or offering to engage in, aircraft operations.

Airport Operations Area (AOA) – The area of an airport, including adjacent terrain and facilities and their accesses, where movement takes place and access is controlled

Airport Emergency Plan (AEP) – A concise planning document developed by the airport operator that establishes airport operational procedures and responsibilities during various contingencies.

Airside – The movement area of an airport, adjacent terrain, and buildings or portions thereof, access to which is controlled.

Alert I (Local Standby) – An aircraft that is known or suspected to have an operational defect that should no normally cause serious difficulty in achieving a safe landing. This is notification only. No response is required. Al units involved will be manned and will standby in quarters.

Alert II (Full Emergency) – An aircraft that is know or is suspected to have an operational defect that affects normal flight operations to the extent that there is danger of an accident. All units respond to pre-designated positions.

Alert III (Aircraft Accident) – An aircraft incident/accident has occurred on or in the vicinity of the airport. Al designated emergency response units proceed to the scene in accordance with established plans and procedures.

*American Red Cross (*ARC) – A humanitarian organization, led by volunteers, that provides relief to victims o disasters and helps people prevent, prepare for, and respond to emergencies. It does this through services that are consistent with its Congressional Charter and the Principles of the International Red Cross Movement.

Common Operating Picture – Offers an overview of an incident thereby providing incident information enabling the IC/UC and any supporting agencies and organizations to make effective, consistent, and timely decisions.

Common Terminology – Normally used words and phrases—avoids the use of different words/phrases for same concepts, consistency, to allow diverse incident management and support organizations to work together across a wide variety of incident management functions and hazard scenarios.

Community – A political entity which has the authority to adopt and enforce laws and ordinances for the area under it jurisdiction. In most cases, the community is an incorporated town, city, township, village, or unincorporated area of a county. However, each state defines its own political subdivisions and forms of government.

Command Post (CP) – A point where responding agencies are briefed on the situation as they arrive to report and assume control of the individual aspects of the operation.

Contamination – The undesirable deposition of a chemical, biological, or radiological material on the surface o structures, areas, objects, or people.

Damage Assessment – The process used to appraise or determine the number of injuries and deaths, damage to public and private property, and the status of key facilities and services such as runways, taxiways, navigational aids, control tower, water and sanitation systems, communications networks, utilities, and other infrastructure networks resulting from a man-made or natural disaster.

Decontamination – The reduction or removal of a chemical, biological, or radiological material from the surface of structure, area, object, or person.

Disaster – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, and/or multiple injuries. As used in this Advisory Circular, a "large-scale disaster" is one that exceeds the capability of the airport and local communities and requires state, and potentially, federal involvement.

Earthquake – A sudden slipping or movement of a portion of the earth's crust, accompanied and followed by a series of vibrations.

Ground motion: Vibration and shaking of the ground during an earthquake causes the most damage to buildings, structures, infrastructure, etc.

Ground surface fault rupture: The ground shaking is the result of a rupture of a fault beneath the surface which may result in a surface opening of up to 20 feet.

Liquefaction: The ground temporarily loses it strength and behaves as a viscous fluid (similar to quicksand) rather than a solid.

Tsunamis: Tsunamis are ocean waves produced by an underwater earthquake. These waves can reach 80 feet and can devastate coastal cities and low-lying areas.

Aftershock: An earthquake of similar or lesser intensity that follows the main earthquake.

Epicenter: The place on the earth's surface directly above the point on the fault where the earthquakes rupture began. Once fault slippage begins, it expands along the fault during the earthquake and can extend hundreds of miles before stopping.

Fault: The fracture across which displacement has occurred during an earthquake. The slippage may range from less than an inch to more than 10 yards in a severe earthquake.

Magnitude: The amount of energy released during an earthquake, which is computed from the amplitude of the seismic waves. A magnitude of 7.0 on the Richter Scale indicates an extremely strong earthquake. Each whole number on the scale represents an increase of about 30 times

more energy released than the previous whole number represents. Therefore, an earthquake measuring 6.0 is about 30 times more powerful than one measuring 5.0.

Seismic Waves**:** Vibrations that travel outward from the earthquake fault at speeds of several miles per second. Although fault slippage directly under a structure can cause considerable damage, the vibrations of seismic waves cause most of the destruction during earthquakes.

Emergency – Any occasion or instance—such as a hurricane, tornado, storm, flood, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, fire, nuclear accident, or any other natural or man-made catastrophe—that warrants action to save lives and to protect property, public health, and safety.

Emergency Alert System (EAS) – A digital technology (voice/text) communications system consisting of broadcast stations and interconnecting facilities authorized by the Federal Communication Commission. The system provides the President and other national, state, and local officials the means to broadcast emergency information to the public before, during, and after disasters.

Emergency Medical Services (EMS) – Medical services provided by emergency personnel trained in the administration of medical protocols.

Emergency Operations Center – A protected site from which emergency officials coordinate, monitor, and direct emergency response activities during an emergency.

Emergency Plan – A document that: describes how people and property will be protected in disaster and disaster threat situations; details who is responsible for carrying out specific actions; identifies the personnel, equipment, facilities, supplies, and other resources available for use in the disaster; and outlines how all actions will be coordinated.

Evacuation – Organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.

First responder awareness level – This covers individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying proper authorities of the release. Examples of these individuals on the airport might be Operations personnel conducting inspections, security personnel on patrol, air cargo employees.

First responder operations level – This covers individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Many ARFF personnel have received this level of training.

Flood - A general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal water, unusual or rapid accumulation or runoff of surface waters, or mudslides, mudflows caused by accumulation of water.

Floodplain: Any land area susceptible to inundation by floodwaters from any source.

100-Year Flood: The flood having a one percent chance of being equalled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years.

100-Year Floodplain: The area adjoining a river, stream, or watercourse covered by water in the event of a 100-year flood.

Floodway: The channel of a river or watercourse and the adjacent areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot.

Flood Fringe: That portion of the floodplain outside the floodway that is inundated by flood waters in which encroachment is permissible.

Encroachment: Any man-made obstruction in the floodplain which displaces the natural passage of flood waters.

Surcharge: An increase in flood elevation due to destruction of the floodplain that reduces its conveyance capacity.

Function – Function refers to the five major activities in ICS: Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., the planning function. A sixth function, Intelligence/Investigations, may be established, if required, to meet incident management needs.

General Staff – A group of incident management personnel organized according to function and reporting to the Incident Commander. The General Staff normally consists of the Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief. An Intelligence/Investigations Chief may be established, if required, to meet incident management needs.

Grid Map – A plan view of an area with a system of squares (numbered and lettered) superimposed to provide a fixed reference to any point in the area.

Group – Established to divide the incident management structure into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. Groups, when activated, are located between Branches and resources in the Operations Section.

Hazard – Something that is potentially dangerous or harmful, often the root cause of an unwanted outcome.

Hazard Mitigation – Any action taken to reduce or eliminate the long-term risk to human life and property from hazards. The term is sometimes used in a stricter sense to mean cost-effective measures to reduce the potential for damage to a facility or facilities from a disaster event.

Hazardous Material – Any substance or material that when involved in an accident and released in sufficient quantities, poses a risk to people's health, safety, and/or property. These substances and materials include explosives, radioactive materials, flammable liquids or solids, combustible liquids or solids, poisons, oxidizers, toxins, and corrosive materials.

Hazardous Materials Technician/Specialist – This covers individuals who try to stop the release. This is usually accomplished by members of a local or State-certified Hazardous Materials Response Team.

Hurricane – A tropical cyclone, formed in the atmosphere over warm ocean areas, in which wind speeds reach 74 miles per hour or more and blow in a large spiral around a relatively calm center or "eye". Circulation is counter-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.

Watch: Indication by the National Weather Service that, in a defined area, conditions are favorable for the specified type of severe weather (e.g. flash flood watch, severe thunderstorm watch, tornado watch, tropical storm watch).

Advisory: Hurricane and storm information is disseminated to the public every six hours.

Special Advisory: Information is disseminated when there is significant change in storm-related weather conditions.

Gale Warning: Sustained winds of 35-54 mph and strong wave action are expected.

Storm Warning: Sustained winds of 55-73 mph are expected.

Hurricane Watch: There is a threat of hurricane conditions within 24-36 hours.

Hurricane Warning: A hurricane is expected to strike within 24 hours or less, with sustained winds of 74 mph or more and dangerously high water.

Tropical Disturbance: A moving area of thunderstorms is in the tropics.

Tropical Depression: An area of low pressure, rotary circulation of clouds and winds up to 38 mph is identified.

Tropical Storm: A storm characterized by counterclockwise circulation of clouds and winds 39-73 is brewing.

Tropical Storm Watch: Issued when tropical storm conditions may threaten a specific coastal area within 36 hours, and when the storm is not predicted to intensify to hurricane strength.

Tropical Storm Warning: Winds in the range of 39 to 73 mph can be expected to affect specific areas of a coastline within the next 24 hours.

Identification and Authentication – Individuals and organizations that access the NIMS information management system and, in particular, those that contribute information to the system (e.g., situation reports), must be properly authenticated and certified for security purposes.

Incident – An occurrence or event, natural or manmade, that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wild land and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.

Incident Command System (ICS) – A standardized organizational structure used to command, control, and coordinate the use of resources and personnel that have responded to the scene of an emergency. The concepts and principles for ICS include common terminology, modular organization, integrated communication, unified command structure, consolidated action plan, manageable span of control, designated incident facilities, and comprehensive resource management.

Interoperability – The capability to communicate within and across agencies and jurisdictions via voice, data or video on demand, in real time. *Joint Information Center (JIC)* - A central point of contact for all news media near the scene of a large-scale disaster. News medial representatives are kept informed of activities and events by public information officials who represent all participating agencies that are collected at the JIC.

Logistics Officer (LO) – The person responsible to provide oversight of logistical support activities.

Mass Care – The actions that are taken to protect evacuees and other disaster victims from the effects of the disaster. Activities include providing temporary shelter, food, medical care, clothing, and other essential life support needs to those people that have been displaced from their homes because of a disaster or threatened disaster.

Memorandum of Agreement (MOA) – A written agreement between parties.

Mutual Aid – Reciprocal assistance by emergency services under a predetermined plan.

National Incident Management System (NIMS) – Provides a systematic, proactive approach guiding government agencies at all levels, the private sector, and nongovernmental organizations to work seamlessly to prepare for, prevent, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life or property and harm to the environment.

National Response Framework – A comprehensive, national, all-hazards approach to domestic incident response.

Recovery – The long-term activities beyond the initial crisis period and emergency response phase of disaster operations that focus on returning all systems at the airport to a normal status or to reconstitute these systems to a new condition that is less vulnerable.

Resource Management – Those actions taken by an organization to: identify sources and obtain resources needed to support disaster response activities; coordinate the supply, allocation, distribution, and delivery of resources so that they arrive where and when most needed; and maintain accountability for the resources used.

Significant Body of Water – A body of water or marsh land is significant if the area exceeds one-quarter square mile and cannot be traversed by conventional land rescue vehicles.

Staging Area – A pre-arranged, strategically placed area where support response personnel, vehicles and other equipment can be held in readiness for use during an emergency.

Standard Operating Procedure (SOP) – A set of instructions constituting a directive, covering those features of operations which lend themselves to a definite, step-by-step process of accomplishment. SOPs supplement AEPs by detailing and specifying how tasks assigned in the AEP are to be carried out.

Terrorism – The use of or threatened use of criminal violence against civilians or civilian infrastructure to achieve political ends through fear and intimidation, rather than direct confrontation. Emergency management is typically concerned with the consequences of terrorist acts directed against large numbers of people (as opposed to political assassination or hijacking, which may also be considered “terrorism”).

Tornado – A local atmospheric storm, generally of short duration, formed by winds rotating at very high speeds, usually in a counter-clockwise direction. The vortex, up to several hundred yards wide, is visible to the observer as a whirlpool-like column of winds rotating about a hollow cavity or funnel. Winds may reach 300 miles per hour or higher.

Triage – Sorting and classification of casualties to determine the order of priority for treatment and transportation.

Warning – The alerting of emergency response personnel and the public to the threat of extraordinary danger and the related effects that specific hazards may cause. A warning issued by the National Weather Service (e.g. severe storm warning, tornado warning, tropical storm warning) for a defined area indicates that the particular type of severe weather is imminent in that area.

Watch – Indication by the National Weather Service that, in a defined area, conditions are favorable for the specified type of severe weather (e.g. flash flood watch, severe thunderstorm watch, tornado watch, tropical storm watch).

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APPENDIX 5. ACRONYMS

ACP .....Access Control Point

ADA.....Americans with Disabilities Act

ADFAA.....Aviation Disaster Family Assistance Act of 1996

AOA.....Air Operations Area

ALS.....Advanced Life Support

ANG.....Army/Air National Guard

AC.....Advisory Circular

AEP.....Airport Emergency Plan

ALERT.....Automated Local Evaluation in Real Time

ALPA.....Air Line Pilots Association

AOA.....Air Operations Area

AOC.....Air Operations Coordinator

AMC .....Aircraft Maintenance Coordinator

ARC .....American Red Cross

ARFF .....Aircraft Rescue and Fire Fighting

ARRL.....American Radio Relay League

ASP.....Airport Security Program

ATCT.....Airport Traffic Control Tower

ATIS.....Automatic Traffic Information Service

BLS.....Basic Life Support

CAP .....Civil Air Patrol

CBRNE.....Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives

CHEMTREC.....Chemical Transportation Emergency Center

CFR .....Code of Federal Regulations

CERCLA.....Comprehensive Environmental Response, Compensation and Liability Act

CISM.....Critical Incident Stress Management

DHS .....Department of Homeland Security

DOD.....Department of Defense

DOE .....Department of Energy

DOT .....Department of Transportation

EAS.....Emergency Alert System

EHO .....Environmental Health Officer

EMI .....Emergency Management Institute

EMS .....Emergency Medical Services

EOC .....Emergency Operating Center

EOD .....Explosive Ordnance Team

EOP .....Emergency Operations Plan

EPA.....Environmental Protection Agency

EPCRA.....Emergency Planning and Community Right-to Know Act

EPI .....Emergency Public Information

ERM.....Emergency Response Manager

FAA .....Federal Aviation Administration

FBI .....Federal Bureau of Investigation

FBO.....Fixed Base Operator

FEMA .....Federal Emergency Management Agency

FRC.....Fire Rescue Coordinator

GIS .....Geographic Information System

HAZMAT .....Hazardous Material

HMC .....Health and Medical Coordinator

IAP .....Incident Action Plan

IATA.....International Air Transport Association

IC .....Incident Commander

ICP .....Incident Command Post

ICS .....Incident Command System

ICAO.....International Civil Aviation Organization

IFSTA .....International Fire Safety Training Association

IAW .....In Accordance With

JIC.....Joint Information Center

JNACC .....Joint Nuclear Accident Coordinating Center

LEC.....Law Enforcement Coordinator

LEPC.....Local Emergency Planning Commission

MEOC.....Mobile Emergency Operations Center

MICP.....Mobile Incident Command Post

MNS.....Mass Notification System

MAA .....Mutual Assistance Agreement

MOU .....Memorandum of Understanding

MSDS .....Material Safety Data Sheet

NDMS.....National Disaster Medical System

NFPA .....National Fire Protection Association

NIMS .....National Incident Management System

NOAA.....National Oceanic and Atmospheric Administration

NFIP.....National Flood Insurance Program

NOTAM.....Notice to Airman

NRF.....National Response Framework

NRP.....National Response Plan

NRT .....National Response Team

NTSB .....National Transportation Safety Board

NWS.....National Weather Service

OSHA .....Occupational Safety and Health Administration

PIO .....Public Information Officer

RACES.....Radio Amateur Civil Emergency Service

REACT .....Radio Emergency Associated Communications Team

SAFETY ACT .....Supporting Anti-Terrorism by Fostering Effective Technologies Act of 2002

SARA.....Superfund Amendments and Reauthorization Act

SERC .....State Emergency Response Commission

SOP .....Standard Operating Procedure

SSC .....Service Support Contracts

TSA……Transportation Security Administration

TCP .....Traffic Control Point

UPS .....Uninterruptible Power Supply

USCG .....United States Coast Guard

USDA .....United States Department of Agriculture

USGS .....United States Geological Survey

VIP .....Very Important Persons

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DODI 3025.15, *Military Assistance to Civil Authority (MACA)*

Joint Services Publication 3-28, *Civil Support*

Department of Transportation (DOT)

Department of Transportation: dot.gov

Department of Transportation's (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) *Emergency Response Guidebook*.

Department of Health & Human Services (DHHS)

Department of Health & Human Services: hhs.gov

National Disaster Medical System (NDM)

International Air Transport Association (IATA)

International Air Transport Association (IATA): iata.org

Emergency Response Plan: A Template for Air Carriers; Public Health Emergency, version 1.0, Nov.30, 2005

Dangerous Goods Regulations, *38*th Edition

International Air Transport Association Dangerous Goods Regulations

International Fire Service Training Association (IFSTA)

International Fire Service Training Association (IFSTA): www.ifsta.org

International Fire Service Training Association (IFSTA): *Training Manuals*

Severe Weather Information

Hurricanes:

Hurricane Evacuation Technical Reports.

American National Standards Institute: *Information on Wind Loads*: www.ansi.org

Floodplain information

Earthquakes:

USGS Earthquake Hazards Program

FEMA Earthquake Terms

Modified Mercalli Intensity Scale

FEMA Earthquake Safety Checklist

FEMA Emergency Support Function #9 Urban Search and Rescue Annex

Tornados:

Enhanced Fujita Scale

FEMA Tornado Activity in the United Status

Volcanoes:

USGS Aviation Safety and Volcanoes

USGS Volcano and Hydrologic Hazards

Floods:

FEMA National Flood Insurance Program

FEMA - Flood: Know Your Terms

Miscellaneous:

Jane's Chem-Bio Handbook

Material Safety Data Sheets (MSDS)

CHEMTREC.

Joint Nuclear Accident Coordinating Center (JNACC)

Center for Disease Control and Prevention Emergency Preparedness and Response

APPENDIX 7. SAMPLE MUTUAL AID AGREEMENTS

Sample 1

***ANYTOWN* AIRPORT TRAFFIC CONTROL TOWER AND *ANYTOWN* MUNICIPAL AIRPORT**

LETTER OF AGREEMENT EFFECTIVE: _____

(Date)

SUBJECT: AIRPORT EMERGENCY SERVICE

PURPOSE. The purpose of this agreement is to prescribe procedures to be used, to the extent practicable, in the event of an emergency, actual or potential, on the *Anytown* Airport during the hours that the *Anytown* Airport is operational.

1. CANCELLATION. *Anytown* Airport Traffic Control Tower and *Anytown* Municipal Airport Letter of Agreement dated _____.

2. SCOPE. In the event of an aircraft accident, bomb threat, or other emergency, actual or potential, on or in the vicinity of the *Anytown* Municipal Airport, *Anytown* Airport Traffic Control Tower (ATCT) personnel will alert emergency equipment when any of the following request such action:

a. A specialist on duty in the operating quarters.

b. The pilot of the aircraft concerned.

c. The operator of the aircraft or his/ her representative.

d. A representative of airport management.

The airport will automatically be closed when:

a. Off airport fire equipment responds to any emergency which requires travel on the designated Movement Area.

b. Any aircraft accident or incident, or other emergency, which occurs on, or in the vicinity of, the airport to which airport Aircraft Rescue and Firefighting equipment responds.

NOTE: *The airport operator should insert any additional closure criteria specific to the particular airport in this section.*

The airport will remain closed until ATCT personnel have received authorization from the airport manager or designated representative to open partial or complete areas of the airport. In cases of minor incidents, telephone permission will be allowed.

The type and amount of equipment and number of personnel responding to the emergency will be determined by the Incident Commander. After receiving the notification of the emergency, the personnel operating the equipment will be responsible for handling the emergency.

3. RESPONSIBILITIES.

a. **Airport Traffic Control Tower (ATCT):** It will be the responsibility of *Anytown* Airport Traffic Control Tower personnel to:

(1) Alert emergency response personnel in accordance with established procedures for:

(a) Each of the three types of alert classifications listed below in paragraph 4.a.(1)(a) through (c).

(b) Any other emergency, actual or potential, which comes to the attention of Control Tower personnel.

(2) Test the Crash Phone system daily at 0900. Problems will be reported immediately to the Airport Manager or designated representative.

(3) Assist the airport operator in the development of necessary emergency plans and procedures, as appropriate.

b. **Airport Operator:** It will be the responsibility of *Anytown* Airport personnel to:

(1) Ensure that at least one on-scene individual/vehicle maintains two-way radio communications with the ATCT.

(2) Provide training to emergency response personnel regarding the operation of vehicles on the airport Movement Area, to include the use of two-way radios and standard ATCT light signals.

(3) In coordination with the ATCT, as appropriate, develop and maintain necessary emergency plans and procedures.

4. PROCEDURES.

a. **Aircraft emergencies:**

(1) **Classifications:**

(a) **ALERT I:** Potential minor emergency; equipment not requested at standby positions. Airport not closed unless off airport equipment responds to the designated Movement Area. The ATCT will:

(i) Notify designated emergency response personnel in accordance with established procedures (crash phone, hot line, radio, pager, cell phone, etc.).

(ii) Notify airport manager or designated represented.

(iii) Notify aircraft operator or designated representative, if able.

(b) **ALERT II:** Potential major emergency; aircraft has fire on board, faulty landing gear, no hydraulic pressure, etc. Airport is closed after aircraft lands. The ATCT will:

(i) Notify emergency response personnel in accordance with established procedures (crash phone, hot line, etc.)

(ii) Notify airport manager or designated representative.

(iii) Notify aircraft operator or designated representative, if able.

(iv) Notify fixed base operator, if appropriate.

(v) Provide appropriate ground control clearances to responding emergency vehicles, as needed.

(vi) To the extent practicable, keep other aircraft and ground vehicle operators clear of the area involved in the emergency.

(c) **ALERT III:** Aircraft involved in an actual accident on or near the airport. Airport is closed if on airport or emergency equipment must traverse the airport to reach scene. ATCT will:

(i) Notify emergency response personnel in accordance with established procedures (crash phone, hot line, radio, pager, cell phone, etc.)

(ii) Close the airport.

(iii) Notify airport manager or assistant manager.

(iv) Notify aircraft operator or his or her representative, if able.

(v) Notify fixed base operator, if appropriate.

(vi) Provide appropriate ground control clearances to responding emergency vehicles, as needed.

(vii) Control the movement of aircraft and vehicles on the Movement Area to permit emergency response vehicle access to/from the accident area. The movement of emergency vehicles will take priority over that of taxiing aircraft until the emergency condition has ended.

(2) **Information.** The *Anytown* ATCT will provide the following information to emergency response personnel whenever possible:

(a) Aircraft identification.

(b) Aircraft type.

(c) Nature of emergency.

(d) Estimated time of arrival.

(e) Landing runway.

(f) Number of persons on board (crew and passengers).

(g) Amount of fuel on board.

(h) Type and location of dangerous cargo on board.

(i) Type and location of any animals on board.

(3) **Bomb threat, hijack, dangerous cargo, and other emergencies.** Any time ATCT personnel become aware of an actual or potential situation which may present a threat to the health and safety of the public, the *Anytown* Airport Traffic Control Tower will:

(a) Notify designated emergency response personnel in accordance with established procedures (crash phone, hot line, radio, etc.).

(b) Notify airport manager or designated representative.

(c) Notify aircraft operator or designated representative, if able.

(d) Close the airport to all traffic except the target aircraft.

(e) Direct the target aircraft to the designated search area.

(f) Standby to assist in communications, if requested.

(g) Control the movement of aircraft and vehicles on the Movement Area to permit access to/from the designated search area. The movement of emergency vehicles will take priority over that of taxiing aircraft until the emergency condition has ended.

Original signed by:

Chief, *Anytown* Tower

Airport Manager, *Anytown* Airport

Chief, Off-Airport Fire Department(s)

Sample 2

MUTUAL AID AGREEMENT

STATE OF _____ AND COUNTY OF _____

this agreement entered into by and between the County of _____ Airport Authority and _____ on this the _____ day of _____, 20__, for a term of (months) (years) (until terminated in writing by either party)

WHEREAS, the County of _____Airport Authority is a political subdivision of the State of _____ established and empowered to operate, maintain, and protect the airports and air facilities of the Authority and to promote the safety of said airports and the public therein; and

WHEREAS, the _____ is a (municipality) (state agency) (political subdivision) of the State of _____ established and empowered to (recite powers as appropriate); and

WHEREAS, the parties hereto find that the possibility of major disasters threatening life and property within their respective jurisdictions presents a common danger most effectively to be met by collective planning and effort; and

WHEREAS, the parties desire in advance of a major disaster or emergency condition to coordinate life-saving, fire fighting, law enforcement, and other related activities; and

WHEREAS, the parties hereto have, through their respective governing boards or commissions, approved the terms and covenants set forth hereinafter by appropriate resolutions;

NOW THEREFORE the parties hereto do agree and covenant one to another as follows:

ARTICLE ONE—DEFINITIONS

The following terms and phrases shall be understood to mean:

a. **"Incident Command Post"** – A point where responding agencies are briefed on the situation as they arrive to report and assume control of the individual aspects of the operation.

b. **"Disaster"** – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, and/or multiple injuries.

c. **"Emergency"** – Any occasion or instance—such as a natural disaster (e.g. hurricane, tornado, storm, flood, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mud slide, snowstorm),aircraft crash and/or, fire; structural fire; sabotage, hijack incident, or otherwise unlawful interference with operations; major power failure; nuclear accident; chemical, biological, radiological, nuclear, and high yield explosive (CBRNE incident); or any other natural or man-made catastrophe—that warrants action to save lives and to protect property, public health, and safety.

d. **"Emergency Plan"** – A document that: describes how people and property will be protected in disaster and disaster threat situations; details who is responsible for carrying out specific actions; identifies the personnel, equipment, facilities, supplies, and other resources available for use in the disaster; and outlines how all actions will be coordinated.

e. **"Emergency Operations Center" –** A protected site from which emergency officials coordinate, monitor, and direct emergency response activities during an emergency.

f. **"Incident Commander" –** that individual tasked with the direction and control of emergency response personnel and equipment, as well as provide overall management at a specific incident site, including public safety and public information. The goal of the IC is to obtain the maximum productivity from all on-scene resources. The individual in this position may change depending on the scope, intensity, and duration of the incident.

g. "Incident Command System" – A standardized organizational structure used to command, control, and coordinate the use of resources and personnel that have responded to the scene of an emergency. The concepts and principles for ICS include common terminology, modular organization, integrated communication, unified command structure, consolidated action plan, manageable span of control, designated incident facilities, and comprehensive resource management.

h. **"Letter of Agreement" –** a written undertaking by and between the parties hereto for the purpose of supplementing the terms hereof.

i. **"Party" –** the parties hereto through their respective governing boards or commissions.

j. **"Requesting Party" –** that party hereto in the jurisdiction of which a major disaster has occurred, including, but not limited to, fire, flood, earthquake, riot, civil commotion, or other emergencies threatening to life and/or property, of such magnitude that the resources of the said party are, in the determination of the Incident Commander of said party, not sufficient to control or abate the disaster or emergency conditions.

k. **"Responding Party" –** the party hereto receiving a request for assistance from the requesting party.

ARTICLE TWO – OPERATIONAL PROVISIONS

a. The responsibility for determining the magnitude of a major disaster or emergency condition and for taking initial measures to meet such disaster or emergency condition shall rest with the party in the jurisdiction of which the disaster or emergency arises in accordance with the emergency plan of said party.

b. In the event a disaster or emergency condition is found by a party to exceed the resources available within its jurisdiction, the said party shall immediately identify an Incident Commander and establish an Incident Command Post.

c. The Incident Commander shall determine if any requirement exists for assistance from other parties and shall, as the requesting party, communicate such requirement to responding parties.

d. Both parties agree to implement the National Incident Management System (NIMS) during all emergency responses on and off the airport.

e. The responding party shall, in accordance with its emergency plan and/or any Letters of Agreement with the requesting party, determine the availability of resources that can be dispatched to the requesting party to serve with the requesting party in controlling or mitigating the disaster or emergency condition.

f. All resources of the responding party, including but not limited to personnel, law enforcement and fire fighting equipment, medical supplies, life-saving equipment, and other emergency supplies, that shall be dispatched to the requesting party, shall be under the direction and control of the Incident Commander of the requesting party, and shall act as the sole agents of the requesting party for the duration of the disaster or emergency condition or until such time as the said resources are released by the requesting party.

NOTE: *In some states, the control of responding mutual aid forces remain under the operational control of the jurisdiction, department, or agency furnishing the force. This should be reviewed before developing a Mutual Aid Agreement.*

g. The rendering of assistance by a responding party under the terms of this Agreement shall be voluntary and not mandatory as conditions in the jurisdiction of the responding party shall warrant. The inability of a responding party to render aid shall in no case give rise to liability of the responding party to the requesting party or any third person for damages as a result of such inability and the parties hereto expressly agree that the responding party shall be indemnified and held harmless by the requesting party for any and all damages resulting from rendering of or failure to render assistance under the provisions hereof. If a responding party is not able to provide the requested assistance, or any portion of it, to the requesting party, the responding party will advise the requesting party of such inabilities.

h. The rendering of assistance by a responding party under the terms of this Agreement shall be without compensation and at no cost to the requesting party.

ARTICLE THREE – AMENDMENT

a. This Agreement may be supplemented by the Letters of Agreement between the parties for the purpose of exchanging information, identifying responsible officials, coordinating specific operations, or in any other manner providing detailed guidance for discharge of the mutual responsibilities undertaken by the term hereof.

b. Any change of the responsibilities, procedures and/or liabilities set forth herein above shall be written modification of this Agreement and not otherwise.

IN WITNESS WHEREOF the parties hereto have set their hands and seals to this Agreement as of the date first set forth at , State of

ATTEST:

County of _____.

AIRPORT AUTHORITY

BY: _____

Its _____

ATTEST:

BY: _____

Its _____

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APPENDIX 8. SAMPLE GRID MAP

Grid Maps, required by §139.203(b)4, identifying locations and terrain features on and around the airport that are significant to emergency operations. Since this requirement is listed in the contents of the ACM, rather than §139.325, it may be overlooked when developing an AEP.

We recommend that the AEP include at least one grid map. Internet map sites may be a source for developing a grid map that shows roads and terrain features on and around the airport. The grid lines, fences and gates and other useful features may be added to the map. The AEP should have the grid map at the end of the document for easy reference in an emergency.

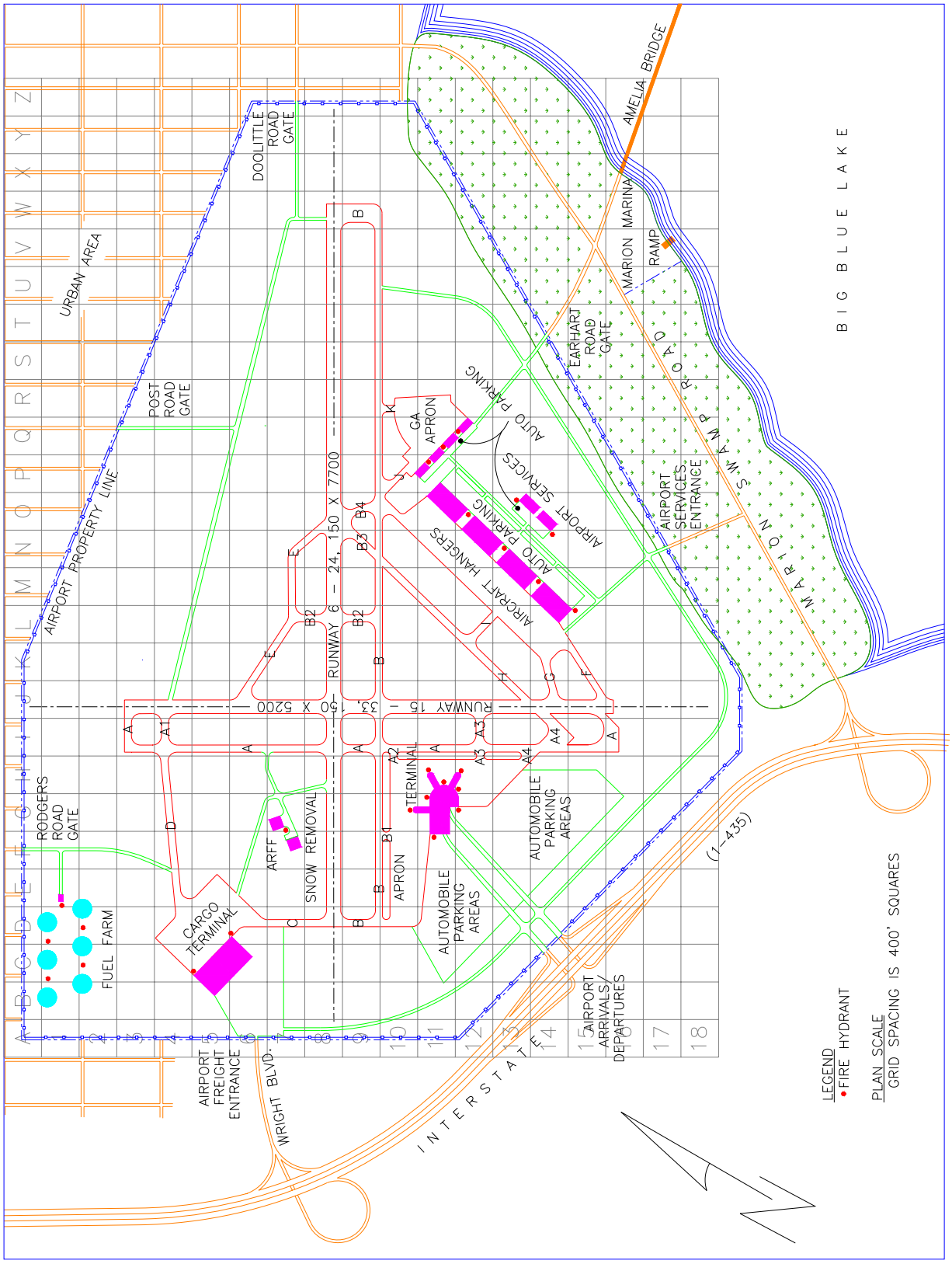

Figure A8 - 1. Sample Airport Grid Map

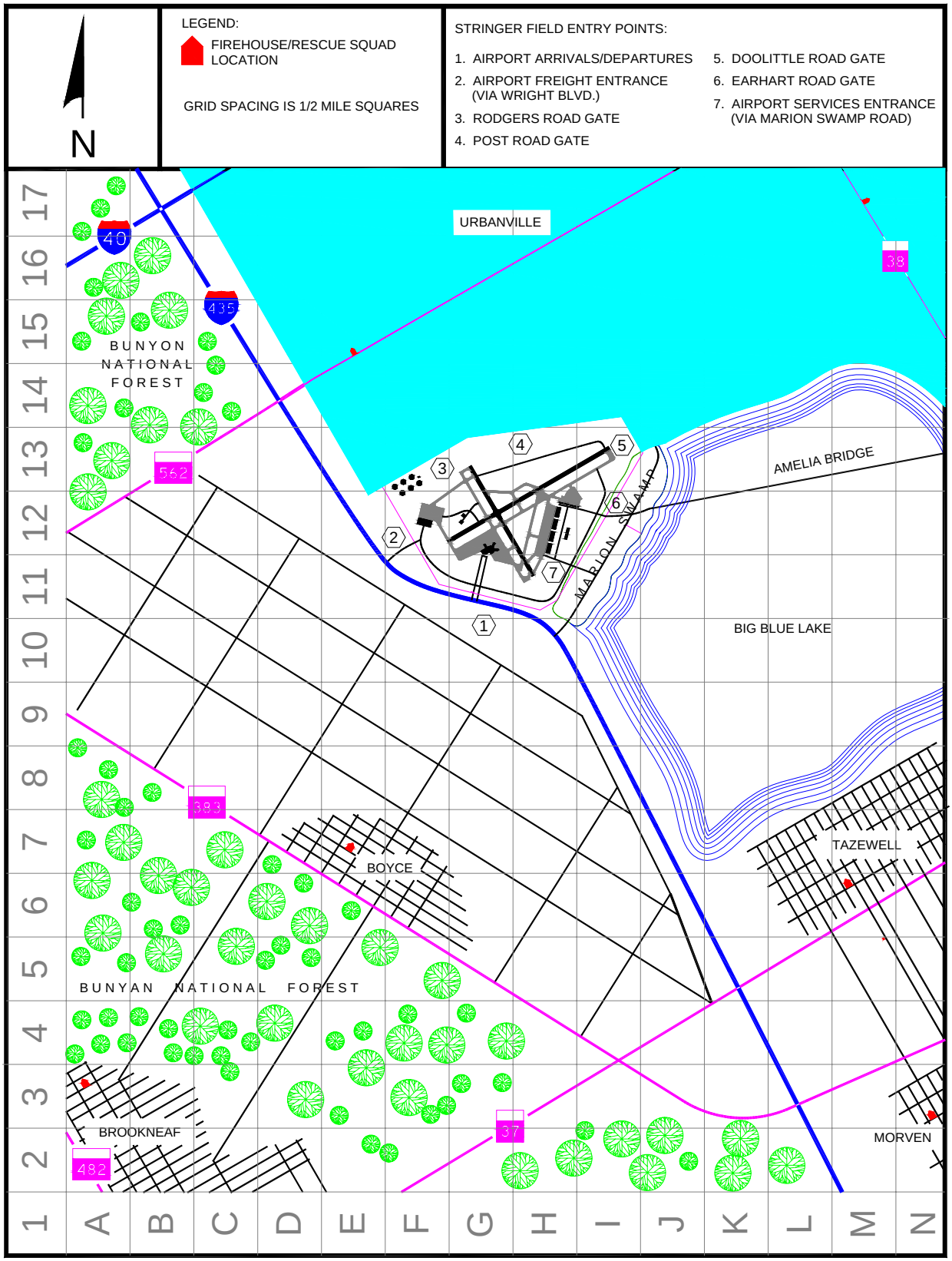

Figure A8 - 2. Sample Airport Vicinty Grid Map

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APPENDIX 9. SAMPLE AIRPORT EMERGENCY INCIDENT CHAIN OF COMMAND

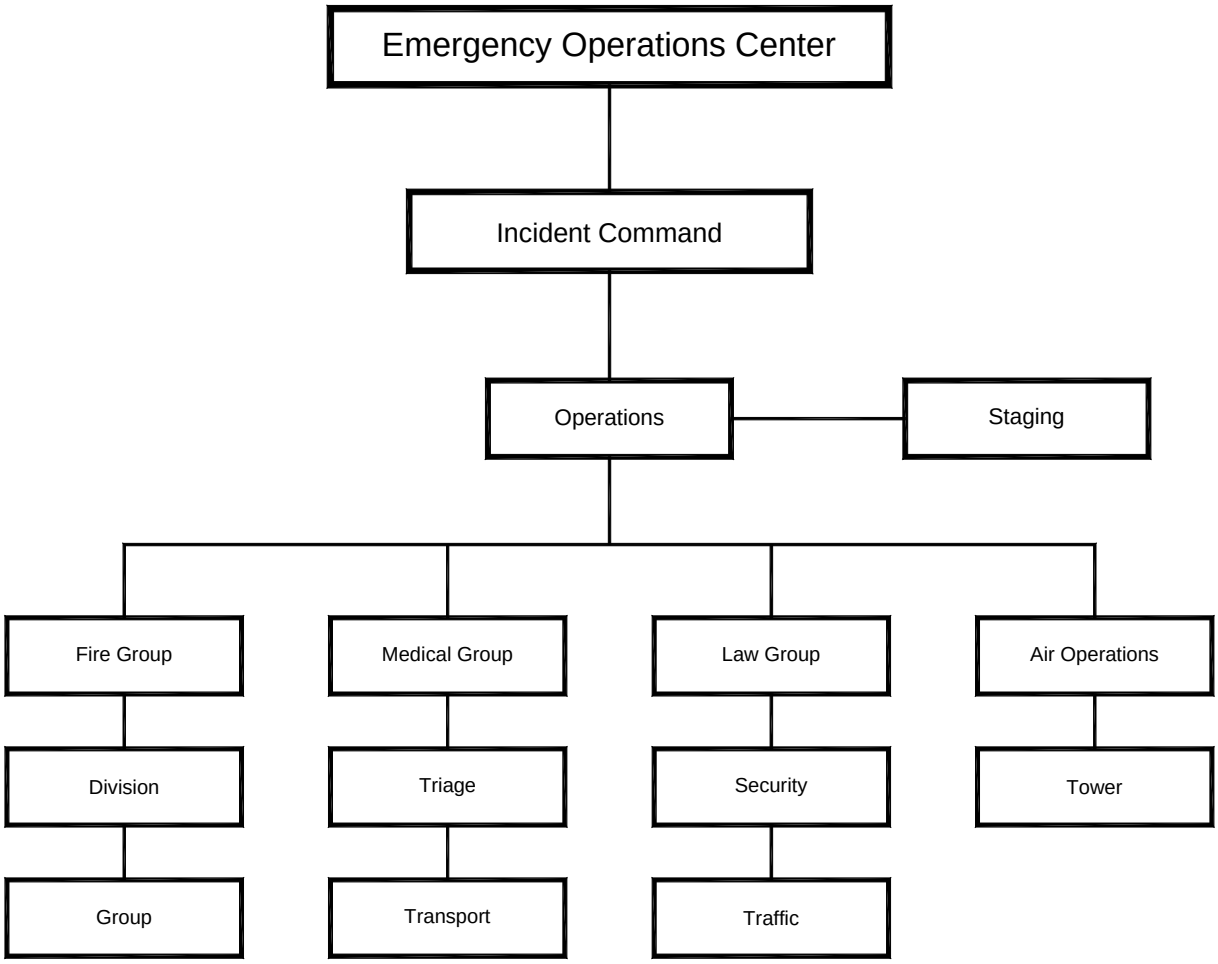

Figure A9 - 1. Sample Airport Emergency Incident Chain of Command

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