AIRPORT BUSINESS PLANS

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Components and Processes Utilized in Airport Business Planning

BUSINESS PLAN TOOL

What Makes an Airport Business Plan?

The airport business plan elements discussed below have been summarized from the Airport Cooperative Research Program (ACRP) Report 77 – *Guidebook for Developing General Aviation Airport Business Plans*. The guidebook provides an in-depth look at the importance of airport business plans (Chapter 2), as well as a detailed manual on how to create, implement, and evaluate an airport business plan (Chapters 3, 4, and 5). Since the ACRP Report is meant to serve as a general template, the wide-ranging components found within can be, and should be, modified to meet the unique business needs and situations of an airport; however, the overall elements and processes should remain the same.

✈ Elements of an Airport Business Plan

- Vision Statement – articulates the aspirations for an airport
- Goals – states a desired result, outcome, or level of attainment that needs to be reached in order to realize the vision for the airport
- Objectives – identifies significant steps toward achieving a goal(s)
- Action Plans – answers the key questions of who is going to do what, when, where, why, and how in order to accomplish a specific airport objective
- Budgets – forecasts the financial position or performance of the airport using existing conditions as a baseline
- Implementation – follows the business plan to accomplish what was intended to be achieved by the airport
- Evaluation – assesses the effectiveness of the business plan and encourages revisions/updates as necessary

What Is the Business Planning Process?

The following steps should serve as an abbreviated checklist for formulating and completing an airport business plan. For more detailed information, visit:

http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_077.pdf

✈ Airport Business Plan Process

- Identify Stakeholders – identify individuals, agencies, and institutions that have the potential to impact, or be impacted by, the airport. These include airport staff, local businesses, regional policymakers, colleges and universities, airport neighbors, and more. Representative stakeholders should take part in the business planning process to achieve a holistic planning approach, potentially improve available resources, and foster greater buy-in of the airport's vision.
- Articulate Vision Statement – How do the stakeholders envision the airport in the future? Is this aligned with how the airport views itself?
- Perform SWOT Analysis – What are the Strengths, Weaknesses, Opportunities, and Threats that the airport can capitalize on, or should mitigate, in pursuit of this vision? How can stakeholders assist?
- Establish Goals – Airport goals should incorporate the results of the SWOT Analysis, and should be Specific, Measurable, Attainable, Relevant, and Time Bound (S.M.A.R.T). Goals can also be separated by function – operations, marketing, financial, etc.
- Develop Objectives – What initial actions, or smaller steps, must to be taken in order to achieve the larger goals?
- Create Action Plan – Identify who will be responsible for completing which objectives, when (using a timeline), and how.
- Create Budget – What are the financial implications associated with pursuit and achievement of the airport's goals? Are the costs worth the benefits?
- Execute Plan – Once the business plan has been drafted and approved, it should be executed in accordance with its timeline and budget.
- Evaluate Plan – Updates and revisions to the business plan may be necessary pending the efficiency, effectiveness, and costs involved with execution of the plan.

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AIRPORT SELF INSPECTION TOOL

This tool provides a guide to airport self-inspections.

Introduction

Maintaining and ensuring airfield safety requires a successful airport self-inspection program and regular inspections are the main method used to identify and address issues on the airfield that should be resolved to ensure proper safety. Discrepancies in an airport's physical condition are often the most common airport safety shortfall and most of these items can be avoided through basic preventative maintenance schedules and proper self-inspection procedures. Therefore, regular self-inspections are integral to maintaining airfield safety and ensuring compliance with standards. This guide has been prepared to assist your airport in effectively conducting self-inspections at your airport. The pages that follow include thorough descriptions on the type of inspections to be performed, specific areas that should be addressed, and how often, or when self-inspections should take place.

The appendix to this document includes tools made up of checklists for your use. Since this document and the associated checklists have been distributed to all of the airports within the state, and the individual airports vary in size and function, it is likely that some of the items on the checklists may not apply to your particular facility. Therefore, the checklists have been developed in a manner that allows you to tailor it accordingly, by simply deleting the rows or cells within the checklist.

Inspection Personnel

The foundation for a successful airport self-inspection program lies in the personnel tasked with conducting self-inspections. Whether these personnel include the airport manager, operations, or maintenance personnel, specific considerations are necessary. Once personnel are hired, properly trained, and equipped, they engage in conducting airport inspections. It is recommended that airport personnel tasked with conducting inspections familiarize themselves with this document.

Frequency

The manner by which self-inspections are conducted varies among airports. However, it is important that all airport self-inspection programs incorporate inspections according to the four main types of frequencies. These include:

Regularly scheduled inspections - Conducted at least daily during both daytime and nighttime hours. These inspections would occur at least daily during a time when aircraft traffic is minimal in order to lessen any disruption to airport operations.

Continuous surveillance inspections - Conducted in areas and facilities that have been identified as being susceptible to hazardous conditions. By maintaining a constant awareness of specific areas and facilities that are prone to hazards, the incidence of hazards can be reduced.

Periodic condition inspections - Conducted on a regularly scheduled basis, but less frequently than daily. Periodic condition inspections are similar to daily inspections, but focus on areas and facilities that may not need to be attended to daily. Depending on the area or facility, these inspections may be conducted monthly, weekly, or quarterly.

Special inspections - Conducted after the receipt of a complaint or when an unusual event or condition occurs, such as a significant meteorological event, or an accident or incident. Additionally, special inspections would also be conducted at the end of a construction project. These are to be completed before construction personnel leave the airport, in case corrective measures need to be taken by the contractor. Airports may have specific checklists for each type of inspection or may incorporate each type of inspection into the daily self-inspection checklist. Regardless, all inspections are to be appropriately documented.

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Components of a Self-Inspection Program

A successful safety self-inspection program has four components, these include:

Regularly scheduled inspections of physical facilities. If the airport staff is on duty after dark, there should also be a nighttime inspection of lighting;

Continuous surveillance inspections of certain airport activities, such as fueling operations, construction, airfield maintenance;

A periodic condition inspection program for such things as approach slopes, obstructions, etc.; and

Special condition inspections during unusual conditions or situations, such as changing weather or days of unusually high number of aircraft operations.

The number and level of airport inspections vary by airport. However, it is recommended that at a minimum regularly scheduled inspections and continuous surveillance inspections be conducted daily. For airports that not required to adhere to FAA Part 139 standards, periodic condition, and special condition inspections can be performed at the discretion of the airport operator.

Regularly Scheduled Inspection

The regularly scheduled inspection consists of specific observations of airport physical facilities on at least a daily basis. This inspection should concentrate on the areas described in this section. If deficiencies exist, the inspector should indicate the deficient item and identify its location on an airport sketch, providing dimensions and depths, as necessary. If appropriate, the inspector should take photographs to document the condition.

Pavement Areas

The condition of pavement surfaces is an important part of airport safety. Pavement inspection should be conducted daily before flight operations commence to ensure pavement surfaces are clear. As a minimum, a daily inspection should be performed of all paved areas that are the responsibility of the airport operator. During the pavement inspection, the inspector should:

- Check the pavement lips—the area between full-strength pavement and shoulders or paved shoulders and safety areas—to assure that they are no greater than necessary to allow water to drain off the pavement. A lip height no greater than 1½ inches is usually sufficient to allow proper drainage.
- Determine if there are any cracks wide enough to cause directional control problems for an aircraft. Report and monitor these cracks.
- Determine if there are any holes that could cause directional control problems for an aircraft. Typically, any hole that cannot be covered by a 5-inch circle, and the side slope at any point in the hole that exceeds 3 inches in depth and is 45 degrees or greater, should be documented and considered a discrepancy.
- Check the condition of pavement areas for cracks, scaling, spalling, bumps, low spots, and for debris that could cause foreign object damage to aircraft.
- Check for vegetation growth along runway and taxiway edges that may impede drainage from the pavement surface.
- Check for vegetation growth in cracks. Report and monitor any cracks, holes, variations and vegetation that can cause loss of aircraft directional control or may cause pavement damage, including damaged caused by damming or ponding water.

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Safety Areas

The inspector should know the dimensions of the runway and taxiway safety areas at the airport. During the safety area inspection, the inspector should:

- Determine if there are any hazardous ruts, depressions, humps or variations from the normal smooth surface.
- Check to ensure no object is located in a safety area, except objects that must be in the safety areas because of their function (such as runway lights, signs, or navigational aids). These objects must be constructed on frangibly mounted structures of the lowest practical height.
- Check to ensure that any manhole and handhole covers are at grade level and can support vehicles and aircraft.
- Check to ensure that mounts for light fixtures are at grade level.
- Check for surface variation and other damage caused by rodents or other animals.
- Report any objects that are not frangible or not at grade level.
- Report extraneous equipment and objects, such construction equipment, and surface variations that would cause damage to an aircraft or impede emergency response vehicles.

Markings

Airport markings provide important information to pilots during takeoff, landing, and taxiing. To avoid confusion and disorientation, airport markings should be in compliance with FAA marking standards specified in AC 150/5340-1, Standards for Airport Markings. (Compliance with these standards is mandatory for airport operators that have accepted Federal funds for runway and taxiway construction/ rehabilitation.) The inspector should know the appropriate markings required at the airport.

During the marking inspection, the inspector should:

- Check markings for correct color-coding, peeling, blistering, chipping, fading, and obscurity resulting from rubber buildup.
- Check to see if all runway hold position markings are clearly visible. During and after construction projects, check new markings for compliance with FAA marking standards.
- If the markings have glass beads, check markings during periods of darkness to determine if the reflectivity of glass beads is adequate at night.
- Report and monitor any nonstandard marking or markings that are obscured, faded or deteriorating.

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Signs

Signs provide important information to pilots while taxiing. To avoid pilot confusion and disorientation, airport signs should be in accordance with FAA sign standards specified in AC 150/5340-18, Standards for Airport Sign Systems. (Compliance with these standards is mandatory for airport operators that have accepted Federal funds for runway and taxiway construction/rehabilitation.) The inspector should know the appropriate sign standards and specifications at the airport and ensure signs are in compliance and conduct the following:

- Check signs to ensure they are easy to read, in accordance with color standards, retro-reflective, and that all lighted signs are working and not obscured by vegetation, dirt, snow, etc.
- Check signs to ensure they are frangible and concrete bases are properly maintained at grade level.
- Check to see that sign panels are not missing or damaged, that they have the correct legend and arrow orientation, and that they are not cracked or broken.
- During and after construction projects, check any new signs for FAA compliance.
- During periods of darkness, check signs to ensure they are properly illuminated. Ensure mandatory instruction signs are illuminated with the associated runway lighting system.
- Check signs for correct operations; that they are on the correct circuits, they do not flicker and that they follow the intensity setting of the runway or taxiway lights.
- Report and monitor any nonstandard sign or any sign that is not functioning, is faded or damaged. It is recommended that the airport issue a NOTAM regarding any malfunctioning holding position sign or ILS critical are sign (if applicable).

Lighting

At night and during periods of low visibility, lighting is important for safe airport operations. Lights come in different shapes, sizes, colors, and configurations. Inspection of lighting is best accomplished during periods of darkness in order to evaluate lighting systems when they provide the primary visual aid for pilots. The inspection should concentrate on the lighting owned by the airport operator. However, the inspector should observe any lighting owned or operated by others and report any observed problems immediately to the appropriate responsible owner. During the lighting inspection, the inspector should:

Check to ensure that the following are operable, if installed, and that vegetation or deposits of foreign material do not obscure the light fixture:

- Runway and taxiway edge lights;
- Apron edge lights;
- Runway centerline and touchdown zone lights;
- Taxiway centerline lights or centerline reflectors;
- Runway threshold/end lights; and
- Runway guard lights (both elevated and in-pavement, if installed).

Check that the following are operable, if installed:

- Ramp lights and floodlights used in construction to ensure they are properly shielded; Obstruction lights; and
- Lighting in fuel storage areas.
- Report all fixtures missing and lights that are not working or appear dim.
- Report any missing or broken light fixture lenses.
- Ensure that runway and taxiway lights and runway threshold lights are the proper color and are oriented correctly.
- Check the lights for proper alignment, aiming and correct changes in intensity, for correct height, erosion around the bases and the height of frangibility.

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Navigational Aids (NAVAIDs)

The inspection of NAVAIDs should concentrate on the visual navigational aids owned by the airport operator. However, the inspector should observe any navigational aids owned or operated by others, such as the FAA, and report any observed problems immediately to the NAVAID owner. During the inspection of NAVAIDs, the inspector should:

- Determine if the segmented circle is clear of vegetation and that it can be seen easily from the air.
- Determine if the airport rotating beacon is visible and working properly. Check the wind cone(s) to ensure that it swings freely, the cone fabric is not faded or frayed, and, if lighted, that all lights are operating.
- Determine if the Runway End Lights are flashing in proper sequence and mounted on frangible couplings.
- Check Visual Glide Slope Indicators (VASIs, PLASIs, or PAPIs) to ensure that their lights are working and mounted on frangible couplings.
- Determine if the Approach Lighting systems are functioning properly.
- Report and monitor any NAVAID that is malfunctioning, inoperable or misaligned, damaged or missing.

Obstructions

The inspection of obstructions should concentrate on a visual check of any construction underway on or near the airport that could affect aircraft operations. This also includes checking for any vegetation, especially trees that may penetrate the FAR Part 77 surfaces.

During the inspection of obstructions, the inspector should:

- Check to ensure that construction equipment, especially tall cranes being used at construction sites, are not an obstruction.
- If construction is found and thought to create an obstruction, the airport operator should determine if proper notification to FAA, such as is required through Part 77 or Airport Layout Plan review, has been provided.
- Determine if obstructions are properly marked and lighted. Direct any person proposing construction near a public-use airport meeting the notice requirements contained in Part 77, Objects Affecting Navigable Airspace, to the Air Traffic Division or Airports District Office immediately if their construction has not been reported to the FAA.
- Report and monitor any obstruction light that is missing, inoperative or damaged, and any object that appears to be an obstruction and is not properly marked or lit.

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Fueling Operations

The daily inspection on aircraft fueling operations should concentrate on a quick inspection for the most common problems concerning compliance with local fire safety codes at fuel storage areas and with mobile fuelers. The inspection should also include security, fire protection, general housekeeping, and fuel dispensing facilities and procedures. It is recommended that a more detailed fueling operation inspection be conducted quarterly.

During the daily inspection of aircraft fueling operations, the inspector should:

- Determine if the fueling operator is permitting any unsafe fueling practices or is in violation of local fire code, such as failure to bond aircraft with the mobile fuelers during fueling operations or fueling personnel smoking while fueling aircraft.
- Check to ensure that the appropriate signs for the fuel farm are installed and that all gates are locked except when the facility is occupied by an authorized user.
- Report and monitor any unsafe fueling practices and violation of local fire codes

Snow and Ice

The inspector should be familiar with the airport's snow and ice removal procedures and guidance provided in AC 150/5200-30, Airport Winter Safety and Operations. During the snow and ice control inspection, the inspector should:

- Determine if any lights and signs are obscured by snow or damaged by snow removal operations.
- Check to ensure that snow banks and drifts next to the runway and taxiways provide clearance for aircraft wing tips, engines, and propellers.
- Check to ensure that snow is not piled across the runway threshold or across runway/runway intersections. Check to be sure that no foreign objects are left on the pavement from snow removal operations.
- Check to ensure that snow removal operations have not blocked any taxiways or access routes dedicated for aircraft rescue and firefighting equipment.
- Check to ensure that snow is not accumulated or piled in the critical areas for electronic NAVAIDs.
- Check for and report slippery pavement conditions in terms of either braking action or MU values. If a friction measurement device is available, issue the appropriate numbers obtained from the equipment. (Do not attempt to correlate friction measurement numbers with braking action reports.)
- Report and monitor any snow and ice accumulation that has been missed by the snow and ice removal operation, and any dangerous condition created by such operations, such as obscured signs or lights.

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Construction

The inspector should be familiar with the airport's construction safety procedures and guidance provided in AC 150/5370-2, Operational Safety on Airports during Construction. During the construction inspection, the inspector should:

- Determine if stockpiled material and construction materials are properly stored to keep them from being moved by wind, jet blast, or prop wash, and is not left in safety areas or movement area.
- Check all construction adjacent to movement areas to ensure areas are identified with conspicuous marking and lighting.
- Determine if construction equipment (such as bulldozers, cranes, etc.) are marked and lighted and parked clear of the safety areas. Ensure construction barricades are properly positioned to define the limits of construction and hazardous areas and, if barricades are lighted, check to ensure lights are working properly and are positioned correctly.
- Check to ensure that debris and foreign objects are continuously being picked up around construction areas.
- Check for open trenches in the safety areas or adjacent to movement areas.
- Check operation of lighting in areas adjacent to construction daily before the construction crews depart for the day. In particular, ensure that mandatory instruction signs remain lit with the associated runway lights, even on taxiways that have been closed for construction.
- Check NOTAMs daily during construction projects to ensure they accurately reflect the conditions on the airport.
- Verify that closed taxiways or runways are properly marked and lighted. Report and monitor any dangerous condition created by construction activity, including damage to signs, lights, markings and NAVAIDS or equipment and supplies left in movement areas and safety areas.

Public Protection

During the public protection inspection, the inspector should:

- Check gates, fencing, locks, and other safeguards are in place and functioning properly to prevent inadvertent entry to movement areas by unauthorized persons and vehicles and offer protection from jet blast.
- Report and monitor any safeguards that are damaged or missing.
- In accordance with the airport's security plan, report unauthorized persons or vehicles in the movement area.

Wildlife Hazard Management

During the wildlife hazard inspection, the inspector should:

- Check for evidence of birds or animals on the runways, taxiways, aprons, and ramps or other signs that wildlife problems may have developed—such as large flocks of birds on or adjacent to the airport.
- Wildlife hazards found during the daily self-inspection should be properly documented. All dead wildlife found and all wildlife aircraft strikes should be reported to the FAA on the FAA Form 5200-7, Bird/Other Wildlife Strike Report. This form may be obtained from the FAA Internet site, at www.faa.gov.
- Additionally, the inspector should check fencing and gates for wildlife accessibility and should ensure that wildlife control equipment is available and operational.

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CONTINUOUS SURVEILLANCE INSPECTION

Continuous surveillance inspection consists of general observation of activities for compliance with regulations, procedures, etc., as well as abnormalities with physical facilities that are readily apparent. This is performed any time inspection personnel are on the air operations area. Continuous surveillance of airport physical facilities and activities should cover at least the areas described in this section.

Ground Vehicles

During the continuous surveillance inspection of ground vehicles, the inspector should:

- Determine if vehicle drivers are following the airport's procedures and arrangements for the orderly operations of ground vehicles (including mowing machines or other maintenance vehicles in the safety areas). Extra attention should be paid to ground vehicle activity during construction, winter operations, and other special events.
- Report and monitor any vehicle operator that is not complying with the airport's vehicle procedures and arrangements.
- Report any ground vehicle accident observed and any ground vehicle signs and markings that are damaged, missing or obscured.

Fueling Operations

The inspector should:

- Emphasize fire and explosion hazards inherent in aircraft refueling.
- Ensure proper bonding is being used, deadman controls are not blocked, and no smoking prohibitions are being observed, and aircraft are not being fueled inside hangars.
- Check for proper parking of mobile fuelers to ensure these vehicles are at least 10′ apart and 50′ from buildings.
- Check for fuel leaks or spills in the fuel storage area and around mobile fuelers.
- Determine if the fuel farm is free of flammable materials, including litter and vegetation.

Snow and Ice

During the continuous surveillance inspection of snow and ice removal operations, the inspector should:

- Check snow or ice covered pavements and report and monitor any surfaces where snow and ice may affect the safety of aircraft operations. In addition, the inspector should monitor snow and ice removal NOTAMS to ensure they remain current and issue timely corrections, as necessary.
- If the airport uses other means to notify tenants of snow and ice removal operations, e.g., faxed or electronic messages, the inspector should also monitor this information for accuracy.
- Check to ensure that snow or ice on pavement surfaces does not affect the safety of aircraft operations and that NOTAMS are current.

Construction

The Inspector should check construction projects to ensure that the contractor is following the construction safety plan. During the continuous surveillance inspection of construction activity, the inspector should check for, and report, any of the following conditions:

- Unauthorized use of runways, taxiways, and aprons by construction personnel and equipment.
- Conditions that may result in runway incursions and other irregularities. This includes ensuring that construction areas are delineated appropriately with barricades, cones, markings, etc. Perimeter gates are left open and unattended, unlocked or construction vehicles and personnel are not following access and escort procedures. Construction vehicles not properly marked or missing appropriate flags and/or beacons.

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- Foreign object debris on haul roads adjacent to movement areas that can be tracked onto taxiways, aprons, and ramp areas. Confusing or missing signs, markings or lighting that could potentially confuse or mislead pilots. Barricades and lighting are in place and operational.

Public Protection

Pay special attention to public protection during construction and special events. During the continuous surveillance inspection of safeguards used to protect the public, the inspector should check for, and report, any of the following conditions:

- Unauthorized personnel, vehicles, and animals, particularly in areas aircraft passengers and the general public are present on the air carrier ramp and other portions of the movement area, i.e., remote aircraft parking locations.

- Inoperable or blocked gates, particularly those that would impede access by aircraft rescue and firefighting equipment.

- Open or unlocked gates and missing or damaged signs posted to prevent unauthorized access to the airfield. Damaged or missing jet blast fences.

Wildlife Hazard Management

- During the continuous surveillance inspection of wildlife hazards, the inspector should check for, and report, any of the following conditions:

- Birds or animals, such as dogs, deer, etc., on or adjacent to the runways, taxiways, aprons, and ramps to determine if there is a potential wildlife hazard problem.

- Potential hazard created by birds on or adjacent to the airport. Wildlife strikes and carcasses found on the runways. Report these on FAA Form 5200-7, Bird/Other Wildlife Strike Report. This form may be obtained from the FAA Internet site at www.faa.gov.

Foreign Object Debris (FOD)

The inspector should continuously check for, and remove any FOD in movement areas, aircraft parking areas and loading ramps.

First, pavement areas are inspected, with attention to the following items:

- Pavement lips;
- Cracks;
- Holes;
- Spalling, low spots, debris (FOD), and contaminants;
- Vegetation growth; and
- Drainage and ponding.

Markings are also essential at an airport and play a key role in providing directional guidance and information to pilots. The following items need to be considered when inspecting markings:

- Condition of the markings (correct color, paint chipping, fading, or obscure);
- Visibility of runway hold-position markings;
- Reflectivity of markings at night;
- Standardization of markings; and
- Marking installation and configuration.

To ensure that appropriate sign standards are being met and maintained at the airport, inspection personnel need to be familiar with the airport's FAA-approved sign plan and regularly check that the airport's signs are:

- Easy to read, correct color, and retro-reflective;
- Properly illuminated and not obscured by vegetation, dirt, snow, or other obstructions;
- Frangible with concrete bases at grade level;

Specifically, the following lighting systems are to be inspected:

- Runway and taxiway edge lights;
- Apron edge lights;
- Runway centerline and touchdown zone lights;

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Navigational Aids (NAVAIDs) also should be inspected during a regularly scheduled inspection. Although the inspection might focus on those visual NAVAIDs owned by the airport operator, inspection personnel are advised to also observe any NAVAIDs owned or operated by others, such as the FAA. Items to be observed include:

- Segmented circle;
- Rotating beacon;
- Wind cone(s);
- Runway end lights;
- Visual glide slope indicators (such as VASIs, PAPIs, or PLASIs); and
- Approach lighting

Snow and Ice Control Plan, inspection personnel can effectively observe these conditions (FAA Items to be inspected include:

- Lights and signs obscured by snow or damaged by snow removal operations;
- Snow banks and drifts adjacent to runways and taxiways to ensure clearance for aircraft wing tips, engines, and propellers;

- Piles of snow to ensure that snow is not piled across the runway threshold or across from the runway or runway intersections;
- FOD from snow removal operations;
- Taxiways or access routes dedicated for ARFF to ensure they are not blocked;
- Critical areas for electronic NAVAIDs to ensure that snow has not accumulated; and
- Slippery pavement conditions (with braking action or Mu values, as appropriate)

Operational Safety on Airports during Construction, will benefit inspection personnel

Items to be inspected include:

- Construction staging areas and stockpiled materials, to ensure that materials are properly stored and secured and are not left in safety or movement areas;
- Proper marking and lighting of construction areas and equipment adjacent to movement areas or as specified in the airport's plan;

- Construction barricades, to properly define the limits of construction and hazardous areas;
- FOD generated by construction activities;
- Open trenches in safety areas or adjacent to movement areas;
- Airfield lighting and signage adjacent to construction areas;
- Proper marking and lighting of closed pavement; and
- NOTAMs.

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Inspection Techniques

There are numerous ways in which to conduct a self-inspection. These techniques vary among airports and often among personnel at the same airport. Even so, there are some commonly recognized techniques. For instance, before starting an inspection, it is beneficial for inspection personnel to review the most recently completed self-inspection checklists and any outstanding NOTAMs. By doing so, inspection personnel can stay up-to-date on airport conditions from shift to shift. If construction is in progress, it is important that inspection personnel be familiar with the current construction safety plan specific to that project, as well as any current construction issues, including escort requests, FOD control, and others (AC 5370-2E, Operational Safety on Airports During Construction, provides guidance in this area). Inspection personnel need to be prepared to use correct communication phraseology, procedures, and techniques as specified in the Aeronautical Information Manual (AIM).

The FAA provides guidance in AC 150/5200- 18C regarding the actual techniques to use in conducting self-inspections. Although fixed inspection patterns may be easy to learn and provide some standardization, they often do not allow for an adequate inspection, thus it is recommended that inspection personnel vary the pattern of the inspection. In addition, using a fixed inspection pattern can lead to complacency, with items deserving attention possibly being overlooked.

The FAA Advisory Circular also recommends that inspection personnel drive toward the direction of landing aircraft with high-intensity flashing beacon and headlights on, day and night. Although some airports conduct multiple passes during a runway inspection and the FAA actually recommends that a runway inspection be performed in both directions, if time only permits one pass, it is best to drive toward the direction of landing aircraft. By adopting this technique, self-inspection personnel will be able to see approaching aircraft and improve visibility of the vehicle to pilots. Third, inspection personnel need to drive the stub taxiways between the runways and parallel taxiways. Overlooking these areas may, for instance, allow FOD to remain on the pavement and be a danger to aircraft immediately before takeoff.

A sample inspection checklist can be found on the following page

REGULAR DAY/NIGHT AIRPORT SAFETY INSPECTION CHECKLIST (1/2)

MONTH/DAY/YEAR:			INSPECTOR NAME:	DAY ☐ NIGHT ☐
				Time:

	CONDITIONS	S	U	N/A	REMARKS	RESOLVED BY (INTIAL & DATE)
PAVEMENT AREAS	Pavement Lips (Over 3")	☐	☐	☐		
	Hole- 5" diam., 3" deep	☐	☐	☐		
	Cracks/Spalling/Bumps	☐	☐	☐		
	FOD: Gravel/ Debris/ Sand	☐	☐	☐		
	Ponding	☐	☐	☐		
SAFETY AREAS	Ruts/Humps/Erosion	☐	☐	☐		
	Drainage/ Construction	☐	☐	☐		
	Objects Frangible Mount	☐	☐	☐		
	Unauthorized Objects	☐	☐	☐		
MARKINGS	All Runway, Taxiway, Apron markings Clearly Visible	☐	☐	☐		
	Glass Beads	☐	☐	☐		
LIGHTING & GUIDANCE SIGNS	Obscured/ Dirty/ Operable	☐	☐	☐		
	Damaged/ Missing	☐	☐	☐		
	Faulty Aim/ Adjustment	☐	☐	☐		
NAVAIDS	Rotating Beacon Operable	☐	☐	☐		
	Wind Indicators	☐	☐	☐		
	VASI/PAPI/REIL systems	☐	☐	☐		

Additional Remarks:

REGULAR DAY/NIGHT AIRPORT SAFETY INSPECTION CHECKLIST (2/2)

MONTH/DAY/YEAR:			INSPECTOR NAME:	DAY ☐ NIGHT ☐
				Time:

	CONDITIONS	S	U	N/A	REMARKS	RESOLVED BY (INTIAL & DATE)
FUELING OPERATIONS	Fencing; gates; signs; labels; grounding clips; fire extinguishers; spill control materials	☐	☐	☐		
PUBLIC PROTECTION	Perimeter Fence/Gates	☐	☐	☐		
	Terminal Fence/Gates	☐	☐	☐		
	Signs	☐	☐	☐		
SNOW & ICE	Surface Conditions	☐	☐	☐		
	Snowbank Clearance	☐	☐	☐		
	NAVAIDs	☐	☐	☐		
CONSTRUCTION	Barricades /red lights	☐	☐	☐		
	NOTAMs (current/cancelled)	☐	☐	☐		
WILDLIFE HAZARDS	Wildlife Present	☐	☐	☐		
AIRPORT SECURITY	Fence damage; gates open; gate locks damaged; signs obscured; lighting	☐	☐	☐		
OBSTRUCTION LIGHTS AND HAZARD BEACONS	Inoperative; obscured; damaged; missing	☐	☐	☐		
AIRCRAFT RESCUE AND FIREFIGHTING	Equipment not available; personnel not available; communications not working; alarms not working	☐	☐	☐		

Additional Remarks:

AIRPORT MANAGEMENT TOOL

New Hampshire Aviation System

New Hampshire DOT
Bureau of Aeronautics

Airport Management Types and Best Practices

AIRPORT MANAGEMENT TOOL

This tool provides an overview of Airport Management Types and provides resources for Airport Best Practices.

General

Managers of small airports are responsible for a broad range of activities and interact with a variety of stakeholders on a daily basis. They must carry out their duties in accordance with an array of federal, state, and local regulations and ordinances. Many small airports operate under fiscally constrained circumstances that require maximizing scarce resources and utilizing county or municipal employees to perform certain functions, including snow removal, mowing, and pavement maintenance. Generally, very few small airport managers are trained in aviation management and are often hired or volunteer for the job because of an interest in or a passion for aviation. Many small airports have no airport manager, but rather are managed by elected or appointed local officials, such as a city clerk or a director of public works.

Several types of ownership exist for public-use airports in the United States. Typically, ownership and operation of an airport are conducted by the same entity, such as a city, county, state, or special unit of government. Airports can be established and maintained by the following jurisdictions:

- Airport authorities,
- Counties,
- Municipalities,
- Joint county–city commissions,
- Park districts,
- Port authorities,
- Bi-state authorities, or
- Private owners.

An airport manager is typically responsible for the daily operations of the airport. The airport manager directs, coordinates, and reviews all aircraft operations, maintenance of the airfield and buildings, community relations, and financial matters of the airport. Some airport managers are also responsible for running the airport's FBOs under a separate agreement with the airport owning jurisdiction.

No matter what specific duties an airport manager has each day; his or her number one responsibility is to operate a safe and efficient airport.

Function and Roles of Airport Staff

Airport staff members can perform a variety of functions, including administrative functions, maintenance, daily operations, and coordination with FBOs. Many airports share airport staff with the airport's governing body. For example, the city or county may provide maintenance staff, equipment, and other resources for daily operations. The airport staff may also serve in administrative roles, especially if the airport manager is a part-time position or if the role is delegated to someone who provides that service as part of her or his other duties outside the airport. Airport staff must be made aware of airport policies, liabilities, standards, and normal operating procedures, as they will conduct the daily operations of the airport and may serve as the primary contact for a variety of functions. They should have a basic understanding of the full scope of responsibilities of running an airport, as they will probably represent the airport manager when that person is not available.

Communication and Coordination with Airport Owners and Boards

Communication and coordination with the airport owner and governing board is one of the airport manager's key roles. The manager serves as the airport's representative on site and to the public at large. The owner and governing board assign the manager's responsibilities, and he or she reports back to them. A good working relationship is required for smooth operations. Typically, the manager performs the day-to-day functions of the airport owner or authority, acting for the board members or commissioners as necessary to maintain efficient operations. In doing so, it is the manager's responsibility to keep commissioners or board members informed of activities that may reflect upon them.

Whether a large commercial service airport or a smaller general aviation airport, one of the primary keys to success is how the management of the airport is structured. If there are too many layers, the operation becomes bogged down in redundancy and effective communication can falter. If there are not enough layers, management can become overwhelmed with day-to-day operational needs and lose sight of the larger issues that demand their attention.

AIRPORT MANAGEMENT TOOL

New Hampshire Aviation System

New Hampshire DOT
Bureau of Aeronautics

Airport Management Types and Best Practices (cont.)

AIRPORT MANAGEMENT TOOL

Communication and Coordination with Airport Owners and Boards

Therefore, many airport operators have undergone organizational transformations to find the right balance of organizational layers. However, based on available resources many general aviation airport operators find it more efficient to balance an airport's organizational structure by utilizing town or city staff located off-site, or contractors to conduct various airport related services instead of having specialized personnel in-house. These services include but are not limited to: Airport Finance/Administration, Airfield and Vehicle Maintenance, airfield landscaping and snow removal, and airport security.

Once an airport's governance model is optimized, it is airport management's role to craft the airport organization in response to that model. Therefore, like governance models themselves, organization of a department or office to manage airport operations also comes in many forms. In large part, the specific structure depends on the size and type of airport(s) to be managed. As an airport grows in size, so does the need to provide greater departmentalization with more specialized tasks. However, it must be recognized that each organization must be tailored to meet the needs of operating the specific airport in an efficient, effective, safe and secure manner.

Ownership and management of an airport can come in many forms. Often what works at one airport will not always work at another. In some instances, the ownership and management of an airport is effectively run by a single municipality, and others find that sole ownership and management of an airport does not serve the best interests of the airport or community at large.

Governance Models

Several types of airport ownership exist. They include:

- **Sole Ownership/Management:** A single government entity (State, county, or municipality) who exclusively owns the airport and is responsible for all operational, financial, and maintenance needs of the airport, including but not limited to the day-to-day operation of the airport, facilities maintenance, and fueling.

This is the current structure that most of the NH system airports operate under.

- **Joint Ownership/Management:** Traditionally consists of two or more governmental agencies whereby both entities share the ownership and responsibility for the operation and upkeep of the airport. In most states, joint ownership of an airport requires codification into State law. The most common joint ownership relationships are:

  - Municipal/Municipal;
  - Municipal/County; and
  - County/County.

An example of this type of agreement is Auburn Lewiston Municipal Airport located in Maine.

Airport Best Practices Helpful Resource:

ACRP Report 16: Guidebook for Managing Small Airports:
http://www.trb.org/Publications/Blurbs/162145.aspx and
http://azdot.gov/docs/default-source/airport-development/arizona_best_practices_guide_final_41807.pdf?sfvrsn=2

Governance Models Cont'd

- **Sole Ownership/Private Management:** A single government entity maintains ownership of the airport, but contracts with a private enterprise (in some cases Fixed Base Operators) to maintain and operate the airport. Traditionally, the government entity also maintains its financial responsibility. This is most common at commercial and larger general aviation airports.

  An example is Westchester County Airport (NY), who currently contracts with AvPorts to maintain and operate the airport.

- **Private Ownership/Private Management:** A private entity owns the airport and is responsible for all operational, financial, and maintenance needs of the airport. In some instances, a government entity will transfer ownership of an airport to a private enterprise through a long-term lease, but will maintain ownership of the land the airport is situated upon.

  An example of this type of operation is Jaffrey-Silver Ranch which is owned by the Jaffrey Municipal Airport Development Corp.

Each of these ownership options has its own pros and cons. These are identified herein.

Sole Ownership/Management

The pros of a city acting as the sole owner of an airport include:

- Maintains its status as an eligible sponsor for both FAA AIP and NHDOT grants.
- Maintains sole decision making power in the development and operation of the airport. While these decisions would need to meet the Grant Assurances of the FAA and NHDOT, the city would maintain great latitude as sole owner.
- Maintains the ability to influence and directly benefit from the economic value generated by the airport.

The cons of sole ownership include:

- As sole owner the city, town or municipality (city) is solely responsible for the short and long term expenses of airport ownership. One key assurance that the city makes to the FAA in order to accept AIP funds is that the Airport will be operated and maintained in a safe and efficient manner.
- Airports, like any other asset, rarely satisfy all citizens or users. As sole owner, the city is faced with listening to and doing their best to resolve all complaints about the airport. In some areas the Grant Assurances preclude the city from making decisions popular with the majority of citizens.
- The city is solely responsible for the financial burdens of the Airport, while the airport provides an economic asset for New Hampshire.

Joint Ownership/Management

The pros of joint ownership include:

- Maintains its status as an eligible sponsor for both FAA AIP and NHDOT grants.
- If development, operation, or maintenance costs are high, the city has a co-owner to share the financial burden.
- Joint ownership has the potential to obtain nearly identical economic impact as sole ownership, and may see additional economic opportunities with the additional resources of the co-owner.

Governance Models Cont'd

The cons of joint ownership include:

- Just as the city can stop many things objectionable to the city, the city's partner(s) can hinder the decision making on city proposals that they do not support.
- In most cases, no one sponsor has complete decision making ability so the city may see protracted decision making ability.
- As a joint owner the city will receive citizen and user complaints similar to the level that they would receive as sole owner. One advantage may be the increased pool of resources between all ownership partners to study issues and recommend solutions.

Sole Ownership/Agency Management

The pros of sole ownership/agency management include:

- Maintains its status as an eligible sponsor for both FAA AIP and NHDOT grants.
- With the agency responsible for the issuance of contracts, the city has less financial responsibility and may be able to improve the efficiency of the airport. However, poor agency decisions can result in poor press for the city.
- With the agency having certain powers, fewer decisions reach the city, thereby reducing the day-to-day work required of the city.

The cons of sole ownership/agency management include:

- Based upon the terms of the codified law that sets up the agency, the city may not retain its decision making ability, and therefore would be unable to stop any proposed plans that the city deems objectionable or actions that the city deems as poor judgment from happening.
- It will be known that the city maintains its ownership of the airport and citizens and users who are not satisfied by the agency will likely complain to the city. Some of these complaints can be handled through an established protocol between the city and the agency outlining lines of communication and action by the agency to resolve the issue.

Sole Ownership/Private Management

The pros of sole ownership/private management include:

- Maintain its status as an eligible sponsor for both FAA AIP and NHDOT grants.
- Maintains sole decision making power in the development and operation of the airport. While these decisions would need to meet the Grant Assurances made to the FAA and NHDOT, the city would maintain great latitude as sole owner.
- A reduction or altogether elimination in the day-to-day work required of the city.

The cons of sole ownership/private management include:

- The city remains financially responsible for the airport.
- Many private enterprises who manage airports for municipalities often require multi-year contracts for their services. Should the city find that the enterprise is not fulfilling its end of the agreement, is providing a poor service to the citizens and users, or by poor decisions generate poor press for the city, it may prove difficult and/or costly to end the relationship with the enterprise.
- It will be known that the city maintains its ownership of the airport and citizens and users who are not satisfied by the private enterprise will likely complain to the city. Some of these complaints can be handled through an established protocol between the city and the enterprise outlining lines of communication and action by the enterprise.

Governance Models Cont'd

Private Ownership/Private Management

The pros of private ownership/private management include:

- The city is no longer financially responsible for the airport.
- A private enterprise is not required to adhere to a fiscal cycle in order to start maintenance and development projects, and therefore streamline these efforts.
- The city will no longer be required to resolve complaints from citizens or users unhappy with the airport. It is possible that a city may still receive the occasional complaint; however these concerns can be forwarded to the private enterprise to deal with directly.

The cons of private ownership/private management include:

- Eligibility to receive funds under the AIP is contingent upon the owner being a qualified public agency or a private entity if the airport is a commercial service airport or a general aviation airport that relieves general aviation traffic from a hub airport of the national aviation system.
- The city would no longer retain its decision making ability regarding development and maintenance at the airport. Therefore, the city cannot preclude most things that they see as disagreeable or poor judgment from happening.

Overall, a blend of the functional/matrix type organizational structures is very common at today's airports and generally speaking, the New Hampshire State Airport System Plan Update project team found no major problems with how the system airports are currently operated. However, it is recommended that existing management structure at each be regularly monitored for its effectiveness and the level of airport staff be monitored. Doing so will help to ensure that the level of airport staff corresponds to the level of operations and complexity, such that each system airport maintains adequate staffing levels and the necessary hierarchy to be fully effective. The following matrix presents a basic staffing matrix that identifies the minimum recommend airport staffing levels by airport category.

STAFF	BASIC AIRPORT	LOCAL AIRPORT	REGIONAL AIRPORT	NATIONAL AIRPORT	PRIMARY AIRPORT
AIRPORT MANAGER/DIRECTOR					
ASSISTANT AIRPORT MANAGER/DEPUTY					
AIRPORT ADMINISTRATION					
AIRPORT ACCOUNTING CLERK					
AIRPORT OPERATIONS SUPERVISOR					
AIRPORT OPERATIONS COORDINATOR					
AIRPORT MAINTENANCE SUPERVISOR					
AIRPORT ELECTRICAL LEAD					
AIRPORT MAINTAINERS					
AIRPORT CONSULTANTING FIRM					
AIRPORT AUTHORITY/COMMISSION	Recommended	Recommended	Recommended	Recommended	Recommended

LEGEND

Full Time Employee

Part-time Employee

On-Call Contractor/Municipal

UNMANNED AERIAL SYSTEMS

New Hampshire Aviation System

New Hampshire DOT
Bureau of Aeronautics

UAS/UAV AIRPORT PROCEDURES/ GUIDELINES

UAS/UAV TOOL

This tool provides an overview in preparation for Unmanned Aerial Systems operations in the New Hampshire airport system.

General

The following provides general guidance and suggestions to airports and UAS operators on the operation of Unmanned Aerial Systems (UAS) in the airport environment.

✈ Evolution of Unmanned Aerial Systems

Unmanned Aerial Systems (UAS) also commonly referred to as Unmanned Aerial Vehicles (UAVs), are vehicles that are equipped with sensors and monitors that are remotely piloted. They reflect the fastest growing aerospace technology in the world today. The use of UAVs is rapidly evolving and dynamic sector aviation. In recent years, they have become an emerging field in civil and commercial applications. Their need in industries such as; surveillance, reconnaissance, mapping, cartography, homeland security, traffic monitoring, inspection, rescue, fire detection, and agricultural imaging, are just a few of the many application with unlimited potential for their use. In today's aviation industry approved commercial UAS operations are constrained and primarily involve the smallest category UAS; but, as government application and access expands, it will pave the way for a broader and more lucrative non-government UAS marketplace.

✈ UAS Issues/ Concerns

To assist in integrating a fully safe and functional unmanned aerial systems operation within the National Aerospace System (NAS), a variety of issues and concerns must be addressed. UAS are currently flying the NAS but on a minimal basis due to a special authorization process from the FAA. Currently the approval process for UAS operations is time consuming and can take at least two years before permission is granted. There are some basic concerns that need to be addressed. For example:

- What happens during a loss of communication link between the UAS and the operator?
- There are questions about the "see and avoid" for aircraft operations in the NAS;
- The inability of UAS to see and avoid manned aircraft;
- The inability of UAS to immediately respond to ATC instructions
- The absence of testing and demonstrations that UAS can operate safely in the same airspace as manned aircraft
- The need to certify UAS to same level of safety as manned aircraft
- Privacy provisions and managing the personal information collected through the use of UAS

✈ FAA Regulations and Next Steps

To resolve safety and operational issues, the FAA still needs to develop formal UAV policies, minimum qualifications and standards for UAV operation. Before UAV operators can safely fly the NAS the following steps need to be established.

- Develop Integrated Separation Concepts
- Develop Airspace Integration Safety Case/ Assessment
- Develop Sense-and-Avoid Sensors and Fusion
- Develop Separation Algorithms
- Assess Availability/ Quality of Surveillance Data
- Develop Safe and Efficient Terminal Airspace/ Surface Operations

It is anticipated that by the end of 2015 fiscal year, clearly outlined rules for UAV operations will be published by the FAA.

UNMANNED AERIAL SYSTEMS

New Hampshire Aviation System

New Hampshire DOT
Bureau of Aeronautics

UAS/ UAV Operator Questionnaire/Checklist

UAS/UAV TOOL

Name	
Date of Proposed Operation:	
Method by which the operator may be contacted directly during the UAS activity:	
Purpose Of Operations	Experimental: ☐ Demonstration: ☐ Developmental: ☐ Commercial: ☐
Who is the UAV manufacturer?	**Make/ Model/Description:**
Size:	**Dimensions:**
Launch: Process by which vehicle leaves the ground?	
Payload: What will the UAV carry?	
UAV Operator: Does the UAV pilot hold a civilian pilot license that would be relevant to the UAV being flown?	
Flight Plan?	
Weather?	
Airspace?	
Coordinated with ATC to issue NOTAMs	
A complete description, including all pertinent flight data on the aircraft to be flown.	
How does the UAV "see" and how is it "seen" by other airspace users?	
How is the UAV maintained? Is there a maintenance schedule? Who performs the maintenance?	
Does the operator have an emergency contingency plan to deal with any disaster resulting from the operation?	
Documents: Attach as necessary	• Take-off and landing procedures ☐ • Loss of control data link ☐ • Abort procedures following critical system failure ☐ • Airworthiness certification ☐
Operators Checklist issued on:	**Signature**: **Date:**

For Further Information Contact:

NHDOT- Aeronautics, Concord, NH 603.271.2552 / nhdotaeronauticsdiv@dot.state.nh.us

UNMANNED AERIAL SYSTEMS

New Hampshire Aviation System

New Hampshire DOT
Bureau of Aeronautics

General Do's/ Don'ts

UAS/UAV TOOL

Do's	Don'ts
Do fly a model aircraft/UAS at the local model aircraft club	**Don't** fly near manned aircraft
Do take lessons and learn to fly safely	**Don't** fly beyond line of sight of the operator
Do contact the airport or control tower when flying within five (5) miles of the airport	**Don't** fly an aircraft weighing more than 55 lbs. (unless certified by an aero modeling community-based organization)
	Don't fly contrary to your aero modeling community-based safety guidelines
	Don't fly model aircraft for payment or commercial purposes

UNMANNED AERIAL SYSTEMS

New Hampshire Aviation System

New Hampshire DOT
Bureau of Aeronautics

GENERAL UAS AIRPORT PROCEDURES

UAS/UAV TOOL

✈ Operation of UAVs in Controlled Airspace

In general, when operating in controlled airspace, UAVs should be operated in accordance with the rules governing the flights of manned aircraft as specified by the appropriate ATS authority. UAVs should be able to comply with ATC regulations and equipment requirements applicable to the class of airspace with in which they intend to operate.

Flight Notification

- Where UAV flight is to be conducted in airspace shared with manned aircraft, flight notification may be in the form of a NOTAM or may be filed in accordance with normal procedures for IFR flight.
- UAVs may not enter controlled airspace without approval of the controlling authority; this would normally be in the form of an airways clearance. UAV flight procedures when operating within controlled airspace are as directed by the controlling authority.
- When the operation of a UAV does not involve flight higher than 400 ft. AGL or within close proximity to an aerodrome, the operator may exercise discretion in lodging flight notification.

Collision Avoidance

- UAV flights in controlled airspace will be treated as IFR flights, subject to ATC control.
- Large UAV to be equipped with an SSR transponder, a collision avoidance system of forward looking television as appropriate for the type of operation

Noise Abatement

- Follow applicable local noise abatement procedures at their launch and recovery sites as operating hours, directed flight paths/altitudes, etc., consistent with safe operation of UAV

Takeoff and Landing

- When a UAV is operated at an aerodrome normally used by manned aircraft, takeoff and landing should be in accordance with normal procedures and the UAV should follow ATC instructions
- Local airfield pattern regulation, and VFR weather minimums for the class of airspace will apply
- The UAV system must be monitored by the UAV supervising controller to verify UAV system status and compliance with navigational and flight path clearances.
- The UAV should be flown according to ATC instruction with traffic separation provided by ATC

Abort Procedures

- Specific abort and flight termination procedures should be developed by the supervising UAV controller, and should be briefed to ATC as required.

Meteorological Conditions

- Weather minimums for UAV flight should be determined by the equipment and capabilities of each specific UAV system, the qualifications of the supervising controller and the class of airspace in which the flight tis conducted.
- Visibility. For UAVs operating under VFR procedures for launch and recovery, visibility requirements are as defined for the type of airspace, but in no case less than 5 km and 1000 foot ceiling. For UAV systems equipped with an internal automatic precision landing aid such as those based on the Global Positioning Systems (GPS), weather minimums should be sufficient for an external observer to visually verify the UAV flight path and alert the UAV controllers of unsatisfactory landing approach in sufficient time to execute a missed approach, as such, minimum visibility is dependent on UAV approach speed, size, and performance capabilities.

UNMANNED AERIAL SYSTEMS

New Hampshire Aviation System

New Hampshire DOT
Bureau of Aeronautics

UAS AIRPORT PROCEDURES

UAS/UAV TOOL

Interfacing with ATC

- UAVs operating within radar controlled airspace should be equipped with a SSR transponder capable of operating modes 3 A and C. The supervising UAV controller should have the capability to squawk identification when required.
- UAV controller should initiate and maintain two way communications with the appropriate ATV authorities for the duration of any flight.
- UAVs operating in controlled airspace should be continuously monitored for adherence to the approved flight plan
- Each UAV flight should have some means of informing ATC that the flight is unmanned.

Operational Equipment

- Position Lights, Anti-Collison Lights, Transponder, Radios, and Acquisition light.
- UAV system should be capable of displaying tot eh supervising controller all aircraft system and attitude information
- Flight and Voice Recorder

Emergency Procedures/ Safety Standards

- The UAV flight plan should include procedures to be followed in the event of:
  - Engine failure
  - Loss of data link
  - Loss of control
  - Failure of navigation
  - Airframe damage
- UAV operations should be as safe as manned aircraft insofar as they should not present or create a hazard to persons or property in the air or on the ground greater than that created by manned aircraft of equivalent class or category.

Helpful Resources

- "Integration of Civil Unmanned Aircraft Systems (UAS) in the National Airspace System (NAS) Roadmap" found at:

https://nppa.org/sites/default/files/UAS_Roadmap_2013.pdf

- U.S. Department of Transportation, Federal Aviation Administration "Study For the Advancement of Unmanned Aircraft Systems", found at:

http://www.sjedd.com/pdf/unmannedStudy.pdf

- FAA Regulatory information on Unmanned Aerial Systems found at:

https://www.faa.gov/uas/regulations_policies/

AIRPORT EMERGENCY PLAN (AEP)

New Hampshire Aviation System

New Hampshire DOT
Bureau of Aeronautics

Airport Emergency Plans

Emergency Plan Template

Airports differ in complexity, but each has unique features. Some are basic facilities serving a more rural environment, while others are more complex with residential, industrial, and commercial installations serving major metropolitan areas. Airports within the state are operated by the local government such as a city or county; or are privately owned and open to the public. One thing they all have in common is that they are all subject to emergencies and incidents.

According to Advisory Circular (AC) 150/5200-31C, Airport Emergency Plan, the Federal Aviation Administration (FAA) identifies an airport emergency as, "any occasion or instance, natural or man-made that warrants action to save lives and protects property and public health". An airport emergency can occur anywhere, at any time - day or night, under any weather condition, and in varying degrees of magnitude; it can occur instantaneously or develop slowly; it can last only a few minutes or last for days. Emergencies may be caused by a natural occurrence, such as a hurricane or earthquake, or it can be "man-made", such as a hazardous materials spill, civil unrest, terrorism, major fire, or power outage. Moreover, emergencies of the same type can differ widely in severity, depending on factors such as degree of warning, duration, and scope of impact. The important thing to remember is that, while emergencies can seldom be exactly predicted, they can be anticipated and prepared for.

It is likely that many, if not most of our state airports have experienced emergencies associated with aircraft accidents, power failures, fuel spills, floods, or other adverse events that result from natural processes. Therefore, the state encourages all airports to prepare a written plan that is focused on response and recovery. This template has been developed to help you prepare such a plan.

The Federal Aviation Administration's Code of Federal Regulations Part 139.325 requires that each airport holding an Airport Certificate "develop and maintain an Airport Emergency Plan (AEP) designed to minimize the possibility and extent of personal injury and property damage on the airport in an emergency."

Knowing that not all airports hold an Airport Certificate nor possess a particular plan, the New Hampshire Bureau of Aeronautics, deemed that it was necessary to create an AEP template in order to help all airport managers develop an emergency plan specifically fashioned to the airports they operate and manage.

This template has been developed in accordance Advisory Circular (AC) 150/5200-31C, Airport Emergency Plan, and the requirements in Title 14, Code of Federal Regulations (CFR) Part 139.325 (14 CFR Part 139.325).

Helpful Resources

1 U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, Airport Emergency Plan, June 19, 2009, p. 1.
1 U.S. Department of Transportation, Federal Aviation Administration, Federal Aviation Rule (FAR) 139.325, Airport Emergency Plan, June 09, 2004, p.22.

Airport Emergency Plans typically consist of the following components:

- **Base Plan:** this provides an overview of the airport's emergency response organization and policies;
- **Functional Conditions:** this section addresses critical services necessary to manage, communicate, respond and mitigate airport-related emergency situations;
- **Hazard-Specific:** this provides detailed information applicable to the performance of a particular function in support of a particular hazard; and
- **Standard Operating Procedures and Checklists:** this section provides detailed instructions that an individual or organization needs to fulfill responsibilities and perform tasks assigned in the AEP.

The template contained herein was particularly designed for General Aviation (GA) airports; therefore, it will not be as detailed as those typically developed for larger commercial service airports.

Therefore, this template is not meant to be all inclusive for all airports but instead, is intended to provide recommendations for the development of the typical sections included in most Airport Emergency Plans (AEPs).

Within the template you will find text shaded in gray, as you see here, at the beginning of each section and throughout the document. This shaded area gives direction and instruction as to what should be included in a particular section of the plan. These highlighted areas can simply be added to or deleted from each section, once your airport specific data has been entered. You will also find other areas throughout the document that are highlighted to indicate where text should be changed and/or added, i.e. areas where a date should be included or your airport name.

In addition, sample text is provided within each section of the plan following the gray shaded directional/instructional text. This text is not shaded in any way. This sample language may potentially be used within the framework of the plan. This sample language is consistent with text from AEP's developed for airports of various size and function and meant assist you in developing a particular section for your AEP. **This language should be modified as necessary to reflect the uniqueness of your particular airport.**

The AEP should not be written solely by the airport. It is a document that should be developed through collaboration with outside agencies that may respond to an airport incident/accident.

Airport Emergency Plan

– XX Airport –

Prepared By:

XX Airport

Publication Date:

Insert Date as Appropriate

Revision Date:

Insert Date as Appropriate

Insert the following --- a letter or form signed by the Airport's governing body, giving the AEP an official status and providing both authority and responsibility for all individuals and organizations involved in the AEP to perform their assigned tasks. The letter should also briefly describe the process and responsibilities for those tasked individuals and organizations with standard operating procedures that explain how the tasks will be completed.

Insert the following --- a signature page with signatures of the AEP planning team (i.e. all parties that are involved in the AEP and have contributed to its development and are committed to its effective implementation).

This page could also act as a checklist (i.e. Record of Distribution) for each AEP planning team member showing evidence that all parties involved in the AEP have had the opportunity to read the AEP and understand all their respective duties. The record may show a date of transmittal and the date of which receipt is confirmed.

AEP Planning Team	Contact Name	Contact #	Signature of Participation
Local Agencies			
Airport Manager	xx	xxx-xxx-xxxx	
Airport Maintenance Department	xx	xxx-xxx-xxxx	
Airport Operations Department	xx	xxx-xxx-xxxx	
XX Fire Department	xx	xxx-xxx-xxxx	
XX Police Department	xx	xxx-xxx-xxxx	
Red Cross	xx	xxx-xxx-xxxx	
Civil Air Patrol	xx	xxx-xxx-xxxx	
State Agencies			
NH Bureau of Aeronautics	xx	xxx-xxx-xxxx	
NH State Police	xx	xxx-xxx-xxxx	
NH Emergency Management Agency	xx	xxx-xxx-xxxx	
Office of the Chief Medical Examiner	xx	xxx-xxx-xxxx	
Department of Environmental Protection	xx	xxx-xxx-xxxx	
Federal Agencies			
National Transportation Safety Board (NTSB)			
Federal Aviation Administration (FAA) - Airports	xx	xxx-xxx-xxxx	
FAA Flight Standards District Office	xx	xxx-xxx-xxxx	
FAA Regional Operations Center	xx	xxx-xxx-xxxx	
Transportation Security Agency	xx	xxx-xxx-xxxx	
Federal Bureau of Investigation	xx	xxx-xxx-xxxx	
Hospitals			
XX Hospital	xx	xxx-xxx-xxxx	
XX Hospital	xx	xxx-xxx-xxxx	

Airport Emergency Plan Revision Log

Insert the following --- a table (similar to the one below) that will be used to record any changes/modifications to the document.

Page	Revision Date	Amendment Title
2	12/2/2014	Revised airport emergency contact phone numbers
x	x/x/xxxx	xxx

Table of Contents

Chapter 1 - Base Plan

This chapter provides a general overview or summary of the AEP. Provide a summary description of the chapters or sections that are included in the overall plan. These typically include the following.

- Airport Emergency Plan (AEP) purpose;
- Specific hazards addressed in the Plan ;
- The airport's overall approach to an emergency situation, i.e. what should happen, when, and at whose direction;
- A list of organizations that may be involved in the AEP;
- Availability of services and support for all types of emergencies, general policies for managing resources, and mutual aid agreements;
- Maintenance of the plan; and
- A list of any laws, statutes, ordinances, regulations and formal agreements regarding emergency response.

Each subsequent chapter will provide more detailed information. However, The Base Plan section should be an executive summary of the overall plan.

The following identifies some sample language that could be included in this section:

This chapter summarizes the airport's overall plan and briefly identifies XX Airport's strategy to respond to emergencies and incidents to minimize the possibility and extent of personal injury and property damage.

The following sections outline the plan's **purpose** such as what the AEP is meant to do; **situations and assumptions** such as particular hazards the AEP addresses; **operational plan** or details to the airport's overall approach to an emergency situation, i.e. what should happen, when, and at whose direction; **organization and assignment of responsibilities** such as organizations that could be involved in the Emergency Plan and their responsibilities in an emergency situation; **administration and logistics** such as the availability of services and support for all types of emergencies, general policies for managing resources, and mutual aid agreements; **plan development and maintenance** identifying who is responsible for maintaining the AEP and how often it will be maintained; and **authorities and references** highlighting any laws, statutes, ordinances, regulations and formal agreements regarding emergency response.

Purpose

In this section of the Base Plan, the airport should summarize the overall plan and provide a general statement of what the AEP is meant to do.

The following identifies some sample language that could be included in this section:

The Airport Emergency Plan (AEP) for XX Airport was developed according to Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, and Title 14, Code of Federal Regulations (CFR) Part 139.325 in an effort to provide a plan for prompt response to all emergencies to minimize the possibility and extent of personal and property damage on the airport.

The Airport has developed this plan to provide emergency response to aircraft sizes up to and including xxx [add aircraft data here based on the airport's critical aircraft].

This plan considers coordination with local agencies responsible for emergency response and offers guidance and direction to those personnel required to perform under emergency conditions. It defines the responsibilities the airport and any mutual aid agencies to provide assistance under the provisions of this AEP.

The Airport Manager of XX Airport, or his/her representative, shall exercise authority over all emergency personnel, including airport units and those providing service through mutual assistance or letters of agreement. The Airport Manager has the overall responsibility for carrying out the requirements and coordinating the activities prescribed by this Airport Emergency Plan. It is recognized that all emergency situations cannot be foreseen; therefore, the Airport Manager will provide the control, guidance, and assistance deemed necessary in situations that are not specifically covered by this plan to minimize loss of life and property and to restore normal airport operations.

The chain of command during the active phases, i.e., life safety, property preservation, and hazard mitigation, of any incident described in this manual shall be based upon the "National Incident Management System (NIMS)" model of emergency response command, and shall be specifically defined for each type of airport emergency or other model as the airport sees fit [this is typical language but modify as necessary depending on the system your airport plans on using].

The type of incident shall define the command structure, as follows:

Type of Emergency	Active Phases: Incident Commander
Aircraft Incidents and Accidents	Fire Officer in Charge (OIC)
Acts of Terrorism	xxx
Structural Fires, Fuel Farms and Fuel Storage Areas	xxx
Natural Disasters	xxx
Hazardous Materials Incidents	xxx
Sabotage, Hijack and Unlawful Interference with Operations	xxx
Failure of Power for Movement Area Lighting	xxx
Water Rescue Situations	xxx
Crowd Control	xxx
Xxx [add additional as deemed appropriate	xxx

The Airport conducts a review of the AEP at least once every xx consecutive calendar months or whatever is deemed appropriate for the airport with all of the parties with whom the plan is coordinated. In addition, a full-scale AEP exercise is held at least once every xx consecutive calendar months [only if appropriate for the airport].

Situation and Assumptions

This section of the Base Plan summarizes the basic functional sections and narrows the scope of the AEP by outlining what hazards this particular AEP addresses; what particular characteristics exist at the airport that may affect response activities and how; and what information used in preparing the AEP must be treated as assumption rather than fact.

Typically, this section would briefly identify any mutual aid support/agreements that may be included in the airports emergency response plan; assuming that the airport may need assistance and help during an incident/accident.

The following identifies some sample language that could be included in this section:

The XX Airport is not capable of handling all emergencies that occur at the Airport. Minor aircraft incidents and accidents, acts of terrorism, fires, natural disasters, hazmat and medical incidents are handled by the airport or mutual aid fire, airport operations and maintenance departments. However, large-scale accidents, involving multiple victims can quickly overwhelm the limited emergency staff at the Airport. To assist with large-scale incidents, the Airport has entered into a mutual aid agreement with XX [identify mutual aid agencies or the city or town

where arrangements have been made]. Through this agreement additional fire, medical and police resources are available to the Airport on an as needed basis.

Functional Sections

This section of the Base Plan should briefly identify generic functional responsibilities that may be applied to all emergencies. The functional sections typically address the critical services necessary to manage, communicate, respond, and mitigate airport-related emergency situations. They cover such topics as communications protocol and alert notifications, i.e. critical components of the AEP since these functions enable an airport to cope with and respond to unforeseen emergencies.

This section of the Base Plan should provide a summary of the functional sections included in the AEP for your particular airport. The number of sections included in the AEP is dependent on the Airport. You may have only one or two functional sections highlighted for a small general aviation airport such as communications and alert notifications, however other functional areas could include: command and control, emergency public information, protective actions, law enforcement and security, firefighting and rescue, health and medical, resource management, and operations and maintenance. It is the responsibility of each individual airport to provide what they determine is most appropriate for their facility.

The following identifies some sample language that could be included in this section:

The xx [identify the number of functional sections within the airport's plan] functional sections of this AEP, as outlined and explained in further detail in Chapter 3 provide detailed information about the core functions necessary to successfully handle an emergency situation for XX Airport. These are generic functional responsibilities and may be applied to all emergencies. Functional Sections typically include such things as command and control, communications, health and medical, and etcetera and are operationally oriented.

The xx [identify the number of functional sections within the airport's plan] functions include: xx [identify the functional sections that are highlighted in your plan. Below is a potential list of functional sections that you could include in an AEP.

- Command and Control;
- Communications;
- Alert Notification and Warning;
- Emergency Public Information;
- Protective Actions;
- Law Enforcement/Security;
- Firefighting and Rescue;
- Health and Medical;
- Resource Management; and
- Airport Operations and Maintenance.

Hazard Specific Sections

This section of the Base Plan should summarize and briefly identify the Airport's possible hazards that warrant planning attention.

The list below identifies hazards typically covered within an AEP. However, it is each individual airport's responsibility to provide what is most applicable for their facility. For instance, if your airport is not located next to a water source than you will not need to cover water rescue situations within your AEP. However, if your airport experiences severe weather conditions, such as thunderstorms during the summer months that create high winds, hail, flooding, tornados, and etc., it should be mentioned here. Below is a potential list of hazards that you may choose to include in your AEP.

- Aircraft Incidents;
- Terrorism Incidents;
- Structural Fires, Fuel Farms and Fuel Storage Areas;
- Natural Disasters;
- Hazardous Materials Incidents;
- Sabotage, Hijack and Unlawful Interference with Operations;
- Failure of Power for Movement Area Lighting;
- Water Rescue Situations; and
- Crowd Control.

The following identifies some sample language that could be included in this section:

The Airport faces numerous hazards given its location and the nature of its daily operations. The hazard specific sections, located in Chapter 4 of the AEP, address the incidents most likely to occur at the Airport as indicated through the hazard analysis, i.e. the identification of those hazards and disasters specific to an airport that warrant planning attention. The hazards outlined in Chapter 4 include:

- XXX;
- XXX;
- XXX; and
- XXX

Authority for Emergency Operations

This section of the Base Plan should summarize how the AEP was established; who developed it or who was on the planning committee; what federal and local guidance was used in its creation; etc.

The following identifies some sample language that could be included in this section:

The AEP is founded on the basis of Federal Aviation Regulations and the Comprehensive Emergency Management Plans of the Town and/or City of XX and/or XX County [this is where you would identify any other emergency plans such as plans created for the airport's city, town, or county]. The Airport is responsible for emergency response on the Airport. Emergency support is also provided by xxx [identify mutual aid agencies or the city or town where arrangements have been made].

Operational Plan

This section of the Base Plan summarizes the airport's overall operational approach to an emergency situation, i.e. what should happen, when, and at whose direction, to include potential inter-jurisdictional responsibilities. It should include steps from the initial notification of an incident/accident to the return to normal operations.

Notification

A subsection of the Operational Plan is the Notification section. In this section, the Airport should identify the standard notification sequence to be followed in an emergency situation. For instance, the Airport should identify the overall means of notification, emergency phone numbers to be used, communications network, types of emergencies to report, and etc.

The following identifies some sample language that could be included in this section:

Means of Notification

Initial notification of an emergency typically occurs in one of the following situations [insert the notification sequence for your airport using something similar to the example below].

- Air Traffic Control (ATC) activates the ring-down telephone line to notify Aircraft Rescue and Fire Fighting (ARFF) of an aircraft emergency.
- ATC sends out an emergency telephone call to alarm airport management, operations and maintenance.
- An airport employee reports an incident directly to a law enforcement officer or firefighter.

Emergency Telephone Numbers

In this section the Airport should identify emergency telephone numbers here.

- Air Traffic Control Tower: via direct interphone (Crash Net), local intercom, or 911.
- 24/7 alternate number – xxx-xxx-xxxx
- 911 telephone calls are received by emergency dispatchers at the Town/City of XX Police Department. The dispatchers have phone communications with the Airport, off airport fire mutual aid, law enforcement, xxx

Communications Network

In this section the airport should identify communications protocol between the airport and response units whether it is on-airport units or off-airport mutual aid units.

Emergency Incidents to Report

In this section the airport should identify the type of emergencies that shall be reported such as:

- Aircraft emergencies and fires;
- Structural fires and non-structural fires;
- Fires at Fuel Farms;
- Bomb threats;
- Hijackings/threats of terrorism/hostage-takings;
- Fuel spills;
- Vehicle fires and accidents;
- Medical emergencies;
- Hazardous materials incidents;
- Floods and other natural disasters;
- Unusual odors or conditions;
- Suspicious behavior; and
- Suspicious packages.

Press and Media Support

In this section the airport should identify how the press and media will be handled and how they will get information regarding the incident/accident.

Response

Another subsection of the Operational Plan is the Response section. In this section, the Airport should identify the standard response to be followed in an emergency situation. For instance, the airport should identify the responsibilities for initial responders. The airport should insert the response for your airport using something similar to the example below.

- Fire Department Alarm / Dispatch Centers will begin prompt notifications to all agencies required by the emergency, by radio or telephone.
- ARFF responds and assesses the situation. The Airport Manager will request mutual aid assistance as needed.
- Airport Operations responds and determines which airport movement areas need to be closed to ensure aircraft safety and to establish an access route for emergency responders.
- ARFF will begin firefighting and rescue operations, as required.

Extended Operations

Another subsection of the Operational Plan is the Extended Operations section. In this section, the Airport should identify the standard operations to be followed in an emergency situation. For instance, will an airport command post be set up to deal with the situation until recovery and normal operations can be resumed? The airport should insert details in this section that pertain to extended operations using something similar to the example below.

- The ARFF OIC will assume the role of incident commander and establish an incident command post.
- Airport Operations initiates notification to airport staff, government agencies and airport tenants, as required.
- Airport Operations and police will assist with access control and provide escorts to incident command post.
- On arrival of senior airport staff, the Emergency Operations Center will be activated and emergency staff positions will be filled.
- Airport employees and tenants will stand-by and provide assistance as needed.

Recovery

Another subsection of the Operational Plan is the Recovery section. In this section, the Airport should identify the recovery sequence following an emergency situation. In this section the airport should insert details pertaining to recovery operations using something similar to the example below.

- Airport Operations and Airport Maintenance will conduct a damage assessment and Foreign Object Debris (FOD) sweep.
- Airport Maintenance will commence airfield repair operations if necessary.
- Upon release of wreckage, Airport Operations with coordinate removal operations with the aircraft owner.

Return to Normal Operations

Another subsection of the Operational Plan is the Return to Normal Operations section. In this section, the Airport should identify the process that the Airport will take to return the airport to a normal operational condition. In this section the airport should insert details using something similar to the example below.

- Airport Operations and Airport Facilities Maintenance will conduct a final safety inspection.
- Closed areas of the airport will be re-opened (cancel NOTAMS).

Assignment of Responsibilities

This section of the Basic Plan should provide a list of organizations that could be involved in the Emergency Plan as well as a brief description of their responsibilities. It includes a listing by position and organization responsibilities, along with related tasks to be performed. Such a list helps with a quick understanding of who does what without a lot of the procedural details that are found in the Functional Section.

The following identifies possible organizations to be included in an Airport's AEP. However, each airport is unique and may perhaps have more or fewer organizations than the ones mentioned here.

The following identifies some sample language that could be included in this section:

- Air Carrier(s)/Aircraft Operator(s)
    - Provide full details of aircraft related information, as appropriate, to include number of persons, fuel, and dangerous goods on board.
    - Coordinate transportation, accommodations, and other arrangements for uninjured passengers.

- Coordinate utilization of their personnel and other supplies and equipment for all types of emergencies occurring at the airport.
- Perform duties in accordance with air carrier's Aviation Disaster Family Act plan.

- Air Traffic Control
  - Contact ARFF service regarding aircraft incidents/accidents and providing them information relevant to the emergency. Provide ARFF vehicle operators with information regarding the last known position of the accident aircraft, the best estimate of the accident.
  - Coordinate the movement of non-support aircraft away from any area on the airport, which may be involved in an emergency.
  - Coordinate the movement of support aircraft to/from the emergency scene.

- Airport/Management
  - Assume responsibility for overall response and recovery operations once life, property and safety matters have been mitigated. Until such time the Fire Chief or designee will be the Incident Commander.
  - Establish, promulgate, coordinate, maintain, and implement the AEP, to include assignment of responsibilities.
  - Coordinate the closing of the airport when necessary and initiate the dissemination of relevant safety-related information to the aviation users (NOTAMs).

- Airport Tenants
  - Coordinate the use of their available equipment and supplies.
  - Coordinate the use of their manpower that may have knowledge of the airport, aircraft, and other technical knowledge.

- Animal Care/Control
  - The movement of animals through the airport as cargo or pets accompanying their owners is fairly routine. Animal Care professionals should be included in AEP development and provide professional assistance during emergencies. This can be assigned to a governmental animal control department or contract with a non-profit or volunteer organization, such as the Humane Society or Society for the Prevention of Cruelty to Animals (SPCA).
  - Coordinate the services and assistance provided to the animal victims impacted by the emergency.
  - Removal and care of wildlife involved in collision with aircraft.

- Coast Guard/Harbor Patrol
  - Provide primary rescue and other support services in large bodies of water on or adjacent to the airport, as appropriate.
  - Coordinate their services with other mutual aid rescue services.

- Communications Services
  - Identify and designate private and public service agencies, personnel, equipment, and facilities that can be used to augment the airport's communications capabilities.
  - Identify repair capability avail-able under emergency conditions.
  - Coordinate and establish communications protocols, including frequency utilization, for use during emergency conditions.

- Coroner: coordinating and providing body identification and other investigative activities.

- Emergency Management Services (EMAs)
  - Coordinate local Emergency Operations Plans (EOP) with the AEP.
  - Consider role airport may have in support of state or regional defense or disaster response plans.

- Emergency Medical Services
  - Provide emergency medical services to the airport during emergency conditions to include triage, stabilization, first aid, medical care, and the transportation of injured.
  - Coordinate planning, response, and recovery efforts with hospitals, fire and police departments, American Red Cross, Airport operator, etc.

- State or Local Environmental Agency: provide response and recovery support for environmental and other hazardous material emergencies as defined by statute.

- Federal Aviation Administration (FAA)
  - Certify and uphold the practices and procedures of the aviation industry.
  - Provide investigation service in support of improving safety and enforcement of the regulations, as necessary.

- Federal Bureau of Investigation (FBI)
  - Investigate any alleged or suspected activities that may involve federal criminal offenses (usually related to bomb threats, hijackings, hostages, and dignitaries).
  - Assumes command in response to certain hijack and other criminal situations.

- Aircraft Rescue and Firefighting (Fire Department): managing and directing firefighting and rescue operations until life, property and safety matters have been mitigated.

- Hazardous Material Response Team: provide response and recovery support for hazardous material emergencies as defined by statute.

- Health and Medical: coordinate overall planning, response and recovery efforts with hospitals, EMS, fire and police departments, American Red Cross, Airport Operator, and others to ensure practicality and interoperability.

- Hospital(s): coordinate the hospital disaster plan with the airport and community EOP.

- Mental Health Agencies: provide coordinated programs for survivors, relatives, eyewitnesses and emergency response personnel for dealing with the possible long-term effects of the emergency.

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

- Mutual Aid Agencies
    - Coordinate and integrate emergency services into the AEP through mutual aid agreements and Standard Operating Procedures (SOPs).
    - In some locations there are regulations or laws governing mutual aid activities and agreements.

- National Weather Service
    - Provide related technical support information in support of emergency response and recovery operations.
    - Assist with alert and warning processes, particularly with weather related emergencies.

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

- Police/Security: managing law enforcement resources and directing traffic control and law enforcement operations.

- Public Information/Media: gathering, coordinating and releasing factual information.

- Public Works/Engineering
    - Manage public works resources and direct public works operations (e.g. road maintenance, debris/trash removal, etc.).
    - Coordinate with private sector utilities (e.g. power and gas) on shutdown and service restoration.
    - Coordinate with private sector utilities and contractors for use of private sector resources in public works-related operations.

- Red Cross: coordinating and providing support services to victims, their families, and to emergency responders.

- Search and Rescue: coordinate and provide search and rescue services as needed, usually for off-airport aircraft emergencies.

- All Tasked Individuals/Organizations
    - Maintain current internal personnel notification rosters and SOPs to perform assigned tasks.
    - Analyze need and determine specific communications resource requirements.
    - Identify potential sources of additional equipment and supplies.
    - Provide for continuity of operations by taking action to:
        - Ensure that lines of succession for key management positions are established to ensure continuous leadership and authority for emergency actions and decisions in emergency conditions.
        - Protect records, facilities, and organizational equipment deemed essential for sustaining operational capabilities and conducting emergency operations.
        - Protect emergency response staff:

            ✓ Provide appropriate protective clothing and respiratory devices.

            ✓ Ensure adequate training on equipment and procedures.

            ✓ Provide security.

            ✓ Rotate staff or schedule time off to prevent burnout.

            ✓ Make stress counseling available.

            ✓ Ensure the functioning of communication and other essential equipment.

Note: The following table is an example that can be used in an airport's AEP in the organization and assignment of responsibilities section providing a list of different local, state and federal agencies with their contact numbers. Keep in mind that this table might be different for different airports, as there could be more or less agencies depending on the location of the airport.

Local Agencies	Contact Number
Local Fire Department(s)	xxx-xxx-xxxx
Local Police Department	xxx-xxx-xxxx
Airport Maintenance	xxx-xxx-xxxx
Red Cross	xxx-xxx-xxxx
NH Army National Guard Facility Commander	xxx-xxx-xxxx
Local/Nearest Flight Service Station	xxx-xxx-xxxx
Civil Air Patrol	xxx-xxx-xxxx
Local Airport Management	xxx-xxx-xxxx
Local Sherriff Department (if applicable)	xxx-xxx-xxxx
State Agencies	**Contact Number**
NH Bureau of Aeronautics	xxx-xxx-xxxx
NH State Police	xxx-xxx-xxxx
Department of Environmental Protection	xxx-xxx-xxxx
NH Division of Forest and Lands	xxx-xxx-xxxx
NH Bureau of Emergency Management	xxx-xxx-xxxx
Country Emergency Management Agency	xxx-xxx-xxxx
Office of Chief Medical Examiner	xxx-xxx-xxxx
Federal Agencies	**Contact Number**
Local Air Traffic Control Tower	xxx-xxx-xxxx
FAA Flight Standards Districts Office	xxx-xxx-xxxx
FAA Regional Operations Center	xxx-xxx-xxxx
Transportation Security Agency	xxx-xxx-xxxx
Federal Bureau Investigation	xxx-xxx-xxxx
US Coast Guard	xxx-xxx-xxxx
National Transportation Safety Board	xxx-xxx-xxxx

Optional/Additional agencies in the table above may include (but are not limited to):

- County Agencies
- Medical Agencies
- Utility Companies
- Wrecker and Crane Services
- Religious and Counseling Agencies
- Operating Frequencies

Administration and Logistics

In this section of the Base Plan, the airport should think of incorporating information related to the availability of services and support for all types of emergencies, general policies for managing resources, mutual aid agreement references among organizations involved in the AEP, the airport's general policies on finance record keeping and reporting and tracking resources needed during emergencies.

The following identifies some sample language that could be included in this section:

- Availability of services and support for all types of emergencies
  - Police, Fire and Medical support is available to the Airport through a mutual aid agreement with surrounding jurisdictions. See Exhibit XX, Mutual Aid Agreement for additional information.
  - Emergency Food and Beverages are available through a letter of understanding with XXX. See Exhibit XX, Letter of Understanding, Emergency Food/Beverages Services.

- General policies for managing resources
  - Each department is responsible for managing its own resources.
  - Shared resources shall be managed through the Airport Purchasing Department and Warehouse.

- Mutual Aid Agreement
  - The Airport has entered into a mutual aid agreement with XXX. Through this agreement the Airport can request additional law enforcement, fire/rescue and medical services. See Exhibit XX, Mutual Aid Agreement.

- Augmenting Staff
  - During an emergency the Airport may elect to augment staff with airport tenant employees for functions in which they are trained and/or qualified to perform.
  - Volunteer organizations such as the Red Cross or Civil Air Patrol may be used at the discretion of the Airport Manager or Incident Commander.

- Record Keeping
  - Financial recording functions are conducted by the Finance/Administration Department. All financial records, invoices, and purchase requests shall be forwarded to the Finance/Administration Department for recording and tracking purposes.
  - Financial reporting functions are conducted by the Finance and Administration Department. All departments shall forward financial information and reports to the Finance and Administration Department.
  - Each department is responsible for tracking its own resources. Shared airport resources are tracked by the Airport Warehouse in the Purchasing Department.

- Airport Personnel Contact Information
  - See Exhibit XX, Airport Personnel

- Airline Representative Contact Information
  - See Exhibit XX, Airline/Tenant Contact Information

Plan Development and Maintenance

In this section of the Base Plan, the Airport should identify basic maintenance of the plan. The airport should include the following.

General

In this section, the Airport should identify how the airport will update the AEP. This section should identify how personnel should periodically review AEP policies, procedures, and related information. Information about training that covers changes in policies, procedures, resource availability, and etcetera should be provided to ensure that all personnel stay familiar with current information.

The following identifies some sample language that could be included in this section:

The Airport Operations Department is responsible for maintaining the Airport Emergency Plan. The plan will be reviewed periodically and updated on an as needed basis.

Pre-incident introductory, recurrent, and specialized training on the plan is provided through classroom sessions, tabletop exercises, and drills for those who have a role in the plan.

Post-incident events, drills and exercises are evaluated and critiqued to realize successes and areas needing improvement. Information received from the critiques is used to validate the effectiveness of the plan and to highlight necessary improvements and recommended changes.

Schedule of Review

In this section, the Airport should develop a schedule for reviewing each part of the AEP. A suggested schedule for some of the key elements is:

- Telephone numbers contained in the AEP should be reviewed quarterly for accuracy by actually calling the individuals/ organizations listed. Changes should be noted, particularly in the procedures of the individual(s)/organization(s) tasked with making the calls during an emergency.
- Radio frequencies used in support of the AEP should be tested at least monthly. If these frequencies are used on a day-to-day basis, documentation to that effect should be provided.

- Emergency resources should be inspected routinely. The frequency of inspection may vary depending on the type of equipment and supplies. Consideration should be given to placing these resources on the daily or periodic Airport Self-Inspection Program.
- Personnel assignments to include descriptions of duties and responsibilities should be reviewed semi-annually.
- Mutual aid agreements should be reviewed annually or as specified in the agreement.
- Off-airport activity should be reviewed on an on-going basis. Maintain an open dialogue with off-airport agencies, such as utilities, public works departments, etc. to learn of activity that may affect the airport's emergency response effort, i.e. road construction and closures, major utility work, etc.

The following identifies some sample language that could be included in this section:

- The Airport Operations Department with check telephone numbers in the AEP quarterly.
- The Airport Operations Department will check radio frequencies, alert, and warning systems on a monthly basis.
- The entire manual will be reviewed on an annual basis for errors and changes in policy and procedure.
- Mutual aid agreements will be reviewed annually or as specified in the agreement.
- As policies and procedures change, the manual will be updated on an as needed basis.

Training, Drills and Exercises

In this section, the Airport should develop a schedule for overall training, drill, and exercise program. As training, drills, and exercises are conducted, it is important that a functional critique/feedback program be in place. These "lessons learned" should be incorporated back into the planning process. A description of the airport's training, drill, and exercise program should be included in this portion of the plan.

The following identifies some sample language that could be included in this section:

- Airport tenants receive training on how to report emergencies during routine training presentations provided by the airport. Tenants are also invited to participate in all table-top exercises and live emergency drills.
- The airport conducts annual emergency tabletop exercises that involve all airport tenants and mutual aid organizations. The airport presents an emergency situation and solicits input from all participating organizations.
- Every three years the airport conducts a full scale disaster exercise. All airport tenants and mutual aid agencies are invited to participate. Emergency procedures are discussed and performed by tasked individuals. Third party evaluators observe overall exercise activity and provide feedback following the exercise.

Authorities and References

In this section of the Base Plan, the airport should indicate the legal basis for emergency operations. Laws, statutes, ordinances, regulations, and formal agreements relevant to emergencies should be listed, along with any authority that has been delegated. Citing reference materials - including local Emergency Operations Plans (EOPs) - can be valuable for indicating what has influenced the writing of the AEP. References can also reduce the size of the AEP by directing the user to the full text of other documents.

The following identifies some sample language that could be included in this section:

XX Airport will organize in accordance with the National Incident Management System, under the Incident Command System to manage on scene emergency operations.

The development of an Airport Emergency Plan (AEP) was done by a team consisting of individuals/organizations having a potential role in the airport's emergency response program. Apart from the requirements established by the Federal Aviation Administration in **14 CFR Part 139** and the **Advisory Circular (AC) 150/5200-31C**, the AEP Planning team reviewed additional documents addressing other applicable regulations, standards, and guidance related to emergency preparedness. The list of additional documents includes, but is not limited to, the following:

1. Federal Emergency Management Administration(www.fema.gov)
   - National Incident Management System (NIMS)
   - National Response Framework (NRF)
   - SLG (101), *Guide for All-Hazard Emergency Operations Planning*
2. National Fire Protection Association (NFPA) 424, *Airport/Community Emergency Planning*
3. 49 CFR part 1542, *Airport Security* (formerly 14 CFR part 107)
4. 49 CFR part 1544, *Aircraft Operator Security* (formerly 14 CFR part 108)
5. 49 CFR part 1546, *Foreign Air Carrier Security*
6. 49 CFR part 1548, *Indirect Air Carrier Security* (formerly 14 CFR part 109)
7. State and Local Regulations
8. ICAO Technical Instructions
9. International Air Transportation Association, *Dangerous Goods Regulations Manual*
10. Department of Transportation, *The Public Transportation System Security and Emergency Preparedness Planning Guide*
11. National Response Team (NRT-1), *Hazardous Materials Emergency Planning Guide*
12. Airport Joint Use Agreements with the Department of Defense
13. *U.S. Coast Guard Addendum to the National SAR supplement* (CGADD)
14. FAA Order 7210.3, *Facility Operation and Administration* [1]

This template is designed in accordance with the appropriate Advisory Circular referring to all the documents above, and the necessary elements from these documents have been incorporated into this model. For further clarification and additional references, please refer to Advisory Circular (AC) 150/5200-31C.

[1] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 10-11.

Chapter 2 – Functional Sections

The Functional Sections typically include:

- Command and Control;
- Communications;
- Alert Notification and Warning;
- Emergency Public Information;
- Protective Actions;
- Law Enforcement/Security;
- Firefighting and Rescue;
- Health and Medical;
- Resource Management; and
- Airport Operations and Maintenance.

What is included in a particular airport's AEP is dependent on the airport. However, we have included the following Functional Sections that seem to have appeared in most general aviation type airport AEP's: Command and Control Section, Communications Section, and Alert Notification Section.

The Command and Control Section should provide an overview of how incidents/accidents will be directed and controlled. It should provide for critical actions essential to saving lives, protecting property, and restoring normal operations to the Airport. Command and Control is the most critical element of the emergency management function. Effective central control of the situation is essential to manage an incident, provide for up/down communications, lateral functional support, and the central control of resources.

The Communications Section should provide information on establishing, using, maintaining, enhancing, and providing redundancy for all types of communications devices needed during emergency response operations.

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

Command & Control

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

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

Because difficulties often arise in the overall management of an emergency when agencies from different disciplines have to work together to provide collateral support, a clearly defined central authority responsible for managing the overall response strategy to the emergency is essential. Additionally, the command structure should be designed with common terminology, standards and procedures due to the gathering of agencies from different disciplines. The Incident Command System is an element of the Federal Emergency Management Agency (FEMA) National Incident Management System (NIMS), which is a management system design to enable effective and efficient domestic incident management by integrating a common organizational structure. Therefore, all airport emergency responders should operate within the NIMS and abide by its rules and procedures.

Each kind of emergency will have an Incident Commander, who will manage the incident by planning, organizing, directing, coordinating, controlling, communicating, delegating, and evaluating the incident. Therefore, this chapter should clearly define the command and control structure for the airport based on the type of incident or hazard that has occurred. For instance, the Incident Commander in charge of a fire or hazardous materials situation would most likely be the Fire Officer whereas an aircraft bomb or hijacking situation would typically identify Law Enforcement as the Incident Commander.

This section should be able to identify the different types of Incident Commanders and mention the types of emergencies they are responsible for.

Some of the language above can be reused as an introduction to this section while the following identifies some sample language that could be included to fill in the remainder of this section:

Purpose

The Command and Control section provides an overview of how incidents will be directed and controlled. It provides for critical actions essential to saving lives, protecting property, and restoring normal operations to the Airport. Because agencies from different disciplines have to work together to provide collateral support, a clearly defined central authority responsible for managing the overall response strategy to the emergency is essential. Therefore, the Command and Control of an incident at XX Airport follows the Incident Command System, an element of the Federal Emergency Management Agency (FEMA) National Incident Management System (NIMS), which is a management system design to enable effective and efficient domestic incident management by integrating a common organizational structure. Emergency response organizations will use this generally accepted national standard for on-scene Command and Control.

Situations and Assumptions

In this section the airport should describe the situations and conditions that would initiate the notification and the mobilization of response personnel.

Emergencies that shall be reported include the following:

- Aircraft emergencies and fires;
- Structural fires and non-structural fires;
- Fires at Fuel Farms;
- Bomb threats;
- Hijackings/threats of terrorism/hostage-takings;
- Fuel spills;
- Vehicle fires and accidents;
- Medical emergencies;
- Hazardous materials incidents;
- Floods and other natural disasters;
- Unusual odors or conditions;
- Suspicious behavior; and
- Suspicious packages.

Operations

In this section the airport should describe the Command and Control relationships of tasked individuals/organizations or agencies responding to an emergency. The overall incident command structure should be identified, specifying who will be in charge during each phase of emergency operations.

The type of incident shall define the command structure, as follows:

Type of Emergency	Incident Commander
Aircraft Accidents and Incidents (Crashes/Fire)	Fire Officer in Charge
Terrorism	Police Officer in Charge
Bomb Incidents	Police Officer in Charge
Non-structural/Vehicle Fire	Fire Officer in Charge
Fires at Fuel Farms/Storage Areas	Fire Officer in Charge
Structural Fire Incidents	Fire Officer in Charge
Natural Disasters	Airport Manager
Hazardous Materials/Fuel Spills	Fire Officer in Charge
Power Failure	Airport Manager
Water Rescue Situations (if applicable)	Fire Officer in Charge
Crowd Control/Evacuation	Police Officer in Charge
Sabotage/Hijack/Interference of Operations	Police Officer in Charge

An Emergency Operations Center (EOC) shall be established at the scene of the emergency. The EOC will be used to facilitate policy making, coordination, and overall direction of responding forces in emergency situations. Airport Management, Airport Rescue and Fire Fighting (ARFF), Town/City Fire, Town/City Police and
EMS agencies representatives will be directed to this area.

All personnel will be identified with reflective vests, ID badges or other media to identify emergency function and ensure personnel safety.

Emergency Response Organizations

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

The ICS was developed and designed to accommodate an “all hazards approach,” from a minor aircraft incident/accident of a blown tire with no injuries to significant events such as earthquakes and or tornados that could close the airport. The basic concepts and principles of ICS include: common terminology, modular organization, integrated communications, unified command structure, consolidated action plan, manageable span of control, designated incident facilities, and comprehensive resource management. While there are several different ICS structures, varying in complexity and flexibility, most begin with the following modules which are based on five functions that should be performed at every emergency incident:

- Incident Commander.
- Operations.
- Planning.
- Logistics.
- Finance/Administration.

As identified in the previous section, the Incident Commander is scene specific. However, the function of the Incident Commander in all scenarios is the same: to direct and control personnel and equipment, as well as to provide overall management at a specific incident site, including public safety and public information.

Incident Command Staff Positions

- **Incident Commander** - The Incident Commander will be in charge of the incident/accident and shall exercise authority over all emergency forces, including airport units and those providing service through mutual assistance or letters of agreement. The Incident Commander is also responsible for scene safety, coordination with outside agencies, and dissemination of information to the news media.

- **Operations Section Chief** – The Operations Section Chief is responsible for coordinating the operations function including tactical operations at the incident scene such as developing staging areas and coordinating activities on behalf of the Incident Commander for mutual aid responders (EMS, Fire, Law Enforcement).

- **Planning Section Chief** – The Planning Section Chief is responsible for coordinating the planning function including the collection, evaluation, dissemination and use of information regarding the incident, as well as the status of resources used and needed at the incident scene.

- **Logistics Chief** – The Logistics Chief is responsible for coordinating the logistics function including the facilities, services, personnel, equipment, and material required to support the incident.

- **Finance Chief** – The Finance Chief is responsible for coordinating the finance/administration function including incident cost tracking, cost analysis, evaluation of other financial considerations and assuring appropriate reimbursement processes are initiated.

- **Safety Officer** – The Safety Officer is responsible for monitoring and assessing the safety hazards, unsafe situations response personnel may be exposed to, and develop and enforce measures to ensure their safety.

- **Public Information Officer –** The Public Information Officer is responsible for interfacing with the media and other appropriate agencies, including developing and disseminating complete and accurate information applicable to the incident.

- **Liaison Officer** – The Liaison Officer is responsible for serving as a point of contact with assisting or coordinating agencies to help avoid duplication of efforts and to ensure each agency is allowed to perform what it does best.

Assignment of Responsibilities

In this section the airport should describe the specific direction and control responsibilities that are assigned to each tasked organization or agency that may provide support during an airport incident/accident.

The following identifies some sample language that could be included in this section but more specific detail of responsibilities may be identified in the hazard specific section:

- Airport Manager
  - Ensure closure of the Airport, or sections thereof, when necessary.
  - Initiate proper notification and directs all responding agencies to ensure appropriate response in accordance with established plans and procedures.
  - Establish adequate records of the emergency.
  - Provides overall direction of response operations until an emergency scene is established and an Incident Commander assumes this responsibility.
  - Designates an Incident Commander to direct operations at the emergency scene, as appropriate.
  - Ensure safe continued airfield operations. The airport, or portions of the airport, that are closed during the emergency, will not be reopened until all provisions.
- Aircraft Rescue and Firefighting (ARFF)
  - When notified of an emergency, responds to the incident scene with appropriate personnel and firefighting/rescue equipment in accordance with standard operating procedures.
  - Identifies an initial Incident Commander and establishes an Incident Command Post, if appropriate; assigns appropriate personnel to Incident Command staff functions.
  - Performs Incident Command duties at the scene of the incident, as appropriate.
  - Manages fire/rescue resources, directs fire operations, conducts necessary rescue operations, and determines the need to evaluate the area in the vicinity of the scene or to initially shelter in place.
  - Alerts emergency response personnel of the presence of hazards at the scene.
- XX City/Town Police Department

- Identifies an initial Incident Commander and establishes an incident command post, if appropriate; assigns appropriate personnel to Incident Command staff functions.
- Performs Incident Command duties at the scene of the incident, as appropriate.
- The XX Police Department will provide security for the airport and will ensure that all accident scenes are maintained to the original crash condition(s) except when removal of the entire aircraft, parts, or contents may be necessary to protect public safety. The NTSB has complete responsibility and authority for the accident scene after public safety issues have been resolved to the satisfaction of the Incident Commander.
- Manages law enforcement resources and directs law enforcement operations, such as: Traffic control, evacuation assistance, scene access control, scene security, damage assessment.

- Public Information Officer
  - Performs interface with media regarding the emergency.
- Airport Tenants
  - In the event of an emergency response to an airfield incident, the airport tenant shall report to the Incident Commander or other designated official. Once liaison has been established with the XX Police Department, the tenant/FBO representative will, in the company of the XX Police personnel assigned as liaison, report to the Incident Commander.
  - The tenant representative will be responsible for providing the Incident Commander with a complete listing of passengers and crew and a complete cargo manifest noting the presence of any hazardous materials on board.
  - The tenant representative shall also have responsibility for the safety, security, and evacuation of the non-injured, injured, and fatalities, to proper areas upon release by the Incident Commander or his/her representative. It will also be the tenant's responsibility, with the consent and direction of Airport Management and the investigating agencies, to promptly remove the aircraft and have the area restored to its natural condition. The tenant is also responsible for implementing their family assistance plan and coordinating with Airport Management to assume responsibility for family assistance programs already under way.
- Add any additional as necessary

Administration and Logistics

In this section the airport should describe the administration and logistics support requirements of the Command and Control function.

- Administrative Support - this section should describe the records that are required to be maintained and describes the frequency and types of reports that are necessary. Examples include:
  - Reports relating to specific agencies' expenditures and obligations during emergency conditions.
  - Requirement to submit reports to the various levels of emergency management agencies (very often, reimbursement of expenditures is dependent upon report submission).
- Logistics Support - this section addresses the support arrangements (food, water, emergency power, fuel, equipment, supplies, etc.) of the organizations performing the direction and control functions. Letters of Agreement, if developed, should be referenced.

The following identifies some sample language that could be included in this section:

- Reporting of Expenditures
  - Each department shall thoroughly record all fuel, equipment, supplies and capital consumed during a disaster for reimbursement purposes.
  - All damage to airport facilities and equipment shall be thoroughly documented via photo, video for reimbursement and insurance claim purposes. If sufficient notification of a disaster exists, airport facilities shall be documented prior to the event.
  - All records of damaged equipment and facilities, resource consumption, and invoices shall be forwarded to the Finance and Administration Department for tracking.
- Reporting to Emergency Management Agencies
  - All events related to the emergency shall be chronologically logged by each responding department and agency. The information reported in the logs shall be forwarded to the appropriate emergency response agency, as required.
  - Routine and emergency status reports from field operations personnel shall be reported to the appropriate emergency response agency, as required. Status information shall be forwarded to other emergency management organizations, as required.
  - Airport status updates shall be submitted to the FAA, TSA, NTSB, NH Bureau of Aeronautics and FEMA as required.
  - Mutual aid agencies shall report status updates and coordinate response efforts with their respective emergency response agency, as required.
- Support Arrangements

- The airport has entered into a mutual aid agreement with XXX. Through this agreement the airport can request additional law enforcement, fire/rescue and medical services. The mutual aid agreement is provided in Exhibit XX.
- Emergency access to food and beverages is available through a letter of understanding with XXX. See Exhibit XX.
- Emergency fuel, equipment, and generators are available through the XXX.
- The airport terminal building, airfield lighting vault, airport fire station, air traffic control tower, and navigation aids are all equipped with back-up electrical generators.

Plan Development and Maintenance

In this section the airport should describe who is responsible for coordinating the revision of the Command and Control Section, including attachments and SOPs.

Authorities and References

In this section the airport should list all authorities and references. These should include, but not be limited to:

- Mutual Assistance Agreements (MAA)
- Memorandum of Understanding (MOU)
- Service Support Contracts (SSC)
- Implementation Plans

Communications

The information developed for this section should address the processes used to reliably and efficiently transfer, delineate, and disseminate information from one point to another during emergency situations.

The following identifies some sample language that could be included to fill in the remainder of this section.

Purpose

The purpose of the Communications Section is to provide information on establishing, using, maintaining, enhancing, and providing redundancy for all types of communications devices needed during emergency response operations.

The purpose of this section is to instruct Airport employees on how to report emergencies and identify the means of notifying emergency responders that an emergency condition exists.

Situations and Assumptions

Activation of emergency communication systems can occur during any type of airport emergency. Each type of emergency requires different types of communications systems to address the emergency. The Alert Notification Section should detail the types of situations that warrant activation of emergency communications. Most alert notification and warning systems can also serve as emergency communication systems.

Operations

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

It should address provisions for redundancy (sometimes termed primary and secondary backup systems) and integration in all areas of information flow, including equipment and the people that will operate that equipment. For example you can use the following text:

- Communications
  - Communications between the EOC, Incident Command Post, and field units are primarily conducted through the 800mhz radio system. Radio frequencies (CT, CTAF, FSS, etc…)
  - Crash phone in the Air Traffic Control Tower
  - As an alternate, cellular phones and runners may be used when necessary.
- Redundancy
  - In the event the XX Airport trunking radio system fails, or if radios are out of range, they can operate on a conventional direct non-trunking mode.
  - Channels XX, XX, XX are designated as non-trunking channels for law enforcement, fire, EMS and Government.
- Terminology
  - All responding units shall use plain language in all radio communications.
  - Specialized terminology in including 10 codes, police, fire and aviation jargon will be avoided whenever possible.
- Interoperability
  - Channels XX through XX and XX through XX are the same on all XX City/Town public safety agency radios.

Assignment of Responsibilities

In this section the airport should describe the specific communications responsibilities that are assigned to tasked organizations. The following identifies some sample language that could be included to fill in the remainder of this section:

- Airport Manager
  - Designate a Communications Coordinator to report to the EOC when required.
  - Ensure adequate and appropriate communications systems are in place.
- Communications Coordinator
  - Manage the communications section in the EOC and supervises all personnel assigned to it.
  - Supports media center communications, as needed.
  - Ensures communications section in the EOC has the capability to sustain operations around the clock.
  - Maintains a chronological event log.
  - Establishes a secondary communications center.
- Tasked Organizations
  - Maintain existing equipment and follow established procedures for communicating with their organization personnel performing field operations.
  - Keep the EOC informed of their respective operations at all times.
  - Ensure redundant and interoperable communications capability.
  - Clear, repair, and perform maintenance on all equipment before returning to normal operations or storage.

Alert Notification

The Alert Notification section addresses the processes used to notify and warn emergency response agencies, airport employees and tenants, and the general public of potential or actual emergency situations.

The following identifies some sample language that could be included to fill in the remainder of this section.

Purpose

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

Situations and Assumptions

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

The following identifies some sample language that could be included to fill in the remainder of this section.

The various alert notification and warning systems at the XX Airport are designed for use in emergency and non-emergency situations. The systems are capable of handling airport emergencies without substantial limitation.

Typically, the following emergencies should be reported:

- Aircraft Emergencies and Fires
- Structural and non-structural fires
- Fires at Fuel Farms
- Bomb threats
- Hijackings/Threats of terrorism/hostage-takings
- Fuel Spills
- Vehicle fires and accidents
- Medical emergencies
- Hazardous Material incidents
- Natural Disasters
- Unusual odors or conditions
- Suspicious behavior
- Suspicious packages

Operations

In this section the airport should provide general information on the process of how the alert and warning system is to be used at the airport. The following identifies some sample language that could be included to fill in the remainder of this section.

The responsibility to notify essential personnel and agencies is largely dependent on the type and severity of an incident. The airport should provide a list of typical notification responsibilities based on common airport emergencies.

Assignment of Responsibilities

Once an emergency situation is identified, quick notification and exchange of information is crucial. This section should describe specific responsibilities that are assigned to tasked organizations for each type of emergency.

- Airport Manager
  - Identifies individuals who have the specific responsibility and authority to initiate manually activated alert and warning systems.
  - Ensures preparation of contingency plans to provide alert and warning if the established system fails to work.

- All Tasked Organizations. Upon receipt of an alert signal or warning message, initiate internal notification procedures to:
  - Notify all employees and other volunteers assigned to emergency response duties of the emergency situation.
  - As appropriate to the situation:
    - Suspend or curtail normal business activities.
    - Notify and recall essential off-duty employees.
    - Send non-critical personnel home.
    - Evacuate the organization's facilities.
  - If appropriate, augment the alert and warning effort through the use of vehicles or personnel equipped with public address systems to deliver the alert signal and warning message.

Chapter 3 – Hazard Specific Sections

The Hazard Specific Sections are designed to meet the specific planning needs of a particular hazard. In this section, airports should include unique response actions that pertain to a specific type of emergency. These sections should be treated as stand alone documents such that they can be pulled out of the AEP and used alone without referring to the Basic Plan.

The responsibility of deciding what should be included in this section of the AEP relies on the Airport Planning Team.

This section of the template contains checklists describing the actions and tasks each organization involved in the emergency will have to perform. This information comes straight from the Advisory Circular (AC) 150/5200_31C.

The list below identifies hazards typically found under this section of the AEP; however, again, it is up to each individual airport to determine what should be included in their AEP.

- Aircraft Incidents
- Terrorism Incidents
- Structural Fires, Fuel Farms and Fuel Storage Areas
- Natural Disasters
- Hazardous Materials Incidents
- Sabotage, Hijack and Unlawful Interference with Operations
- Failure of Power for Movement Area Lighting
- Water Rescue Situations

The following identifies elements typically found in the response to each kind of hazard:

- General Information (if applicable)
- Purpose
- Operations (if applicable)
- Responsibilities of individuals and organizations involved as well as actions to be taken by each of them.

Aircraft Incidents/Accidents

General Information

In this section, airports should include aircraft accident and incident related definitions as well as any other general information they deem important in helping with the understanding of this particular emergency.

The following identifies some sample language that could be included in this section.

An **Aircraft Accident** is any occurrence associated with the operation of an aircraft that takes place between the time a person boards the aircraft with the intention of flight and the time such person has disembarked, in which a person suffers death or serious injury as a result of the occurrence or in which the aircraft, including cargo aircraft, receives substantial damage. [2]

An **Aircraft Incident** is an occurrence other than an accident that affects or could affect the safety of operations. [3]

Airport Operators should have an emergency plan for airport accidents or incidents that could occur on or off the airport.

Purpose

In this section, airports should define responsibilities of individuals and agencies involved in the event of an aircraft accident or incident that affects the safety of operations at an airport.

The following identifies some sample language that could be included in this section.

Operations

In this section, airports should give an explanation with respect to the manner in which an aircraft accident or incident will be dealt with. Typically, upon being notified about the emergency (either by the Pilot-in-Command or the Aircraft Owner or anyone else involved in the aircraft emergency), Air Traffic Control should instantly notify the Incident Commander (in this case it would be the Fire Officer in charge) from either Aircraft Rescue Fire Fighting or the Local Fire Department, who will then take proper action in dealing with the emergency situation and will notify all the other organizations involved.

[2] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 109
[3] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 109

When calling the Fire Department, the following information is usually provided:

- Aircraft Identification
- Aircraft Type
- Fuel on Board
- Nature of emergency
- Number or crew/passengers aboard
- Location/Runway to be used
- Unusual hazards on board such as explosives, munitions, radioactive materials, etc.
- Wind direction and velocity

A classification system is typically developed in order to help understand the urgency of the situation. The following is a sample classification that the AEP Planning team can use as a guideline to develop their own classification system:

- **Alert I (Local Standby Alert):** An aircraft that is known or suspected to have an operational defect that should not normally cause serious difficulty in achieving a safe landing. This is notification only. No response is required. All units involved will be manned and will standby in quarters.
- **Alert II (Full Emergency Alert):** An aircraft that is known or is suspected to have an operational defect that affects normal flight operations to the extent that there is danger of an accident. All units respond to pre-designated positions.
- **Alert III (Aircraft Accident Alert):** An aircraft incident/accident has occurred on or in the vicinity of the airport. All designated emergency response units proceed to the scene in accordance with established plans and procedures.[4]

Assignment of Responsibilities

In this section, airports should describe actions to be taken by all parties involved in the event of an aircraft accident or incident on the airport or within its vicinity. The following are examples of those responsibilities, duties and actions as drawn from Advisory Circular AC 150/5200_31C.

- Airport Traffic Control Tower
  - Activate the appropriate alarm notification system.
  - Issue appropriate NOTAMs as requested by the airport operator or as established by Letter of Agreement.
  - Control aircraft and ground vehicle operations on the airport in support of the emergency response, if the airport remains open.
  - Control airspace in the vicinity of the incident/accident to ensure other aircraft do not interfere with emergency response activities.

[4] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 110

- Make appropriate FAA notifications.
- Use of a Discrete Emergency Frequency during in-flight emergencies whenever possible provides precise communications between the ARFF IC and emergency aircraft.

- Firefighting and Rescue.
  - Respond to aircraft incident/ accident location in accordance with established policies and procedures.
  - Assume lead in Incident/Unified Command System for initial fire and rescue operations in accordance with established policies and procedures.
  - Ensure appropriate mutual aid emergency response organizations have been notified and are taking appropriate action.

- Law Enforcement/Security.
  - Initiate and maintain appropriate Traffic and Access Control.
  - Provide scene support and security.
  - Assist with/provide AOA access control and escort.
  - Ensure appropriate mutual aid organizations have been notified and are taking appropriate action.
  - Provide necessary investigative support.

- Emergency Medical Services.
  - Provide necessary triage and on-scene initial treatment of casualties.
  - Ensure appropriate mutual aid organizations have been notified and are taking appropriate action.
  - Provide for the movement (land, water, air) of casualties to appropriate treatment facilities as expeditiously as possible.
  - Maintain an accurate list of casualties and their respective destination treatment facilities.
  - Coordinate with the involved air carrier the transportation of the uninjured to the designated holding area.
  - Arrange for restocking of medical supplies, as necessary.

- Airport Operator.
  - Designate hangars or other key buildings on the airport or in the communities it serves that will be used to accommodate uninjured, injured, and deceased persons.
  - Activate the EOC, as needed.
  - Ensure all appropriate notifications have been made, including:
    - National Transportation Safety Board (NTSB).
    - FAA.
    - Airport response personnel.
    - FEMA, FBI, Military Services, etc.
  - Provide emergency support services, as requested, through the EOC.

- Ensure emergency response personnel have received appropriate equipment and training.
- Ensure that supporting emergency response agencies (fire, medical, law enforcement, etc.) have responded.
- Coordinate response actions, with the ATCT.
- Determine need to totally/ partially close the airport and issue appropriate NOTAMs.

- Aircraft Owner/Operator or Designated Representative.
  - Provide pertinent information to Incident Commander, to include:
    - Number of persons on board.
    - The presence and location of any dangerous goods.
  - Provide EOC representation.
  - Make necessary notifications, to include the FAA and NTSB.
  - Arrange for appropriate passenger services6, to include:
    - The transportation of uninjured passengers/crew members.
    - Adequate holding facilities for uninjured passengers/crew members.
    - Commissary items, telephone facilities, clothing, and additional medical services, as needed.
    - Facilities for friends and families of victims/passengers.
    - Passenger/crew accountability and tracking.
    - Hotel and/or other alternative travel arrangements for passengers.

Disabled Aircraft Removal Procedures

In this section, airports should help establish the responsibilities and procedures for the removal of disabled aircraft from a local Airport that may directly or indirectly interfere with safe flight operations. Aircraft may be immobilized on airport surfaces for reasons such as engine failure, failed tire(s), brake malfunction, damage due to landing, takeoff or taxiing accident, etc… If an aircraft is damaged during the accident or incident, an investigation will be required. The aircraft or its parts should not be moved until released by an authorized representative of the appropriate investigative agency.

The National Transportation Safety Board (NTSB), FAA Flight Standards District Office (FSDO), and the NH Bureau of Aeronautics take care of the required investigations.

The following identifies some sample language that could be included in this section.

Preservation of Aircraft Wreckage, Mail, Cargo, and Records

The operator of an aircraft is responsible for preserving to the extent possible all aircraft wreckage, cargo, and mail aboard the aircraft and all records, including those of flight recorders, pertaining to the operation and maintenance of the aircraft, and to airmen involved in an accident or incident for which notification must be given until the NTSB or its authorized representative takes custody.

Prior to the time the NTSB or its authorized representative takes custody of aircraft wreckage, mail, or cargo, such wreckage, mail, and cargo may be disturbed or moved only to the extent necessary:

- To remove persons injured or trapped.
- To protect the wreckage from further damage, or
- To protect the public from injury.

Where it is necessary to disturb or move aircraft wreckage, mail, or cargo; sketches, descriptive notes, and photographs shall be made, if possible, of the accident locale, including original position and condition of the wreckage and any significant impact marks.

Custody of the Aircraft

The FSDO, when delegated, will take custody of the aircraft and its contents from the time the accident occurs until their full investigation is completed or a release is given. In most cases the NTSB or FSDO will, after their initial investigation of the accident, authorize the removal of the damaged aircraft to a selected place for further investigation. Custody of the aircraft is still retained by the two agencies. It is important that any secondary damage (damage experienced during recovery) be recorded by the operator for investigation purposes. Following its full investigation, or at any given time determined by the NTSB, the NTSB will issue a "Release" of

the aircraft to the operator. That is, the NTSB releases its custody of the aircraft, freeing the operator to move the aircraft or make arrangements for its removal.

Aircraft Removal

Once cleared by the FAA/NTSB, if applicable, the tenant, operator, or pilot of an aircraft involved in any accident shall be responsible for the prompt removal of the damaged aircraft. In the event of failure to comply with such directions, such damaged or disabled aircraft and parts may be removed by direction of the Airport Manager at the operator's expense and without liability for damage that may result in the course of such removal. Aircraft recovery/removal will be coordinated with the Airport Manager.

Aircraft Removal Responsibilities

- Airport Management
  - Airport Management will determine if the disabled aircraft, due to its location, is jeopardizing safety of flight operations and if necessary will close all or any part of the airport where hazardous conditions prevail to ensure continued safety.
  - Close Airport runways and / or affected surfaces as required.
  - Ensure proper notifications, to include federal agencies, if applicable.
  - Coordinate all field operations with the Air Traffic Control Tower for continuance of flight operations where possible.
  - Arrange for escorts or transportation of passengers and crew if required.

- City Police Department
  - Provide security at the emergency site
  - Provide liaison for the airline or tenant

- Tenant/FBO
  - The tenant/FBO company must have a basic recovery plan ready to meet such an emergency.
  - The tenant will designate one official with the capacity and authority to make all decisions, technical and financial, necessary to promptly remove and recover the aircraft.
  - The company recovery official will coordinate with Airport management for the implementation of the airline's plan for prompt removal of the aircraft.
  - The prompt removal of the aircraft and all costs associated with the recovery, including contractor charges, airline rental, service company equipment charges, and airport property damage, etc., is the responsibility of the airline involved.

- General Aviation Aircraft Owners / Pilot's Responsibility
  - Designate one person with the capacity and authority to make all decisions, technical and financial, necessary to promptly remove and recover the aircraft. He must have all required company facilities, including personnel and equipment, made available to him.

- The responsible party will coordinate with Airport management and the fixed base operator to develop a comprehensive plan for the prompt removal of the aircraft.
- The fixed base operator must have a basic recovery plan ready to meet such an emergency.
- The prompt removal of the aircraft and all costs associated with the recovery, including contractor charges, airline rental and service company equipment charges, airport property damage, etc., is the responsibility of the aircraft owner or operator.

Terrorism

General Information

Though this is not mandatory, airports may include a general statement about terrorism incidents. Every airport is a potential target for a terrorism threat. The threat can be received against the airport, an aircraft, an aircraft owner/operator, or any other agency operating at the airport. This hazard section should address two types of terrorist threats: **Aircraft Bomb Threat** and **Building Bomb Threat**.

Purpose

In this section, airports should define responsibilities of individuals and agencies involved in the event of a terrorism incident.

The following identifies some sample language that could be included in this section.

Operations

With respect to terrorism, the Chief Police Officer in Charge will be the Incident Commander, and he/she solely has the right to make an independent declaration of emergency.

Upon receiving news about a bomb threat, the following organizations will be notified:

- Local Police Department
- Transportation Security Administration
- Federal Bureau of Investigation
- Fire Department
- Aircraft Owner/Operator (in case of an Aircraft Bomb Threat)
- Air Traffic Control
- County/Town Emergency Management

With a Bomb Threat Situation, the following questions should be asked when dealing with the situation:

- When is the bomb going to explode?
- Where is it right now?
- What does it look like?
- What kind of bomb is it?
- What will cause it to explode?
- Did you place the bomb?
- What is your address?
- What is your name?

- What is the exact wording of the threat?
- What is the exact sex, race, and age of the caller?
- What was the length in time of the call?
- What was the number at which the call was received?
- What time and date was the threat received?
- Was the caller's voice familiar? If so, who did he sound like?
- Was the caller's voice calm, angry, excited, slow, rapid, soft, loud, laughter, crying, normal, distinct, slurred, nasal, stutter, lisp, raspy, deep, ragged, clearing throat, deep breathing, cracking, disguised, accent, familiar, or whispered?
- Did you hear any background sounds?
- Was the threat language well spoken, foul, irrational, incoherent, taped or read like a rehearsed message?

Assignment of Responsibilities

In this section, airports should describe actions to be taken by all parties involved in the response to a terrorism incident, whether it is an aircraft bomb threat or a building bomb threat. The following are examples of those responsive actions as described in the Advisory Circular 150/5200_31C:

Aircraft Bomb Threat

The **Airport Director** or Tenant should do the following:

- Establish an isolation zone on the airport and clear it of all unauthorized personnel
- Passengers should leave baggage and cargo on the aircraft, and all persons should be detained until cleared by the designated law enforcement personnel
- Notify the Bomb Squad and Police Department by telephone (911 or XXX-XXX-XXXX), the FBI (XXX-XXX-XXXX), as well as the TSA (XXX-XXX-XXXX)
- Notify the person(s) or firm in ownership of the aircraft
- Issue appropriate NOTAM(s)

The **Police Department** should do the following:

- Call assistance for explosive technicians and dog team
- Ensure that Airport Management and all other component of Fire Department are notified
- Provide police officers for scene security and enforce public safety requirements
- Provide escort and communication support to airport Tenant/FBO

The **Fire Department** should do the following:

- Stage fire station

- Provide assistance for aircraft evacuation and search of explosives
- If bomb detonation occurs, assume role of Incident Commander and be responsible for fire suppression and rescue procedures.

Building Bomb Threat

The **Airport Tenant/FBO** should do the following:

- Tenant/FBO receiving a bomb threat should first complete as much of the Bomb Threat Checklist b) Call 911 and pass along all pertinent information utilizing the Bomb Threat Checklist.
- Notify owner/operator of building.
- After consultation with local Police Department, make decision whether or not to evacuate and search premises and so notify agencies concerned.

The **Owner/Operator** of the Building should do the following:

- After consultation with the local Police, make decision whether or not to evacuate and search all or portion of building and so notify agencies above.
- Advise Police when evacuation and search is complete.

The local **Fire Department** should do the following:

- Stage the fire station.
- If a bomb detonation results, assume role as Incident Commander.

The local **Police Department** should do the following:

- Dispatch police officers to scene to establish perimeter and assist with investigation.
- The local Police senior officer of rank should establish command post with Fire Department and Airport Management personnel.
- Dispatch bomb technicians and explosives detecting canines. Only bomb technicians and bomb K-9 handlers/K-9s will operate in the "hot zone" of a suspected explosive device.
- Evacuation perimeters and explosives-rendered-safe procedures will be at the direction of the Police Officer in Charge.
- Notify FBI and TSA.
- If a bomb detonation occurs, comply with structural fire procedures under the direction of the Fire Department

Structural Fires, Fuel Farm and Fuel Storage Areas

General Information

In this section, airports may include definitions and other general information related to structural fire, fuel farm, and fuel storage areas incidents similar to the text below.

Structural fires are fires occurring at or in airport properties, structures, facilities, buildings, equipment, and or infrastructure support systems.

Fuel farm and **fuel storage area fires** are fires occurring in fuel storage facilities.[5]

Purpose

In this section, airports should define the responsibilities and actions to be taken in the event of a structural fire.

Operations

In this section, airports may include a description of the overall approach to the structural fire emergency. Airports must mention the Fire Officer in charge will be the Incident Commander, and emphasize that he will be guiding the entire emergency response.

Assignment of Responsibilities

In this section, airports should describe actions to be taken by all parties involved in the response to a structural fire. The following are examples of those actions and responsibilities as described by the Advisory Circular AC 150/5200_31C:

- Airport Traffic Control Tower
  - If involved in a fire emergency, inspect FAA owned/operated/maintained facilities for damage and operability.
  - Provide information and directions to aircraft operators, as appropriate.
  - Provide necessary air and ground traffic control support for emergency response activities, as necessary.
  - Issue appropriate NOTAM if requested by authorized airport personnel.

- Airport Operator
  - Provide notification to appropriate agencies.
  - Implement protective actions for the public and employees, when necessary.
  - Coordinate response activities with airport tenants and local jurisdictions, as needed.

[5] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 130.

  - Coordinate/provide news releases and other interface with the media, as needed.
  - Activate the EOC, as needed.

- Firefighting and Rescue
  - Respond to alarms/fires in accordance established policies and procedures.
  - Provide Incident Command at fires involving airport structures.
  - Determine need to evacuate, or perform other public protective action, for the occupants of any facility impacted by the fire.
  - Apply appropriate firefighting agents to any fire involving fuel, if requested by the Incident Commander.

- Law Enforcement/Security
  - Provide crowd and traffic control, as needed.
  - Provide continued law enforcement and security services on the airport, as needed, including those prescribed in the Airport Security Program required by 49 CFR Part 1542, Airport Security.

- Emergency Medical Services - Provide emergency medical services, as needed.

- Airport Maintenance.
  - Assist/provide critical services, including utility support (activation/cut-off), as needed.
  - Provide safety inspections, as needed.
  - Assist in facility restoration.

- Airport Public Information/Community Relations
  - Interface with the media, as conditions warrant.
  - Provide news releases relative to the airport's operational capability.
  - Assist with the interface with other airport tenants.

- Airport Tenants - Provide assistance on a voluntary basis or in accordance with established agreements.

Natural Disasters

General Information

In this section, airports should include any definitions and other general information related to natural disaster emergencies.

The following identifies some sample language that could be included in this section.

A **hurricane** is a severe tropical storm that has sustained winds of 74 miles per hour (mph) or greater and primarily occurs along the United States gulf coast, the eastern Atlantic seaboard, and the Pacific west coast, Hawaii, in the Caribbean, or in the Pacific and along the west coast of Mexico. They are often referred to as cyclones or typhoons in other parts of the world. The hurricane season runs from the first of June until the end of November, however, a hurricane can happen in any month.[6]

An **earthquake** is a sudden, violent shaking or movement of part of the earth's surface caused by the abrupt displacement of rock masses, usually with the upper 10 to 20 miles of the earth's surface and can occur in any portion of the world.[7]

A **tornado** is a violent storm phenomenon that consists of violent whirling wind accompanied by a funnel-shaped cloud. Usually, tornadoes are associated with severe weather conditions such as thunderstorms and hurricanes. Tornadoes can be extremely destructive. The average width of a tornado is 300 to 500 yards. Their path may extend up to fifty miles, and the funnel cloud moves at ground speeds between 10 and 50 mph. The wind speed within the funnel cloud has been estimated at between 100 and 500 mph.

Roughly two percent of all tornadoes are "violent" tornadoes, with wind speeds of 300 mph or more, an average path width of 425 yards, and an average path length of 26 miles. Tornado season runs from March to August in the United States, with peak activity from April to June; however, tornadoes can occur year-round.[8]

A **flood** occurs when normally dry land becomes inundated with water. Sources of the water may be the result of natural bodies of water overflowing their banks, including artificial ones like dams or levees; structural failure of dams and levees, rapid accumulation of runoff or surface water; hurricane-caused storm surges or earthquake-caused tsunamis; or erosion of a shoreline.

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[6] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 136
[7] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 150
[8] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 160

Floods are the results of a multitude of naturally occurring and human-induced factors, but they all can be defined as the accumulation of too much water in too little time in a specific area. Several types of floods can occur. These include regional, flash, storm-surge, dam and levee-failure, and debris, landslide, and mudflow floods. [9]

Purpose

In this section, airports should include a statement defining the responsibilities to be taken in the event of an emergency caused by a natural disaster, whether it is a hurricane, an earthquake, or a tornado.

Operations

In this section, airports can explain the overall approach to this particular emergency situation, giving details about what should be done, who should be in charge, and so on.

Assignment of Responsibilities

In this section, airports should include and describe all the actions to be taken by the individuals and organizations involved in the response to a natural disaster emergency. The following are examples of those responsibilities for each type of natural disaster mentioned above, taken straight from the Advisory Circular AC 150/5200_31C:

Hurricane

- Airport Traffic Control Tower
    - Inspect FAA owned/operated/ maintained facilities for damage and operability.
    - Restrict aircraft operations on the airport until the runway(s), taxiways, and ramps have been inspected by the airport owner/operator.
    - Issue appropriate Notice to Airmen (NOTAM) upon receipt of information from authorized airport personnel, if requested.

- Firefighting and Rescue
    - Conduct fire suppression and rescue operations, as needed.
    - Assist in providing emergency medical assistance, as needed.
    - Check for petroleum leaks and other potential HAZMAT problems.
    - Survey ARFF property to:
        - Determine integrity of building(s).
        - Assess status of gas, electricity, water, and sanitation.
        - Test all telephones and notification systems.
        - Test apparatus mounted radios.
        - Test station and portable radios.

[9] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 177

        - Test alerting system(s).
        - Prepare sand bags to prevent entry of water into key station areas.
        - Secure outside storage areas and equipment.
    - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
    - Review personnel requirements and adjust accordingly.
    - To the degree communications systems will permit, coordinate activities with local community fire departments, if necessary.
    - Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Law Enforcement/Security
    - Provide for overall traffic control in support of evacuation operations, as needed.
    - Provide continued law enforcement and security services on the airport, as needed, including those required by 49 CFR part 1542, Airport Security.
    - Survey law enforcement property, to:
        - Determine integrity of building(s).
        - Assess status of gas, electricity, water, and sanitation.
        - Test all telephones and notification systems.
        - Test apparatus mounted radios.
        - Test station and portable radios.
        - Test alerting system(s).
        - Prepare sand bags to prevent entry of water into key building areas.
        - Secure outside storage areas and equipment.
    - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
    - Review personnel requirements and adjust accordingly.
    - To the degree communications systems will permit, coordinate activities with local community law enforcement agencies, if necessary.
    - Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Emergency Medical Services
    - Organize the necessary action for triage and treatment of any casualties.
    - Provide for the transportation (air, land, or water) of casualties to designated medical facilities.
    - Survey EMS property, to:
        - Determine integrity of building(s).
        - Assess status of gas, electricity, water, and sanitation.
        - Test all telephones and notification systems.
        - Test apparatus mounted radios.
        - Test station and portable radios.
        - Test alerting system(s).
        - Prepare sand bags to prevent entry of water into key facility areas.

        - Secure outside storage areas and equipment.
    - Assist in support operations, to include search, inspections, personnel account-ability, and protective action implementation.
    - Review personnel requirements and adjust accordingly.
    - To the degree communications systems will permit, coordinate activities with local community EMS units, if necessary.
    - Maintain an accurate list of the casualties to include names and addresses.
    - Provide medical analysis of walking wounded or traumatized patients.
    - Provide for the restocking of medical supplies, as needed.
    - Provide Critical Incident Stress Management support, as appropriate.
    - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.

- Airport Operator
    - Operations
        - Conduct airfield inspections, as needed.
        - Issue appropriate NOTAM(s), if conditions warrant and permit.
        - Activate the Airport Emergency Operations Center (EOC), as appropriate.
        - Provide emergency support services through the EOC.
        - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
        - Review personnel requirements and adjust accordingly.
        - To the degree communications systems will permit, coordinate activities with local community emergency management agencies, if necessary.
        - Coordinate activities with the ATCT, as needed.
        - Interface with, coordinate, and utilize as needed, the resources made available by other airport tenants, including air carriers.
        - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
    - Maintenance
        - Assist/provide critical services, including utility support (activation/cut-off), as needed.
        - Provide safety inspections, as needed.
        - Assist in facility restoration.
        - Provide sanitation support services.
        - Assist in the provision of required resources.
        - Participate in EOC operations.
        - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
    - Administration
        - Provide procurement services.
        - Provide appropriate budgeting, payment, and cost recovery authorization and services.
        - Provide personnel services.

        - Participate in EOC operations.
    - Public Information/Community Relations
        - Interface with the media, as conditions warrant.
        - Provide news releases relative to the airport's operational capability.
        - Assist with the interface with other airport tenants.
        - Participate in EOC activities.

- Aircraft Owners/Operators
    - Provide EOC representation, as needed.
    - Provide for the initial notification to families of casualties.
    - Provide for passenger casualty tracking.
    - Inspect tenant owned, operated, or maintained facilities for damage and operability.

- Airport Tenants
    - Provide assistance on a voluntary basis or in accordance with established agreements.
    - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
    - Inspect tenant owned, operated, or maintained facilities for damage and operability.

Earthquake

- Airport Traffic Control Tower
    - Inspect FAA owned, operated, or maintained facilities for damage and operability.
    - Restrict aircraft operations on the airport until the runway(s), taxiways, and ramps have been inspected by the airport owner/ operator.
    - Issue appropriate Notice to Airmen (NOTAM) upon receipt of information from authorized airport personnel, if requested.

- Firefighting and Rescue
    - Move equipment outside.
    - Conduct fire suppression and rescue operations, as needed.
    - Assist in providing emergency medical assistance, as needed.
    - Check for petroleum leaks and other potential hazardous materials problems.
    - Survey ARFF property, to:
        - Determine integrity of building(s).
        - Assess status of gas, electricity, water, and sanitation.
        - Test all telephones and notification systems.
        - Test apparatus mounted radios.
        - Test station and portable radios.
        - Test alerting system(s).

- Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
- Review personnel requirements and adjust accordingly.
- To the degree communications systems will permit, coordinate activities with local community fire departments, if necessary.
- Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Law Enforcement/Security
  - Provide for overall airport security as soon as possible.
  - Provide for overall traffic control, including coordination with mutual aid law enforcement agencies.
  - Provide continued law enforcement and security services on the airport, as needed, including those required by 49 CFR part 1542, Airport Security.
  - Survey law enforcement property, to:
    - Determine integrity of building(s).
    - Assess status of gas, electricity, water, and sanitation.
    - Test all telephones and notification systems.
    - Test apparatus mounted radios.
    - Test station and portable radios.
    - Test alerting system(s).
  - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
  - Review personnel requirements and adjust accordingly.
  - To the degree communications systems will permit, coordinate activities with local community law enforcement agencies, if necessary.
  - Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Emergency Medical Service
  - Move equipment outside.
  - Organize the necessary action for triage and treatment of the casualties.
  - Provide for the transportation (air, land, or water) of casualties to designated medical facilities.
  - Survey EMS property, to:
    - Determine integrity of building.
    - Determine status of gas, electricity, water, and sanitation.
    - Test all telephones and notification systems.
    - Test apparatus mounted radios.
    - Test station and portable radios.
    - Test alerting system(s).
  - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
  - Review personnel requirements and adjust accordingly.

- To the degree communications systems will permit, coordinate activities with local community EMS units, if necessary.
- Maintain an accurate list of the casualties to include names and addresses.
- Provide medical analysis of walking wounded or traumatized.
- Provide for the restocking of medical supplies, as needed.
- Provide Critical Incident Stress Disorder support, as appropriate.
- Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Airport Operator
  - Operations
    - Conduct airfield inspections, as needed.
    - Issue appropriate NOTAM(s), if conditions warrant and permit.
    - Activate the Airport Emergency Operations Center (EOC), as appropriate.
    - Provide emergency support services through the EOC.
    - Assist in support operations, to include search, inspections, personnel account-ability, and protective action implementation.
    - Review personnel requirements and adjust accordingly.
    - To the degree communications systems will permit, coordinate activities with local community emergency management agencies, if necessary.
    - Coordinate activities with the ATCT, as needed.
    - Interface with, coordinate, and utilize as needed, the resources made available by other airport tenants, including air carriers.
    - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
  - Maintenance
    - Assist/provide critical services, including utility support (activation/cut-off), as needed.
    - Provide safety inspections, as needed.
    - Assist in facility restoration, including debris removal.
    - Provide sanitation support services.
    - Assist in the provision of required resources.
    - Participate in EOC operations.
    - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
  - Administration
    - Provide procurement services.
    - Provide appropriate budgeting, payment, and cost recovery authorization and services.
    - Provide personnel services.
    - Participate in EOC operations.
  - Public Information/Community Relations
    - Interface with the media, as conditions warrant.
    - Provide news releases relative to the airport's operational capability.

- Assist with the interface with other airport tenants.
- Participate in EOC activities.

- Aircraft Owners/Operators
  - Provide EOC representation, as needed.
  - Provide for the initial notification to families of casualties, if appropriate.
  - Provide for passenger casualty tracking.
  - Inspect facilities owned/operated or maintained by these tenants.

- Airport Tenants
  - Provide assistance on a voluntary basis or in accordance with established agreements.
  - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
  - Inspect facilities owned/operated or maintained by these tenants

Tornado

- Airport Traffic Control Tower
  - Inspect FAA owned, operated, and maintained facilities for damage and operability.
  - Restrict aircraft operations on the airport until the runway(s), taxiways, and ramps have been inspected by the airport owner/ operator.
  - Issue appropriate Notice to Airmen (NOTAM) upon receipt of information from authorized airport personnel, if requested.

- Firefighting and Rescue
  - Conduct fire suppression and rescue operations, as needed.
  - Assist in providing emergency medical assistance, as needed.
  - Check for petroleum leaks and other potential hazardous materials problems.
  - Survey ARFF property, to:
    - Determine integrity of building(s).
    - Assess status of gas, electricity, water, and sanitation.
    - Test all telephones and notification systems.
    - Test apparatus mounted radios.
    - Test station and portable radios.
    - Test alerting system(s).
  - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
  - Review personnel requirements and adjust accordingly.
  - To the degree communications systems will permit, coordinate activities with local community fire departments, if necessary.
  - Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Law Enforcement/Security
  - Provide continued law enforcement and security services on the airport, as needed, including those required by 49 CFR part 1542, Airport Security.
  - Survey law enforcement property, to:
    - Determine integrity of building(s).
    - Assess status of gas, electricity, water, and sanitation.
    - Test all telephones and notification systems.
    - Test apparatus mounted radios.
    - Test station and portable radios.
    - Test alerting system(s).
  - Assist in support operations, to include search, inspections, personnel account-ability, and protective action implementation.
  - Review personnel requirements and adjust accordingly.
  - To the degree communications systems will permit, coordinate activities with local community law enforcement agencies, if necessary.
  - Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Emergency Medical Service
  - Organize the necessary action for triage and treatment of any casualties, as necessary. Provide for the transportation (air, land, or sea) of casualties to designated medical facilities.
  - Survey EMS property, to:
    - Determine integrity of building.
    - Determine status of gas, electricity, water, and sanitation.
    - Test all telephones and notification systems.
    - Test apparatus mounted radios.
    - Test station and portable radios.
    - Test alerting system(s).
  - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
  - Review personnel requirements and adjust accordingly.
  - To the degree communications systems will permit, coordinate activities with local community EMS units, if necessary.
  - Provide Critical Incident Stress support, as appropriate.
  - Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Airport Operator
  - Operations
    - Conduct airfield inspections, as needed.
    - Issue appropriate NOTAM(s), if conditions warrant and permit.
    - Activate the Airport Emergency Operations Center (EOC), as appropriate.
    - Provide emergency support services through the EOC.

        - Assist in support operations, to include search, inspections, personnel account-ability, and protective action implementation.
        - Review personnel requirements and adjust accordingly.
        - To the degree communications systems will permit, coordinate activities with local community emergency management agencies, if necessary.
        - Coordinate activities with the ATCT, as needed.
        - Interface with, coordinate, and utilize as needed, the resources made available by other airport tenants, including air carriers.
        - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
    - Maintenance
        - Assist/provide critical services, including utility support (activation/cut-off), as needed.
        - Provide safety inspections, as needed.
        - Assist in facility restoration.
        - Provide sanitation support services.
        - Assist in the provision of required resources.
        - Participate in EOC operations.
        - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
    - Administration
        - Provide procurement services.
        - Provide appropriate budgeting, payment, and cost recovery authorization and services.
        - Provide personnel services.
        - Participate in EOC operations.
    - Public Information and Community Relations
        - Interface with the media, as conditions warrant.
        - Provide news releases relative to the airport's operational capability.
        - Assist with the interface with other airport tenants.
        - Participate in EOC activities.

- Aircraft Owners/Operators
    - Provide EOC representation, as needed.
    - Provide for the initial notification to families of casualties, as appropriate.
    - Provide for passenger/casualty tracking.
    - Inspect facilities owned/operated or maintained by these tenants.

- Airport Tenants
    - Provide assistance on a voluntary basis or in accordance with established agreements.
    - Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.
    - Inspect facilities owned/operated or maintained by these tenants.

Flood

- Airport Traffic Control Tower
  - Inspect FAA owned, operated, and maintained facilities for damage and operability.
  - Restrict aircraft operations on the airport until the runway(s), taxiways, and ramps have been inspected by the airport owner/ operator.
  - Issue appropriate NOTAM upon receipt of information from authorized airport personnel, if requested.

- Firefighting and Rescue
  - Move equipment to higher ground, if necessary.
  - Assist in providing emergency medical assistance, as needed.
  - Check for petroleum leaks and other potential hazardous materials problems.
  - Survey ARFF property, to include:
    - Determine integrity of building.
    - Determine status of gas, electricity, water, and sanitation.
    - Test all telephones and notification systems.
    - Test apparatus mounted radios.
    - Test station and portable radios.
    - Test alerting system(s).
  - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
  - Review personnel requirements and adjust accordingly.
  - To the degree communications systems will permit, coordinate activities with local community fire departments, if necessary.
  - Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Law Enforcement/Security
  - Move equipment to higher ground, if necessary.
  - Provide for overall airport security as soon as possible.
  - Provide for overall traffic control, including coordination with mutual aid law enforcement agencies.
  - Provide continued law enforcement and security services on the airport, as needed, including those required by Airport Security, 49 CFR 1542.
  - Survey law enforcement property, to:
    - Determine integrity of building.
    - Determine status of gas, electricity, water, and sanitation.
    - Test all telephones and notification systems.
    - Test apparatus mounted radios.
    - Test station and portable radios.
    - Test alerting system(s).

- Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
- Review personnel requirements and adjust accordingly.
- To the degree communications systems will permit, coordinate activities with local community law enforcement agencies, if necessary.
- Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Emergency Medical Services
  - Move equipment to higher ground, if necessary.
  - Provide emergency medical assistance, as needed.
  - Survey EMS property, to include:
    - Determine integrity of building.
    - Determine status of gas, electricity, water, and sanitation.
    - Test all telephones and notification systems.
    - Test apparatus mounted radios.
    - Test station and portable radios.
    - Test alerting system(s).
  - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
  - Review personnel requirements and adjust accordingly.
  - To the degree communications systems will permit, coordinate activities with local community EMS units, if necessary.
  - Provide Post Traumatic Stress Disorder support, as appropriate.
  - Participate in Incident Command/ Unified Command System in accordance with pre-established protocols.

- Airport Operator
  - Operations
    - Conduct airfield inspections, as needed.
    - Issue appropriate NOTAM(s), if conditions warrant and permit.
    - Activate the Airport Emergency Operations Center (EOC), as appropriate.
    - Provide emergency support services through the EOC.
    - Assist in support operations, to include search, inspections, personnel accountability, and protective action implementation.
    - Review personnel requirements and adjust accordingly.
    - To the degree communications systems will permit, coordinate activities with local community emergency management agencies, if necessary.
    - Coordinate activities with the ATCT, as needed.
    - Interface with, coordinate, and utilize as needed, the resources made available by other airport tenants, including air carriers.
    - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
  - Maintenance

        - Assist/provide critical services, including utility support (activation/cut-off), as needed.
        - Provide safety inspections, as needed.
        - Assist in facility restoration, including debris removal.
        - Provide sanitation support services.
        - Assist in the provision of required resources.
        - Participate in EOC operations.
        - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
    - Administration
        - Provide procurement services.
        - Provide appropriate budgeting, payment, and cost recovery authorization and services.
        - Provide personnel services.
        - Participate in EOC operations.
    - Public Information and Community Relations.
        - Interface with the media, as conditions warrant.
        - Provide news releases relative to the airport's operational capability.
        - Assist with the interface with other airport tenants.
        - Participate in EOC activities.

- Aircraft Owners/Operators
    - Provide EOC representation, as needed.
    - Relocate aircraft, as needed.
    - Inspect facilities owned/operated and maintained by these tenants.

- Airport Tenants
    - Provide assistance on a voluntary basis or in accordance with established agreements.
    - Participate in Incident Command/Unified Command System in accordance with pre-established protocols.
    - Inspect facilities owned/operated and maintained by these tenants.

Hazardous Materials Incidents

General Information

In this section, airports should include general information about Hazardous materials incidents. This information can include definitions and explanations with respect to the risks that these incidents involve and the need for preparedness in dealing with them.

The following identifies some sample language that could be included in this section.

A definition of Hazardous Materials would be any substance or material that, when involved in an accident and released in sufficient quantities, poses a risk to people's health, safety, and/or property. These substances and materials include explosives, radioactive materials, flammable liquids or solids, combustible liquids or solids, poisons, oxidizers, toxins, and corrosive materials.[10]

Purpose

In this section, airports should define responsibilities and actions to be taken by all parties involved in the response to this type of emergency.

Operations

In this section, airports can explain the overall approach to dealing with hazardous materials incidents. The airport should clearly state that the Incident Commander will be the Fire Officer in charge, and what he or she should do in dealing with the emergency.

Assignment of Responsibilities

In this section, airports should describe the responsibilities and actions to be taken by all parties involved in case of a hazardous material incident. The following are examples of those responsibilities, duties and actions as drawn from the Advisory Circular AC 150/5200_31C:

- Airport Traffic Control Tower (ATCT)
  - Provide relevant information (fuel, persons-on-board, composite hazardous cargo) and directions to aircraft operators.
  - Provide necessary air and ground traffic control support for emergency response activities.

- Firefighting and Rescue
  - Respond to fuel spills and other hazardous materials incidents in accordance with established policies and level of training.

[10] U.S. Department of Transportation, Federal Aviation Administration, Advisory Circular (AC) 150/5200-31C, *Airport Emergency Plan*, June 19, 2009, p. 187

- Provide response and recovery support in accordance with level of training and established airport policies and procedures.
- Determine need for, and initiate as needed, local Hazardous Materials Response Team response.
- Assist in Alert and Warning process in the event a Protective Action is required.
- Provide Hazardous Materials Response Team personnel with appropriate personal protective equipment.

- Law Enforcement/Security
  - Assist with scene security as requested by the Incident Commander.
  - Assist in Alert and Warning process in the event a Protective Action is required.
  - Provide for overall traffic control, including coordination with mutual aid law enforcement agencies.
  - Assist with Air Operations Area escort services, as needed.
  - Provide crowd control, as needed.
  - Provide continued law enforcement and security services on the airport, including those required by 49 CFR part 1542, Airport Security.

- Emergency Medical Services (EMS)
  - Provide on-scene emergency medical services in accordance with established plans and procedures to include the following:
    - Collect, triage, and treat casualties.
    - Transport to, and coordinate with, appropriate medical care facilities.
    - Provide for the deceased.
    - Restock of medical supplies, as needed.
    - Initiate Critical Incident Stress Management debriefing support, as needed.
  - Initiate and coordinate as needed, mutual aid EMS support.

- Airport Operator
  - General
    - Activate EOC, as needed.
    - Participate in response and recovery operations as training levels permit.
    - Provide emergency support services, as requested, through the EOC.
    - Prepare for, and accomplish, return to normal operations.
    - Ensure airport response personnel have received appropriate training.
  - Airport Operations
    - Provide scene representation, to include participation in the Incident Command System.
    - Coordinate Protective Actions, as needed.
    - Make required notifications, including NOTAMs, as needed.
    - Conduct airfield inspections, as needed.
    - Participate in EOC operations.
    - Coordinate operations with the ATCT, as needed.
    - Monitor, and coordinate as required, other concurrent airport activities.

        - Interface with, coordinate, and utilize resources made available by airport tenants.
    - Maintenance
        - Assist/provide critical services, including utility support (activation/cut-off), as needed.
        - Assist in the implementation of protective actions (e.g. shutting off air circulation systems for affected facilities if in-place sheltering is recommended).
        - Provide safety inspections, as needed.
        - Provide sanitation services for extended operations.
        - Assist in the provision of required resources.
        - Participate in EOC operations.
        - Assist in facility restoration.
    - Administration
        - Provide budgeting, payment, and cost recovery support.
        - Provide procurement services.
        - Provide personnel services.
        - Participate in EOC activities.
        - Form a Policy Group for the overall administration of the event, to include approval of airport media releases, when appropriate.
    - Public Information and Community Relations
        - Interface with the media, as well as any emergency response organization on-scene public relations personnel.
        - Provide news releases relative to the airport's responsibilities and activities.
        - Participate in EOC operations.

- Aircraft Operator or designated representative. If an aircraft is directly involved in the incident, the aircraft operator or designated representative should do the following:
    - Provide on-scene support, as requested by the Incident Commander.
    - Participate in EOC operations.
    - Provide for timely news releases.

- Airport Tenants. Airport tenants may provide assistance on a voluntary basis.

Sabotage, Hijack and Unlawful Interference with Operations

General Information

In this section, airports may include any general, introductory information they may have with respect to unlawful interferences of operations such as sabotages, hijacks, and others.

The following identifies some sample language that could be included in this section.

Sabotage is by nature, a surprise attack against life or property. Therefore, no formal procedures can be established. The only deterrent to such an act is adequate fixed (walls, fences) and variable (patrols) security.

Sabotage attacks can either be material (attack on a building, equipment, etc) or human (taking of hostages, etc).

Purpose

In this section, airports should define the responsibilities and actions to be taken in the event of sabotage, hijack or any other form of unlawful interference with operations incident occurs.

Operations

In this section, airports should explain the overall approach to dealing with unlawful interference with operations such as sabotages, hijacks and others. The airport should clearly state who will be the Chief Police Officer in charge will be the Incident Commander, and elaborate on how the latter will coordinate with all the other parties involved in dealing with this emergency. Airports should also mention the establishment of a command post, a designated area, and key personnel and agencies who will help with this emergency.

Assignment of Responsibilities

In this section, airports should describe the responsibilities and actions to be taken by all parties involved in the event of an unlawful interference with operations.

- Air Traffic Control Tower - Notify the Local City Police Department via telephone at 911 and provide all available information, including the following if possible:
    - Nature of threat
    - Tenant/FBO
    - Type of Aircraft
    - Aircraft Identification

- Number of passengers on board, crew on board
- Estimated time of arrival (ETA) if inbound
- International or domestic flight
- Location that aircraft is to be parked
- Nature of services required
- Specific radio frequencies being used to allow for FBI monitoring.

- Airport and City Fire Department
  - Standby status, ready to respond
  - Send Command Officer to the Command Post to serve as Fire /EMS coordinator
  - Make ARFF Station available to TSA, FBI, and City Police Department.
  - If assistance is required, ensure that the Police or FBI have secured the area prior to responding to the location.
  - Direct Fire Department personnel in protecting life and property.
  - Upon determination that support units are required, take necessary actions to acquire those units.

- Tenant/FBO - The tenant/FBO involved will send a senior representative to the Command Post. This representative shall stand by with the equipment and personnel ready for response to requests from the TSA and the FBI.

- City Police Department
  - The city Police Officer–in–Charge shall assume the role of Incident Commander and assure the basic responsibility for the protection of life and property.
  - Provide assistant to federal agency representatives.

Failure of Power for Movement Area Lighting

General Information

In this section, airports may choose to include any introductory information related to failure of power for movement area lighting, if they have any. If not, they may simply proceed to the next section.

The following identifies some sample language that could be included in this section.

Purpose

In this section, airports should define responsibilities and actions to be taken in the event of a failure of power for movement area lighting.

Operations

In this section, airports should explain the overall approach to dealing with a failure of power for movement area lighting. The airport should clearly state that the Incident Commander will be the Fire Officer in charge, describe what he or she should do in dealing with the emergency, and also describe how all other parties will participate in dealing with the emergency.

Assignment of Responsibilities

In this section, airports should describe the responsibilities and actions to be taken by all parties involved in the event of a failure of power for movement area lighting. As mentioned in the Advisory Circular AC 150/5200_31C, examples of such responsibilities and duties include:

- Airport Traffic Control Tower
  - Issue appropriate NOTAM.
  - Notify appropriate maintenance personnel.
  - Keep aviation users informed of the situation, as necessary.
- FAA Facilities/Maintenance
  - Conduct routine/preventive maintenance.
  - Conduct/document regular tests.
  - Operate generator, as necessary.
  - After the emergency, determine cause and take corrective action.
- Airport Maintenance
  - Conduct routine/preventive maintenance.
  - Conduct/document regular tests.
  - Operate generator, as necessary.
  - After the emergency, determine cause and take corrective action.
- Airport Operations.
  - Ensure that power generator and circuit resistance tests are being conducted.

- Ensure required NOTAMs are issued.

Water Rescue Situations

General Information

In this section, airports should may any general information with respect to rescue situations over significant bodies of water or marsh lands that affect them. If they do not have any general information for this section, they can move on to the next section.

The following identifies some sample language that could be included in this section.

Purpose

In this section, airports should define responsibilities and actions to be taken in the event an aircraft accident occurs over significant bodies of water or marsh lands within the vicinity of an airport.

Operations

In this section, airports should describe the overall approach in dealing with this type of emergency, explaining what should when happen, when it should happen, who should be the Incident Commander, and so on.

Assignment of Responsibilities

In this section, airports should describe the responsibilities and actions of all the parties involved in dealing with this type of emergency. The following are examples of those responsibilities and actions, as taken from the Advisory Circular AC 150/5200_31C:

- Airport Traffic Control Tower
  - Activate the appropriate alarm system, as appropriate.
  - Issue appropriate NOTAMs as requested by the airport operator or as established by Letter of Agreement.
  - Control aircraft and ground vehicle operations on the airport in support of the emergency response, if the airport remains open.
  - Control airspace in the vicinity of the incident/accident to ensure other aircraft do not interfere with emergency response activities.
  - Make appropriate FAA notifications.

- Firefighting and Rescue
  - Respond to aircraft incident/ accident location in accordance with established policies and procedures.

- If the airport is the primary response agency, assume lead in Incident/Unified Command System for initial fire and rescue operations in accordance with established policies and procedures.

- Ensure appropriate mutual aid emergency response organizations have been notified and are taking appropriate action.

- Law Enforcement/Security
  - Initiate and maintain appropriate Traffic and Access Control in accordance with established policies and procedures.
  - Provide scene support and security if within jurisdictional authority.
  - Assist with/provide AOA access control and escort, as necessary.
  - Ensure appropriate mutual aid organizations have been notified and are taking appropriate action.
  - Provide necessary investigative support.

- Emergency Medical Services
  - Provide necessary triage and on-scene initial treatment of casualties.
  - Ensure appropriate mutual aid organizations have been notified and are taking appropriate action.
  - Provide for the movement (land, water, air) of casualties to appropriate treatment facilities.
  - Maintain an accurate list of casualties and their respective destination treatment facility.
  - Coordinate with the involved air carrier the transportation of the uninjured to the designated holding area.
  - Arrange for restocking of medical supplies, if necessary.

- Airport Operator
  - Designate each hangar or other building on the airport or in the communities it serves that will be used to accommodate uninjured, injured, and deceased persons.
  - Activate the EOC, as needed.
  - Ensure all appropriate notifications have been made, including:
    - National Transportation Safety Board (NTSB).
    - FAA.
    - Airport response personnel.
    - US Coast Guard
  - Provide emergency support services, as requested, through the EOC.
  - Ensure emergency response personnel have received appropriate training.

- Aircraft Owner/Operator or Designated Representative
  - Provide pertinent information to Incident Commander, to include:
  - Provide EOC representation.

- Make necessary notifications, to include the FAA and NTSB.
- Arrange for appropriate passenger services, to include:
  - Transportation of uninjured passengers/ crew members.
  - Adequate holding facilities for uninjured passengers/crew members.
  - Commissary items, telephone facilities, clothing, and additional medical services, as needed.
  - Facilities for friends and families.
  - Passenger/crew accountability/ tracking.
  - Hotel and/or other alternative travel arrangements for passengers.
  - Critical Incident Stress Management support.
- Implement approved plan in compliance with the requirements established in the AFDAA.
- Coordinate news releases with Airport Community/Public Relations personnel.
- Provide for the timely removal of the wrecked or disabled aircraft as soon as authorized by the appropriate authority.

Crowd Control

General Information

In this section, airports should include any general information they may have about Crowd Control. If they have none, they may skip this section and move on to the next one.

The following identifies some sample language that could be included in this section.

Purpose

In this section, airports should define the responsibilities and actions in the event a crowd control incident or problem occurs.

Operations

In this section, airports should describe the overall approach in dealing with a crowd control problem, while explaining what should when happen, when it should happen, who should be the Incident Commander, and so on.

Assignment of Responsibilities

In this section, airports should describe the responsibilities and duties of all parties involved in dealing with a crowd control incident. The following are examples of those responsibilities and duties, as mentioned in the Advisory Circular AC 150/5200_31C:

- Airport Traffic Control Tower (ATCT)
  - (1) Provide relevant information and directions to aircraft operators.
  - (2) Provide necessary air and ground traffic control support for emergency response activities.

- Airport Operator
  - Friendly Crowds. In some situations, airport operators know in advance that a situation is likely to bring friendly crowds to the airport. Through proper planning and experience, appropriate steps may be taken to minimize the effort required to control a friendly crowd.
  - Hostile Assemblies. For hostile situations, it is difficult to determine in advance the degree of disturbance that may result at the airport. Therefore, before any specific steps are taken to increase security, intelligence information, which has been received from all reliable sources, must be evaluated. With that input, operators can make decisions concerning the kind and extent of security measures to take.

- Intelligence. Typically there is advance warning or lead time with the assembly of large crowds. In times of civil disorder or international tension, airport operators should be especially alert to dissidents. While trained saboteurs will operate with great secrecy, untrained dissidents usually talk, threaten, or boast, and their plans either become known in detail or can be predicted.

- Briefings. If appropriate, airport operators should brief air carrier representatives and other tenants on the actions airport security will take to deal with the anticipated demonstration. The briefing should specify the actions that the airport operator, other agencies, and tenants should take to insure both the safety of the public and continued operation of the airport.

- Vulnerable locations. The following locations are potentially vulnerable:
    - Apron entrances and exits. All apron entrances and exits should be closed. One entrance or exit may be kept open depending upon the degree of security required. A security guard with radio communications will be stationed at access and other critical points for surveillance.
    - Fuel farms. If an assembly is anticipated to be hostile, fuel farms should be secured until the period of expected violence and the potential for a fire hazard has passed.
    - Areas between parking lots and terminals. It is advisable to control the automobile parking lots and the pathways between the lots and the terminal(s).

- Lighting. Lighting should be provided around buildings that house critical facilities. At entrance gates, the lighting should be bright enough to permit guards to identify persons and inspect identification cards. Controls and power sources should be installed where they are inaccessible to unauthorized persons. Floodlights mounted on airport emergency or service vehicles may be used for patrolling fences in times of disorder. Authorized personnel should regularly check that field, ramp, taxiway, terminal, and roadway lighting is functioning properly. Portable floodlights may be used to provide positive surveillance capability at those areas used on an infrequent or temporary basis.

- Building and apron security
    - Emergency entrances. All apron emergency entrances should be secured.
    - Gates. Gates should be locked except during actual enplaning and deplaning operations. In critical areas, guards should be posted. Only properly identified and authorized persons such as air carrier personnel, owners or pilots of general aviation aircraft on the field, airport staff, security, emergency response personnel, and passengers should be permitted to pass through check points.

    - Alarm systems. Alarm system specifications have been developed by various manufacturers. Information on any installed alarm system should be closely controlled.

- Firefighting and Rescue. Observe law enforcement problems closely for possible development into fire problems; the time interval between law enforcement and fire problems may be a matter of an hour or days.

- Law Enforcement/Security
  - Assume primary responsibility for crowd control actions.
  - Give due consideration to the rights of individuals and the protection of private property.
  - Coordinate with mutual aid organizations, as necessary.
  - Augment security forces if intelligence reports and type of demonstration warrant.

- Emergency Medical Services. Monitor the situation and provide services as required. For anticipated large crowds, an airport should set up extra first aid, medical booths, and have ambulances standing by.

- Airport Tenants. Tenant security should be increased commensurate with the anticipated problem. All office doors should be closed and, if practical, locked when tenant employees are working inside. During off-duty hours, all doors should be locked.

GENERAL AVIAITON SECURITY TOOL

AIRPORT SECURITY

AIRPORT SECURITY TOOL

In the document **Security Guidelines for General Aviation Airports (2004)**, the TSA reports that, "the most efficient and cost-effective method of instituting security measures into any facility or operation is through advance planning and continuous monitoring" (p. 14). Security plans can range in size and complexity depending on the airport and threat. Typical airport security plans cover communications, access control, perimeter control, and procedures, but can include much more.

Since each General Aviation airport is unique, the TSA Security Guidelines provides an Airport Characteristics Measurement Tool to help airports determine the appropriate level of security. The measurement tool provides a means for broadly characterizing general aviation airports by assessing the airports location; based aircraft mix; runway information; and operational mix of activity. Airport operators are encouraged to measure the existing security posture of their facilities by utilizing the TSA self-assessment tool and security guidelines found at:

http://www.tsa.gov/sites/default/files/assets/pdf/Intermodal/security_guidelines_for_general_aviation_airports.pdf

NHDOT reminds general aviation aircraft and airport owners and operators to review the security measures contained in the TSA Information Publication, Security Guidelines for General Aviation Airports, the Aircraft Owners and Pilots Association's Airport Watch Program materials and the Transportation Research Board (TRB) Airport Cooperative Research Program (ACRP) Synthesis 3: General Aviation Safety and Security Practices. The TRB document can be found at:

http://onlinepubs.trb.org/onlinepubs/acrp/acrp_syn_003.pdf

In addition to the TSA Security Guidelines, and the other resources mentioned in this document, the TSA has implemented many programs to improve GA security. These programs include the Twelve-Five Rule; Private Charter Rule; GA Hotline; and Flight School Awareness Training Program.

Twelve-Five Rule

The Twelve-Five rule requires that certain aircraft operators using aircraft with a Maximum certificated Take-Off Weight (MTOW) of 12,500 pounds or more carry out a security program. These operators are required to register with the TSA and file their security program for TSA approval prior to operating. The details of the program are only shared with registered users. Operators were required to be in compliance with the program effective April 1, 2003.

Private Charter Rule

The Private Charter rule is similar to the Twelve- Five rule but adds additional requirements for aircraft operators using aircraft with a Maximum certificated Take-Off Weight (MTOW) of greater than 45,500 kg (100,309.3 pounds) or with a seating configuration of 61 or more. Operators were required to be in compliance with the program effective April 1, 2003.

GA Hotline

The TSA developed and implemented a GA hotline in partnership with the National Response Center. 866-GA-SECURE (1-866-427-3287) was launched on December 2, 2002 and is fully operational.

The GA Hotline serves as a centralized reporting system for general aviation pilots, airport operators, and maintenance technicians wishing to report suspicious activity at their airfield. The hotline was developed in coordination with the Aircraft Owners and Pilots Association (AOPA) to complement the AOPA Airport Watch Program. This program will enlist the support of some 550,000 general aviation pilots to watch for and report suspicious activities that might have security implications. AOPA has distributed Airport Watch materials to 5,400 public-use general aviation airports pilot groups and individual pilots. To build on the success of these local efforts the program includes special materials including a video to train pilots to be alert for sinister people or activities on the airport.

GENERAL AVIAITON SECURITY TOOL

New Hampshire DOT
Bureau of Aeronautics

Flight School Security Awareness Training

The TSA developed a Flight School Security Awareness (FSSA) Training Module to work in conjunction with the flight training community to raise general aviation security awareness of those working in flight training. The TSA website states: "In accordance with 49 CFR 1552, Flight Schools and Flight Training Centers are required to provide security awareness training to their employees. Under this legislation, Flight School and Flight Training Center operators have two choices, they can develop their own in-house training program in accordance with the guidelines set forth in 49 CFR 1552, or they may use this TSA program to meet the mandate. This program is a pro-active response from TSA to offer an alternative to each school having to develop their own program. Regardless of which method the operator chooses, both programs must meet the established mandates outlined in 49 CFR 1552."

As mentioned, AOPA has partnered with the Transportation Security Administration (TSA) to develop a nationwide Airport Watch Program that uses the more than 600,000 pilots as eyes and ears for observing and reporting suspicious activity. The Airport Watch Program includes warning signs for airports, informational literature, and a training video to teach pilots and airport employees how to enhance security at their airports.

In addition AOPA offers a General Aviation Security online course, a free, interactive course that provides practical suggestions to help secure airports and aircraft from crime and possible terrorist exploitation, and to protect general aviation's reputation by employing industry best practices.

The online course can be found at:

http://flash.aopa.org/asf/gasecurity/gasecurity.cfm?_ga=1.105223875.1990800397.1422304435

In addition, GA aircraft and airport owners and operators are encouraged to consider the following:

- Secure unattended aircraft to prevent unauthorized use.
- Verify the identification of crew and passengers prior to departure.
- Verify that baggage and cargo are known to the persons on board.
- Where identification systems are in place, encourage employees to wear proper identification and challenge persons not wearing proper identification.
- Be alert/aware of and report persons masquerading as pilots, security personnel, emergency medical technicians, or other personnel using uniforms and/or vehicles as methods to gain access to aviation facilities or aircraft.
- Be alert/aware of and report aircraft with unusual or unauthorized modifications.
- Be alert/aware of and report persons loitering in the vicinity of aircraft or air operations areas – as well as persons loading unusual or unauthorized payload onto aircraft.
- Be alert/aware of and report persons who appear to be under stress or the control of other persons.
- Be alert/aware of and report persons whose identification appears altered or inconsistent.
- Ensure home facility perimeter security with effective
- fencing, lighting, security patrols (as appropriate), gates,
- and limited access areas.
- Ensure street-side gates and doors are closed and locked at all times.
- Require positive access control for all external gates and doors.
- Close and lock hangar doors when that area is unattended.
- Secure all key storage areas (food and liquor, parts and tools, etc.).
- Have an access control management system for keys and passes.
- Confirm the identity and authority of each passenger, vendor, and visitor before allowing access to facilities and aircraft.
- Escort all visitors on the ramp and in the hangar area.
- Use a government issued photo ID to verify the identity of any visitor or vendor.
- Post emergency numbers prominently around your facility.
- Ensure easy access to phones or "panic buttons" in various facility locations (break room, hangar bay, etc.).
- Confirm security of destination facilities.
- Be aware of your surroundings and do not be complacent—challenge strangers.