Chapter 3: Airport Safety and Security Guidelines

Chapter Overview

It is a fundamental goal of WSDOT Aviation that all maintenance activities, capital construction projects, and airport security measures within the state-managed airport system are conducted with the highest level of safety consistent with WSDOT-published safety directives. This chapter contains applicable safety and security guidelines for the state-managed airports, and is organized based on the following table.

WSDOT Aviation's General Safety Plan is referred to as a "living" plan in that has been designed to be updated on a continuing basis as WSDOT Aviation activities and safety requirements evolve. Input from airport maintenance and construction personnel, volunteers and pilots is critical to ensure the continued success of WSDOT Aviation's Airport Safety and Security Program.

Chapter Reference

Section Number	Section Title	See Page
	Chapter Overview	
	Supporting Documents and Resources	
	Conducting Pre-Activity Safety Plans through Hazard Assessments	
	WSDOT Aviation Division Safety Directives	
	State Airport Safety Responsibilities Pre-Activity Safety Planning through Hazard Assessments	
	General State Airport Personnel and Activity Guidelines Safety Clothing and Protective Devices	
	Vehicle Operations State Vehicles General Vehicles	
	Safety Procedures State Airport Operations Radio Communication Electrical Equipment and Wiring Foreign Object Debris Management	
	Conducting Safe On-Airport Maintenance Activities and Construction Projects	
	Criteria and Instructions for Issuing NOTAMs	
	Airport Emergency Response	
	Airport Security Guidelines	

Supporting Documents and Resources

The following table provides quick links to WSDOT Aviation's Safety resources.

The supporting documents and resources for this chapter are also available within the WSDOT Aviation office in the Aviation Safety Procedures and Guidelines Manual, and are maintained by WSDOT Aviation's Safety Officer.

Quick Links

Documents and Resources	Location
Aviation Division Hazard Assessment Checklist – State Airports	WSDOT Aviation Safety Web Page
Aviation Division Pre-Activity Safety Plan – State Airports	WSDOT Aviation Safety Web Page
Aviation Division Safety Procedures and Guidelines Manual	WSDOT Aviation Safety Web Page

WSDOT Aviation Safety Directives

Providing all airport-related personnel (including WSDOT Aviation employees, maintenance crews, contractors, subcontractors, and volunteers) with a safe working environment is WSDOT Aviation's highest priority. To ensure that this commitment is met, it is standard policy for WSDOT to provide appropriate training and guidance about working in a safety conscious manner. With respect to this, WSDOT has established and maintains a Safety Procedures and Guidelines Manual M 75-01 to formally document procedures and guidelines for promoting worker safety.

Consistent with the Transportation's Secretary's Executive Order E 1033.00, the Safety Procedures and Guidelines Manual M 75-01 is written with this commitment to safety in mind. This publication is primarily intended for all employment levels within WSDOT, and provides guidance outlining responsibilities and procedures to ensure workplace safety.

In compliance with the requirements of M75-01 and Executive Order E 1033.00, WSDOT Aviation has also established its own **Aviation Division General Safety Plan** that provides safety guidance for general WSDOT Aviation activities.

The primary components of the Aviation Division's General Safety Plan are listed in the Supporting Documents and Resources table below and can be obtained individually through the identified links.

State Airport Management Safety Responsibilities

Pre-Activity Safety Planning through Hazard Assessments

Prior to conducting any new maintenance activity or construction project on state-managed airports, a site specific hazard assessment shall be conducted. Identified hazards shall be mitigated through use of controls listed within the State Airport Maintenance and Construction Pre-Activity Safety Plan. Specifically the following actions must be taken by all airport related personnel:

Airport Manager Responsibilities
- Ensure that prior to any new activity, supervisors and work crews conduct an airport hazard assessment through use of a pre-activity safety plan consistent with all worker safety directives listed in the WSDOT Safety Procedures and Guidelines Manual M 75-01.
- Provide airport specific guidance and information on airport hazard assessments and pre-activity safety planning.
- Issue Notices to Airman (NOTAMs) as necessary or initiate Aviation Division Airport Web Page Safety updates.
- Develop a review and update schedule consistent with established state practices, which will allow for routine updates for each section.
- Establish a regular review and update schedule for manual checklists, forms and logs as required.
- Establish a user Web base for records, checklists, forms and logs.

On site Supervisor Responsibilities
- Obtain a Pre-Activity Safety Plan from the WSDOT Aviation Division Safety Web Page or directly from the Airport Manager prior to conducting that activity.
- Ensure that a Hazard Assessment Checklist is completed and an activity specific safety briefing is conducted.
- Ensure that all participants initial and date the hazard assessment checklist.
- Coordinate with Airport Manager as necessary to ensure work crews understand and adhere to airport specific safety instructions consistent with all worker safety directives listed in the WSDOT Safety Procedures and Guidelines Manual M 75-01.
- For any potential hazards as identified by the checklist, the Supervisor-in-Charge shall consult the airport's Pre-activity Safety Plan hazard controls section to appropriately mitigate identified concerns.
- If the Supervisor-in-Charge of the activity cannot locate an applicable safety plan to mitigate an identified hazard for the given activity and/or airport in the aforementioned sources, the supervisor shall consult the following sources for additional specific guidance:
  - Site-specific safety officer (note that this could be the Airport Manager)
  - Safety Procedures and Guidelines Manual M 75-01

- o   WSDOT Regional Safety Officer
- o   Director of Aviation
- If the Supervisor-in-Charge of the activity is presented with new or updated safety guidance, the supervisor shall provide that guidance to the WSDOT Aviation Airport Manager for inclusion in the WSDOT Airports Pre-Activity Safety Plan and Hazard Assessment checklists.
- The Supervisor-in-Charge shall ensure that all identified hazards are addressed using a Pre-Activity Safety Plan and additional resources as needed to mitigate the concern.

Volunteer/s Responsibilities:
- Participate in and comply with activity specific airport hazards assessments through pre-activity safety planning as directed by the airport manager or onsite supervisor.
- Obtain and wear all personal protective equipment applicable to the activity specific requirements as provided by the airport manager.
- Read and sign the adopt-an-airport agreement and sign in on the activity specific participation roster.

Supporting References

The following table includes references for additional and/or supporting information with respect to this element. This has been provided with the intent of giving the reader a current listing of appropriate sources for additional information and research.

Quick Links

References
WSDOT Aviation – Aviation Safety webpage (WSDOT internal website) http://wwwi/Aviation/AviationSafety.htm
WSDOT - Safety Procedures and Guidelines Manual M 75-01 http://www.wsdot.wa.gov/Publications/Manuals/M75-01.htm
WSDOT HQ Safety Office webpage (WSDOT internal website) http://wwwi.wsdot.wa.gov/Employee/Safety/
WSDOT Eastern Region http://www.wsdot.wa.gov/regions/eastern/
WSDOT North Central Region http://www.wsdot.wa.gov/regions/northcentral/
WSDOT Northwest Region
WSDOT Olympic Region http://www.wsdot.wa.gov/regions/olympic/
WSDOT South Central Region http://www.wsdot.wa.gov/regions/southcentral/
WSDOT Southwest Region http://www.wsdot.wa.gov/regions/southwest/

General State Airport Personnel and Activity Guidelines

Safety Clothing and Protective Devices

WSDOT Aviation employees and contractors are responsible for wearing all personal protective equipment (PPE) as detailed in the most current WSDOT Safety Procedures and Guideline Manual M75-01.09, Chapter 5, necessary for the specific type of work being conducted. Unless otherwise stipulated by an individual airport project contract or safety plan, contractors are responsible for furnishing and using their own PPE.

Special selective PPE may occasionally be necessary to fit the specific airport project needs. Additional activity specific safety plan/s may be necessary to identify selective PPE.

Quick Links

WSDOT - Safety Procedures and Guidelines Manual M 75-01   http://www.wsdot.wa.gov/Publications/Manuals/M75-01.htm
WSDOT Aviation – Aviation Safety webpage (WSDOT internal website)   http://wwwi/Aviation/AviationSafety.htm

Airport Manager Responsibilities

- Ensure all airport personnel utilize necessary PPE consistent with directives listed in the WSDOT Safety Procedures and Guidelines Manual M 75-01.
- Ensure all airport personnel read, understand, and utilize all necessary airport and activity site specific PPE.

Supervisor Responsibilities

- Ensure compliance with airport specific safety requirement as directed by airport manager.
- Ensure work crews have and utilize all applicable and necessary PPE identified on site specific hazard assessments.

Employee Responsibilities

- Use all prescribed PPE at all times when performing maintenance activities at state airports as needed and identified by the site specific hazard assessment checklist.
- Comply with all safety instructions provided by Airport Manager and Supervisor/s.

Volunteer Responsibilities

- Volunteers participating in limited minor airport maintenance activities shall be provided with and use all necessary PPE applicable to the specific maintenance activity being conducted with the exception of safety boots.

- Use all prescribed PPE at all times when performing maintenance activities at state-managed airports.
- Comply with all safety instructions provided by Airport Manager.
- Typical volunteer PPE includes:
    - Orange Safety Vest
    - Safety Goggles or Glasses
    - Gloves
    - Hearing Protection

Vehicle Operations

State Vehicles

All state vehicles used in conjunction with or support of state airport maintenance activities and capital construction projects shall comply with all instructions and rules listed in the WSDOT Fleet and Vehicle Operations Adopted Rules and Procedures Memorandums, Vehicle Operator's Handbook M 3032.04, Use of State Provided Motor Vehicles Manual (M 53-50.02) and other applicable directives.

Supporting References:

Quick Links

WSDOT Manual M 53-50, Use of State Provided Motor Vehicles http://www.wsdot.wa.gov/publications/manuals/fulltext/M53-50/USPMV.pdf http://wwwi.wsdot.wa.gov/maintops/equipment/rules_procedures.htm
TEF Vehicle Operator's Handbook M 3032.04 http://www.wsdot.wa.gov/publications/manuals/fulltext/M3032/1.pdf

General Vehicle Operations State Airport Rules

All airport personnel conducting airport maintenance or construction projects shall operate vehicles and equipment on state airport property in accordance with the all federal, state, and local laws, applicable contract provisions, and the following additional state airport rules:

- All vehicles shall yield right of way to aircraft in motion and emergency vehicles.
- No vehicle except ground service and emergency vehicles shall approach too close to any aircraft with running engine(s) as to create a hazard.
- All vehicles entering or exiting an operating airport access gate shall wait for or close the gate completely behind them before proceeding to their destination so as to not allow the entry of any other vehicle.
- Vehicles or equipment working within the airport operations areas to include are required to display a rotating amber beacon, or flashing lights and the standard 36" square orange and white checkered safety flag, as per FAA Advisory Circular150/5210-5C, *Painting, Marking, and lighting of Vehicles used on and Airports.*
- All vehicles authorized to operate on taxiways or the runways are required to have and use either (1) an operable aviation, two-way radio (transceiver) with them at all times in order to monitor the published Common Traffic Advisory Frequency (CTAF), or (2) have a second person on site dedicated to spotting potential aircraft operations.

- All vehicle operators shall coordinate through the onsite safety manager or supervisor to contact the airport manager to determine if work activities on or near the airport require publication of a Notice to Airman (NOTAM). See NOTAM section for criteria for placing a NOTAM.
- Parked vehicles must be moved off the runway, where they present the least possible traffic hazard. Vehicles parked overnight must be located as far from the runway as practicable. Vehicles shall not be parked overnight within a runway safety area.
- When operating vehicles or equipment on runway and aircraft are attempting to land, pull completely off of the runway (or to the extreme side of the runway at a minimum) and give the aircraft the right-of-way.
- If work activities are to occur on the runway itself, a NOTAM shall be issued (see Section). If the work is to be short-term, two days advance notice is adequate. If the runway will be disrupted or closed for a period of time, a minimum of two weeks notice should be given.

General State Airport Operations Safety Procedures

State Airport Radio Communications
The Airport Manager shall provide the appropriate training necessary to ensure that any contractors and related construction crews observe the appropriate radio communication and proper communication techniques. If available, a portable aviation two-way radio shall be used at all state-managed airports, to communicate ground vehicle and aircraft movements on a common traffic advisory frequency (CTAF).

Typically, state maintenance crews are not supplied with two-way radios or airport specific radio communication standards training. The airport manager, if present during maintenance activities, shall obtain and utilize a two-way radio in addition to determining necessary airport closures or additional notices such as publishing Notices to Airmen (NOTAMs).

State Airport Electrical Equipment and Wiring
All electrical equipment and wiring shall conform to the latest version of the WSDOT Standard Specifications for Road Bridge and Municipal Construction M 41-10, Chapter 8-20, Illumination, Traffic Signal Systems, and Electrical or applicable FAA Standards as identified by the Airport Manager. All new electrical service, repairs, or modifications shall be approved by the Airport Manager.

State Airport Fencing and Gates
The Airport Manager shall ensure that maintenance activities and contract projects maintain clearly identified work zones whenever possible. (Per construction standards set out by Advisory Circular 150/5370-2E Operational Safety on Airports during Construction.) Temporary construction fencing can

be utilized to limit access to people and animals, especially during non-working hours.

All state-managed airport gates shall remain closed and locked at all times or immediately after entering or leaving the airport to ensure no unauthorized access occurs.

All state-managed airport access requests shall be reviewed and approved by the Airport Manager using WSDOT approved processes for access approval to state owned or managed property.

State Airport Foreign Object Debris (FOD) Management
Waste or loose materials commonly referred to as FOD are capable of causing damage to aircraft. Maintenance and construction workers should not leave FOD in the vicinity of aircraft operating areas. It is also important to remove FOD that may attract wildlife.

All loose materials shall be stored in an approved facility capable of handling the type of material or secured in a location approved by the Airport Manager.

Conducting Safe On-Airport Maintenance Activities and Construction Projects

This section provides specific safety guidelines when conducting selected maintenance or construction activities at the state-managed airports. WSDOT Aviation has overall responsibility for any maintenance and construction activities at the state-managed airports; therefore, it is important that contractors, construction and maintenance crews, and volunteers understand and comply with these general safety guidelines.

These guidelines do not supersede any of the guidance in the Conducting Pre-Activity Safety Planning through Hazard Assessments section. In fact, it should be noted that many of the guidelines within this section may be included in the airport-specific safety plans described in that section. Rather, the guidelines within this section should be viewed as supplemental in that they are specifically related to an airport environment.

A. General Safety Guidelines

The following are general safety guidelines set forth by the FAA. In conjunction with WSDOT's safety guidelines, these requirements serve as a basis for standard operating practices.

- Airport runways closures should be limited as much as possible.
- Aircraft use near construction activity should be controlled to minimize disturbance of maintenance or construction operation.

- Any airport personnel accessing areas of hazardous activities/materials shall receive appropriate safety training.
- Maintenance and construction within a designated airport safety area should be performed when the runway is closed or restricted with prior permission from the Airport Manager.
- The Airport Manager has the authority to suspend operations in order to move personnel, equipment, and materials (to ensure safe operations at the airport).
- The Airport Manager shall have the authority for determining the issuance of a Notice to Airmen (NOTAMs).

Supporting References

Quick Links

References
FAA AC 150/5370-2E, *Operational Safety on Airports During Construction*. Federal Aviation Administration. 17 January 2003. www.faa.gov
FAA AC 150/5210-5C, *Painting, Marking, and lighting of Vehicles used on and Airports*. Federal Aviation Administration. 31 August 2007. www.faa.gov

Supporting Documents and Resources

Documents and Resources	Location

General On-Airport Activity BMP Guidelines

1. Runway Safety Area (RSA) / Runway Object Free Area (ROFA) / Obstacle-Free Zone (OFZ)

Airport personnel must always be aware of and protect critical areas on the airport such as runway safety areas, obstacle free zones, and approach surfaces, even during construction operations. Review Chapter 5 Construction guidelines and FAA Advisory Circular (AC) 150-5370-2E Operational Safety on Airports during Construction.

- An RSA is defined as the surface surrounding the runway that is capable of reducing the risk of damage to an aircraft in the event of an undershoot, overshoot, or excursion from the runway. For the state-managed airports, the typical RSA is 120 feet wide (centered on the runway centerline) by 240 feet off the runway end. These dimensions must be confirmed by reviewing the current Airport Layout Plan (if available); consulting with the agency airport planner; or directly reviewing FAA AC 150/5300-13, *Airport Design*.
- A ROFA is generally defined as an area that must be kept free of objects, except for those that need to be located in the OFA for air navigation or aircraft ground maneuvering purposes. For the state-managed airports, the typical ROFA is 250 feet wide (centered on the runway centerline) by 240 feet off the runway end. These dimensions must be confirmed by reviewing the current Airport Layout Plan (if available); consulting with the agency airport planner; or directly reviewing FAA AC 150/5300-13, *Airport Design*.
- An OFZ is generally defined as an area 150 feet above the defined airport elevation, which is required to be clear of all objects, except for frangible and visible NAVAIDs. For the state-managed airports, the typical OFZ is 120 feet wide (centered on the runway centerline) by 200 feet off the runway end. These dimensions must be confirmed by reviewing the current Airport Layout Plan (if available); consulting with the agency airport planner; or directly reviewing FAA AC 150/5300-13, *Airport Design*.

The graphic below provides a generalized description of the runway environment and the location of these critical areas. Note that the sizes of these areas can vary depending on the airport. Therefore, personnel operating on an airport must consult the airport-specific Safety Plan or the Airport Manager to determine the location and sizes of these critical areas.

FAA Advisory Circular 150/5379-2E, *Operational Safety on Airport During Construction*, shall be used as the standard to be maintained regarding operations on and around RSAs, ROFAs and OFZs. In general, it should be stated that all on-airport maintenance and construction activities should remain clear of the RSAs, due to the possibility of aircraft operations. (Note

that this should be standard operating procedures even if a NOTAM has been issued and/or the runway closed. Even under such circumstances, aircraft activities could still occur.) Also, personnel, material, and equipment may not penetrate the OFZ, as defined in FAA Advisory Circular 150/5300-13.

Figure ? Runway Critical Areas (typical)

2. Runway Edges
No maintenance or construction activities may occur within 200 feet of the runway centerline unless the runway is closed or aircraft operations are restricted. The Airport Manager should still issue a local NOTAM as it is the only means to notify pilots of possible obstructions to these imaginary surfaces surrounding the runway.

3. Runway Ends
Only if the runway is closed or restricted may an RSA's dimensions be less than pre-construction dimensions. Similarly to runway edge guidelines, all personal, materials, and equipment must remain clear of applicable approach surfaces and may not penetrate the OFZ. WSDOT Aviation staff must be contacted if a NOTAM is deemed necessary for such a construction or maintenance activity.

4. Excavations
Maintenance and construction personnel are required to mark excavations or open trenches at a construction site with red or orange flags and light them during hours of restricted visibility. While the runway is open, no open trenches or excavations are permitted within 200 feet of a runway centerline. Covering or backfilling the trenches to support the weight of the heaviest aircraft is the only alternative while keeping the runway open.

5. Closed Runway and Taxiway Marking and Lighting
In the event a runway or taxiway needs to be closed for maintenance, construction project, or other approved activities, operators should place X's on or near the runway designation numbers on the runway ends to identify the

closure. (At night, the use of lighted X's is highly recommended.) The X should be placed at each end of the runway and only at the entrances for taxiways. Barricades, traffic cones, and stop bars are also acceptable visual devices to prevent aircraft access on a certain portion of a runway or taxiway.

Additionally, see following specific recommendations:

• Barricades must be of low mass, of low-height, be retro reflective orange/white in color, and be easily collapsible/frangible.
• Use flags to mark barricades during the day. Use red lights at night, steady burning or flashing.
• Non-frangible barricades, such as metal drums or concrete dividers, are prohibited in movement areas. Do not use wood railroad ties on runways.
• Turn off runway lights and approach lighting on closed runways. Obscure lighting on closed portions of runways (i.e. displaced thresholds).
• When runways are closed, operators should place X's on the runway ends or just off the runway end when required by construction activity to identify the closure. At night, the use of lighted X's is highly recommended. See FAA AC 150/5345-55 or AC 150/5340-IJ.

Runway Closure Marker Examples

Note: X's can be placed just off the runway when required by construction activity to identify the closure.
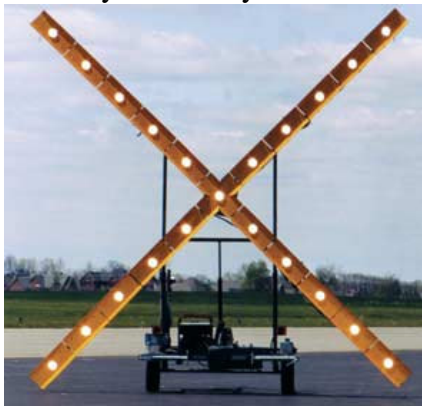
Taxiway Closure Marker Examples

Instruction and Conditions on Issuing State Airport NOTAMs

The Notice to Airmen (NOTAM) system disperses information pertaining to unanticipated or temporary changes to components of (i.e. facilities, services, procedures, etc.), or hazards within the National Airspace System (NAS). A NOTAM provides information that becomes available too late to publicize in associated aeronautical charts and other related publications, and they can remain effective until they are canceled or the associated aeronautical charts and related publications have been amended.

Note that a supplemental narrative has been provided following this section that describes current practices for issuing NOTAMs.

WSDOT Standard Procedures

Standards for Issuing NOTAM

Airport Manager Responsibilities
Determine if a NOTAM is necessary based on airport work activity or specific airport condition.

The Aviation Director and Emergency Services Coordinator are also authorized to issue state-managed airport NOTAMs.

WSDOT Aviation Division has adopted the following conditions requiring NOTAM publication:

- Maintenance activities and construction projects occurring on a runway.
- Maintenance activities and construction projects occurring within 200 feet of a runway centerline.
- Maintenance activities and construction projects occurring within a Runway Safety Area (RSA).
- Maintenance activities and construction projects occurring that penetrate an Obstacle Free Zone (OFZ).
- Maintenance activities and construction projects that require closure of the runway or airport.

Primary Responsibilities for Issuing State Airport NOTAMs

Airport Manager Responsibilities
- Coordinate with Maintenance / Construction Supervisor/s to assess activities and determine if NOTAM/s should be published.
- Prepare draft NOTAM information to include at a minimum:
  - o Airport name
  - o Date and time activity start
  - o Duration of activity
  - o Description of activity
  - o Location of activity on airport (runway, taxiway, apron, etc.)
  - o Types of equipment involved with activity
- Coordinate with the FAA on issuing a NOTAM (within two days of activity start for minor activity and within two weeks for start of major activity).
- Verify the establishment of the NOTAM immediately prior to the start of the activity.
- Confirm the establishment of the NOTAM to the on-site activity Supervisor-in-Charge.
- Ensure Maintenance or Construction Supervisor is briefed on specific published NOTAM coverage.

Maintenance or Construction Supervisor/s Responsibilities
- Contact Airport Manager prior to any work activity to review and determine if a NOTAM is to be issued.
- Supply Airport Manager with activity specific information as requested.
- Comply with NOTAM/s

Volunteer Lead Responsibilities
- Complete Volunteer activity forms by describing all work to be completed by volunteer group.
- Assist Airport Manager to determine if NOTAM/s is warranted.
- Comply with NOTAM/s

Supporting NOTAM References

Quick Links

References
Federal Aviation Administration (FAA). Advisory Circular 150/5200-28D, Notices to Airmen (NOTAMS) for Airport Operators. *FAA*. 28 April 2009. www.faa.com
Federal Aviation Administration (FAA). Federal Aviation Order 7930.2, change 2, Notices to Airmen (NOTAMS). *FAA*. 28 April 2009. www.faa.com

Supporting Documents and Resources

The following section includes supporting WSDOT Aviation-specific documents and resources to support the implementation of this element. The following table provides a listing of these documents and resources.

Documents and Resources	Location
NOTAM Procedures and Guidelines Supplement	*Appendix*
Standard NOTAM Template	

Additional Process Instructions and Conditions Information for Issuing State Airport NOTAM/s

Airport Management Responsibility

> **Notification Process**
> Airport sponsors at public-use airports are expected to reveal, as soon as practicable, any existing or anticipated condition on or in the vicinity of the airport that would prevent, restrict, or endanger arriving or departing aircraft.
>
> The public notification of this type of information is normally accomplished through the NOTAM system, and should be made not more than 48 hours before the expected condition is to occur. This same notification process should be conducted when the reported condition has been corrected or otherwise modified.
>
> **Notification Responsibility**
> With respect to the WSDOT Aviation state-managed airport system, airport facilities such as airfield pavements, runway lights and airport guidance sign systems are the responsibility of the Airport Manager, as are airport services and airspace obstructions. Other airport facilities such as NAVAIDs and approach lights are the responsibility of the FAA.
>
> The Airport Manager should initiate a NOTAM for a facility only when its operational and maintenance functions are clearly within their sphere of responsibility. The Airport Manager is also responsible for providing the appropriate air traffic facility, normally the associated FSS, with a list of individuals authorized to supply NOTAM information.

Air Traffic Control (ATC) Responsibility

> **Notification Process**
> FAA air traffic personnel must accept aeronautical information provided that the occurrence is no more than three days in the future. They are required to document the source of the information and then forward the data to the appropriate FSS for NOTAM processing.
>
> *NOTE: Situations that present an immediate hazard should be reported to the ATC facility most concerned. Other situations should be reported on a first priority basis to the Flight Service Station (FSS).*
>
> FSS specialists are responsible for the classification, accuracy, format, dissemination, and cancellation of NOTAM information. All information submitted by FSS specialists is subject to verification with the US NOTAM Office (1-877-4US-NTMS (877-487-6867)) before distribution as a NOTAM. Flight Data Center (FDC) NOTAMs are issued by the US NOTAM Office/National Flight Data Center and pertain to changes such as navigational facilities, instrument

approaches, and flight restrictions. FDC NOTAMs refer to information that is regulatory in nature.

The FAA publishes NOTAM information that is expected to remain effective for extended periods (in excess of seven days) in Notices to Airmen, Class II, issued every other week.

NOTE: Although the airport operator has primary NOTAM origination responsibilities for the movement areas, the ATC facility managing the NOTAM system is responsible for, and has the authority to ensure the systems compatibility of the format and content of the proposed NOTAM message.

Composing the NOTAM

Airport Manager Responsibilities:
- Compose NOTAM/s using Appendix guidelines.
- See Appendix _ for guidance on composing a NOTAM.

Recording the NOTAM

Airport Manager Responsibilities
- Keep a log of the state-managed airport NOTAMs and maintain their status so that airport officials can be made aware of the facility's representation in the aviation community.
- Develop a NOTAM checklist to track NOTAMs as part of a routine schedule for managing the state-managed airports.
- Obtain a copy of the NOTAM/s for future reference to demonstrate the airport's regulatory compliance may be warranted.

Distributing NOTAMs

Although the Airport Manager is not responsible for the method of distributing NOTAMs, they should be familiar with the criteria used by the FSS in making the determination. The circulation of an airport condition report is based on the nature of the reported item and the NOTAM service qualification of the airport.

Airport Emergency Response

Overview

By FAA definition, an airport emergency is any occasion or instance, natural or man-made that warrants action to save lives and protect property and public health.

WSDOT Aviation Emergency Response Policy

WSDOT Aviation plays an important role as part of the WSDOT's overall disaster planning and emergency relief support. This section does not depict Aviation's role in WSDOT's overall disaster planning and emergency relief procedures. See the supporting reference table below for quick links to WSDOT Aviation's role in WSDOT's overall plans.

The following emergency response procedures are for state-managed airports only.

WSDOT Aviation shall address those emergencies that occur on or directly impact an airport or adjacent property that:
A. Is within the authority and responsibility of the Airport Manager to respond.
B. Presents a threat to the airport property, infrastructure, or airport personnel because of the proximity of the emergency to the airport.
C. Where the airport has responsibilities under local/regional emergency plans and by mutual aid agreements.

At this time, WSDOT Aviation has not established individual state-managed airport formal emergency response procedures. WSDOT Aviation will establish formal relations with local authorities and detail those persons and agencies that must be contacted in all emergency situations. As comprehensive emergency response actions are developed through coordination with local authorities, this handbook and will be amended.

WSDOT Aviation has developed a General State Airport Emergency Plan for the state-managed airports that details general response actions and contacts.

Additional information which includes industry best management practices for developing individual State Airport Emergency Response Plans has been provided in the section supplement located in the Appendix.

Supporting References

Quick Links

References
Federal Aviation Administration (FAA). Advisory Circular 150/5200-31A, Airport Emergency Plan. *FAA*. 30 September 1999. www.faa.gov
WSDOT Disaster Plan M 54-11
WSDOT Emergency Relief Procedures Manual M 3014.01.

Supporting Documents and Resources

Documents and Resources	Location
State Airport Emergency Response Procedures	
State Airport Aircraft Accident Procedures and Responsibilities	

WSDOT Standard Airport Emergency Response Procedures

WSDOT Aviation Aircraft Accident Policy Overview

WSDOT Aviation Responsibilities

1. All aircraft accidents at state-managed airports shall be reported to the FAA and the National Transportation Safety Board (NTSB) for investigation.
2. Local state, county and/or municipalities shall have the overall authority in the immediate handling of such accidents. While the FAA's and NTSB's involvement is in the interest of air safety, local law enforcement and emergency responders are trained to deal with emergency situations, including: crowd control, isolation and security of wreckage, providing medical care for any injured persons until medical help arrives.

State Airport Emergencies and Aircraft Accidents

There are a wide variety of emergency situations that can occur at or near one of the state-managed airports, including aircraft accidents, fires, HAZMAT response, medical emergencies, etc. The following actions shall be taken to mitigate aircraft accidents situations on and off State Airport property.

Off Airport Accidents

Airport Manager Responsibilities
- Contact the State Emergency Services Coordinator to ensure he/she has been notified.
- Coordinate with the State Emergency Services Coordinator as necessary in support of handling response needs.
- Ensure a Chain of Command has been established for managing the emergency.
- Ensure Role / Duties of Airport Manager have been defined related to support needs of the emergency.
- Provide all necessary support to the State Emergency Services Coordinator to ensure airport specific emergent needs are mitigated.
- Coordinate with WSDOT Media Relations Officer as necessary.

Airport Emergency INCIDENT Actions (Non-Aircraft Accident)

Airport Manager Responsibilities
- Contact the following persons/agencies
- Local Emergency Management Services Provider/s
- WSDOT Aviation Emergency Services Coordinator
- WSDOT Director of Aviation
- WSDOT Aviation Communications Manager

- WSDOT Risk Management Office, Finance and Administration Division (within 24 hours, if required)

Airport Emergency INCIDENT Actions (Aircraft Accident)

Airport Manager Responsibilities
- Contact the following persons / agencies
- Local Emergency Management Service Provider/s
- WSDOT Aviation Emergency Services Coordinator
- National Transportation Safety Board (NTSB)
- Federal Aviation Administration (FAA) NW Mountain Regional Operations Center
- WSDOT Director of Aviation
- WSDOT Aviation Communications Manager
- WSDOT Risk Management Office, Finance and Administration Division (within 24 hours)
-

Use of State Managed Airports for Forest Fire Fighting Operations

Airport Manager Responsibilities
- Establish, review, and amend State Aviation Policy as necessary for Forest Fire Fighting Operations Staged at State Managed Airports
- Ensure Forest Fire Fighting Operations are conducted to safety standards.
- Ensure Agencies using State Managed Airports have established Safety Plans.
- Review Agency Safety Plans
- Ensure Public is informed about State Managed Airport being used for Forest Fire Fighting
- Establish user list of agency representatives who use State Managed Airport for Forest Fire Fighting Operations
- Ensure airports remain open to the public at all times unless public safety would be compromised by staged operations
- Inspect Forest Fire Fighting Operations for Safety Compliance
- Assist Agency's as needed in support of staged activity
- Initiate press releases through Aviation communications liaison
- Other

Agency Aviation or Site Fire Officer
- Contact WSDOT Aviation Division Airport Manager
- Review State Airport usage by Forest Fire Fighting Operations to determine if NOTAM/s are to be published

- Review and assist the State Airport Manager to determine if Airport can remain open to public
- Review published Temporary Flight Restrictions (TFR's) and impacts to public use at the airport
- Report number of, type/s of, and locations of staged Aircraft at the Airport.
- Report support equipment and crews being staged at the Airport to he Airport Manager
- Recommend Airport operations restrictions or closures based on expected staging at the airport for forest fire fighting activity

WSDOT Communications Liaison
- Assist Airport Manager to publish public notice / press release
- Update State Aviation Web Page as needed to reflect current status
- Assist Airport Manager to answer questions from public and media concerning use of State Airports for forest fire fighting operations

Aircraft Accident Media Relations

In the event of an aircraft accident or emergency incident on the airport, the airport manager or spokesperson should anticipate immediate and continued communication with the media.

Airport Manager Responsibilities
- Coordinate with State Aviation Communications Manager
- Coordinate with the law enforcement agency and primary jurisdiction (i.e. State Police) and, when appropriate forward media calls to designated source.
- Assist on media event security checks to ensure proper identification at media only events.
- Project a professional image and remain calm, revealing neither fear nor frustration.
- Focus the discussion on established facts only. There should be no speculative responses to questions.

Aviation Communications Manager
- Coordinate with State Airport Manager on all incident / accidents on state-managed airports.
- Prepare press releases and issue updated press releases to keep the media informed with key facts and messages about the incident.
- Assist State Airport Manager or spokesperson to prepare a short statement that includes key messages prior to arriving at the scene of an accident.
- Assist the State Airport Manager or spokesperson to select a suitable site to conduct media relations that is easily accessible to the media and preferably removed from the accident scene to avoid close video coverage of the accident.
- Arrange to have press identification security checks
- Control media questioning during press briefings by calling on individuals rather than allowing everyone to shout questions.
- Refrain from assuming responsibility – Culpability for aircraft accidents is determined at the conclusion of the investigations conducted by the local law enforcement, the FAA and the NTSB. Therefore, any admission of responsibility by the airport manager or spokesperson would be imprudent, premature and inappropriate.

Supporting References

Quick Links

References
State Emergency Services Plan (see Tom)
State Media Coverage Plan (see Nisha)

Supporting Documents and Resources

Documents and Resources	Location
State Aviation Division Media Coverage Procedures (Nisha)	

State Airport Security Plans

State Airport Security Overview

It is the policy of the WSDOT State Aviation Division to meet the goals of the Transportation Security Administration's (TSA) Security Guidelines for General Aviation Airports to ensure public safety and security at all State Managed Airports. Reflective of this policy, State Aviation, in 2003 established general State Airport Security Plans for 16 of the state-managed airports. These are confidential documents that are maintained in the WSDOT Aviation administrative office.

State Airport Security Plan Procedures

Airport Manager Responsibilities

- Utilize and maintain all security documents and procedures related to the state-managed airports. Note that while this maintenance hand book is a public document, the individual Airport Security Plans are confidential and secured in the WSDOT Aviation Office.
- Establish State Airport Security Plan Review and Amendment Schedule
- Review and Amend State Airport Security Plans
- Assess and plan for State Airport Security measure improvements
- Administer State Airport Security Plan

Supporting References

Quick Links

References
Transportation Security Administration (TSA), *Security Guidelines for General Aviation Airports*, 2004. http://www.tsa.gov/what_we_do/tsnm/general_aviation/airport_security_guidelines.shtm
Aircraft Owners and Pilots Association (AOPA), Airport Watch, 2009. http://www.aopa.org/airportwatch/

Supporting Documents and Resources

Documents and Resources	Location
WSDOT Aviation Airport Security Plans for 17 State-Managed Airports (April 5, 2003) *(confidential)*	WSDOT Aviation Office
WSDOT Aviation State-Managed Airport Security Plan Template *(confidential)*	WSDOT Aviation Office

General State Airport Security Procedures

Aircraft

The main goal of enhancing GA airport security is to prevent the intentional misuse of GA aircraft for terrorist purposes. Proper securing of aircraft is the most basic method of enhancing GA airport security.

State Airport Manager Responsibilities
- Ensure Pilots employ multiple methods of securing their aircraft to make it as difficult as possible for an unauthorized person to gain access to it.
- Ensuring that door locks are consistently used to prevent unauthorized access or tampering with the aircraft.
- Ensure aircraft have keyed ignitions where appropriate.
- Promote pilot use of an auxiliary aircraft locking system to further protect aircraft from unauthorized use. Commercially available options for auxiliary locks include locks for propellers, throttle, and tie-downs.
- Ensure that aircraft ignition keys are not stored inside the aircraft.
- Account for and document all aircraft parking on State Airports through leases rental process developed through WSDOT Property Management Division process and procedures.

Pilot/s Users Responsibilities

- Report any unsafe act/s to Airport Manager
- Report any suspicious activity at State Managed Airports to Airport Manager

Perimeter and Access Control

State Airport Manager Responsibilities
- Conduct individual State Airport assessments to determine threat level.
- Coordinate with Safety and Security Experts as necessary
- Determine cost benefit and prioritize additional security measures at State Managed Airports.
- 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.
- Post emergency numbers prominently around 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—Activate local law enforcement as needed, but do not challenge strangers or take the law into your own hands.

Hangar Facilities

To be developed

Airport Tenant Facilities

State Airport Manager Responsibilities
- Develop State Aviation Standards for Tenant Facilities
- Document all tenant use of State Airport Facilities
- Establish lease and rental agreements
- Ensure airport safety practices and policy
- Establish and Implement Airport Security measures

Airport Tenant Responsibilities
- Maintain airport security by exercising approved entry and exit protocol
- Report all non-compliant airport access.
- Adhere to all tenant responsibilities set out in lease/s

Aircraft and Vehicle Fueling Facilities

To be developed

State Airport Manager Responsibilities

User Responsibilities

Lighting

State Airport Manager Responsibilities
Protective lighting is a primary means of providing a base level of protection from nighttime theft, vandalism, or other illegal activities that is generally inexpensive to maintain, and when properly employed, may provide airport personnel with added protection from surprise by a determined intruder. Since protective lighting requirements at airports depend upon the local conditions as well as the areas to be protected, a careful analysis of security lighting is needed. These requirements should consider the need for good visibility, employee recognition and badge identification, vehicle access identification and control, detection of intruders, and deterrent to illegal entry.

When developing any security lighting plan, care must be taken to ensure that lighting does not interfere with aircraft operations. However, considerations should be given to how installing outdoor security area lighting could help improve the security of aircraft parking and hangar areas, fuel storage areas, airport access points; and other appropriate areas.

Signage

State Airport Manager Responsibilities

The use of signs provides a relatively inexpensive deterrent by warning of facility boundaries as well notifying of the consequences for violation. Some of the basic considerations related to airport security signage include the following:

- Signs along a fence line should be located such that when standing at one sign, the observer is able to see the next sign in both directions.
- While signs for security purposes should be designed to draw attention, it also should be coordinated with other airport signs for style and consistency when possible.
- Signs should be constructed of durable materials, contrasting colors, and reflective material where appropriate.
- Use as concise language as possible.
- Wording may include – but is not limited to – warnings against trespassing, unauthorized use of aircraft and tampering with aircraft, and reporting of suspicious activity.
- Signage should include phone numbers of the nearest responding law enforcement agency.
- Many locations with access control or Closed Circuit Television (CCTV) equipment may warrant signage for directional, legal, or law enforcement purposes.
- Refer to Advisory Circular (AC) No: 150/5360-12D, Airport Signing and Graphics.

Airport Community Watch Program

One of the most effective deterrents in GA airport security is awareness. Typically, the airport user population is familiar with those individuals who have a valid purpose for being on the airport property, and consequently, unfamiliar faces are quickly noticed. Teaching an airport's users and tenants what to look for with regard to unauthorized and potentially illegal activities is essential to effectively utilizing this resource. Airport managers can either utilize an existing airport watch program or establish their own airport specific plan. Some of the primary elements to be considered when establishing a watch program include the following:

- Coordinate the program with all appropriate stakeholders, including airport officials, pilots, businesses and/or other airport users.

- Hold periodic meetings with the airport community.
- Develop and circulate reporting procedures to all who have a regular presence on the airport.
- Encourage proactive participation in aircraft and facility security and heightened awareness measures. This should include encouraging airport and line staff to 'query' unknowns on ramps, near aircraft, etc.
- Post signs promoting the program, warning that the airport is watched. Include appropriate emergency phone numbers on the sign.
- Install a bulletin board for posting security information and meeting notices.
- Provide training to all involved for recognizing suspicious activity and appropriate response tactics. This could include the use of a video or other media for training.
- Utilize local law enforcement for airport security community education.
- Encourage tenants to make their staff aware of the airport watch programs.
- Additional resources can be obtained through AOPA's Airport Watch program. Completed in partnership with the TSA, this program encourages pilots to be the "eyes and ears for observing and reporting suspicious activity" and includes warning signs for airports, informational literature, and a training video to teach pilots and airport employees.

Threat/Security Communication System

The development of a comprehensive contact list is recommended to be included in any airport security procedures with the list distributed to all appropriate individuals. The following phone numbers should be included on the contact list (include after hour contact numbers where appropriate):

- Landing facility operator
- Landing facility manager
- Individual with responsibility for facility security
- Local Police or County Sheriff Department (List all responding LEO Agencies)
- State Aviation Director
- County/City Emergency Manager
- State Police
- Fire Department
- State Office of Public Safety/Homeland Security
- FBI
- Local FAA contact
- Local TSA contact (that is, Federal Security Director or designee)
- Any other appropriate organization

Additionally, in the event of a security incident, it is essential that first responders and airport management have the capability to communicate effectively. Where

possible, common radio communication frequencies and procedures should be coordinated with local law enforcement.

Finally, the communication process by which all new security policies, procedures, and alerts are communicated to tenants and other airport users is of critical importance. One method of accomplishing this is to conduct regular meetings with airport tenants and the flying public to discuss security issues and challenges, establishing a centralized area for posting of security information, or even developing an email alert system.

Appendix

Aviation Industry Security Initiatives

1. Transportation Security Administration (TSA)

Published in May 2004, the TSA's Security Guidelines for General Aviation Airports was developed by representatives from various general aviation groups as members of the Aviation Security Advisory Committee (ASAC). The publication provides a set of federally-endorsed security enhancements and a method for determining which enhancements are appropriate. The purpose of the document is, "to provide owners, operators, sponsors, and other entities charged with oversight of GA airports a set of federally endorsed security enhancements and a method for determining when and where these enhancements may be appropriate."

2. National Association of State Aviation Officials (NASAO)

NASAO developed and submitted to state and federal agencies a set of recommendations, which included securing aircraft, the need for the development of a security plan, and the need for a means for reporting suspicious activity. Recommendations also included that airports develop a public awareness campaign, perform regular inspections, and control the movement of vehicles and persons in the aircraft operating area. Also recommended is a new pilot identification card, a means to cross-reference the identity of persons requesting flight lessons with a government watch list, establish a process for categorizing airports, and ensure adequate federal funding for airport security needs.

Additionally, several state aeronautics departments have established their own security initiatives, including Security Planning for General Aviation Airports (2004) developed by the Florida Airports Council and the Terrorism Protective Measures Resource Guide (2005) assembled by the state of Colorado's Office of Preparedness and Security.

3. American Association of Airport Executives (AAAE)

The AAAE General Aviation Airport Security Task Force developed a set of recommendations based on established categories of airports determined by runway length and based aircraft. The recommendations addressed the securing of aircraft, establishing a system for communicating levels of threat, the development of a new pilot license, and the expansion of the FAA contract tower program.

4. Aircraft Owners and Pilots Association (AOPA)

AOPA developed the Airport Watch Program, a nationwide aviation watch system that takes full advantage of the nation's pilots as a resource for monitoring activities at airports. Supported by the TSA's toll-free hotline and system for reporting and acting on information from pilots and others at airports, the Airport

Watch Program uses warning signs, informational materials, and a training video to make pilots, airport administrators and managers, and staff more aware of ways to improve airport security.

5. WSDOT Security Program move up

WSDOT Aviation currently has not established an airport security program that is comprised of Airport Security Plans for all of the state-managed airports. Generally, the manual provides guidelines on the following topics: Detection and Prevention; Reporting, Communicating, and Disseminating; Unusual or Suspicious Activity; Aircraft Security; Airfield Security; Flight Operations Security; Flight Training Security; Developing an Airport Security Plan; Access Control, Monitoring, and Identification; Security Signage; and Education.

The individual Airport Security Plans are customized to the individual needs and environments of the airports that they represent. These plans are also confidential and maintained at the WSDOT Aviation administrative offices.

Current Security Practices at GA Airports

This section provides a summary of selected security practices currently being pursued at many of the nation's general aviation airports. It should be understood that the degree to which these practices are established at a given airport is largely dependant upon the activity level of that airport. Specifically, larger and/or more active airports typically exhibit a greater need for these security practices and tend to have greater resources for implementing them, as opposed to smaller, less active airports.

This section provides a summary of selected security practices currently being pursued at many of the nation's general aviation airports. It should be understood that the degree to which these practices are established at a given airport is largely dependant upon the activity level of that airport. Specifically, larger and/or more active airports typically exhibit a greater need for these security practices and tend to have greater resources for implementing them, as opposed to smaller, less active airports.

Note that the selected practices identified below are taken from the TSA's Security Guidelines for General Aviation Airports (2004) and the Airport Cooperative Research Program's (ACRP) General Aviation Safety and Security Practices reports. Additional information is available in the reference section at the end of this chapter.

1. Security Planning

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." This advance planning it typically accomplished through

the establishment of a security plan specific to the airport. While security plans can vary in size and complexity depending on the airport and threat, they will typically include communications, access control, perimeter control, procedures, as well as other site specific requirements.

Use of external local law enforcement agencies is advisable in that they can not only bring their own security expertise to the planning effort, but they can also help define the airport's threat environment in comparison to the surrounding community existing crime and incident levels. ~~Typically, at a minimum,~~ a security plan will include an emergency locator map, identifying gates, hydrants, emergency shelters, buildings and hazardous materials sites on a grid map, as well as establishing procedures for handling bomb threats and suspect aircraft.

~~Once the security plan has been established,~~ the airport manager should submit the plan to…..an airport should share their plan with appropriate local law enforcement agencies, as well as with their primary tenants (i.e. FBO), the TSA, and the local fire department. Other entities with which airports could share their plans could include federal law enforcement agencies (i.e. Federal Bureau of Investigation, Drug Enforcement Agency, Immigration and Customs Enforcement, etc.), the FAA, state DOTs, Homeland Security representatives, city councils, and airport board members, as appropriate.

Appendix

Development of Emergency Response Plans for the State-Managed Airports

Generally, an airport emergency action plan should address emergencies that occur or directly impact property within the airport's authority and responsibility, or may present a threat to the airport because of the proximity of the emergency. The Airport Manager should include community and agency involvement in the development of an emergency response plan because it will include the assistance of local fire and EMS authorities in the response effort. At a minimum, this plan should address the following key guideless as outlined in FAA Advisory Circular 150/5200-31, *Airport Emergency Plan:*

- Assign responsibilities to organizations and individuals carrying out a specific actions in response to an emergency.
- Establish line of authority and organizational relationships in coordinating response actions.
- Describe how people and property will be protected in emergency situations.
- Identify personnel, equipment, facilities, supplies, and other resources available for use during response and recovery operations.
- Cite objectives and acknowledge assumptions from a legal basis.
- Facilitate response and short-term recovery for successful long-term recovery.

Supplement – Guidance on Airport Safety and Emergency Response

This supplement has been included to provide general guidance and descriptions of current industry best management practices with respect to airport safety and emergency response. It is strictly informational in nature and should not be interpreted as being standard WSDOT Aviation policy and/or procedures. As noted previously, WSDOT Aviation intends to establish Airport Emergency Plans for the state-managed airports. Plans may vary depending on the specific needs of the airports; however, the following criteria should be used to help develop those plans.

Airport Emergency Plan Development

The ultimate objective of accident/incident reporting and investigation is prevention. Delays in reporting, due either to ignorance, confusion, or inadvertence, hamper the investigative process and may prevent timely resolution of significant issues. WSDOT Aviation can make a positive contribution to accident prevention by ensuring that Airport Emergency Plans and notification procedures are understood by airport personnel and prominently displayed for those operating at the airports.

Specifically, per FAA AC 150/5200-31, an Airport Emergency Plan is a document that:

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

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

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

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

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

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

For WSDOT Aviation, the State Airport Manager shall be responsible for developing and maintaining airport emergency plans for each state airport. The plan must be comprehensive and meet the functional operational needs of the airport. The State Airport Manager is charged with a proactive mission, to work toward the resolution of issues to avoid the occurrence of avoidable problems.

Additionally, it should be understood that virtually no airport has sufficient resources to respond to every emergency situation independently. Each airport must depend to some degree on the resources from its surrounding communities. For this reason, airport operators are encouraged to involve local communities in the development of Airport Emergency Plans and use the collective expertise and resources for the mutual benefit of all parties. Interested parties with respect to the WSDOT Aviation airports would include local police, fire, and other emergency services providers, as well as the FAA, local governmental establishments and any other related agencies, including airport property owners such as the United States Forest Service, the Washington State Parks Department, the United States Army Corps of Engineers, the Bureau of Land Management, and the National Parks Service.

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

Relationships between on-airport emergency services and all other mutual aid entities should be defined in Memorandums of Understanding (MOUs) and Memorandums of Agreement (MOAs) (see Section 3.5 for additional details). Note that the airport operator maintains the primary responsibility for all airport

emergency response, and airport access should in accordance with applicable MOUs and MOAs.

As appropriate, consideration should also be given to mutual assistance and coordination between local/regional resources with airport resources. In addition to law enforcement and fire fighting aid, contingencies such as, mass evacuation with the airport being the staging and exit point or staging areas for arriving rescue teams should considered. The plans should include designated assembly areas, crowd control, shelter, sanitation, feeding, etc. In all cases, an accurate record of emergency/security contacts and discussions shall be kept.

Normal and Emergency Operating Procedures

Due to the unique characteristics exhibited by every airport, normal and emergency operational procedures may vary widely. Normal procedures for one airport may be strange to an itinerant pilot accustomed to different procedures that are considered normal at his home base. For this reason, prominent display of operating rules and procedures facilitates the safe and efficient operation of aircraft under all conditions. These rules and procedures can be made available to pilots through a variety of mediums, including through posting them on a bulletin board at the airport, as well as by posting them on pilot resource websites.

For example, under federal regulation, security procedures are only required at certain airports. A pilot that is unaccustomed to these procedures is more likely to operate within these guidelines if they are posted. This provides proper notification to allow operators to avoid citations for noncompliance. A periodic review of operating procedures by the State Airport Manager will promotes efficient airport management and minimizes noncompliance. All Safety Plans should be reviewed annually and after an incident or accident.

A thorough and critical appraisal of emergency procedures is of equal or greater importance than that of normal procedures. Accident records support the common belief in the familiar axiom that aircraft accidents and incidents always happen to someone else in that those involved are invariably surprised and commonly incapable of rational post-accident actions. Many incidents have developed into accidents because of a lack of planning, preparation and training. For instance, an accident can easily evolve into a fatality when a rescue vehicle can not find immediate access or is unfamiliar with access points to the final approach and departure paths, both locations where accidents frequently occur.

The State Airport Manager is responsible for reviewing accident statistics and trends to identify foreseeable and potentially preventable emergency situations at each of the State Managed Airports and to institute preventative measures in coordination with the emergency/security contacts identified for the specific airport and where possible, establish appropriate emergency procedures. The State Airport Manager is also responsible for logging and maintaining a record of all known incidents and accidents that occur at the state-managed airports.

WSDOT Standard Procedures

WSDOT Aviation does not currently have any such agreements formally established of any of the state-managed airports. Basic information for establishing such agreements is provided in a supplement following this section.

Supporting References

Quick Links

References
FAA Advisory Circular AC 150/5200-31, *Airport Emergency Plan* www.faa.gov

Supporting Documents and Resources

Documents and Resources	Location
	Following Section 3.5

3.5   Communication / Mutual Aid Agreements

Investigate MAA if needed. Update security plans. Communication or mutual aid agreements are typically established between an airport operator and local emergency service providers when that operator cannot provide such services in a reasonable or practicable manner. Such agreements will often include airport security support through local law enforcement agencies, airport emergency services support through local firefighting agencies, etc. While it is understood that many of these types of services would automatically be provided by local agencies due to the nature of a given condition or situation (i.e. fire, medical emergency, etc.), such agreements would establish formal plans and procedures for operating at an airport. This would ultimately help to establish expectations and maintain consistency of service from those service providers. Note that when established, these types of agreements will be integral components of Airport Emergency Response Plans (see Section 3.4).

Due to the limited size and levels of activity of the WSDOT Aviation state-managed airports, none of them have the need and/or the appropriate resources to warrant dedicated service providers. There is also no formal communication or mutual aid agreement currently established; these services are currently inherently provided by local governing agencies and emergency service providers. However, WSDOT Aviation intends to pursue establishing formal communication and mutual aid agreements with local governing and emergency service agencies as appropriate for each airport.

3.5.1 WSDOT Standard Procedures

WSDOT Aviation does not currently have any such agreements formally established of any of the state-managed airports. Basic information for establishing such agreements is provided in a supplement following this section.

3.5.2 Supporting References

The following table includes references for additional and/or supporting information with respect to this element. This has been provided with the intent of providing the reader with a current listing of appropriate sources for additional information and research.

References
FAA Advisory Circular AC 150/5200-31, *Airport Emergency Plan* <u>www.faa.gov</u>

3.5.3 Supporting Documents and Resources

The following section includes supporting WSDOT Aviation-specific documents and resources to support the implementation of this element. The following table provides a listing of these documents and resources.

Documents and Resources	Location
Letter of Agreement Supplement	*Following Section 3.5*
None	

Appendix

Supplemental – Guidance on Establishing Letters of Agreement (LOA)

A Letter of Agreement (LOA) is a written contract between an airport sponsor and another entity. Since WSDOT Aviation's state-managed airports rely on emergency medical services from local communities, an LOA would serve an important function in providing safety assurance for operators at the airports. The following categories should be included in an LOA.

1. Purpose

The purpose defines the intent of the LOA. For airport emergency support, the LOA set forth procedures between an airport and a local entity on emergency response and recovery. Note that for the state-managed airport system, it is anticipated that these LOAs could include agreements at a state level (for civil/community disaster response) and at a local level (for individual airport requirements).

2. Scope

The scope outlines specific actions that should be taken to alert emergency medical equipment. For some situations, an aircraft operator may be the only witness on-site to report an actual or potential emergency situation.

3. Responsibilities

Since there is no Air Traffic Control Towers at the state-managed airports, WSDOT Aviation would be responsible for airport personnel and aircraft operators who may be involved with the emergency situation. Proper communication should be the primary focus during the initial stages of an emergency situation to reduce any other potential risks.

4. Procedures

Since each emergency situation requires a different response, the proper procedures should be communicated through the LOA prior to an actual incident or accident. For example, the FAA classifies aircraft emergencies into Alert I, Alert II, and Alert III based on the magnitude of the emergency. Each Alert should have a defined set of procedures in the LOA making for a quick and efficient response and recovery.

5. Emergency Response Information

Information pertaining to the emergency should be provided to the appropriate emergency response personnel. Such information may include:
- Aircraft identification
- Aircraft type

- Nature of emergency
- Estimated time of arrival
- Landing runway
- Number of persons on board
- Amount of fuel on board
- Type and location of dangerous cargo on board

A template for a LOA may be found in FAA Advisory Circular AC 150/5200-31, *Airport Emergency Plan,* in Appendix 7.

NOTAMS

Wherever possible, NOTAMs must use official contractions and abbreviations. Official contractions are in FAA Order 7930.2, *Notices to Airmen (NOTAM)* and are included at the end of this chapter. If those terms do not fit a specific situation, use clear and concise plain language for the text of the message, or consult with the FSS for preferred terminology. A NOTAM must always state the abnormal condition – do not state a normal condition. The only exception to the preceding is for data that is already published and is being replaced; for example, a runway that was previously closed and is now open.

Following are the general steps and elements required in the development of a NOTAM in order from left to right order: (*NOTE: For illustrative purposes only, XYZ is used where an accountability or location identifier would normally appear in a NOTAM message.*)

1. <u>ADP code</u>. This will be an exclamation point "!"
2. <u>ACC LOC</u>. Three letter identifier code, XYZ, for the accountability (i.e. the responsible party) location.
3. <u>AFF LOC</u>. Three letter identifier code, XYZ, for the affected facility (i.e. airport, ILS, etc) or location. For certain airspace NOTAMs, it will be the identifier of the nearest VOR/DME or VORTAC.
4. <u>Location Identifier</u>. One of the following twelve keywords must be entered to identify the location of the condition. (*Note that a full explanation of these identifiers are included at the end of this chapter.*)
   - AD (Aerodrome)
   - AIRSPACE
   - APRON
   - COM (Communications)
   - NAV (Navigation Aids)
   - OBST (Obstructions, including obstruction lighting outages)
   - RAMP (synonymous with APRON)
   - RWY (Runway)
   - TWY (Taxiway)
   - SVC (Services)
   - (U) (Unverified Aeronautical Information)
   - (O) (Other)

5. <u>Surface Identification</u>. Optional - this must be the runway identification for runway-related NOTAMs, the taxiway identification for taxiway related NOTAMs, or the ramp/apron identification for ramp/apron-related NOTAMs.
6. <u>COND</u>. Identifier describing the condition of the affected facility that prompted the NOTAM. Airspace NOTAMs shall begin with either the identification of the airspace, or with the activity type requiring the NOTAM.
7. <u>TIME</u>. Identifies the effective time of the NOTAM condition or date/time of return to service or return to normal status. The absence of a return-to service time indicates that the condition will continue indefinitely. The month, day, time, and time zone for the beginning and end of the condition should be included in the NOTAM. If a continental time zone (such as EST for Eastern Daylight Time) is provided, the FSS will convert to Coordinated Universal Time (UTC) prior to the transmission.

Examples
Following are several examples of various NOTAMs:

- !XYZ XYZ VOR OTS WEF 0004281600
  Explanation: The VOR is expected to go out of service at 1600 on April twenty-eight, 2000, and remain out until further notice.

- !XYZ XYZ VOR VOR OTS TIL 0004281800
  Explanation: The VOR is expected to remain out of service until 1759. At that time, this NOTAM will be cancelled automatically by the USNS.

- !XYZ XYZ AP CLSD 1100-1900 DLY WEF 0006011100-0006151900
  Explanation: The airport is closed from 1100 to 1900 daily from June 1, 2000, at 1100 until June 15, 2000, at 1900. This NOTAM will be automatically cancelled by the USNS on June 15, 2000, at 1900.

As mentioned previously, NOTAMs may be submitted through a local FAA air traffic facility or mailed directly to NFDC. The former method is the most commonly practiced; however, the latter is preferred if the condition is known well in advance.

The local air traffic facility is normally the airport's associated FSS, which is identified in the Airport Facilities Directory (AFD). FSS facility managers are required to ensure that lists of airport employees with authorization to issue NOTAMs are available and current. To avoid potential delays in NOTAM dissemination, airport sponsors are encouraged to assist the FSS with keeping the authorization lists up to date. (NOTE: If there is difficulty in contacting the FSS identified in the AFD, contact the US NOTAM Office at 877-4US-NTMS (877-487-6867) and they will route the call to the proper flight service center.)

Whatever the method of filing, make certain that the FAA facility in receipt of the NOTAM is provided with the appropriate contact information (name, title,

address, and telephone number) of the responsible airport official. This will allow the FSS to confirm the NOTAM when required. If the information is reported over the telephone, the operating initials of the FSS specialist who is handling the NOTAM should be requested to simplify any follow-up or other reference.

Class (D) NOTAMs

Distant (D) NOTAMs distribute information for all public use airports, seaplane bases, and heliports listed in the Airport/Facility Directory (AFD) and all navigational facilities that are part of the NAS when one of the following conditions is reported:

- The commissioning or decommissioning of landing areas or portions thereof.
- Airport closure (either complete closures or closures for certain types of aircraft).
- Conditions restricting or precluding the use of any portion of a runway or waterway.
- Breaking action is poor or nil.
- Snow, ice, slush, or standing water.
- The Runway Friction Measuring System is inoperable.
- Change of runway identification.
- Rubber accumulation on the runways.
- Aircraft Rescue Fire Fighting (ARFF) response restrictions.
- The commissioning, decommissioning, or outage of the following lighting aids:
  - ALS
  - SFL/RAIL
  - RWY LGTS
  - RCLS
  - TDZL
  - LDIN
- The commissioning, decommissioning, or outage of the following NAVAIDs:
  - DME
  - ILS – GS
    - LOC
      - MARKERS
  - LDA
  - MARKERS – IM
    - LOM
    - MM
    - OM
    - FM
  - SDF
  - VORTAC
  - RVR
  - MLS/ISMLS – AZM
    - ELEV
    - GP
  - NDB
  - VOR – DME
    - VOICE
  - TACAN AZM

7. Conditions with Special Reporting Requirements

Following are conditions that require special attention when composed and reported in order to receive the maximum benefit of the NOTAM system, or to avoid misleading statements.

Breaking Action
The condition of braking action as reported by airport management personnel is "good", "fair", "poor", and "nil", or some combination of these terms. A braking action report from a landing aircraft should be processed by the FSS as a Pilot Report (PIREP). Combining airport management and PIREP information should occur only when authorized by the airport management.

Winter Conditions
When reporting winter runway conditions, the following sequence should be used to assist the FSS with the NOTAM format: affected runway, coverage, depth, and condition.

Depth of Precipitation
When reporting the depth of winter precipitation, it should be expressed in terms of "thin" (less than ½ inch), ½ inch, and 1 inch. For accumulation greater than one inch, multiples should be reported in whole numbers only. If a variable depth exists, such as three to five inches, the greatest depth should be reported. If a depth in excess of 35 inches is reached, multiples should be reported in whole feet only.

Plowed Runways
When reporting a portion of a plowed runway (PLW), the width plowed and its condition, if not entirely cleared, should be expressed. Describing the plowed portion of the runway in terms of percentages or fractions of the surface is likely to be confusing and should be avoided. A report for plowed conditions is used only when a runway has been partially plowed; PLW is not used for runways that have been completely plowed. However, in such cases other surface conditions may apply.

Treated Runways
When it is reported that runways have been treated with sand, salt, or other substances, it is assumed that the entire published surface dimensions have been treated unless otherwise specified. When deicing activities are reported the materials used should be indicated as either solid or liquid, as this may have operational significance to the pilot.

Obscured Runway Lights
If reporting runway lighting that is obscured by snow and ice, only those lights that are completely obscured should be reported. It should be explicitly clear which lights are affected.

Runway Thresholds

If reporting the relocation or displacement of a threshold, avoid language that confuses the two. Standard NOTAM phraseology includes a temporary threshold displacement. Report threshold relocation as closure of a portion of the runway until the actual physical appearance is altered so the closed runway segment no longer looks like a landing area. If appropriate, request the FSS to insert a reopening date, and remember that you are obligated to track that date and revise or cancel it as necessary.

Personnel and Equipment Working

Any NOTAM associated with Personnel and Equipment Working (PAEW) on or adjacent to a runway, taxiway, ramp, or apron must begin with one of the following keywords: RWY, TWY, RAMP, or APRON. Additionally, the appropriate direction should be specified. These criteria are used for runway checks and other events of short durations; otherwise the runway should be closed.

Facilities and their Contractions

Movement Area - Airport Surfaces

Aerodrome (keyword)	AD
Airport	AP
Apron (keyword)	APRON
Safety Area	---
Ramp (keyword)	RAMP
Runway (keyword)	RWY
Taxiway (keyword)	TWY

Movement Area – Surface Compostion

Asphalt/tar	ASPH
Concrete	CONC
Gravel	GRVL
Turf	TURF

Movement Area – Lighting Aids

Airport Beacon	ABN
Airport Beacon	ABN
Light	LGT
Obstruction	OBST
Obstruction Light	OBST LGT
Omnidirectional Approach Lighting Systems	ODALS
Pilot Controlled Lighting	PCL
Runway End Identifier Lights	REIL

Communicate and Services

Aeronautical Advisory Station	UNICOM
Aircraft Rescue and Firefighting	ARFF
Airport Traffic Control Tower	TWR
Automatic Terminal Information Service	ATIS
Common Traffic Advisory Frequency	CTAF
Automated/Flight Service Station	FSS
Low Level Wind Shear Alert Systems	LLWAS

Landing Area

Bird Activity, Landing Area or Approaches	BIRDS ON AND IN VC ARPT
Braking Action Fair	BA FAIR
Braking Action Nil	BA NIL
Braking Action Poor	BA POOR
Closed Commissioned	CLSD
Decommission	DCMSN
Decommissioned	DCMSND
Displaced	DSPLCD
Except	EXC
Runway Friction Value	MU
Friction Measuring Equipment Out of Service	MU OTS
Frozen	FRZN
Ice On Runway(s)	IR
Inches	IN
Light	LGT
Lighted	LGTD
Loose Snow on Runway(s)	LSR
Obscured, Obscure or Obscuring	OBSC
Over	OVR
Packed Snow on Runway	PSR
Packed or Compacted Snow/Ice on Runway(s)	SIR
Patchy	PTCHY
Personnel and Equipment Working	PAEW
Plow, Plowed	PLW
Rough	RUF
Rubber Accumulation	RUBBER ACCUM
Sand or Sanded	SA
Slush on Runway(s)	SLR
Snow	SN
Snowbank(s) Containing Earth/Gravel	BERM

Snowbank(s) Caused by Wind Action	DRFT
Snowbank(s) Caused by Plowing (Windrow/s)	SNBNK
Takeoff	TKOF
Thin	THN
Unlighted	UNLGTD
Water on Runway(s)	WTR
Wet Snow on Runway(s)	WSR

Lighting Aids

Commissioned	CMSND
Decommission	DCMSN
Decommissioned	DCMSND
Obscured, Obscure or Obscuring	OBSC
Out of Service	OTS
Return to Service	RTS
Unlighted	UNLGTD

Air Navigation Aids, Commication, and Services

Commissioned	CMSND
Decommission	DCMSN
Decommissioned	DCMSND
Operating Normally	OK
Out of Service	OTS
Return to Service	RTS
Unavailable	UNAVBL
Unmonitored	UNMNT
Unusable	UNUSBL

Special Data Facilities, Situations

Avoid	AVOID
Except	EXC
Temporary	TEMPO
Unavailable	UNAVBL
Unreliable	UNREL
With Effect From or Effective From	WEF