



# Emergency Guidebook for General Aviation Airports

A Guidebook for Municipal Airport Managers



CENTER FOR  
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UNIVERSITY OF MINNESOTA



## **Emergency Guidebook for General Aviation Airports**

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# INTRODUCTION

General aviation (GA) airports are typically found in smaller communities and have limited resources for staff, equipment, supplies, mutual aid resources, and training. Acknowledging this and compensating for it in emergency preparedness planning is imperative for providing essential services.

Ultimately, it is the owner's responsibility to ensure that an airport is safe and well managed. Since most GA airports are publicly owned, that responsibility typically falls on the city, county, or airport authority. Generally, a full-time manager, contracted person, or public official with part-time airport management duties oversees the airport's daily operations. It is this person's job to prepare and use an emergency preparedness plan that ensures all involved parties are aware of their role in the plan. An annual assessment of the facilities and plan should identify limited resources so that a strategy can be implemented to meet as many shortfalls as possible.

Owning and managing a GA airport presents potential liability issues that must be planned for. Mechanical issues, adverse weather, inexperienced aircraft operators, and criminal intent can contribute to airport incidents that require establishing contingency plans. Many of these contingency plans for emergency and security response will involve outside agencies. This guidebook is intended to help identify those agencies and resources to help the airport manager properly prepare for an efficient response.

What are your airport's emergency response limitations? Chances are, they include such common ones as staffing, funding, equipment, changing technologies, training costs, supplies, communications, and lengthy response times from outside agencies. Although this guidebook cannot possibly solve every problem, it can provide you with the tools to assess, develop, and execute an emergency preparedness response plan. It also provides references to additional sources of information to help you with planning and educating the public and responding agencies in your community.

Safety is the name of the game when it comes to airport management. This guidebook describes not only how to prepare an emergency and security plan to protect the public, but also how to maintain safety in the process. Ensuring airport safety ranges from performing simple daily preventive maintenance to developing and conducting a full-scale emergency exercise. Emergency response training is extremely important because what looks good on paper is not always executable. During a full-scale exercise, you have the opportunity to test your plan and discover issues such as airfield access, limited water supplies, or communication barriers that need to be addressed. In addition, the exercise will probably be conducted without closing the airfield, so you may have "real life" issues with aircraft operations and personnel risks you'll need to consider. Keep all responding agencies involved as your plan evolves and engage them in those changes.

In preparing this guidebook, we have researched many documents from local, state, and national sources. Airports serving commercial airlines are regulated by the Federal Aviation Administration (FAA) and are mandated to prepare emergency response plans and conduct tabletop reviews and full-scale exercises. Although GA airports are not subject to the same requirements, they may still wish to incorporate those concepts and structure into their own preparedness process. This guidebook uses much of the information we found, while keeping in mind the limited resources of a smaller community.

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**President**  
**AirportAdmin, LLC**



# DEVELOPING AN AIRPORT EMERGENCY PLAN

## Format

General aviation (GA) airports, like all airports, are unique and varied in a number of ways—by size, complexity, operations, facilities, geography, and types of aircraft served. A planning team must consider all of these factors when developing an airport emergency plan (AEP). The intent of the template included with this guidebook is to give basic direction for preparing an airport emergency plan, which should be done in careful coordination with local emergency management professionals and with a critical examination of an airport's unique characteristics and operational considerations.

The Federal Aviation Administration (FAA) does not mandate a particular format for the AEP document. FAA Advisory Circular (AC) 150/5200-31C explains that if the document contains the recommended information and if users can easily find the information they need when they need it—during drills, exercises, actual response, plan reviews, etc.—then the format is fine. If that's not the case, then the existing format may need revision.

Simply following a template to establish an airport emergency plan is not sufficient unless it is coordinated with those persons and agencies tasked within the plan. The plan should be developed with and made available to all local responding agencies, and it should be reviewed and practiced. Planners must also realize that all emergency conditions cannot be anticipated, and therefore, an emergency situation may arise that is not specifically covered in the AEP. Additional resources are included in the following sections of this guidebook for considerations beyond what may be common.

## Components

Because an AEP must address many types of emergencies, it may be helpful to develop a basic plan that also covers the functions common to most emergency situations. This process involves conducting a careful airport hazard analysis that identifies all of the common tasks that must be performed; assigning responsibility for accomplishing each function; and preparing standard operating procedures and checklists. After common functional areas are addressed, the types of emergencies and hazard-specific tabs can be developed.

FAA AC 150/5200-31C lists the components in this functional approach as:

- A. Basic Plan
- B. Functional Areas
- C. Hazard-Specific Sections
- D. Standard Operating Procedures (SOPs) and Checklists

These components are shown in the template for a basic GA airport emergency plan in Appendix A.

### A. Basic Plan

The basic plan provides an overview of the airport's approach to emergency operations. It includes a general introduction section and addresses the organizations tasked within the plan and their basic roles and responsibilities. The sections of the plan and what they include are:

#### 1. Introduction

- Revision date.
- Table of contents.
- Name of the legal authority for emergency operations and of who has approved the plan.

- Name of the emergency coordinator, such as the airport manager or emergency management officer, responsible for administration of the plan and review processes.

## **2. Situation and Assumptions**

- List of characteristics of the airport considered during preparation of the AEP and the airport hazard analysis.
- Discussion of the airport structure and factors that may affect response activities.

## **3. Organization and Assignment of Responsibility**

- List of each agency tasked within the AEP, by position and organizational responsibilities as well as tasks to be performed. Examples of individuals and agencies include:
  - Airport manager
  - Fire department
  - Police department
  - Health and medical services
  - Communications officer
  - Public information officer
  - Air traffic control
  - Airport maintenance
  - Airport tenants
  - Mutual aid agencies
- List of basic responsibilities in this section, including more detailed information to be found in functional areas and hazard-specific tabs.

## **4. Administration and Review**

- List of responsibilities and period of time for conducting a review of the airport emergency plan.
- Plan for conducting tabletop or live exercises.
- List of any mutual aid agreements.
- Plan for management of resources.
- Discussion of any special circumstances requiring availability of services for various types of emergencies or limitations.

## **B. Functional Areas**

Functional areas are tasks and core responsibilities that may be applied to all airport emergencies. Detailed information particular to a specific emergency can be found in the standard operating procedures for hazard-specific areas, and FAA AC 150/5200-31C describes functional sections. Typical functional areas and their corresponding tasks are:

### **1. Command and Control**

- Describes basic purpose of command and control procedures for all phases of the emergency such as response, investigative, and recovery.
- Describes how the National Incident Management System (NIMS) Incident Command System (ICS) will be used. (See section on NIMS in this document.)
- Addresses how agencies will work together.
- Describes location and responsibility for activation of the Emergency Operations Center (EOC).
- Identifies the command and control responsibilities for responding organizations. For example, the fire department will respond to the incident scene, perform Incident Command duties as appropriate, and manage fire operations.



## **2. Communications**

- Describes the need for reliable communications in emergency situations.
- Describes the communications systems used by responders in airport's jurisdictional area.
- Identifies communications resources and redundancy in case of problems with primary communications.
- Explains procedures for communications between agencies and interoperability capabilities.

## **3. Alert Notification and Warning**

- Describes processes for notifying emergency response individuals and agencies during an emergency situation.
- Describes alert and warning systems and equipment to be used and who is responsible for the equipment.
- Evaluates how the general public and airport tenants should be alerted or warned about an emergency situation.
- Describes who is responsible to initiate and make notifications to responding personnel and agencies.
- Considers communications in high noise or special locations.
- Considers communication methods for special needs populations such as the hearing impaired.

## **4. Emergency Public Information**

- Describes the function of providing timely and accurate information and instructions to the public throughout all phases of the emergency situation.
- Describes processes for working with the media.
- Identifies the means and resources for disseminating public information.
- Identifies a public information officer, his or her responsibilities, how information will be released, and whom it will be sent to.
- Develops plan for information gathering, monitoring, handling public inquiries, and media relations.

## **5. Protective Actions**

- Describes actions to protect the health and safety of responders, airport employees, airport tenants, and the general public.
- Describes provisions to address the orderly evacuation of people or for sheltering in place.
- Describes actions to notify the public of protective actions to be taken.
- Describes actions to control access to evacuated or hazardous areas.
- Considers actions to protect or secure property that has been evacuated.
- Identifies decision-making policies and procedures for determining course of action required to protect people and property.

## **6. Law Enforcement/Security**

- Describes the law enforcement response capabilities.
- Describes the notification procedures for a law enforcement response.
- Considers law enforcement and scene security needs for large-scale disasters that may require mutual aid.
- Ensures that all responding law enforcement units are familiar with the airport and their responsibilities.
- Discusses mobilization of resources and how they will coordinate with other agencies and organizations.

- Includes procedures for training law enforcement and providing familiarity with the airport security plan.
- Addresses requirements for specialized threats (such as bomb threats), which may also be covered under the hazard-specific section.

### ***7. Firefighting and Rescue***

- Describes the firefighting and rescue response capabilities.
- Evaluates response capabilities, equipment, and training for response to aircraft firefighting, structural firefighting, rescue, and hazardous materials situations.
- Describes alert and notification procedures.
- Identifies location of firefighting equipment and extinguishment agents.
- Discusses the roles and responsibilities for firefighting agency response and recovery efforts within the Incident Command System (ICS).
- Ensures that all responding firefighting units are familiar with the airport and their responsibilities.
- Identifies procedures for alerting mutual aid agencies and at what point this action will be required.
- Identifies location of water supply, electricity, and other utilities on the airport.

### ***8. Health and Medical***

- Identifies available resources for Emergency Medical Services (EMS).
- Describes all procedures for providing for EMS, public health concerns, hospital resources, ambulance capabilities, and mortuary services.
- Describes procedures for victim medical treatment and transport.
- Outlines proper procedures for handling and removal of the deceased.
- Identifies pre-arranged areas for treatment of the injured and location of any additional medical supplies or triage capabilities.
- Describes limitations and procedures for activating mutual aid.
- Identifies individual in charge of medical operations and lists his or her contact information.
- Evaluates capabilities for mobilizing and providing medical services for all phases of the emergency including response and recovery.
- Discusses the role of medical services within the Incident Command System (ICS) and reporting to the Emergency Operations Center (EOC).
- Develops a coordinated plan with hospital emergency situation procedures and alert notifications.
- Ensures coordination with appropriate investigative agencies such as the National Transportation Safety Board (NTSB).
- Establishes procedures for the care of victims, their families, and responders.
- Coordinates mental health agency needs such as crisis counseling and critical incident stress debriefings.
- Considers the need for notifications to agencies such as the Federal Emergency Management Agency (FEMA).

### ***9. Resource Management***

- Identifies and maintains a list of resources required to support potential emergencies.
- Describes procedures for procuring necessary items such as personnel, equipment, communications, vehicles, power generators, and lighting.
- Determines when a resource manager will be required and identifies that individual along with alert procedures.
- Identifies a process to determine needs, obtain required resources, and distribute resources.

- Ensures a process is in place to manage financial aspect of resource management.
- Defines how resource allocation is coordinated within the NIMS structure.

#### **10. Airport Operations and Maintenance**

- Describes the operations and maintenance capabilities of the airport to include personnel, equipment, and level of training.
- Identifies the role of airport personnel in response to the emergency situation.
- Describes the role of airport personnel in providing for airport closures, issuing NOTAMs, and conducting safety inspections.
- Identifies airport resources such as radios, portable lighting, emergency kits, and first aid or medical supplies.
- Identifies facilities for emergency operations or storage of resources.
- Develops a process for coordinating with air traffic control and the airport tenants as required.

#### **C. Hazard-Specific Sections**

The hazard-specific section provides additional information regarding the response to a particular hazard or emergency situation. This detailed information is typically stand-alone and should be easily located within the AEP for quick reference. It may be helpful to provide tabs to quickly identify hazard-specific sections. In the AEP, hazard-specific emergencies include but are not limited to:

##### **1. Aircraft Accidents/Incidents**

An aircraft accident can occur at any time, on or off of airport property. The AEP should address both situations and:

- Identify purpose of this section.
- Describe an alert classification system. For example:
  - Alert 1: An aircraft that is known or suspected to have an operational defect. No response is required.
  - Alert 2: 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.
  - Alert 3: An aircraft accident/incident has occurred on or in the vicinity of the airport. All designated emergency response units proceed to the scene.
- Identify initial alert information to be obtained, such as type of aircraft.
- Provide response actions for each phase of the aircraft accident such as response, investigative, and recovery and identify who is responsible for tasks.
- Provide organizational contact information and means of notification.
- Describe interoperability between agencies and use of the National Incident Management System (NIMS).
- Establish reliable and redundant communications procedures.
- Describe organizational roles and responsibilities.
- Ensure proper preservation of wreckage. Prior to the time the governing agency assumes custody of the aircraft wreckage, the aircraft must be disturbed only to the extent necessary to:
  - Remove persons injured or trapped;
  - Protect the wreckage from further damage; or
  - Protect the public from injury.
- Describe actions to be taken to close the airport or areas of the airport for public safety.
- Identify resources for response and recovery actions.
- Identify responsible parties and checklists to use to inspect the airfield and return to normal operations.

- Ensure that provisions are in place for proper training of personnel to identify aircraft hazards and airport familiarity.
- Complete an Airport Incident Report form. (A sample is included at the end of this chapter.)

## **2. Landside Emergencies**

Landside emergencies occur outside of the aircraft movement areas (on parking lots or roadways, inside public terminals, etc.) These emergencies include medical responses, vehicle accidents, fires, and utility failures. They typically require a local agency response in the same manner as off-airport emergencies. For landside emergencies:

- Ensure that responders have proper access and are familiar with the airport.
- Provide for emergency notifications and contact information as required (e.g., dial 911).

## **3. Natural Disasters**

Natural disasters can come in many forms and levels of intensity and can cause personal injury, property damage, and disruptions to normal airport operations. Several examples are listed below.

For all natural disasters:

- Describe purpose of this section along with situation and assumptions.
- Provide response actions for each phase of the emergency including preparation, response, and recovery.
- Detail organizational areas of responsibility.
- Describe communication and alert procedures.
- Identify resources needed for preparing for natural disasters and recovery.
- Describe means of protecting vulnerable property and evacuating airport personnel or tenants or protecting in place.
- Ensure proper control of airfield and provide for issuance of appropriate NOTAMs.

For specific events:

### Tornado/high winds

- Identify structures suitable as a tornado shelter along with procedures for alerting and moving airport personnel and the public to the appropriate areas.
- Identify tasks to complete before the emergency occurs such as testing generators, securing loose objects, coordinating with tenants, and conducting periodic training and drills.
- Identify response phase actions such as making proper alert notifications and moving people to shelter.
- Identify recovery phase actions such as persons responsible for damage assessment, public information, facility repair, and other clean-up activities.
- Determine criteria for activating the Emergency Operations Center (EOC).
- Assign responsibility for conducting airfield inspections and repairs.
- Manage costs by defining responsibility for monitoring financial impacts and procurement of resources.

### Flooding

- Identify responsibilities for making provisions to protect equipment, electrical systems, power plants, and stored materials that may be damaged by water or mud.
- Identify responsible parties for actions to be taken before the event such as mapping areas likely to be flooded and checking equipment and availability of pumps and generators.
- Identify responsibilities for actions during the response phase such as monitoring supplies and arranging for food for workers.

- Define who is responsible for recovery actions such as airfield inspections and facility safety inspections.
- Describe procedures for providing public information.
- Describe procedures for resource allocation such as personnel for sand bagging or supplies.

#### Lightning strikes

- Identify steps to ensure the safety of airport personnel during events for which frequent lightning strikes are possible.
- Identify responsibilities for inspecting electrical systems, navigational aids, lighting, and communications equipment.
- Provide contact information for utilities for repairs in the event of a loss of power or damage to a system.
- Consider alternative communications in certain situations.

### **4. Fires**

There are several types of fire that constitute an airport emergency. Considerations for each are outlined below.

#### Aircraft fires

- Establish alert procedures and notification requirements.
- Describe organizational responsibilities (e.g., fire department: responsible for assuming Incident Command and fire suppression and rescue).
- Ensure responders are properly trained and have proper equipment and agents for aircraft fire hazards such as fuel, oxygen systems, emergency landing systems (parachutes), electrical systems, and hazardous materials.
- Establish communication procedures.
- Ensure that responding agencies have a means of quickly determining the location of the fire and are familiar with the airport layout.
- Establish procedures and identify party responsible for clean-up activities.

#### Structural fires

- Establish alert procedures and notification requirements.
- Provide details, maps, and notes that can be updated to show a current inventory of all airport buildings.
- Identify locations of hydrants, water supply, utilities, and electrical shut-offs.
- Describe organizational responsibilities (e.g., fire department will be responsible for evacuation, search and rescue, fire suppression, and Incident Command for response phase).
- Identify actions to be taken before the emergency such as assessment of facilities for alarm systems, suppression capabilities, access, and location of Knox-Box for airport building key access.
- Define action to be taken during the response.
- Identify responsibility for recovery phase actions such as damage assessment and media briefings.

#### Vehicle fires

Vehicle fires are typically handled as a landside off-airport emergency depending on the location of the vehicle fire and access to the scene or proximity to critical airfield facilities or equipment.

- Describe alert procedures.
- Evaluate disruption to normal airport operations.

### Fuel fires

Fuel spills may also require an emergency response; the AEP should identify criteria for types and sizes of spills that may require a greater response and:

- Describe alert procedures.
- Ensure that fire department personnel are provided with information regarding the airport fueling systems, including location of storage tanks, capacity of systems, types of fuel, and characteristics of fuel.
- Ensure that airport and fire personnel have training on the use of fueling systems, including proper handling of product; operation of pumps, hoses, and nozzles; and location of emergency shutoffs.

### **5. Electrical Power Failures**

Electrical power failures on airports affect most airport operations and may affect both aircraft movement areas and building areas.

- Consider the impact of a power failure on all facilities, including lighting, heating and ventilation equipment, communication equipment, navigational aids, weather systems, hangar doors, pumps, and other critical airport systems.
- Describe alert notifications required.
- Establish response procedures and organizational responsibility.

#### Airside electrical power failures

- Provide name and contact information for the local power company.
- Identify location of electrical power equipment and area served.
- Develop a checklist to identify responsibilities and ensure notifications as required for parties such as utility company and affected tenants.
- Include provision to inspect affected airfield facilities and issue NOTAMs as required.

#### Landside electrical power failures

- Describe alert procedures and notifications.
- Identify contact information for utility company, airport management, and affected tenants.
- Establish procedures to address public safety issues in the event of a power failure in public buildings or parking lots.
- Develop a checklist for inspecting a list of equipment in prioritized order for power restoration.

### **6. Hazardous Materials**

- Describe purpose of this section.
- Identify alert procedures and notifications to include details on 24-hour contact information for responding agencies and state duty officer.
- Define organizational responsibilities and persons responsible to include the activation of the Emergency Operations Center (EOC).
- Clearly identify the hazardous materials functional areas including organizational responsibility for command and control, communication, and emergency public information.
- Identify resources available in the area to include location and contact information for specialized hazmat response teams.
- Identify actions to be taken for evacuation and scene security.
- Identify response actions to include the establishment of protective zones upwind of the incident site.
- Identify areas and buildings on the airport where hazardous materials are stored and ensure they are properly labeled.

- Identify all existing conditions to include sensitive areas and geographical features of the airport.
- Whenever possible, include in detail the name, location, and amount of hazardous materials present in the facility assessment.

### **7. Water/Ice Rescue**

The overall response to this emergency is similar to that of an aircraft accident/incident.

- Include water/ice rescue as a hazard-specific area or tab in the AEP if there is a risk for these situations on the airport or within two miles of the end of a runway.
- Describe alert procedures and notifications.
- Define organizational responsibilities and list contact information.
- Identify locations where specialized water/ice rescue equipment is stored.
- Consider providing appendices containing maps, size, depths, and other characteristics of water areas, including points of access.

### **8. Wildlife Management**

Consider a risk assessment of wildlife hazards as part of the emergency planning process. The emergency planning team should be aware of wildlife attractants such as bodies of water or landfills.

- Conduct regular inspections of airport facilities to monitor potential wildlife hazards.
- Describe individual responsible for documenting inspections and issuing NOTAMs as required.
- Consider development of separate wildlife mitigation plans.

### **9. Security/Criminal Activities**

#### Terrorism

The AEP may address terrorism threats and describe actions to be taken by agencies tasked within the plan.

- Define alert procedures and notifications.
- Consider development of a checklist for specific threats.

#### Bomb threats: buildings

The AEP may address procedures and actions to be taken if a bomb threat is received that may affect the airport facility, vehicle, or structure.

- Consider providing training and information to airport personnel from the Department of Homeland Security (DHS) for Bomb Threat Call Procedures, which also addresses suspicious packages.
- Define alert procedures and notifications and provide contact information for responding agencies.
- Identify evacuation procedures and a prearranged location for assembly.

#### Bomb threats: aircraft

- Define alert procedures and notifications.
- Follow the DHS bomb threat call procedures checklist, but also obtain aircraft information such as location when possible.
- Determine a remote pre-designated area or isolation area away from airport buildings and facilities to direct the aircraft to.
- Address evacuation procedures.
- Identify responsible party and procedure for closing the airport and issuing appropriate NOTAMs.

### Hijacking, sabotage, and other interference with operations

These criminal actions typically occur at air carrier airports, but because they could impact a general aviation airport, they may be considered in the hazard-specific section of the AEP.

- Define alert procedures and notifications.
- Establish a remote pre-arranged location or isolation area for aircraft parking and consider closing the airport and issuing appropriate NOTAMs.

### Vandalism or theft

Response to vandalism or theft may be addressed here and/or in the airport security plan.

- If vandalism or theft is witnessed or reported to airport management, notify the appropriate law enforcement agency.
- If acts of vandalism result in damage to airfield equipment, notify law enforcement, document damage, and initiate repairs.
- Consider the use of security systems.

### Confrontational situations and crowd control

General aviation airports are public facilities with the potential for airport patron disturbances. In confrontational situations, it is best not to intervene physically but rather to contact law enforcement.

- Establish procedures for crowd control on the airport for planned events such as air shows.
- Identify steps to ensure that vulnerable locations such as fuel farms and facilities, as well as equipment and aircraft, are secured.
- Consider issues such as airport access, the need for medical services, coordination with airport tenants, and the need for extra resources.

## **10. Overdue Aircraft**

An aircraft may be thought overdue in cases when pilots have not cancelled their flight plans with flight services. The FAA considers aircraft overdue if aircraft deviates from the flight plan by more than 30 minutes.

- Define alert procedures and notifications.
- Identify procedures to help coordinate local response.
- Identify the party responsible for maintaining contact with the appropriate air traffic control entity or flight service station.
- Conduct a simple search of the aircraft parking ramp and hangars for the aircraft (the pilot may have simply forgotten to cancel a flight plan).
- Obtain as much information regarding the aircraft and route of flight as possible, including N-number, type of aircraft, color, and number on board.
- If a search is required, obtain procedures and contact information to initiate an emergency search from the AEP.
- Coordinate activity with appropriate FAA personnel.

Note: A typical hazard-specific section should be organized to be consistent with the basic plan and should include headings for each hazard—e.g., purpose, operations, and organizational responsibilities and assignments. To make each hazard section a stand-alone reference, identify specifics for functional areas such as command and control and communications.

## **D. Standard operating procedures (SOPs) and checklists**

Standard operating procedures (SOPs) and checklists provide detailed instructions that individuals or organizations tasked within the AEP may use to ensure all assigned responsibilities are being performed. They should be easily located within the AEP and should allow the user to provide detailed information useful later for insurance or investigation purposes, if needed.



## Emergency Preparedness Assessment

Whether developing your first AEP or using an existing plan, begin by conducting an assessment of the airport's facilities and resources and those of responding agencies. Repeat this assessment annually, as changes in personnel, equipment, and facilities can have adverse effects on response procedures.

- **Personnel.** How many people are trained to respond to emergencies at the airport and, more importantly, how many of those people are currently familiar with the airport's layout and operations? What hours and days are those people available? Who can close the airfield or issue NOTAMs? Is there an updated 24-hour contact list readily available? What should happen if the airport manager is not available? Who can be designated the point of contact during an emergency in his or her absence?
- **Equipment.** What emergency equipment is required and where should it be stored? What equipment is located on-site versus off-site to provide an emergency response in a reasonable time? How often is the equipment checked and serviced? Do airport staff members and emergency responders know where equipment is stored? Do emergency response vehicles have the appropriate communication radios for operation on the airfield or multiple agency coordination?
- **Facilities.** Include a practical description and drawing of your airport in your emergency plan. This should include runway sizes, taxiways, and ramps. All buildings, access roadways, and fence lines should be described. In addition, critical sources of power, emergency generators, and water (hydrants) need to be located for quick access. As facilities change (e.g., with the addition of a new building or temporary construction sites), emergency agencies should be notified. Airports can also use boundary features to identify airport sites to make them more recognizable to non-airport personnel. For example, identify a north building area and access to that area as "north building area adjacent to Miller Lake." Boundary roadways and airport access roads should also be named and identified in the plan.
- **Terrain.** Unfortunately, not all incidents on the airfield will occur on the ramp near the main hangar or office facility. How easy is it to reach the areas off the end of the runways and in remote airport areas? Are access roads available and are they in good shape (consider winter snow, spring rains, etc.)? Is there rocky terrain or water near the airfield that would make rescue efforts difficult?
- **Accessibility.** What are the distances and response times for responding agencies to the airport? When they arrive, can they access the perimeter fence and gates? Are gates cleared of snow in winter? Do they have access to buildings after hours, including the utility rooms? What features border the airport that would affect airport accessibility, such as rivers, wetlands, private land, and roadways?
- **Communications.** One of the biggest barriers to effective emergency response is communication. Several responding agencies may use different frequencies and/or may not be able to transmit effectively to one another. What frequencies are the responding agencies using? Who requires airfield (aviation) communication to coordinate aircraft operational issues? Is there an incident command vehicle capable of coordinating multiple frequencies, facsimile, and computer equipment? In addition, cell phones may prove to be unreliable but local amateur radio operators may be very effective in certain situations.

## **Emergency Kit**

It may be beneficial to develop an emergency kit to expedite emergency response. The AEP may identify the contents and locations of these kits. Examples of items to incorporate into these kits are additional aviation radios, flashlights, call lists for airport staff, medical supplies, runway closure markings, high-visibility vests, credentialing documents, triage tags, aircraft parking wands, gloves, tools, and other supplies. Each GA airport is unique and may have specialized operational needs to consider when preparing emergency kits.

## **Airport Grid Map**

Include an airport grid map in the development of the AEP. This grid gives a view of the airport using a system of squares (numbered and lettered) superimposed over a drawing of the airport to provide a fixed reference to any point, helping to define the response area or assist with search and rescue efforts. The map should include all airport access gates and entrances.

## **Agency Coordination**

All airports need outside agencies to respond to airport emergencies, whether local fire and rescue or national investigation teams for a major accident. In developing the AEP, recognize which agencies will respond at different response levels. The FAA Part 139 regulation states that “[airport operators] must involve all agencies with a response in the plan.” Invite any agency that could potentially respond to an airport incident to participate in planning, reviews, and exercises—for example, local fire and police departments, hospitals, county emergency officers, sheriff, tenants, and city or county administrators. Establish a contact list that is readily available and update it on an annual basis.

The importance of airport familiarization cannot be overemphasized for responding agencies. Many times a response may be needed while the airfield is active. Knowing airport operational procedures, proper communications, and access or departure points is critical for maintaining a safe response. Notifying agencies of new procedures, new facilities, or construction areas is also important for safety.

Because outside agencies must provide emergency response services, it is important to develop mutual aid agreements establishing the specific responsibilities each agency will provide. For example, the local fire department may agree to provide a certain level of personnel and equipment for a response and the airport may agree to provide airfield familiarization training. Review mutual aid agreements periodically and revise as necessary.

The AEP should also identify the location and describe the general capabilities of hospitals and medical centers near the airport. Include hospital representatives in the planning process in order to address planning concerns for a variety of medical emergencies, capacity, and patient transport issues.

The first emergency response agency on-scene should work with the airport manager or point of contact and establish an incident command point and assume control of the incident. As senior response personnel arrive, command may be transferred as appropriate. If the incident involves major aircraft damage, fatalities, or criminal activity, national response teams will be involved. Generally, you may expect the FAA and NTSB to investigate aircraft accidents and associated fatalities. The FBI and TSA may also be involved in investigating criminal activities or terrorist threats.

## **Media Role**

Involving the media in your AEP and training events provides a great public relations opportunity, as you can demonstrate the hard work and preparation the airport and responding agencies engaged in during

the AEP process. More importantly, involving the media in your AEP informs them how, when, and where to respond during an emergency. Establish ahead of time an area for media briefings and be prepared to provide timely and informative briefings during an event. This step creates good public relations and demonstrates the professionalism of the airport and responders. Inviting the media to the AEP reviews and live exercises also educates them about the dangers of emergency response and importance of safety procedures. Once the scene is safe and secure, the airport operator may coordinate times and methods to film and cover events in a safe manner. (This may need prior authorization from investigative agencies.)

Establish one person to communicate with the media during any emergency. This ensures a consistent message that is factual and concise. Before interacting with the media during an emergency, spend a few moments preparing a brief factual statement. Select an appropriate site out of view of the incident. Verify press members' identifications to prevent unauthorized entry to press briefings. Project a positive image for the airport and responding agencies by remaining calm and serious, and avoid making emotional statements. Control the briefing by providing only brief facts and refrain from accepting responsibility for the accident.



## **POST-INCIDENT PROCEDURES**

An important phase of any airport emergency is the action taken after the response to the incident. The airport emergency plan (AEP) may describe those activities related to investigation and recovery. During the recovery phase, certain actions—e.g., documentation, facility inspection, employee crisis counseling, reconstruction, public information, general cleanup—are taken to ensure the airport is restored to pre-emergency conditions.

### **Establish Safe Airport Operations**

Airport management is responsible for ensuring that all appropriate actions are taken, regardless of the type of emergency, to establish safe airport operations after an incident. As with other phases of an emergency, the AEP should identify assignments, organization responsibilities, command and control, and other required functional areas.

If an airport has been closed because of an emergency situation, it should not re-open until assigned personnel have ensured that:

- Aircraft operating areas are safe and secure.
- Aircraft movement areas to be reopened have been inspected.
- Adequate aircraft rescue and firefighting protection is available (if applicable).
- Public safety is assured.

The AEP should also identify who is responsible for documenting all actions taken, including writing an incident report. These reports should cover all pertinent information regarding the incident including type of incident, time and date, names and addresses of persons involved, witnesses, reporting party, response actions, and recommendations for further actions. Airport personnel should continuously monitor changing airfield conditions throughout the emergency situation and issue appropriate NOTAMs.

Additionally, an AEP should:

- Identify the party responsible for ensuring that airport facilities are assessed during the recovery phase of the incident.
- Specify responsibilities and additional resources for all cleanup and repairs.
- Identify the roles and personnel for the recovery process and for returning the airport to normal safe operations; it may require coordination of schedules.
- Identify all appropriate air traffic control (ATC) facilities and contact information.

### **Implement Responder and Family/Victim Assistance Plan**

- Designate secure facilities for victims' families and friends that are easily accessible, separate from areas involved with the emergency response, and away from designated media areas.
- Provide areas for the care of emergency responders.
- Provide the basic needs to accommodate both responders and victims' family members. Examples of emergency services and provisions for responders and family/victims may include food, water, and medical attention.
- Identify process for responding to requests for information concerning the emergency event to victims' families and coordinate this activity with the public information officer (PIO).
- Consult with local emergency management officials to review options for providing mental health assistance. These services may be made available to families in crisis and responders.
- Identify potential resources for assisting responders coping with these situations, including the use of Critical Incident Stress Debriefings (CISD).

## **Implement Media Plan**

Implementation of an effective media plan during an airport emergency is important for all phases of the emergency.

- Designate in the AEP areas for media to gather and set up to cover the situation.
- Designate a public information officer (PIO) with responsibility for interacting with the media. This individual will disseminate information consistent with inputs from all involved agencies and approved by the Incident Command or Unified Command.
- Designate only one PIO for each emergency incident.
- Control and coordinate media briefings with the PIO and other responding or investigative agencies such as the National Transportation Safety Board (NTSB).
- Conduct media briefings in a designated location and on a designated schedule if the scale or duration of the airport emergency incident warrants it.
- Consider additional resources for dealing with large volumes of media inquiries during a major airport emergency incident.

## **Work Through Investigations**

An investigative phase will begin in the event of an aircraft accident and may occur during the accident response and recovery phase. The NTSB is responsible for accident investigations involving civil aircraft within the United States. Criminal investigations may also involve the TSA and FBI.

- Establish scene security prior to the NTSB or investigative authority arriving on the scene of an aircraft emergency incident.
- Establish a perimeter around an accident scene to protect property and preserve evidence.
- Ensure airport representatives accommodate the NTSB and cooperate with the investigation.

# CONDUCTING A TABLETOP REVIEW

A tabletop review is an administrative review of the emergency and security plans. To do this effectively, all agencies involved in a potential emergency response to the airport should be invited to participate in an annual tabletop review. Updating the plans, revising procedures, and possibly playing out a scenario to recognize local challenges can be part of the review event. The objective is to maintain and improve the plans and agency coordination.

Following are key tasks in the process of conducting a tabletop review.

## Update Contact Information

- Ensure contact information is current.
- Establish a list of all agencies in the Airport Emergency Plan (AEP) and security plan.
- Emphasize 24-hour contact numbers.
- Include important fax and e-mail addresses.
- Consider conducting a phone exercise in which all parties are called and contacted in the correct order, but personnel and vehicles are not deployed.

## Review Procedures

- Provide the written AEP plan to each agency for review.
- Use local photos and diagrams to illustrate the issues and response.
- Walk through the AEP and security plan with the participants.
- Review each type of emergency and agency response.
- Educate new participants who may be unfamiliar with the specifics of each plan.
- Identify procedure, personnel, or equipment changes and special considerations for the next year.
- Record notes for further discussion and possible plan revisions.
- Discuss the security plan with attending agencies.
- Assess airport's perimeter, access points, facilities, locks, cameras, etc.
- Discuss incidents that may have occurred in the past year and how they were handled.
- Discuss any foreseen threats or concerns for the next year.
- Discuss how to implement the incident command process or the National Incident Management System (NIMS).
- Identify which agencies will respond and in what time frame, recognizing distances, time of day, weekends/holidays, etc.
- Discuss long-term major incidents that may require perimeter security, airfield closures, and accommodating responders, victims, media, and family members' needs beyond the initial response period.
- Discuss special considerations that may affect each response. Adverse or seasonal weather, construction projects, and special events may require special planning and plan modification.

## Develop a Scenario

For a tabletop review, you may want to develop a specific scenario or case study involving a fictitious airport emergency.

- Prior to the tabletop review event, meet with a few key emergency responders to discuss the scenario development (more on scenario development follows in this guidebook). Identify the type of emergency response and specific issues they would like to include for discussion.
- After reviewing the written plans and identifying updates and possible revisions, introduce a scenario to the participants.

- Include at least one more hour in the schedule to discuss the specific scenario.
- If possible, hold the review at the airport.

Some suggestions for the scenario development/case study process:

- Begin with a short introduction of pertinent information, such as the fictitious aircraft operator, type of aircraft, number and ages of persons on board, time, and date. Include inbound/outbound calls from the pilot with a situation of mechanical or security difficulties. Provide the accident location and weather conditions. You have now set the scene to activate the AEP. Obviously, scenarios may be very detailed, but keep yours simple and concentrate on the basic response procedures.
- Develop a timeline for the scenario. Start with the time of the accident and add each response and scenario element as it occurs. Be very careful to recognize “real-time” responses so the scenario remains as realistic as possible.
- Develop the scenario for the first two to four hours, concentrating on the initial rescue response.
- As each element is introduced, take the time to ask each agency, “What is your role at this point of the accident? What are your concerns with the information provided at this point of the accident?” This will hopefully generate productive conversation to help identify concerns with the response plan and illustrate multiagency coordination efforts.

### **Record Action Items**

- Record attendance and what was discussed.
- Record any updates, revisions, or additions to ensure the plans are current and effective.



## CONDUCTING A LIVE EXERCISE

The FAA requires airports serving commercial airlines to conduct a live exercise drill of the emergency plan once every 36 months. Although GA airports do not have this requirement, agencies involved in the airport response plan are likely required to conduct certain training exercises annually that may benefit from involving the airport.

Conducting a live exercise takes time and the coordination of many people, organizations, and usually, airport operations. It typically lasts four hours or more, depending on how many agencies are involved and how far the scenario is extended. Because of these demands, the airport should start planning one year in advance to ensure a successful event. It may be possible to coordinate the live exercise with other community agencies that are also required to conduct live drills as part of their operating procedures, such as a local hospital.

Following are key tasks in the process of conducting a live exercise.

### Develop a Scenario

- Develop a scenario with a local core group of key emergency response individuals.
- Keep the scenario simple and focus on the basic first-response duties.
- Determine site (preferably on the airport), date, and time.
- Determine how far to extend the exercise. Will it end at the initial response site or continue to involve passenger transport to the hospital?

### Coordinate Agencies

- Once the scenario is developed, conduct a tabletop review.
- Involve lead personnel of each participating agency.
- Schedule the review approximately one week prior to the live exercise to coordinate agency roles and identify final requirements.
- Be considerate and pre-coordinate the event with airport tenants and neighbors.

### Plan Communications

One of the most challenging issues in emergency response is effective communication, especially between multiple agencies.

- Ensure that contact information (cellular phone numbers, etc.) is current.
- Identify the communication equipment used by the participating agencies and which frequencies will be used for the event.
- Use secondary frequencies to prevent confusion of the live exercise calls with those in the “real world.”
- Establish a code phrase to use during the exercise in the event a “real world” emergency or incident occurs.
- Designate an individual who may call a “time out” to temporarily stop the exercise until such incidents can be cleared.

### Develop Safety and Evaluation Plans

- Establish and implement a safety plan for the exercise.
- Designate certain individuals as safety officers to oversee the exercise and identify safety issues for the event.
- Consider such things as vehicle speed, personal safety equipment and dehydration.

- Provide all participating agencies and individuals with a site safety briefing.
- Generate an evaluation form prior to the event.
- Identify elements of the response plan to be recorded.
- Utilize persons with experience in each participating agency to evaluate their group (for example, a neighboring airport manager may be an evaluator for the airport manager).
- Have evaluators record as much pertinent information as possible for future debriefing sessions.

### **Establish Media Procedures**

- Include media response in the AEP.
- Educate media on their role during an actual event (be safety conscious).
- Establish good public relations by highlighting the preparedness of local response agencies.
- Provide a press release prior to the live exercise to alert the public of the unusual activities. This is especially important if there is a live fire involved and will help prevent unnecessary calls to 911.
- Provide the media with the scenario and schedule ahead of time.

The day of the event, plan a mock briefing in the area designated in the AEP. Take advantage of this time to practice delivering information normally required in a real-life event. Conduct the briefing, providing information on the planning and actual response for the live exercise. Identify all participants and emphasize the importance of planning and training to be well prepared in case an actual situation occurs. This mock briefing may be conducted by the individual established as the public information officer (PIO) for the event.

### **Conduct Formal Debriefing and Follow-Up**

- Schedule a formal debriefing forum to ensure the response plan is current and effective.
- Provide space between the event and the debriefing to allow organizations time to discuss the event internally prior to reconvening with the group as a whole.
- Invite all lead agency personnel who participated in the live exercise event.
- Encourage sharing of internal evaluations, notes, and suggestions.
- Designate an individual to record the attendees and take minutes of the meeting.

One method of debriefing may be to walk through the exercise scenario step by step as each element occurred that day. Using the timeline, pause at each step to ask participants to discuss their thoughts at that point during the event. Ask what worked well and what they recognized as needing improvement. If areas for improvement are voiced, ask the group for recommendations on how to accomplish that and set a goal for completion. In addition, assign specific tasks to those with expertise in a particular area.

Finally, establish a schedule to implement any action items. Additional meetings may be required with certain individuals to ensure the items are addressed properly and in a reasonable time frame.

# DEVELOPING AN AIRPORT SECURITY PLAN

A security plan can be helpful in planning for events that are not emergencies but still pose security threats to the airport. Although the Transportation Security Administration (TSA) regulates airport owners and operators serving air carrier operations, a set of guidelines has been established and recommended for the remaining airports to implement. The document, *Security Guidelines for General Aviation Airports*, is an excellent resource for developing or revising an airport security plan. It's available online at [www.tsa.gov/assets/pdf/security\\_guidelines\\_for\\_general\\_aviation\\_airports.pdf](http://www.tsa.gov/assets/pdf/security_guidelines_for_general_aviation_airports.pdf).

The TSA, in coordination with the Aircraft Owners and Pilots Association (AOPA), has implemented a GA hotline to report suspicious activity on or around an airport: 866-GA-SECURE (1-866-427-3287). The hotline was developed to complement the AOPA's Airport Watch Program, which can be viewed at [www.aopa.org/airportwatch](http://www.aopa.org/airportwatch).

## Create an Airport Security Plan

Airports are unique, and the characteristics of a particular airport will determine which security enhancements will be included in the plan and how they will be implemented and enforced.

Following are some typical tasks in the process of creating a security plan:

- Establish a local committee represented by airport management, airport tenants, and local law enforcement. These individuals serve a key role when completing the vulnerability assessment to identify which security enhancements will be required.
- Determine who is responsible for activating the Emergency Operations Center (EOC), which may be required to facilitate a central location for command and control.
- Develop a checklist to use during a security event.
- Use the guidance of the TSA's *Security Guidelines for General Aviation Airports*.
- Include a list of personnel, airport facilities, surveillance, security procedures, communications, and specialty operations.
- Include the Minnesota TSA hotline phone number: 1-866-907-8391.
- Incorporate security procedures addressing the concerns identified in the AEP.
- Establish airport evacuation and facility lock-down procedures.
- Share the airport security plan with others on a need-to-know basis only.

## Incorporate State and Local Regulations

- Establish a point of contact for each response agency.
- Compare the airport security plan with state and local regulations.
- Inquire if local ordinances specific to the airport's operations need to be established and adopted by the local governing body to enforce airport security procedures.

## Conduct Local Training and Familiarization

- Review the security plan annually with responding agencies.
- Exercise contingency plans and maintain current contact information and procedures to ensure efficient responses in times of need.
- Ensure local law enforcement agencies are familiar with the airport's operating procedures and the airport property and access procedures.
- Inform agencies of airport facility changes that could affect their response, such as construction, procedural changes, and special events.

## **Employ Security Technology**

Enhanced airport security systems include access control, data recording, and closed circuit television (CCTV) systems. The more complex the systems, the higher the installation and maintenance costs will be.

- Conduct a cost–benefit analysis for your facility.
- Keep an inventory of who has access to what and the location of keys, as well as who has overall control of access with the ability to negate or take away access if required.
- Consider off-site companies to provide building and ground system monitoring.

Airport security requires a team approach. Awareness, education, surveillance, and vigilance must be shared by all airport users.

# NATIONAL INCIDENT MANAGEMENT SYSTEM

This section provides a basic introduction to the National Incident Management System (NIMS) for general aviation Airport Emergency Plan (AEP) development. The purpose is to describe the core principles and components of NIMS and its applicability to GA airport emergency planning, suggest planning guidelines, and provide references for additional training and informational resources.

## Introduction to NIMS

According to the Department of Homeland Security (DHS):

NIMS provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, 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 and property and harm to the environment.

This system was developed as a result of a presidential directive to the DHS in 2003 to provide a consistent nationwide template enabling a wide variety of jurisdictions and organizations to work together regardless of the emergency situation. NIMS provides a framework for responders of all types to work together through a core set of concepts, principles, procedures, processes, terminology, and standard requirements. This approach combines the best processes and methods into a unified incident management system.

The NIMS framework should be considered in the development of an effective AEP regardless of the size of the facility. The system is applicable to all emergency planners and is scalable to all emergency situations. A key benefit of incorporating this system into the AEP will be to help standardize the airport plan with the overall emergency management plans, including mutual aid agreements, for the local community. In addition, although many airport emergency situations can be handled routinely by local response, some situations can be extremely complex, requiring a multiagency response. It makes sense to develop emergency plans consistent with local, state, and federal procedures and training. These planning principles will be consistently applied for all phases of an emergency identified by both NIMS and the FAA, including emergency incident mitigation, preparedness, response, and recovery.

The DHS identifies five major components of NIMS: preparedness, communications and information management, resource management, command and management, and ongoing management and maintenance.

## Incident Command System

NIMS defines the Incident Command System (ICS) as 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. The ICS is designed to accommodate all types of emergencies from large to small and can involve simple or complex emergency scenes. The basic principles of ICS defined by NIMS include:

- **Common Terminology:** A common and consistent use of specific terms that helps responding agencies and organizations effectively work together.
- **Modular Organization:** An ICS structure that develops a modular organization based on the size and complexity of the emergency scene.
- **Management by Objectives:** A process that establishes incident objectives communicated throughout the entire system. ICS develops common strategies and objectives.

- Incident Action Planning: Planning that communicates incident priorities and support activities.
- Span of Control: An ICS principle that allows effective management of personnel. In the ICS, supervisor responsibility should range from three to seven subordinates.
- Incident Facilities and Locations: The designation of support facilities such as incident command posts and staging areas.
- Comprehensive Resource Management: Management system that provides for managing resources such as personnel, equipment, and supplies.
- Integrated Communications: Development of a communications plan between response agencies.
- Establishment and Transfer of Command: A command function that is clearly established and allows for transfer of command.
- Chain of Command and Unity of Command: Orderly line of authority within response structure. Unity of Command dictates that all responders have one supervisor to report to during an incident.
- Unified Command: A system that allows agencies with different legal, geographic, and functional authorities to work together in a command structure.
- Accountability: Accountability of resources within all areas during incident operations.
- Dispatch: Orderly dispatch of responders and agencies as requested.
- Information and Intelligence Management: The process of gathering, sharing, and analyzing incident information.

For every emergency situation, ICS establishes an Incident Command. This may be a single individual within a single jurisdiction given overall incident authority, or a Unified Command in cases of multijurisdictional incidents or complex responses involving different agencies with differing legal, geographic, or functional authorities. When a Unified Command is established, designated officials will use a collaborative process to establish incident priorities and objectives.

There are several ICS modular structures that can develop depending on the incident scene, local planning, and other factors that allow for flexibility depending on the particular emergency incident. NIMS establishes the five positions or modules based on functions at every incident scene as follows:

- Incident Command
- Operations
- Planning
- Logistics
- Finance/Administration

In the event of a simple emergency situation, all five functions may be performed by one individual. The ICS is flexible and allows for expansion if the emergency scene is more complex or involves multiple jurisdictions.

For large or complex scenes, the Incident Command may also elect to include positions of public information officer, safety officer, and liaison officer to delegate for time management and span of control issues; these positions are then referred to as the command staff. These positions report directly to the Incident Commander.

The operations, planning, logistics, and finance sections are called the general staff in the ICS modular structure. If activated, these section chiefs report directly to the Incident Command or Unified Command.

The basic responsibilities of the five functional areas are summarized as:

1. Incident Command: Responsible for the overall management of the incident. This may be a Single

Command or Unified Command depending on the situation; it may also include the following staff:

- Safety officer, who monitors and assesses overall scene safety and keeps Incident Commander informed of changing safety conditions.
  - Public information officer, who is responsible for disseminating information and working with the media.
  - Liaison officer, who serves as the point of contact and coordinates with arriving agencies.
2. Operations: Responsible for implementing tactical operations at the incident site.
  3. Planning: Responsible for evaluating information regarding the incident and incident resources and for developing Incident Action Plan (IAP).
  4. Logistics: Responsible for providing facilities, services, and material support for the incident.
  5. Finance/Administration: Responsible for incident costs and financial considerations.

Depending on the complexity of the emergency scene and span of control issues, the ICS structure can rapidly expand to meet the needs of any emergency incident. Within the functional sections and depending on need, expansions may include branches, groups, resources, units, technical advisors, and so on. This guidebook provides only a general introduction to the ICS structure. Additional information and training resources are listed in Appendix C.

## **Applicability to Airport Emergency Planning/Implementation**

Airport emergencies can happen at any time and can vary in size and complexity. Emergency situations sometimes occur suddenly and require a multijurisdictional response; incident response may take a short time or last for days. It is critical that responders understand their roles and responsibilities and are able to work together regardless of the emergency situation. Therefore, it is recommended, and sometimes required, that airport emergency planners implement the NIMS structure into the AEP, allowing for a systematic response to all types of airport emergencies.

AEP planners should incorporate standardized terminology and response procedures into the document. This includes defining essential response actions and responsibilities by various response agencies and organizations. The AEP should identify command and control functions specific to types of emergencies and describe roles for responding agencies within the ICS, including who will be responsible for establishing Incident Command or transfer of command procedures depending on the phase of the emergency. It may be helpful to develop basic ICS modular diagrams to depict possible command structures for the more complex types of emergencies such as aircraft accidents and incidents. The AEP planning team may even consider assigning individuals within response organizations to these roles after evaluating capabilities and training. It should be understood, however, that every situation is unique and may require immediate action and decisions depending on quickly changing variables that may affect the structure of the ICS. For this reason, the ICS is designed to be flexible and scalable to all types of emergencies, and a pre-determined ICS structure may not entirely apply, but rather require adaptation according to the circumstances.

The AEP should also identify responsibility for activating the Emergency Operations Center (EOC) and include locations, equipment, and criteria for activation. The EOC can be used as a centralized location for command and control. The plan should identify possible locations for the EOC away from dangerous areas but close enough to the scene to provide accessibility to responding officials. Other FAA planning suggestions for establishing the EOC include:

- Create a space large enough to support the number of staff members.
- Be organized to provide maximum functionality.
- Equip the space with communication equipment, airport grid maps, displays, furnishings, whiteboards, and name tag/position identifiers.

- Make the space secure.
- Staff the EOC with trained personnel.
- 

The AEP may also designate an EOC manager responsible for these activities in support of the ICS. The EOC is typically used for larger, more complex emergency scenes or incidents that occur over time. Each GA airport should carefully assess these resources and coordinate with community emergency management officials on its location during the AEP planning process.

Airport management and personnel play an important role in managing an airport emergency situation. An assessment to determine airport staffing levels of capability and training should be reviewed when determining roles within the ICS structure. Depending on the nature of the emergency, airport personnel may be responsible for operational duties and be part of an operations branch. In other cases, airport management may offer technical resources or be part of a Unified Command structure or assume Incident Command for all or part of an emergency phase such as recovery. The AEP planning team should consult with local emergency management authorities to determine these roles depending on the situation, and then identify these responsibilities within the AEP. In all cases, NIMS compliance requirements for a particular airport or community should be evaluated.

## **Training**

Training is an important component of NIMS, and several resources are available through the Federal Emergency Management Agency (FEMA) and National Integration Center (NIC). A five-year training plan was developed and released in 2008 to describe the development of NIMS core competencies, training courses, and personnel qualifications.

The NIMS five-year training program provides guidance on the level of training someone needs, based on their level of responsibility during a multijurisdictional, multiagency, or multidisciplinary incident. Independent web-based training programs are also available online. More information on these programs is available at [www.fema.gov](http://www.fema.gov).

Local emergency management officials may organize opportunities for community responders to train in NIMS and offer area courses or seminars. These activities are well worth the time and investment for all local responders and even elected officials. In addition to qualifications-based training, it is important that the AEP include provisions for training requirements and exercising the AEP. Coordinating an AEP emergency exercise should include NIMS training.

## **Resources**

- Federal Emergency Management Agency: [www.fema.gov](http://www.fema.gov)
- FEMA/NIMS Resource Center: [www.fema.gov/emergency/nims/](http://www.fema.gov/emergency/nims/)
- U.S. Fire Administration/FEMA training: [www.usfa.dhs.gov/training](http://www.usfa.dhs.gov/training)



# AIRPORT MUTUAL AID SYSTEM

## History and Overview

In recent years, several natural disasters (Hurricane Andrew in 1991, Hurricane Katrina in 2005) have had devastating effects on airports. During these types of crises, airport personnel around the nation have rallied and provided needed resources—maintenance personnel, equipment, necessary inventory products such as airfield lighting, etc.—to get the affected airports operational again.

Major incidents such as tornados, aircraft accidents, and widespread power outages may have the same crippling effects on airports. Smaller communities must often rely on outside assistance to organize, repair, and staff the airport, especially over a long period of time if the situation is long term.

Smaller staffs can sustain airport operations only so long under such circumstances. At some point within the first 24 hours, there will be a need for relief by competent personnel who can ensure airport security and safety. Unfortunately, most communities do not have ample personnel trained and readily available to operate airport maintenance (e.g., airfield lighting, snow removal) and perform administrative duties (e.g., issuing NOTAMs, coordinating issues with the FAA). Thus, there's a need to organize a local and/or statewide mutual aid support system to assist fellow airports in time of crisis.

## Local Resources

The first few hours in a natural disaster or major accident are extremely important for limiting damages and maintaining safety. Since it may take several hours to receive outside help (from state or national agencies), knowing what local resources exist and how to use them may prove critical to implementing an effective response.

Having a 24-hour contact list of key personnel is a first step. Identifying and knowing the capabilities of local organizations, facilities, and equipment is also very important. Consider what local airports are available to draw resources from. Establishing relationships with neighboring airport managers and discussing resources is important for addressing airport needs in times of crisis, as well as for assisting each other with daily operational concerns.

## State Resources

In addition to state programs and organizations that typically respond to community disasters, consider what specifically can be organized to address airport needs on an intrastate basis. A state typically has an aeronautical agency and medium- to large-sized airports with the personnel and equipment to assist smaller communities in time of need.

During a crisis, time is valuable, and attempting to contact several agencies for assistance is not a good use of that time. The ability to make one phone call to an agency to request assistance makes good sense—especially if there is a pre-arranged support system to provide the personnel and equipment needed quickly. The state aeronautics agency could provide such a means. A pre-determined contact list of approved personnel with a certain level of experience could be developed. This would include administrative personnel capable of issuing NOTAMs and overseeing airport operations and maintenance personnel familiar with typical airport lighting and pavement maintenance. In addition, airports or suppliers with airport-specific equipment (e.g., snow removal, lighting) should be included on such a list.

One call from an airport in need would initiate the state agency's call-out process to arrange resources and a schedule to meet demands. This would allow the airport manager to concentrate on the issue at hand,

knowing assistance is being arranged. One concern may be financing these resources. Participating airports in such an arrangement could sign an agreement, with the understanding that such resources would be paid by the requesting airport at certain predetermined rates. The requesting airport would have the final ability to determine which resources, personnel, and duration would be authorized.

# APPENDIX A: GENERAL AVIATION AIRPORT EMERGENCY PLAN TEMPLATE

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This template is also available online at [www.AirTAP.umn.edu](http://www.AirTAP.umn.edu).

## Basic Plan

### Purpose

The purpose of this plan is to ensure the safe and efficient handling of any emergency situation that may arise at \_\_\_\_\_ Airport. It is intended to assist the Airport Manager, airport staff, and emergency organizations with carrying out their responsibilities efficiently in case of an airport emergency.

Note that, in addition to this document, a brief reference guide titled *Airport Emergency Procedures* is included in the emergency kit located at the airport, which provides additional guidance to specific emergency situations.

### Introduction

We recognize that all emergency situations cannot be anticipated. If an emergency situation arises that is not covered in this plan, the Airport Manager has the authority to direct such actions as he or she may deem necessary.

This plan was approved and adopted on \_\_\_\_\_.

### *Airport Emergency Plan Coordinator*

The coordinator of this plan will be the Airport Manager or his or her designated representative, who will be responsible for the administration and review processes of this plan and who will ensure full implementation of these procedures during any emergency or disaster condition. Emergency response will vary depending on hazard-specific conditions as contained herein, and Incident Command will be established consistent with \_\_\_\_\_ County emergency response procedures and National Incident Management System (NIMS) guidelines.

### Basic Assumptions

In developing this plan, we considered the following:

- How best to work together as a team and use the resources of the city, county, and airport.
- How to manage communications at the airport during an emergency.
- How to hand off control as the availability of staff and the nature of the emergency changes.
- How to coordinate radio frequencies so that all emergency responders can communicate effectively with each other.
- Where to go during an emergency.
- How to inform tenants and other airport users about the emergency.
- How to restrict access and control bystanders during an emergency.

### Organization and Assignment of Responsibility

The individuals and agencies that have a role in an emergency at the \_\_\_\_\_ Airport are listed in Table 1. This list is not meant to be all-inclusive in terms of the agencies or individuals involved, as others may be needed.

For Table 1, describe what each person or agency is responsible for during airport emergency situations. Who do these people report to? What are their responsibilities? Also list specific emergencies or hazards that may be encountered and how each will be addressed, providing name and contact information for each person(s) responsible for the initial and secondary responses. Note the sections on Hazard Identification included in this template.

**Table 1. Airport Emergency Responsibilities**

Position or Description	Responsibilities for Airport Emergency
Airport Manager	<ul style="list-style-type: none"> <li>• Serve as Emergency Coordinator.*</li> <li>• Assume Incident Command responsibility for all response and recovery operations, as appropriate.</li> <li>• Establish, promulgate, coordinate, maintain, and implement the Airport Emergency Plan (AEP).</li> <li>• Contact 911 and provide appropriate alerts and notifications.</li> <li>• Coordinate the closing of the airport when necessary and initiate the dissemination of relevant safety-related information to aviation users (NOTAMs).</li> </ul>
Air Carrier/Aircraft Operator	<ul style="list-style-type: none"> <li>• Provide full details of aircraft-related information, as appropriate, to include number of persons, fuel, and dangerous goods on board.</li> <li>• Coordinate transportation, accommodations, and other arrangements for uninjured passengers.</li> <li>• Coordinate use of air carrier/aircraft personnel and other supplies and equipment for all types of emergencies occurring at the airport.</li> </ul>
_____ City Administrator	<ul style="list-style-type: none"> <li>• Provide access to city resources.</li> </ul>
_____ Fire Chief/ Department	<ul style="list-style-type: none"> <li>• Manage and direct firefighting and rescue operations.</li> <li>• Direct search and rescue or hazardous materials response.</li> <li>• Coordinate mutual aid resources through Incident Command System.</li> <li>• Assist with search and rescue or evacuations.</li> <li>• Assume Incident Command as appropriate.</li> </ul>
_____ Police Chief/Department	<ul style="list-style-type: none"> <li>• Manage and direct police operations.</li> <li>• Assist with traffic control and scene security.</li> <li>• Assist with search and rescue or evacuations.</li> <li>• Respond as needed for activities involving crowds or assemblies of people.</li> <li>• Respond to bomb threats or acts of terrorism.</li> <li>• Assume Incident Command as appropriate.</li> </ul>
_____ County Emergency Management Director	<ul style="list-style-type: none"> <li>• Assist airport with obtaining all resources offered by the state or federal governments.</li> <li>• Assist the county in obtaining any state or federal government resources that may be needed as a result of an emergency situation.</li> </ul>
_____ Hospital	<ul style="list-style-type: none"> <li>• Provide emergency medical services to the airport during emergency conditions to include triage, stabilization, first aid, medical care, and transportation of the injured.</li> <li>• Coordinate planning, response, and recovery efforts with hospitals, fire and police departments, airport operator, etc.</li> <li>• Coordinate the hospital disaster plan with the airport and community Emergency Operations Plan (EOP).</li> </ul>

Tenants and FBOs	<ul style="list-style-type: none"> <li>• Coordinate the use of their available equipment and supplies.</li> <li>• Coordinate the use of their workers. The tenants usually have information about the airport, aircraft, and other technical knowledge.</li> </ul>
County Sheriff	<ul style="list-style-type: none"> <li>• Provide primary law enforcement for off-airport events.</li> <li>• Coordinate scene security.</li> <li>• Assist with investigations.</li> <li>• Assist with search and rescue efforts.</li> </ul>
Public Works Department	<ul style="list-style-type: none"> <li>• Coordinate use of resources for debris removal or building maintenance.</li> <li>• Coordinate restoration of utilities.</li> <li>• Provide equipment for emergency response and recovery.</li> </ul>

*\*Note: In the absence of the Airport Manager, an airport staff person will serve as the Emergency Coordinator until the Airport Manager is on-site.*

### **Administration and Review**

The Airport Manager is responsible for reviewing this document every 12 months and making recommendations for updates and changes to the \_\_\_\_\_ Airport Board. As part of this review, local emergency and medical personnel will conduct a tabletop exercise to assist with identifying needed changes every 12 months. At least once every three years, the Airport Manager will conduct a full-scale emergency plan exercise. Emergency plan reviews and exercises will involve all of the agencies that have responsibilities in the execution of the emergency plan.

After the updated emergency plan has been submitted to the \_\_\_\_\_ Airport Board by the Airport Manager, the board will have final approval of the revised plan.

In the event of a major emergency or disaster that exceeds the resources and capabilities of the airport, and which requires immediate state and/or federal assistance, the Minnesota Duty Officer may be contacted at the following phone numbers:

- 800-422-0798 (outside the Minneapolis/St. Paul metro area)
- 651-649-5451 (within the Minneapolis/St. Paul metro area)

## Functional Areas

This section provides information on tasks and core responsibilities that may be applied to all airport emergencies. Detailed information particular to specific emergency situations is found in the standard operating procedures for hazard-specific areas.

Note: Many general aviation airports do not have enough staff to designate an individual to cover each function. FAA Advisory Circular 150/5200-31C recognizes this and states that in many instances these roles may need to be combined or may include off-airport expertise.

### 1. Command and Control

Command and control of an airport emergency situation will vary depending on the type of emergency and the response required. The Incident Command System (ICS) will be utilized consistent with \_\_\_\_\_ County emergency procedures.

In case of emergency, the Airport Manager will be the main point of contact for the duration of the incident with respect to the implementation of this plan in coordination with Incident Command.

The \_\_\_\_\_, located \_\_\_\_\_, will be the first choice for the Emergency Operations Center (EOC).

The \_\_\_\_\_ County Emergency Management Director will assist in providing resource coordination between government agencies and the private sector as needed per Incident Command.

### 2. Communication

Primary communication for responding agencies will be through the use of communication radios using \_\_\_\_\_ County emergency frequencies.

In the event secondary communications are needed, equipment may include electronic communications, cell phones, amateur radio, or secondary \_\_\_\_\_ County communication equipment.

The \_\_\_\_\_ Airport uses the following civil aviation band frequencies:  
\_\_\_\_\_.

### 3. Alert Notifications and Warning

The airport manager, representative, or airport tenants will be responsible for initiating a 911 call in the event of an emergency.

Note: Notifications regarding airport emergencies may also be reported by the general public in some cases.

The Airport Manager will coordinate with Incident Command to notify the appropriate aviation agencies. Incident Command will be responsible for ensuring that notifications are made to protect the general public.

The Airport Manager will notify the appropriate key \_\_\_\_\_ County government and private organization officials.

Dispatch of emergency personnel will be the responsibility of \_\_\_\_\_ County dispatch after alert notification is received.

**4. Emergency Public Information**

Airport management will coordinate with Incident Command to ensure actions are taken to protect the public in the event of an emergency. Instructions will be delivered to the public through the following methods:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Incident Command may assign a public information officer (PIO) to work within the Incident Command System (ICS) and coordinate public information.

Media briefings will be coordinated through Incident Command and the PIO per implementation of the media plan on page \_\_\_\_\_.

**5. Protective Actions**

The Airport Manager will coordinate with Incident Command to ensure actions are taken to protect the public in accordance with procedures for \_\_\_\_\_ County emergency management.

Evacuation/protect-in-place procedures will be coordinated through Incident Command. The Airport Manager will work through the ICS to assist with evacuations of airport buildings. In the event of a tornado, the public will be directed to \_\_\_\_\_.

**6. Law Enforcement**

Law enforcement agencies, including \_\_\_\_\_ and \_\_\_\_\_, will ensure the availability of sufficient numbers of qualified and trained law enforcement personnel to support an airport emergency. Law enforcement will coordinate multijurisdictional law enforcement response and any required mutual aid.

Law enforcement will establish security for all airport emergency scenes including the control of traffic control points and access. Law enforcement agencies will assume Incident Command for situations involving bomb threats or terrorism and coordinate with Incident Command for all other emergencies.

**7. Firefighting and Rescue**

The \_\_\_\_\_ Fire Department will ensure the availability of sufficient numbers of qualified and trained personnel to support an airport emergency. The \_\_\_\_\_ Fire Department will coordinate appropriate response and recovery operations including any mutual aid needed.

Fire department personnel will assume Incident Command for all fire suppression, search and rescue, and \_\_\_\_\_ operations or coordinate with Incident Command as required.

**8. Health and Medical Services**

The \_\_\_\_\_ Hospital will provide emergency medical services to include triage, stabilization, first aid, medical care, and the transportation of the injured to the airport during an emergency. \_\_\_\_\_ will be responsible for ensuring that the coordination of any other mutual aid agency is accomplished through Incident Command.

Hospital: \_\_\_\_\_  
(List addresses of participating hospitals and capabilities—e.g., level 2 trauma center, ER capacity.)



EMS: \_\_\_\_\_

(List EMS services responsible for response and transport and their capabilities.)

The following are pre-determined areas that may be utilized at the discretion of Incident Command for uninjured, injured, and deceased:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### 9. Resource Management

Incident Command will be responsible for ensuring that the appropriate resources are obtained for the emergency situation including response and recovery operations. The following is a list of resources to support potential emergencies:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

An airport emergency kit is located \_\_\_\_\_ (also shown in Figure 2). The contents are:

- Laminated copy of Table 1
- Laminated copy of the airport map
- Copies of forms that address the hazards contained in this plan
- A handheld radio tuned to the required frequency of \_\_\_\_\_
- Four high-powered flashlights
- Blanket
- First aid kit
- List and contact information for all airport tenants
- Laminated copy of the “Immediate Action Guide”
- Caution tape
- Two ventilator masks
- Directions for where to find X’s to close a runway, as well as the hazardous spill containment pads and other items used in responding to these hazards

Each agency, department, or service of \_\_\_\_\_ County government will provide for the maintenance of records during an emergency. These records should include work hours, equipment hours, supplies and materials consumed, injuries to personnel, and damage to public facilities and equipment. This information will be provided to the finance section of the ICS when applicable.

### 10. Airport Operations and Maintenance

The Airport Manager or representative will be responsible for the control of the airport during an emergency. The Airport Manager will determine if the airport needs to be closed. If the airport is closed, he or she will ensure that yellow X’s for runway closure are placed as appropriate.

The Airport Manager or representative will be responsible for issuing NOTAMs for airport conditions and closures as well as any required coordination with air traffic control facilities. The Airport Manager or representative will make the appropriate notifications to all airport tenants. A contact list of all tenants is included in the airport emergency kit.

The Airport Manager will coordinate airport operations with Incident Command as required and make available all necessary equipment and facilities.

## **Standard Operating Procedures and Checklists for Specific Hazards**

This section focuses on the special planning needs and hazards particular to airports. It addresses the essential operational actions needed to help successfully complete a specific response function. Some hazards that may require a response are:

- Aircraft incidents and accidents
- Natural disasters
- Bomb incidents
- Hazardous materials incidents
- Structural fires
- Failure of power
- Missing aircraft

This section also includes detailed instructions and checklist information for hazard-specific sections and the airport map.

Note: Hazard-specific sections should include response and recovery procedures particular to a specific type of emergency. Types of emergencies to include in this section are determined on a case-by-case airport hazard analysis for individual airports. This template includes examples of common types of emergencies to address in an AEP.

### **Airport Access**

The keys for the airport and the cards for accessing the gates will be kept in a lockbox located outside the airport terminal as shown in Figure 2. The following key staff will have access to the lockbox code:

\_\_\_\_\_ Airport Manager  
\_\_\_\_\_ Chief of Police  
\_\_\_\_\_ Fire Chief  
\_\_\_\_\_ County Sheriff  
\_\_\_\_\_ City Manager

## **Hazard 1: Aircraft Incidents and Accidents**

### **Definition and Classification of Incidents and Accidents**

**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 receives substantial damage.

**Aircraft incident:** Any occurrence associated with the operation of an aircraft that is not considered an “aircraft accident.”

### **Incident Classification System**

**Level 1:** An accident *may* happen. For example, there is a landing gear problem, or a situation or emergency exists or is perceived to exist that may result in an incident or accident. This includes situations where it is unknown if an incident or accident emergency has actually occurred.

**Level 2:** An aircraft is known or suspected to have an operational defect that affects normal flight operations to the extent that there is danger of an accident.

**Level 3:** An aircraft accident has occurred on or in the vicinity of the airport.

### **Emergency Contact Information**

_____ Fire/Police Departments:	911
Airport Manager: _____	Cell: _____
NOTAM:	Home: _____
	1-877-487-6867
FAA Great Lakes Operations Center: (the FAA will contact NTSB)	847-294-8400
Other airport staff:	
_____	Cell: _____
_____	Cell: _____
_____	Cell: _____
_____ Street Department:	_____
City Administrator: _____	Work: _____

### **Alert Notification and Warning**

Once it has been determined that a potential or actual airport/aircraft emergency exists, all parties listed under Emergency Contact Information should be notified by the Airport Manager or, in his or her absence, the primary point of contact. After making phone calls in the order listed below, the Airport Manager or his or her representative should remain by the phone to direct responders and answer questions.

Note: The Airport Manager may have other response duties depending on level of training and/or local procedures and may not be able to remain by the phone.

### **Level 1 Classification Response**

The fire department personnel should be advised of the following information if known:

- Type of aircraft
- N-number
- Type and amount of fuel
- Number, or potential number, of passengers and crew
- Nature of emergency
- Type and/or amount and location of cargo
- Number of passengers on board
- Location of aircraft

### **Level 2 Classification Response**

Fire department personnel should be provided with the same information as above plus any additional details that will allow preparation for likely contingencies. Fire/police dispatch should advise airport staff of the applicable fire department radio talk group or provide a radio patch to facilitate efficient response coordination. A full response should be made with the emergency equipment operating and positioned with engines running and all emergency lights operating, enabling rapid response to the incident/accident site.

1. Standby locations on the \_\_\_\_\_ Airport should be accessed through the gates by the arrival/departure building, and responding units should position themselves in such a manner as to have a clear view of the runway and taxiways. The person in charge of response equipment (fire department) should anticipate the aircraft's rollout and station emergency response vehicles some distance upwind from the rollout area.
2. Communication with the aircraft by airport staff should be made if possible (on Unicom frequency \_\_\_\_\_ or the emergency frequency \_\_\_\_\_) and passed to the fire department. This provides a safety factor for rollout; should an emergency require it, the vehicle could be on the move to the aircraft stopping point from an upwind direction.
3. The fire department vehicle will move on a fast parallel course to the aircraft once it is apparent that the aircraft is going to pass the standby position.

### **Level 3 Classification Response**

Full fire department procedures should be put into effect. All pertinent updated information should be relayed by the airport staff and/or dispatching agency to responding emergency units and include the location of the accident using direction and distance from the arrival/departure building, thresholds, mid-field, street/road intersections, or landmarks.

When complete aircraft-related information is unavailable, the fire department personnel should anticipate the worst situation and prepare accordingly.

Notify the FAA Operations Center of conditions at the site, particularly if such conditions could interfere with flight operations. Airport staff should issue applicable NOTAMs and ensure appropriate Unicom advisories are communicated. Note that all NOTAMs should specify if the airport will remain open for emergency aircraft.

## **Recovery**

### ***Preservation of wreckage***

If the accident involves personal injury or death, the wreckage CANNOT BE MOVED OR DISTURBED except for emergency extrications, to protect the wreckage from further damage, or to protect the public from injury. Incident Command should ensure the preservation of wreckage until otherwise authorized by the FAA duty officer (see Emergency Contact List) or until the appropriate governing agency takes custody of or releases the wreckage.

Following FAA approval, the wreckage may be moved away from the runway/taxiways or accident scene to facilitate the timely reopening of the airport. The aircraft owner is responsible for removing or making arrangements to remove the damaged aircraft. The \_\_\_\_\_ and the \_\_\_\_\_ city public works may assist in this recovery process.

Following removal of the wreckage, the Airport Manager will inspect the runway/taxiway pavement and surrounding surfaces for damage and debris, and, if satisfactory, the airport may be reopened to air traffic. If the runway is closed, X's should be placed at each end.

The city will bill all costs for the recovery and removal of aircraft from the operational areas of the airport to the owner/operator of the involved aircraft.

## **Public Information**

Airport personnel or other city personnel should avoid making any statements to the news media during an emergency situation at the airport or aircraft accident scene unless previously directed. The Airport Manager and a representative from the FAA or NTSB will normally serve as the public information officer (PIO). Any city employee with questions about media inquiries will refer the media to the PIO.

## **Organizational Response and Responsibilities**

### ***Airport Staff***

- Locate the aircraft owner/operator if pilots or passengers are unable to communicate.
- Check with the FBO for any parties that might have been waiting for or associated with the aircraft.
- Check with the FAA operations center to determine if a flight plan exists for the aircraft and obtain related pilot and owner information.
- If the aircraft tail number is readable or known, use the Internet to quickly determine the owner/operator at [www.landings.com](http://www.landings.com):
  1. Click on "Databases" at top of screen.
  2. Click on "A/C Registration US" (if of U.S. registry, N-number database).
  3. Click on "Basic Search."
  4. Type in aircraft's tail number.
  5. Click on "Send Query."
- Complete airfield inspections and documentation.

- Issue appropriate NOTAMs.
- Cooperate with investigations.

The Airport Manager will notify appropriate officials, assist with the investigative process, and provide documentation, including the Airport Incident Report form.

***Airport Fixed-Base Operators (FBO)***

- Provide the specific or best estimate of location on or near the airport or closest intersection, landmark, etc., of the emergency.
- Call 911 (police/fire dispatch).
- State the “ALERT/Emergency Level.” Provide information from the description of Readiness Levels.
- Make a Unicom advisory call (123.0) if there’s a danger to other aircraft.
- Contact airport staff:

\_\_\_\_\_

\_\_\_\_\_

- Stand by to direct firefighters or EMS to the accident site.

***Fire Department***

Fire department personnel on the scene will assume Incident Command and will direct all efforts of fire suppression and rescue of individuals involved in the incident. The Incident Commander will assess the situation and ensure that adequate equipment is available for rapid fire suppression, rescue of victims, and transportation of victims to area hospitals. The scene Incident Commander will maintain contact with the Airport Manager.

Fire/police dispatch should advise airport staff of the applicable fire department radio talk group or provide a radio patch to facilitate efficient response and coordination (e.g., directions to the emergency site, recommended access gate).

***Police Department/Department of Public Safety***

- Secure the area and ensure the free flow of emergency equipment into the incident scene.
- Handle crowd control, site security, and control of ingress and egress to the incident scene by authorized personnel.
- Assist firefighters in the suppression of fire and rescue of victims if requested by the Incident Commander.
- Treat the accident/incident scene as a major crime scene and secure as such.

***Public Works Department***

The public works department will respond to any serious aircraft or airport incident as directed by Incident Command. The Director of Public Works will assist the Airport Manager in returning the airport to normal operations in an expeditious manner. The Director of Public Works will coordinate with Incident Command and assist in and supervise the recovery, removal, or salvage of property that creates a problem on the airport and restricts aircraft operations. This will include the removal of aircraft and hazardous debris on runways and taxiways. The public works department may respond with the initial equipment necessary to accomplish its mission, such as:

- Front-end loader
- Dump truck
- Flatbed trailer

- Sweeper
- Adequate cables and ropes to move an aircraft
- Support equipment (e.g., barricades, cones, and lighting systems for night recovery operations)

#### ***Airport Tenants***

Airport tenants and their employees should be considered a prime source of readily available equipment and labor and may have an intimate knowledge of the airport and the aircraft. These individuals can be invaluable, especially if their background includes aircraft maintenance, medical training, or aircraft transportation. If utilized, on a voluntary basis only, it is imperative that these individuals be deployed under supervision and assigned specific functions to avoid duplication of efforts and the possibility of disrupting the other emergency operations.

#### ***Emergency Medical Services (EMS)***

EMS will provide emergency medical services to include triage, patient care, and transport. EMS will coordinate with the \_\_\_\_\_ Hospital and Incident Command for any required mutual aid.

## **Hazard 2: Natural Disasters**

In the event of a natural disaster such as a tornado, hailstorm, flooding, severe thunderstorm, or high wind, the \_\_\_\_\_ County Emergency Management Plan and the Hazardous Weather Emergency Operations Plan will be followed.

### **Emergency Contact Information**

\_\_\_\_\_ Fire/Police Departments: 911  
Airport Manager: \_\_\_\_\_  
NOTAM: \_\_\_\_\_  
Public Works: \_\_\_\_\_

### **Alert Notifications and Warning**

All parties listed under Emergency Contact Information should be notified. The general public will be warned of severe weather through sirens, radio, etc.

### **Response**

If time allows:

1. Notify airport tenants of the threatening condition.
2. Advise aircraft owners and pilots so they can depart the airport ahead of the condition or secure their aircraft properly.
3. Survey the airport for unsecured objects that may become projectiles in high winds or be damaged by floodwaters.
4. Move aircraft to safe areas (hangars) or position and secure as best as time allows.
5. Stop fueling operations when lightning is observed in the vicinity.
6. Secure airfield lighting as necessary to protect from flood damage.
7. Lower or remove the windsock.
8. Issue a NOTAM advising of airport conditions.

The designated storm shelter area will be \_\_\_\_\_.

If required:

- Have Incident Command activate the Emergency Operations Center (EOC), located \_\_\_\_\_, to coordinate any airborne emergency relief.
- Coordinate with all military and relief flight operations for the orderly flow of air traffic.
- Designate unloading areas and the movement from the airport of relief supplies.
- Provide current weather and airport status information to the city manager, police chief, fire chief, emergency management staff, and utility departments.
- Depending on the severity of the situation, the EOC may be activated at the discretion of Incident Command. \_\_\_\_\_ will assume Incident Command. Airport management will work within the ICS and procedures of \_\_\_\_\_ County for severe weather events and staff the EOC as needed.

### **Recovery**

The Airport Manager or point of contact will call the local utility companies \_\_\_\_\_ and \_\_\_\_\_ Public Works at \_\_\_\_\_. The Airport Manager should use available equipment and labor, with assistance from the utility departments, to return the airport to an operational condition as soon as possible. This will ensure an additional avenue for emergency relief.



## **Organizational Response and Responsibilities**

### ***Airport Management***

- Provide alert information to responding agencies, airport tenants, users, and the general public at the airport.
- Conduct inspections and issue appropriate NOTAMs.
- Monitor the NOAA weather radio to ascertain conditions that will affect the airport. The airport may also obtain a tone alert monitor to watch weather or other relevant emergencies.
- Complete documentation regarding the event, including incident report, damage assessments, and financial impacts.

### ***Fire Department***

- Respond to protect persons and property.
- Coordinate search and rescue operations as needed.

### ***Police Department***

- Respond to protect persons and property.
- Participate in traffic control, evacuations, or sheltering of the general public.

### ***Public Works***

- Direct resources as necessary to assess damage, make repairs, and restore utilities.
- Provide equipment for shoring up public buildings or removing debris.

### **Hazard 3: Bomb Incidents/Terroristic Threats**

Criminal activities and disturbances may include bomb threats, terrorism, vandalism, or crowd control problems. In general, law enforcement will assume Incident Command for these situations.

#### **Emergency Contact Information**

_____ Police Department:	911
Airport Manager:	_____
TSA:	866-907-8391
AOPA GA SECURE Hotline:	866-427-3287
City Manager:	_____

#### **Alert Notifications and Warning**

All parties listed under the Emergency Contact Information should be notified. It may not be necessary to contact the TSA or AOPA GA-SECURE Hotline for all criminal activities, such as for those not involving aircraft operations.

#### **Response**

Law enforcement will be the primary response agency and assume Incident Command. For bomb threats, airport management or personnel may be involved with gathering initial threat information and providing alert notifications and warnings.

#### **Recovery**

The Airport Manager will coordinate with law enforcement, conduct necessary inspections, issue appropriate NOTAMs, and return the airport to normal operations.

#### **Organizational Response and Responsibilities**

##### ***Airport Management***

- If a threat is phoned in to the airport, use the bomb threat form to get as much information as possible.
- For a suspicious package or parcel, leave it unopened where it was discovered.
- Establish an isolation zone on the airport and clear it of all personnel.
- Have all passengers leave baggage and cargo. All persons should be detained until cleared by the designated law enforcement personnel.
- Notify the police department by calling 911.
- Notify the TSA by calling 866-907-8391.
- If on an aircraft, notify the person(s) or firm that owns the aircraft.
- For threats on aircraft or hijacking situations, direct all aircraft to the pre-determined isolation area located \_\_\_\_\_.
- Notify the tenant of the building, if any, and direct all persons to be evacuated to a minimum of 500 feet from the threatened building; ensure a tenant familiar with the building will meet with authorities to help identify building contents during the bomb search.
- Ensure all personnel and vehicles are kept a minimum safe distance of 500 feet from around the building; divert flights away from any building with a suspicious package or device.

***Police Department***

- Respond to scene and assume Incident Command.
- Assist with crowd control, evacuations, and protection of the public.
- Establish scene security and isolation areas.
- Coordinate any required law enforcement mutual aid.

## **Hazard 4: Hazardous Materials Emergencies**

A hazardous materials emergency involves the possible spillage of hazardous material on a commercial, military, or private aircraft in flight or any hazardous materials incident on airport property.

### **Emergency Contact Information**

_____ Fire/Police Departments:	911
Airport Manager:	_____
State Duty Officer:	800-422-0798

### **Alert Notifications and Warning**

Upon notification from the pilot or other responsible person(s), or observation of a hazardous material incident on airport property, notify the fire department by telephone (911).

### **Organizational Response and Recovery Responsibilities**

#### ***Airport Management***

- Provide alert notifications by calling 911.
- Notify any affected airport tenants or the general public at the airport and provide public information on evacuation or shelter-in-place procedures as coordinated with incident command.
- Issue appropriate NOTAMs closing isolation areas of the airport.
- If the incident is on an aircraft, upon landing, direct the pilot to the pre-determined isolation zone located \_\_\_\_\_.

#### ***Fire Department***

- Assume incident command
- For a hazardous materials spill (gas, fuel oil, etc.) of more than five gallons, or for assistance in dealing with any hazardous materials incident, notify the Minnesota Spill Duty Officer at 800-422-0798.
- Establish a 1,500-foot perimeter around the area or adequate distance per the *Emergency Response Guide* published by the Department of Transportation for isolation distance from the aircraft.
- Protect persons and property and implement evacuation or sheltering-in-place procedures.
- Permit only rescue crews and authorized personnel within the perimeter if radioactive smoke-borne or wind-carried particles are present.
- Close doors and windows of buildings in the area where blowing smoke-borne or other particles are present. Evacuate area.
- Determine if an actual spill has occurred. If the hazardous material container is found to be unbroken, the alert will be canceled and the material will be held in custody until proper disposal instructions are received. If a spill has occurred, the fire department and the senior fire official on scene will take charge, and the official will become the incident commander. The fire department will direct all containment and cleanup operations.

#### ***Emergency Medical Services (EMS)***

- Provide any emergency medical services, patient care, or transport.

#### ***Public Works***

- Provide equipment and resources for containment if necessary and as directed by incident command.

## **Hazard 5: Structural Fires**

A structural fire emergency involves fires occurring at or in airport buildings such as terminals or hangars.

### **Emergency Contact Information**

\_\_\_\_\_ Fire/Police Departments: 911  
Airport Manager: \_\_\_\_\_  
Fire Chief: \_\_\_\_\_  
Public Works: \_\_\_\_\_

### **Alert Notifications and Warning**

Airport management or a representative will contact all parties listed in the emergency contact information and notify affected tenants at the airport.

### **Response**

\_\_\_\_\_ Fire Department will be the primary response agency and will assume Incident Command.

### **Recovery**

Airport management and the public works department will be responsible for returning the airport to normal operations and working with affected building owners to clean up and document actions taken.

### **Organizational Response and Responsibilities**

#### ***Airport Management***

- Call 911.
- Take protective actions for employees and the public.
- Evacuate area according to evacuation plan.
- Coordinate response activities.
- Control access to facility until it has been inspected and/or will not impede with emergency response organizations.
- Coordinate news releases with incident command, if necessary.

#### ***Airport Staff/Maintenance***

- Assist with critical services including utility support (activation/cutoff) as needed.
- Provide safety inspections.
- Assist in facility restoration.

#### ***Tenants***

- Provide assistance on voluntary basis or in accordance with established agreements.
- Provide specialized tools, equipment, and knowledge of building contents as needed.

#### ***Fire Department***

Fire department personnel on the scene will serve as Incident Command and will direct all efforts of fire suppression and rescue of individuals involved in the incident. The Incident Commander will assess the situation and ensure that adequate equipment is available for rapid fire suppression, rescue of victims, and transportation of victims to area hospitals. The scene Incident Commander will maintain contact with the Airport Manager.

***Police Department***

- Secure the area and ensure the free flow of emergency equipment into the incident scene.
- Handle crowd control, site security, and control of ingress and egress to the incident scene by authorized personnel.
- Assist firefighters in the suppression of fire and rescue/evacuation of victims if requested by the Incident Commander.

***Emergency Medical Services (EMS)***

- Provide emergency medical services for patient care and transport.

***Public Works***

- Direct clean-up operations of public buildings as necessary.

## **Hazard 6: Failure of Utilities**

A utility failure on the airport may require closing the airport due to lack of lighting for aircraft operations or the need to keep operating aircraft and people away from a gas leak. The failure of the water main may require stopping work in hangars and ceasing fueling operations if water is required for first aid, such as eye wash stations or cleanup from a fuel spill. The fire department should be consulted about its ability to fight a fire while the water is cut off.

### **Emergency Contact Information**

\_\_\_\_\_ Fire/Police Departments: 911  
Airport Manager: \_\_\_\_\_  
Public Works: \_\_\_\_\_

In case of electrical power failure:

- Call \_\_\_\_\_ (municipal utility company) at \_\_\_\_\_ (local phone number).
- Stay clear of all downed power lines.

In case of gas line rupture:

- Clear the immediate area.
- Call \_\_\_\_\_ (local gas company) at \_\_\_\_\_ (local phone number).
- Notify the local fire department (if necessary) at \_\_\_\_\_ (local phone number).

In case of water main break:

- Call \_\_\_\_\_ (municipal water company) at \_\_\_\_\_ (local phone number).

### **Alert Notification and Warning**

Airport management or a representative will notify the responsible utility company of the failure as well as the public works department.

### **Organizational Response and Recovery Responsibilities**

#### ***Airport Management***

- Notify staff and repair personnel of the outage.
- Issue NOTAM, if required.
- Notify the appropriate FAA air traffic control facility by contacting \_\_\_\_\_ regarding a failure that may affect the safety of flight.
- Notify tenants.
- Coordinate and disseminate public information to address public safety and impacts of utility failures in public buildings or parking lots.
- Inspect airport facilities to ensure proper working conditions before returning to service and normal operations. The critical facilities prioritized for return to service and inspections include:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

***Public Works***

- Coordinate any repairs necessary with the utility companies and restore services to priority areas of the airport.



## **Hazard 7: Missing Aircraft**

### **Emergency Contact Information**

\_\_\_\_\_ Fire/Police/Sheriff's Departments: 911  
Airport Manager: \_\_\_\_\_  
FAA Flight Services: \_\_\_\_\_

### **Alert Notifications and Warning**

The Airport Manager or representative may be notified by the FAA or the general public in cases of missing or overdue aircraft. It is possible that the pilot of a missing or overdue aircraft may have landed and not cancelled a flight plan. In these cases, the missing aircraft and pilot may be found somewhere on the airport facilities, and so notification to all responding agencies may not be required.

### **Organizational Response and Recovery Responsibilities**

#### ***Airport Management***

- Search airport facilities and check with tenants for missing or overdue aircraft.
- Alert local response agencies as appropriate for possible search and rescue operations.
- Obtain information regarding missing or overdue aircraft (see Missing/Overdue Aircraft Information Form).
- Coordinate with the FAA.

#### ***Fire Department***

- Assist with any search and rescue operations.
- Coordinate any required mutual aid assistance.
- Consider activation of the EOC.

#### ***Police/Sheriff's Department***

- Assist with any search and rescue operations.

## Post-Incident Procedures

### ***Implement Responders and Family/Victim Assistance Plan***

- Designate secure facilities for victims' families and friends that are easily accessible and are removed from areas involved with the emergency response or designated for the media.
- Provide areas for the care of emergency responders.
- Provide the basic needs to accommodate both responders and the victims' family members. Emergency services and provisions for responders and family/victims may include food, water, and medical attention.
- Identify a process for responding to requests for information concerning the emergency event to victims' families and coordinate this activity with the public information officer (PIO).
- Consult with local emergency management officials to review options for providing mental health assistance. These services may be made available to both the families in crisis and the responders.
- Identify potential resources for helping responders cope with these situations, including the use of Critical Incident Stress Debriefings (CISD).

### ***Implement Media Plan***

- Implement an effective media plan that covers all phases of an airport emergency.
- Designate an area for media to gather and set up to cover the situation.
- Designate a PIO with responsibility to interface with the media. This designated individual will disseminate information consistent with inputs from all involved agencies and approved by Incident Command or Unified Command.
- Designate only one PIO for each emergency incident.
- Control and coordinate the media briefing with the PIO and other responding or investigative agencies such as the National Transportation Safety Board (NTSB).
- Conduct media briefings in a designated location and according to a designated schedule if the scale or duration of the airport emergency incident warrants it.
- Consider additional resources for dealing with large volumes of media inquiries during a major airport emergency incident.

### ***Establish Safe Airport Operations***

Airport management is responsible for ensuring that all appropriate actions are taken, regardless of the type of emergency, to establish safe airport operations after an incident.

- As with other phases of an emergency, identify assignments and organizational responsibilities, command and control, and other required functional areas.
- If an airport has been closed due to an emergency situation, do not re-open it until the assigned personnel have ensured that:
  - Aircraft operating areas are safe and secure;
  - Aircraft movement areas to be reopened have been inspected;
  - Adequate aircraft rescue and firefighting protection is available (if applicable);
  - Public safety is assured.
- Ensure that responsibility is assigned for documenting all actions taken, including the writing of an incident report. This report should include all pertinent information regarding the incident such as type of incident, time and date of occurrence, names and addresses of persons involved, witnesses, reporting party, response actions, and recommendations for further actions.

### ***Work Through Investigations***

An investigation will begin in the event of an aircraft accident, possibly during the response and recovery phase. The NTSB is responsible for accident investigations involving civil aircraft within the United States, but it is not uncommon for that responsibility to be delegated to the FAA.

- Establish scene security prior to the NTSB or investigative authority arriving on the scene of an aircraft emergency incident.
- Establish a perimeter around an accident scene to protect property and preserve evidence.
- Accommodate the NTSB or FAA and cooperate with the investigation.

The FBI and TSA may be involved in investigating criminal activities or terrorist threats.

## **Attachments**

- Bomb Threat Form
- Aircraft Incident Report
- Missing Aircraft Form
- Airport and Terminal Maps

## Bomb Threat Form

1. When is the bomb going to explode? \_\_\_\_\_
2. Where is it right now? \_\_\_\_\_
3. What does it look like? \_\_\_\_\_
4. What kind of bomb is it? \_\_\_\_\_
5. What will cause it to explode? \_\_\_\_\_
6. Did you place the bomb? \_\_\_\_\_
7. What is your name? \_\_\_\_\_
8. What is your phone number? \_\_\_\_\_
9. Note the exact wording of the threat (write on back).
10. What are the sex, race, and age of the caller? \_\_\_\_\_
11. What was the length of the call? \_\_\_\_\_
12. Number at which the call was received: \_\_\_\_\_
13. Time and date received: \_\_\_\_\_
14. Was the caller's voice familiar? If so, whom did it sound like:  
\_\_\_\_\_
15. Was the caller's voice calm, angry, excited, slow, rapid, soft, loud, laughing, crying, normal, distinct, slurred, nasal, stuttering, lisping, raspy, deep, ragged, clearing throat, breathing deeply, cracking, disguised, have an accent, familiar, or whispered? \_\_\_\_\_
16. Did you hear any background sounds? \_\_\_\_\_
17. Was the threat language well spoken, foul, irrational, incoherent, taped, or read like a rehearsed message? \_\_\_\_\_

- **Call 911.**
- **Evacuate the building/aircraft to a safe distance.**
- **Contact the Airport Manager at \_\_\_\_\_.**

# Aircraft Incident Report

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Type of Incident (check one)

Aircraft Accident/Incident: \_\_\_\_\_

Natural Disaster: \_\_\_\_\_

Property Damage: \_\_\_\_\_

Bomb Threat: \_\_\_\_\_

Other: \_\_\_\_\_

Reported by

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone #: \_\_\_\_\_

Location: \_\_\_\_\_

Weather conditions: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Nature of incident: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Aircraft type and tail number: \_\_\_\_\_

Name(s) of pilot(s): \_\_\_\_\_

Pilot(s) contact information: \_\_\_\_\_

Units that responded to incident: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Action taken: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Missing Aircraft Form

The Airport Manager and staff will assist in locating aircraft on or near the airport by taking the following information and actions:

Notified of a missing aircraft (N-number): \_\_\_\_\_

By (name): \_\_\_\_\_

Of (organization): \_\_\_\_\_

Contact number: \_\_\_\_\_

Estimated time of arrival: \_\_\_\_\_ at (airport): \_\_\_\_\_

Aircraft type: \_\_\_\_\_

Aircraft color: \_\_\_\_\_

Pilot name: \_\_\_\_\_ number: \_\_\_\_\_

Local contact (name): \_\_\_\_\_ number: \_\_\_\_\_

People on board: \_\_\_\_\_

Last contact (time): \_\_\_\_\_ location: \_\_\_\_\_

1. Check to see if the aircraft is on the ramp.
2. Check the hangar list to see if the pilot or a local contact have a hangar on the field.
3. Call the hangar owner to ask if the aircraft is in hangar.
4. Visit the hangar if unable to contact hangar owner.
5. Contact police to find out if an aircraft crash has been reported in the area.
6. Physically tour the airport property, looking off the ends of runways and any low spots where an aircraft would not be easily seen.
7. Report back to the person who reported the aircraft missing.
8. If the initial report came from the pilot's family or friends, contact Flight Services at 800-992-7433 or the FAA at 847-294-8400.
9. If the aircraft is not initially located, contact the Airport Manager at \_\_\_\_\_.





## **Airport and Terminal Maps**

*Attach airport safety map here. List detailed information on access route and considerations for each area of the airport.*

**Figure 1.** \_\_\_\_\_ **Airport Safety Map**

Insert map here

**Figure 2.** \_\_\_\_\_ **Terminal Map**

Indicate location of the lockbox and emergency kit.



## APPENDIX B: GLOSSARY OF TERMS

### A

**Advisory Circular (AC):** A series of external FAA publications consisting of all non-regulatory material of a policy, guidance, and informational nature.

**Agency:** A division of government with a specific function offering a particular kind of assistance. In ICS, agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance).

**Agency Representative:** A person assigned by a primary, assisting, or cooperating federal, state, local, or tribal government agency or private entity that has delegated authority to make decisions affecting that agency's or organization's participation in incident management activities, following appropriate consultation with the leadership of that agency.

**Air Carrier:** A legal entity that undertakes directly by lease or other arrangements to provide air transportation.

**Air Carrier, Commuter:** An air taxi operator who, under FAR Part 135, (1) performs at least five round trips per week between two or more points and publishes flight schedules that specify the times, days of the week, and places between which such flights are performed; or (2) transports mail by air pursuant to a contract with the U.S. Postal Service.

**Air Traffic Control (ATC):** The FAA service providing separation services to participating airborne traffic and clearances to land, takeoff, or taxi at airports with a control tower.

**Aircraft Accident:** An occurrence associated with the operation of an aircraft that takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage.

**Aircraft Classes:** For the purposes of Wake Turbulence Separation Minima, air traffic control (ATC) classifies aircraft as Heavy, Large, and Small as follows:

1. Heavy: Aircraft capable of takeoff weights of 300,000 pounds or more, whether or not they are operating at this weight during a particular phase of flight.
2. Large: Aircraft of more than 12,500 pounds maximum certificated takeoff weight, up to 300,000 pounds.
3. Small: Aircraft of 12,500 pounds or less maximum certificated takeoff weight.

**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 injuries to persons or substantial damage to aircraft.

**Aircraft Operator:** A person, organization, or enterprise engaged in, or offering to engage in, aircraft.

**Airport:** An area of land or water that is used or intended to be used for the landing and taking off of aircraft, including its buildings and facilities, if any.

**Airport Authority:** The individual or group of individuals having responsibility for the overall functions of the airport.

**Airport Emergency Plan (AEP):** A concise planning document developed by the airport operator that establishes airport operational procedures and responsibilities during various contingencies.

**Airport Environs:** The area surrounding an airport directly affected by the presence and operation of that airport.

**Airport Hazard:** Any structure or natural object located on or in the vicinity of a public airport, or any use of land near such airport, that obstructs the airspace required for the flight of aircraft landing, taking off, or taxiing at the airport.

**Airport Layout Plan (ALP):** A plan (drawings) for an airport showing boundaries and proposed additions to all areas owned or controlled by the sponsor for airport purposes, the location and nature of existing and proposed airport facilities and structures, and the location on the airport of existing and proposed non-aviation areas and improvements thereon.

**Airport Manager:** The individual charged with the responsibility for maintaining and operating the airport safely on a day-to-day basis.

**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 Security Program (ASP):** A concise planning document developed by the airport operator that establishes airport security procedures and responsibilities during various contingencies.

**Airport Sponsor:** A public agency or tax-supported organization, such as an airport authority, that is authorized to own and operate an airport, to obtain property interests, to obtain funds, and to be legally, financially, and otherwise able to meet all applicable requirements of the current laws and regulations.

**Airport Traffic Area:** Unless otherwise specifically designated in FAR Part 93, that airspace within a horizontal radius of five statute miles from the geographical center of any airport at which a control tower is operating, extending from the surface up to, but not including, an altitude of 3,000 feet above the elevation of an airport. Unless otherwise authorized by air traffic control (ATC), no person may operate an aircraft within an airport traffic area except for the purpose of landing at or taking off from an airport within that area. ATC authorizations may be given as individual approval of specific operations or may be contained in written agreements between airport users and the tower concerned (See Class D Airspace).

**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 not normally cause serious difficulty in achieving a safe landing. This is notification only. No response is required. A1 units involved will be manned and will standby in quarters.

**Alert II (Full Emergency):** An aircraft that is now 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. A1 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 of disasters and helps people prevent, prepare for, and respond to emergencies. It does this through services consistent with its congressional charter and the principles of the International Red Cross and Red Crescent Movement.

**Apron/Ramp:** A defined area on an airport or heliport intended to accommodate aircraft for purposes of loading passengers or cargo, refueling, parking, or maintenance.

**Aqueous Film Forming Foam (AFFF):** Foam concentrate combined with water, used as an extinguishing agent.

**Area Command (Unified Area Command):** An organization established (1) to oversee the management of multiple incidents that are each being handled by an ICS organization, or (2) to oversee the management of large or multiple incidents to which several Incident Management Teams have been assigned. Area Command has the responsibility to set overall strategy and priorities, allocate critical resources according to priorities, ensure that incidents are properly managed, and ensure that objectives are met and strategies followed. Area Command becomes Unified Area Command when incidents are multijurisdictional. Area Command may be established at an emergency operations center facility or at some location other than an incident command post.

**Assessment:** The evaluation and interpretation of measurements and other information to provide a basis for decision making.

**Assignments:** Tasks given to resources to perform within a given operational period based on operational objectives defined in the IAP.

**Assistant:** Title for subordinates of principal command staff positions. The title indicates a level of technical capability, qualifications, and responsibility subordinate to the primary positions. Assistants may also be assigned to unit leaders.

**Assisting Agency:** An agency or organization providing personnel, services, or other resources to the agency with direct responsibility for incident management. See also Supporting Agency.

**Automated Surface Observation System (ASOS):** The primary surface weather observation system in the United States, supporting aviation operations and weather forecasting. Automated sensors record wind direction and speed, visibility, cloud ceiling, precipitation, etc. Data are sent automatically to the National Weather Service. At many locations, a computer-generated voice broadcasts minute-by-minute weather reports to pilots on a discrete radio frequency.

**Automated Weather Observation System (AWOS):** Provides automated airport weather observations to pilots on a discrete radio frequency via a computer-generated voice. AWOS is less sophisticated than an automated surface observation system (ASOS). It is usually installed using state funds.

**Auxiliary Power Unit (APU):** Power unit in most large aircraft to provide electrical power, air conditioning, engine start, and backup power in flight.

**Available Resources:** Resources assigned to an incident, checked in, and available for a mission assignment, normally located in a staging area.

**AVGAS:** Aviation gasoline used by piston-powered aircraft.

## B

**Base or Base Leg:** The leg perpendicular to the final leg of the traffic pattern to the landing runway.

**Based Aircraft:** Aircraft stationed at an airport on a long-term or permanent basis, usually by some form of agreement between the aircraft owner and airport management.

**Biometric Identification/Security:** A mechanism used to identify and verify persons for security purposes. The most common type of biometrics are fingerprint scanners.

## C

**Care Area:** Location where the first medical care is given to injured parties.

**Chain of Command:** A series of command, control, executive, or management positions in hierarchical order of authority.

**Check-In:** The process through which resources first report to an incident. Check-in locations include the incident command post, resources unit, incident base, camps, staging areas, or directly on the site.

**Chief:** The ICS title for individuals responsible for management of functional sections: operations, planning, logistics, finance/administration, and intelligence (if established as a separate section).

**Cockpit Voice Recorder (CVR):** A recording device to record crew conversation and communications and intended to assist in accident investigation.

**Command Staff:** In an incident management organization, the command staff consists of the Incident Commander and the special staff positions of public information officer, safety officer, liaison officer, and other positions as required, who report directly to the incident commander. They may have an assistant or assistants, as needed.

**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; the use of consistent words or phrases for the same concepts to allow diverse incident management and support organizations to work together across a wide variety of incident management functions and hazard scenarios.

**Common Traffic Advisory Frequency (CTAF):** The radio frequency, sometimes called the UNICOM frequency, used by all traffic at an airport without an operating control tower to coordinate approaches and landings, takeoffs, and departures. Pilots announce their positions, intentions, and actions in the traffic pattern for the benefit of other traffic.

**Communications Unit:** An organizational unit in the logistics section responsible for providing communication services at an incident of an EOC. A communications unit may also be a facility (e.g., a trailer or mobile van) used to support an incident communications center.

**Contamination:** The undesirable deposition of a chemical, biological, or radiological material on the surface of structures, areas, objects, or people.

**Cooperating Agency:** An agency supplying assistance (other than direct operational or support functions) or resources to the incident management effort.

**Coordinate:** To advance systematically an analysis and exchange of information among principals who have or may have a need to know certain information to carry out specific incident management responsibilities.

**Critical Rescue and Firefighting Access Area (CRFFAA):** Rectangular area surrounding any given runway 500 feet wide, 3,300 feet beyond the runway end where most accidents are expected to occur.

## D

**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 manmade or natural disaster.

**Decontamination:** The reduction or removal of a chemical, biological, or radiological material from a structure, area, object, or person.

**Department of Homeland Security (DHS):** Federal agency created to oversee the nation's security interests.

**Deplanements:** Passengers leaving an aircraft (see also Enplanements).

**Deputy:** A fully qualified individual who, in the absence of a superior, can be delegated the authority to manage a functional operation or perform a specific task. In some cases, a deputy can act as relief for a superior and, therefore, must be fully qualified in the position. Deputies can be assigned to the incident commander, general staff, and branch directors.

**Disaster:** An occurrence of a natural catastrophe, technological accident, or human-caused event resulting in severe property damage, deaths, and/or multiple injuries.

**Dispatch:** The ordered movement of a resource or resources to an assigned operational mission or an administrative move from one location to another.

**Division:** The partition of an incident into geographical areas of operation. Divisions are established when the number of resources exceeds the manageable span of control of the Operations Chief. A division is located within the ICS organization between the branch and resources in the Operations Section.

**Downwind Leg:** A flight path parallel to the landing runway in the direction opposite the landing direction.

## E

**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 manmade 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 Locator Transmitter (ELT):** A radio transmitter activated automatically by the impact of an accident. Emits a warbling tone on the international emergency frequencies of 121.5 MHz, 243 MHz, and (for newer models) 406 MHz. ELT signals can be received by nearby FAA facilities, aircraft overhead, and search and rescue (SARSAT) satellites.

**Emergency Medical Services (EMS):** Medical services provided by emergency personnel trained in the administration of medical protocols.

**Emergency Operations Center (EOC):** The physical location at which the coordination of information and resources to support domestic incident management activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, and medical services), by jurisdiction (e.g., federal, states, regional, county, city, tribal), or some combination thereof.

**Emergency Operations Plan:** The “steady-state” plan maintained by various jurisdictional levels for responding to a wide variety of potential hazards.

**Enplaned/Deplaned Passengers:** The volume of passengers outbound from an airport (enplaned) or inbound to an airport (deplaned). The annual passenger volume of an airport is the total enplaned and deplaned passengers.

**Enplanements:** Passengers boarding an aircraft (see also Deplanements).

**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.

**Event:** A planned, nonemergency activity. ICS can be used as the management system for a wide range of events—e.g., parades, concerts, or sporting events.

## F

**Federal Aviation Administration (FAA):** The United States Department of Transportation’s agency for aviation. In addition to regulating airports, aircraft manufacturing and parts certification, aircraft operation, and pilot certification (“licensing”), the FAA operates air traffic control, purchases and maintains navigation equipment, certifies airports, and aids airport development, among other activities.



**Federal Bureau of Investigation (FBI):** Federal agency that assists in criminal accident investigation.

**FAA Order:** An internal FAA directive that sets standards, procedures, and guidelines for the FAA to execute its various regulatory and grant administration mandates.

**Federal:** Of or pertaining to the federal government of the United States of America.

**Federal Aviation Regulations (FAR):** Regulations established by the FAA. These regulations are the rules that govern the operation of aircraft, airways, and airmen.

**FAR Part 91:** Federal Aviation Regulations, Part 91, which establishes criteria for general operating and flight rules.

**FAR Parts 121 AND 135:** Federal Aviation Regulations that deal with certification and operational requirements for commercial operators of large aircraft and air taxis, respectively.

**FAR Part 139:** Federal Aviation Regulations, Part 139, which specifies certification and operational requirements for airports serving air carrier aircraft.

**Final:** The last leg of the traffic pattern when the aircraft is aligned to fly straight in to the landing runway.

**Fixed-Base Operator (FBO):** (1) A business operating at an airport that provides aircraft services to the general public, including but not limited to sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tie-down or storage of aircraft; flight instruction; air taxi/charter operations; and specialty service such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol. (2) The owner of such an operation.

**Flight Date Recorder (FDR):** Device to record aircraft speed, altitude, heading, etc., intended to assist in accident investigation.

**Flight Plan:** Filed by radio, telephone, computer, or in person with flight service stations, a record of aircraft number, type, and equipment; estimated time of departure and time en route; route and altitude to be flown; amount of fuel and number of persons aboard; home base and contact phone number; and other information.

- *VFR Flight Plan*—Voluntary filing for cross-country flights under visual flight rules. For search and rescue use only, with no role for air traffic control (ATC).
- *IFR Flight Plan*—Mandatory filing (at least one-half hour) before a flight under instrument flight rules. Based on flight plan information, ATC can issue (immediately before departure) an IFR clearance to enter clouds or low-visibility conditions for instrument rather than visual flight.

**Flight Service Station (FSS):** FAA facilities that provide pilot briefings on weather, airports, altitudes, routes, and other flight planning information. More specifically, FSS facilities also provide en route communications and visual flight rule (VFR) search and rescue services, assist lost aircraft and aircraft in emergency situations, relay air traffic control (ATC) clearances, originate Notices to Airmen (NOTAMs), broadcast aviation weather and National Airspace System (NAS) information, receive and process instrument flight rule (IFR) flight plans, and monitor navigational aids (NAVAIDs). In addition, at selected locations, FSSs provide en route Flight Advisory Service (Flight Watch), take weather observations, issue airport advisories, and advise customs and immigration of transborder flights.

**Flight Standards District Office (FSDO):** An FAA field office serving an assigned geographic area and staffed with flight standards personnel who serve the aviation industry and the general public on matters relating to the certification and operation of air carrier and GA aircraft. Activities include general surveillance of operational safety, certification of airmen and aircraft, accident prevention, investigation, and enforcement.

**Flight Watch:** (See En Route Flight Advisory Service)

**Foreign Object Damage/Debris (FOD):** Surface contaminants such as sand, rocks, and litter that contribute to hazards if ingested into engines or projected by engine blast.

**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, may be established, if required, to meet incident management needs.

## G

**General Aviation (GA):** All civil aviation (excluding military) except those classified as air carrier or air taxi. The types of aircraft typically used in GA activities vary from multiengine jet aircraft to single-engine piston aircraft.

**General Aviation Operations:** Operations performed by all civil aircraft not classified as air carrier, military, or air taxi aircraft.

**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.

**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 to assist with defining the response area or assisting with search and rescue efforts.

**Ground Power Unit (GPU):** A ground equipment support device that provides electrical aircraft power.

**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.

## H

**Hangar:** A large building at an airport where planes can be stored and maintained.

**Hazard:** Something that is potentially dangerous or harmful, often the root cause of an unwanted outcome.

**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 in-

clude explosives, radioactive materials, flammable liquids or solids, combustible liquids or solids, poisons, oxidizers, toxins, and corrosive materials.

**Holding Area:** Location to which the injured aircraft occupants are transported.

## I

**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 human-caused, that requires an emergency response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, war-related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.

**Incident Action Plan:** An oral or written plan containing general objectives reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during one of more operational periods.

**Incident Command Post (ICP):** The field location at which the primary tactical-level, on-scene incident command functions are performed. The ICP may be collocated with the incident base or other incident facilities and is normally identified by a green rotation of flashing light.

**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.

**Incident Commander (IC):** The individual responsible for all incident activities, including the development of strategies and tactics and the ordering and release of resources. The IC has overall authority and responsibility for conducting incident operations and is responsible for the management of all incident operations at the incident site.

**Incident Management Team (IMT):** The IC and appropriate Command and General Staff personnel assigned to an incident.

**Incident Objectives:** Statements of guidance and direction necessary for selecting appropriate strategy(s) and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow strategic and tactical alternatives.

**In-Flight Emergencies:** Those emergencies that affect the operational integrity of an aircraft while in flight. The seriousness of these emergencies can be defined by using alert status guidelines stated in FAA terms.

**Initial Action:** The actions taken by those responders first to arrive at an incident site.

**Initial Response:** Resources initially committed to an incident.

**Instrument Flight Rules (IFR):** A set of regulations and procedures permitting qualified and current IFR pilots to penetrate clouds and low-visibility conditions. Aircraft must be equipped with radio and navigation instruments operating under air traffic control (ATC) flight plans and clearances. Flights are monitored and traffic separated by ATC, usually by radar (see Visual Flight Rules).

**Investigation:** A process conducted for the purpose of accident prevention, which includes the gathering of data, analysis of the information, and the drawing of conclusions, to include the determination of a cause or causes and, when appropriate, the making of safety recommendations.

**Itinerant Operation:** An arrival or departure performed by an aircraft from or to a point beyond the local airport area. Also defined as all aircraft arrivals and departures other than local operations.

## J

**Jurisdiction:** A range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority. Jurisdictional authority at an incident can be political or geographical (e.g., city, county, state, or federal) or functional (e.g., law enforcement, public health).

## K

**Knot (nautical mile per hour):** Most common measure of aircraft speed. 100 knots equals 115 statute miles per hour (for mph, multiply knots by 1.15).

## L

**Liaison:** A form of communication for establishing and maintaining mutual understanding and cooperation.

**Liaison Officer:** A member of the command staff responsible for coordinating with representatives from cooperating and assisting agencies.

**Local Traffic:** Aircraft operating in the traffic pattern or within sight of the tower, aircraft known to be departing or arriving from flight in local practice areas, or aircraft executing practice instrument approaches at the airport.

**Logistics Officer (LO):** The person responsible for providing oversight of logistical support activities.

**Logistics Section:** The section responsible for providing facilities, services, and material support for the incident.

## M

**Management by Objective:** A management approach that involves a four-step process for achieving the incident goal. The Management by Objective approach includes the following: establishing overarching objectives, developing and issuing assignments, plans, procedures, and protocols; establishing specific, measurable objectives for various incident management functional activities and directing efforts to fulfill

them, in support of defined strategic objectives; and documenting results to measure performance and facilitate corrective action.

**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.

**Medical Transportation Area:** That portion of the triage area where injured persons are staged for transportation to medical facilities under the direct supervision of a medical transportation officer.

**Memorandum of Agreement (MOA):** A written agreement between parties.

**Mobilization:** The process and procedures used by all organizations—federal, state, local, and tribal—for activating, assembling, and transporting all resources requested to respond to or support an incident.

**Moulage:** A reproduction of a skin lesion, tumor, wound, or other pathological state. Applied for realism to simulate injuries during emergency exercises.

**Military Operation:** Operations performed by military groups such as the Air National Guard, U.S. Air Force, U.S. Army, U.S. Marine Corps, or U.S. Navy.

**Mitigation Measure:** An action that can be planned or taken to alleviate (mitigate) an adverse environmental impact.

**Multijurisdictional Incident:** An incident requiring action from multiple agencies that each have jurisdiction to manage certain aspects of an incident. In ICS, these incidents will be managed under a Unified Command.

**Mutual Aid:** Reciprocal assistance by emergency services under a predetermined plan.

**Mutual-Aid Agreement:** Written agreement between agencies and/or jurisdictions stating that they will assist one another on request by furnishing personnel, equipment, and/or expertise in a specified manner.

N

**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 Plan of Integrated Airport Systems (NPIAS):** Public-use airports considered necessary to provide a safe, efficient, and integrated system of airports to meet the needs of civil aviation, national defense, and the U.S. Postal Service (previously called the National Airport System Plan).

**National Response Framework:** A comprehensive, national, all-hazards approach to domestic incident response.

**National Transportation Safety Board (NTSB):** The independent federal agency charged with investigating and finding “probable cause” of transportation accidents.

**Nautical Mile:** Most common distance measurement in aviation, equivalent to 1.15 statute (standard U.S.) miles.

**Navigation Aid (NAVAID):** A device or process to help with navigation, such as a VHF omnidirectional range (VOR) station or a position update.

**N-Numbers:** Federal government aircraft registration numbers. U.S.-registered aircraft numbers begin with “N,” Canadian numbers with “C” or “CF,” German numbers with “D,” United Kingdom numbers with “G,” French numbers with “F,” Japanese numbers with “JA,” etc.

**Nongovernmental Organization:** An entity with an association based on interests of its members, individuals, or institutions not created by a government, but that may work cooperatively with government. Such organizations serve a public purpose, not a private benefit. Examples of NGOs include faith-based charity organizations and the American Red Cross.

**Nontowered Airport:** An airport without a control tower. The majority of America’s 13,000 airports are nontowered (only 680 airports have control towers). Nontowered airports are far from being “uncontrolled.” Pilots follow traffic pattern procedures and self-announce positions and intentions using the Common Traffic Advisory Frequency (CTAF), usually called the UNICOM frequency.

**Notice To Airmen (NOTAM):** A notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, procedure of, or hazard in) the National Airspace System (NAS), the timely knowledge of which is essential to personnel concerned with flight operations.

## O

**Obstacle:** An existing object, object of natural growth, or terrain, at a fixed geographical location, or which may be expected at a fixed location within a prescribed area, with reference to which vertical clearance is or must be provided during flight operation.

**Operation:** A takeoff or landing.

**Operational Period:** The time scheduled for executing a given set of operation actions, as specified in the Incident Action Plan. Operational periods can be of various lengths, although usually not more than 24 hours.

**Operations Section:** The section responsible for all tactical incident operations. In ICS, it normally includes subordinate branches, divisions, and/or groups.

## P

**Personnel Accountability:** The ability to account for the location and welfare of incident personnel, accomplished when supervisors ensure the ICS principles and processes are functional and that personnel are working within established incident management guidelines.

**Planning Meeting:** A meeting held as needed prior to and throughout the duration of an incident to select specific strategies and tactics for incident control operations and for service and support planning. For larger incidents, the planning meeting is a major element in the development of the Incident Action Plan (IAP).

**Planning Section:** Responsible for the collection, evaluation, and dissemination of operational information related to the incident and for the preparation and documentation of the IAP. This section also maintains information on the current and forecasted situation and on the status of resources assigned to the incident.

**Preparedness:** The range of deliberate, critical tasks and activities necessary to build, sustain, and improve the operational capability to prevent, protect against, respond to, and recover from domestic incidents. Preparedness is a continuous process. Preparedness involves all levels of government and relationships between government and private-sector and nongovernmental organizations to identify threats, determine vulnerabilities, and identify required resources. Within NIMS, preparedness is operationally focused on establishing guidelines, protocols, and standards for planning, training and exercises, personnel qualification and certification, equipment certification, and publication management.

**Prevention:** Actions to avoid an incident or to intervene to stop an incident from occurring to protect lives and property. It involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations; investigations to determine the full nature and source of the threat; public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and, as appropriate, specific law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice.

**Public Information Officer:** A member of the Command Staff responsible for interfacing with the public and media or with other agencies with incident-related information requirements.

## R

**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.

**Recovery Plan:** A plan developed by a state, local, or tribal jurisdiction with assistance from responding federal agencies to restore the affected area.

**Resource Management:** Efficient incident management requires a system for identifying available resources at all jurisdictional levels to enable timely and unimpeded access to resources needed to prepare for, respond to, or recover from an incident. Resource management under NIMS includes mutual-aid agreements; the use of special federal, state, local, and tribal teams; and resource needs.

**Resources:** Personnel and major items of equipment, supplies, and facilities available or potentially available for assignment to incident operations and for which status is maintained. Resources are described by kind and type and may be used in operational support or supervisory capacities at an incident or an emergency operations center.

**Resources Unit:** Functional unit within the Planning Section responsible for recording the status of resources committed to the incident. This unit also evaluates the resources currently committed to the incident, the effects additional responding resources will have on the incident, and the anticipated resource needs.

**Response:** Activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs. Response also includes the execution of emergency operations plans and of mitigation activities designed to limit the loss of life, personal injury, property damage, and other unfavorable outcomes. As indicated by the situation, response activities include applying intelligence and other information to lessen the effects or consequences of an incident; increased security operations; continuing investigations into nature and source of the threat; ongoing public health and agricultural surveillance and testing process; immunizations, isolation, or quarantine; and specific law enforcement operations aimed at preempting, interdicting, or disrupting illegal activity and apprehending perpetrators and bringing them to justice.

**Runway (RWY):** A defined rectangular area on a land airport prepared for the landing and takeoff run of aircraft along its length. Runways are normally numbered in relation to their magnetic direction, rounded off to the nearest 10 degrees—e.g., Runway 01, Runway 25.

**Runway Protection Zone (RPZ):** A trapezoidal area at ground level for which the perimeter conforms to the projection on the ground of the innermost portion of the approach surface as defined in Federal Aviation Regulations (FAR) Part 77. The RPZ is centered on the extended runway centerline and begins at the end of the FAR Part 77 primary surface, terminating below the line where the approach surface reaches a height of 50 feet above the elevation of the runway end. FAA regulations require that RPZs be kept free of obstructions and any uses that might cause an assemblage of persons.

**Runway Safety Area (RSA):** A cleared, drained, graded, and preferably turfed area symmetrically located about the runway which, under normal conditions, is capable of supporting snow removal, firefighting, and rescue equipment and of accommodating the occasional passage of aircraft without causing major damage to the aircraft.

**Runway Threshold:** The beginning of that portion of a runway usable for landing or takeoff.

## S

**Safety Officer:** A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations and for developing measures for ensuring personnel safety.

**Significant Body of Water:** A body of water or marshland is significant if the area exceeds one-quarter square mile and cannot be traversed by conventional land rescue vehicles.

**Span of Control:** The number of individuals a supervisor is responsible for, usually expressed as the ratio of supervision to individuals (under NIMS, an appropriate span of control is between 1:3 and 1:7).

**Specialized Aviation Service Operation (SASO):** Similar to a fixed-base operator (FBO) but generally providing a single-service or specialized aeronautical service as opposed to full-service or multi-aeronautical service.

**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 that lend themselves to a definite, step-by-step process of accomplishment. SOPs supplement airport emergency plans by detailing and specifying how tasks assigned in the AEP are to be carried out.

**Strike Team:** A set number of resources of the same kind and type that have an established minimum number of personnel.

## T

**Tagging:** A method used to identify casualties as require immediate care (Priority 1), delayed care (Priority 2), minor care (Priority 3), or deceased.

**Task Force:** Any combination of resources assembled to support a specific mission or operational need. All resource elements within a task force must have common communications and a designated leader.

**Taxi:** The movement of an airplane under its own power on the surface of an airport; also, the surface movement of helicopters equipped with wheels.

**Taxilane:** The portion of the aircraft parking area used for access between taxiways, aircraft parking positions, hangars, storage facilities, etc.

**Taxiway (TWY):** A defined path, from one part of an airport to another, selected or prepared for the taxiing of aircraft.

**Terminal Area:** A general term used to describe the space of the building used to provide passenger service to the traveling public.

**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”).

**Threat:** An indication of possible violence, harm, or danger.

**Tools:** Those instruments and capabilities that allow for the professional performance of tasks, such as information systems, agreements, doctrine, capabilities, and legislative authorities.

**Touch-and-Go Operation:** A practice maneuver consisting of a landing and a takeoff performed in one continuous movement—the aircraft lands and begins takeoff roll without stopping. A touch-and-go is considered two operations.

**Traffic Pattern:** A standard rectangular flight pattern around the landing runway at an airport. It includes 45-degree or crosswind entry to the rectangle, with downwind, base, and final legs as sides of the rectangle. Standard are 90-degree left turns around the rectangle (a nonstandard right-hand traffic pattern is noted in airport facility directories) with downwind flown at a specified altitude, usually 1,000 or 1,500 feet above the airport elevation. At airports with a control tower, the pattern may be modified or short-cut according to air traffic control instructions.

**Transient Aircraft:** Aircraft not based at an airport.

**Transponder:** A special onboard 1090 MHz radio transmitter to enhance and code an aircraft's radar return. When interrogated by ground radar, a transponder transmits a return signal that controllers can use to identify and tag the flight on their computerized video display radar screen. Paired with an altitude encoder, "Mode C" transponders also transmit the aircraft's altitude. All aircraft flying in Class B airspace or higher than 10,000 feet are required to have Mode C transponders.

**Transportation Security Administration (TSA):** Federal agency responsible for security in all modes of transportation.

**Transportation Security Regulation (TSR) Part 1542:** Federal transportation security regulations for airports.

**Triage:** Sorting and classifying of casualties to determine the order of priority for medical treatment and transportation.

**Triage Area:** Location where triage operations are carried out.

**Turboprop:** An airplane using a turboprop engine—a jet rather than piston engine connected to a propeller. Such aircraft can be single-engine or multiengine. Turboprop engines are increasingly used when more horsepower is needed for speed or payload than the 300 to 400 horsepower available from current light-aircraft piston engines.

**Turbojet Aircraft:** An aircraft with a jet engine for which the energy of the jet operates a turbine that in turn operates the air compressor.

**Turboprop Aircraft:** An aircraft with a jet engine for which the energy of the jet operates a turbine that drives the propeller.

**Type:** A classification of resources in the ICS that refers to capability. Type 1 is generally considered to be more capable than Types 2, 3, or 4, respectively, because of size, power, capacity, or (in the case of incident management teams) experience and qualifications.

## U

**Ultralight Vehicle:** An aeronautical vehicle operated for sport or recreational purposes that does not require FAA registration, an airworthiness certificate, or pilot certification. An ultralight vehicle is primarily a single-occupant vehicle, although some two-place vehicles are authorized for training purposes. Operation of an ultralight vehicle in certain airspace requires authorization from air traffic control.

**Uncontrolled Airport:** see Nontowered Airport.

**UNICOM:** A common, multipurpose radio frequency used at most nontowered airports as the Common Traffic Advisory Frequency. The Aircraft Owners and Pilots Association (AOPA) coined the term (derived from the words "universal communications") in the 1950s. UNICOM is also used by fixed-base operators (FBOs) for general administrative uses, including fuel orders, parking instructions, etc. Originally 122.8 MHz universally, it now includes 122.7, 123.0, and other frequencies (see also Common Traffic Advisory Frequency).

**Unified Area Command:** A Unified Area Command is established when incidents under an Area Command are multijurisdictional (see also Area Command).

**Unified Command (UC):** An application of incident command system used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the UC—often the senior person from agencies and/or disciplines participating in the UC—to establish a common set of objectives and strategies and a single incident action plan.

**Unit:** The organizational element having functional responsibility for a specific incident planning, logistics, or finance/administration activity.

**Unity of Command:** The concept by which each person within an organization reports to one and only one designated person. The purpose of unity of command is to ensure unity of effort under one responsible commander for every objective.

## V

**Volunteer:** For purposes of NIMS, a volunteer is any individual accepted to perform services by the lead agency, which has authority to accept volunteer services, when the individual performs services without promise, expectation, or receipt of compensation for services performed. E.g., see 16 U.S.C. 742f(c) and 29 CFR 553.101.

## W

**Wake Turbulence:** Turbulent air conditions caused by small, tornado-like horizontal whirlwinds trailing an aircraft's wingtips (wingtip vortices). Wake turbulence associated with larger aircraft flying at slow speeds (as on takeoff or landing approach) is the most severe and can cause loss of control for smaller aircraft following close behind. Controllers use defined separation standards to avoid the problem for takeoff, landing, approach, and departure operations. The term includes vortices, thrust stream turbulence, jet blast, jet wash, propeller wash, and rotor wash, both on the ground and in the air.

**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).

**Wind Shear:** Large changes in either wind speed or direction at different altitudes that can cause sudden gain or loss of airspeed. Wind shear is especially hazardous when aircraft airspeeds are low on takeoff or landing.

## 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
AC	Advisory Circular
AEP	Airport Emergency Plan
AFFF	Aqueous Film Forming Foam
ALERT	Automated Local Evaluation in Real Time
ALPA	Air Line Pilots Association
AOA	Air Operations Coordinator
AMC	Aircraft Maintenance Coordinator
APU	Auxiliary Power Unit
ARC	American Red Cross
ARFF	Aircraft Rescue and Firefighting
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 Office
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
IAYA	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
MAA	Mutual Assistance Agreement
MEOC	Mobile Emergency Operations Center
MICP	Mobile Incident Command Post
MNS	Mass Notification System
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
NRT	National Response Team
NTSB	National Transportation Safety Board
NWS	National Weather Service
OSHA	Occupational Safety and Health Administration
PIO	Public Information Officer
PPE	Personal Protective Equipment
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
TSR	Transportation Security Regulations
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 Person
Z	Zulu Time/Greenwich Mean Time



## APPENDIX C: RESOURCES

### Federal Aviation Administration

The following sources were retrieved from the FAA's website, [www.faa.gov/airports](http://www.faa.gov/airports), on November 29, 2006.

- Aircraft Rescue and Firefighting (ARFF)  
[www.faa.gov/airports/airport\\_safety/aircraft\\_rescue\\_fire\\_fighting/](http://www.faa.gov/airports/airport_safety/aircraft_rescue_fire_fighting/)
- First Responder Safety at a Small Aircraft or Helicopter Accident  
[www.faa.gov/aircraft/gen\\_av/first\\_responders/](http://www.faa.gov/aircraft/gen_av/first_responders/)
- Publications: Airports Series 150 Advisory Circular Library  
[www.faa.gov/airports\\_airtraffic/airports/resources/advisory\\_circulars/](http://www.faa.gov/airports_airtraffic/airports/resources/advisory_circulars/)
- Publications: Certalerts  
[www.faa.gov/airports\\_airtraffic/airports/airport\\_safety/certalerts/](http://www.faa.gov/airports_airtraffic/airports/airport_safety/certalerts/)
- Airport Information: Part 139 Certification  
[www.faa.gov/airports\\_airtraffic/airports/airport\\_safety/part139\\_cert/](http://www.faa.gov/airports_airtraffic/airports/airport_safety/part139_cert/)

### Department of Homeland Security/Transportation Security Administration

- National Response Network, January 2008.  
[www.fema.gov/pdf/emergency/nrf/nrf-core.pdf](http://www.fema.gov/pdf/emergency/nrf/nrf-core.pdf)
- National Incident Management System, December 2008.  
[www.fema.gov/pdf/emergency/nims/NIMS\\_core.pdf](http://www.fema.gov/pdf/emergency/nims/NIMS_core.pdf)
- "Security Guidelines For General Aviation Airports" (2004).  
[www.tsa.gov/assets/pdf/security\\_guidelines\\_for\\_general\\_aviation\\_airports.pdf](http://www.tsa.gov/assets/pdf/security_guidelines_for_general_aviation_airports.pdf)

### National Fire Protection Association

- National Fire Protection Association (2008). *NFPA 402: A Guide for Aircraft Rescue and Fire Fighting Operations*.
- National Fire Protection Association (2008). *NFPA 424: Guide for Airport/Community Emergency Planning*.

### U.S. Department of Transportation

- *Emergency Response Guidebook* (2004).  
<http://hazmat.dot.gov/pubs/erg2004/gydebook.htm>.

### American Association of Airport Executives

- AAAE Staff (2004/2005). *Body of Knowledge*, Modules 1-15. Alexandria, Virginia: AAAE.

### Aircraft Owners and Pilots Association

- AOPA's Airport Watch  
[www.aopa.org/airportwatch](http://www.aopa.org/airportwatch)

### Airport Cooperative Research Program (ACRP)

The following ACRP documents are available on the agency's website: [www.trb.org/Publications/PubsACRPPublications.aspx](http://www.trb.org/Publications/PubsACRPPublications.aspx):

- ACRP Project 4-04: Exercising Command-Level Decision Making for Critical Incidents at Airports
- ACRP Report 12: *An Airport Guide for Regional Emergency Planning for CBRNE Events*
- ACRP Report 16: *Guidebook for Managing Small Airports*

- ACRP Synthesis 3: *General Aviation Safety and Security Practices*.

### **Magazines**

- *Airport Magazine*. American Association of Airport Executives. Alexandria, Va: AAAE Service Corporation Inc. (published bimonthly).
- *Airport Business* (2006). Fort Atkinson, Wisconsin: Cygnus Business Media. (published 11 times /year).

### **Miscellaneous**

- International Fire Service Training Association (2001). *Aircraft Rescue and Firefighting*. Fire Protection Publications, Oklahoma State University.
- Smith, James Fielding (2010). "Regional Cooperation, Coordination, and Communication Among Airports During Disasters," *Transportation Research Record: Journal of the Transportation Research Board*, i.2177, 132–140.