



AirTAP Briefings

A publication of the AirTAP program of the Center for Transportation Studies at the University of Minnesota

Self-inspections make for safer airports

"The primary responsibility of an airport manager is to operate the airport in a safe and efficient manner in compliance with the regulations."

—Stephen M. Quilty, AAAE Accreditation Module, 1999

To ensure safe operations at an airport, airport managers must take many precautions. One of the most critical of these is conducting regular self-inspections for hazardous or potentially hazardous conditions. With a self-inspection program in place, small problems can often be corrected before they develop into significant safety hazards.

Airfield inspection is the responsibility of the airport owner, operator, or a duly authorized representative. During inspections, primary attention should be given to operational areas, which include pavement areas, safety areas, markings and signs, lighting, Airport Rescue and Firefighting, fueling operations, ground vehicles, wildlife, and snow and ice control operations.

Types of Inspections

Four different inspection schedules should be covered at every airport. How they are used depends on the type of airport and the local situations that occur there. They are:

- Regularly scheduled inspections, conducted at least once a day
- Continuous surveillance of certain airport activities

- Periodic inspections that evaluate conditions of approach slopes, obstructions, etc.
- Special condition inspections, such as for changing weather, wildlife concerns, or complaints

The regularly scheduled inspection includes specific observations of the physical facilities in the operational areas of the airport. This inspection is conducted daily to remove any foreign object debris (FOD) and to note or fix any safety hazards such as burnt-out runway lights or dead birds or animals on the runway(s) that could prove dangerous. One of the requirements for Federal Aviation Regulation (FAR) Part 139 airports is daily self-inspections and subsequent immediate corrective action to eliminate any unsafe condition at the airport.



A maintenance truck with a rotating beacon is used for inspections at the Mankato Airport.

Continuous surveillance inspections are conducted to ensure that an airport is in compliance with the regulations and procedures governing it. This type of inspection covers the same physical facili-

ties as does a regular self-inspection and is conducted any time airport personnel are on the airfield, since airport personnel should always have an eye open to identify safety hazards.

Periodic inspections are conducted on a regular basis, but perhaps weekly or monthly rather than daily. These inspections consist of specific checks of physical facilities such as the Visual Approach Slope Indicator alignment or obstructions to the FAR Part 77 surfaces. Finally, **special condition inspections** are conducted in response to a complaint or after an accident, incident, or other unusual event has occurred. This type of inspection can include any of the items listed for the other three inspection schedules. FAA Advisory Circular 150/5200-18B (www.faa.gov) gives examples of which items to cover during each type of inspection.

Checklists

An effective self-inspection program includes a procedure for recording any deficiencies found so that they can be noted and corrected. Checklist forms are a good way to make sure that everything is checked during an inspection and that problems are recorded. Daily checklists, once completed, also help managers and supervisors keep track of what is being fixed and where problem areas are located. By documenting problems and keeping records, airport personnel can review information from previous years in order to observe seasonal patterns, such as migratory birds. Sample checklists are available in FAA Advisory Circular 150/5200-18B.

Part 139 airport inspectors are

Asphalt maintenance and preservation featured at upcoming workshop

Mark your calendars for AirTAP's one-day workshop, "Asphalt, Concrete, and Turf Maintenance and Preservation," to be held March 25 at the

Aitkin Airport and April 1 at the Faribault Airport.

The workshop will address the three types of pavement maintenance, concrete and

asphalt pavement distress and severity identification, and best practices for each maintenance activity. The course will also cover turf runway mainte-

nance issues.

Watch your mail for registration information, or visit the AirTAP web site at www.airtap.umn.edu. ✈

required to keep their checklists for at least six months.

NOTAMs

Problems that have an immediate and critical impact on the safety of aircraft operating at an airport should be recorded on the checklist and immediately reported as a Notice to Airmen (NOTAM) to the appropriate Flight Service Station (FSS). NOTAMs, which are used for public airports, inform pilots of any conditions that they should be aware of before flying into a particular, and sometimes unfamiliar, airport. Authorized airport personnel (the operator or others) should issue a NOTAM when any condition that is on or around the airfield, either existing or anticipated, would prevent, restrict, or present a hazard to either arriving or departing aircraft.

NOTAMS should be issued quickly and accurately and, equally important, cancelled once the problem is resolved or corrected. An unauthorized report of a NOTAM will slow the issuing process because the FSS will need to first confirm the NOTAM before it can be issued. This can result in an extreme hazard at an airport where a NOTAM is postponed instead of issued immediately. For this reason, provide the FSS with a list of personnel authorized to issue a NOTAM at your airport.

Every NOTAM that is called into the FSS should be logged so that airport personnel are aware of all NOTAMs currently being reported at the airport, and so that the airport operator knows how the airport is being represented to the aviation public. Checking the NOTAM status should be a regular daily checklist item. NOTAMs are issued with technical terms and abbreviations to control the length of the report. FAA Advisory Circular 150/5200-28B gives examples of conditions for which NOTAMs

should be issued and the abbreviations that coincide with these conditions.

Inspection techniques

Once airport personnel understand how often to conduct an inspection and have the right checklist for their airport, they can start preparing for the inspection. The best time to inspect an airport is early in the morning, preferably before the first aircraft operation of the day. The airport operator who conducts the self-inspection should have the knowledge and the right equipment to perform the inspection safely and thoroughly. This includes:

- Having a vehicle with a two-way ground control radio capable of communicating with aircraft
- Knowing and using the correct radio communication procedures to alert aircraft in the area when the airport operator is inspecting the runway, or if he or she sees a problem that may affect aircraft
- Having a vehicle with a flashing beacon or checkered flag that is visible during inspections of the airfield both day and night
- Knowing the standards that apply to the airport he or she is inspecting
- Being supplied with checklists covering inspection areas

While self-inspection programs can keep an airport operating safely, a few problems can occur with inspection techniques, such as:

Going through the motions. Day and night inspections may be conducted along the same route by the same person time after time. Airport personnel can end up just "going through the motions" of the inspections. With this poor inspection habit, many critical safety items might be missed. Altering the inspection route or

inspector periodically may help ensure that something is not overlooked.

Ineffective inspections of pavement edges and safety areas.

Driving down the centerline of a runway to observe the pavement, markings, signs, lights, and any obvious problems in the safety area is a good idea. However, a 200- to 400-foot wide runway safety area and pavement edges cannot be effectively inspected from the center of a runway, especially while an inspector is looking at all the other objects along the runway. It is best to make several trips down the edges of the runway. If this is not possible, the airport manager should consider a periodic independent inspection of pavement edges, light bases, and safety areas.

Gradually deteriorating conditions. Faded wind socks that are difficult to see from the air, or lights and signs that have become dim because of dirt build-up inside the lenses and on the bulbs, are examples of airfield conditions that have deteriorated slowly over time. Such conditions can be easily overlooked by personnel who inspect them every day. Conducting periodic inspections of these areas along with regular inspections is an effective way to identify gradually deteriorating conditions. ✈

The information for this article was taken from FAA Advisory Circulars 150/5200-18B and 150/5200-28B (www.faa.gov/arp/150acs.cfm) and FAA Part 139 (www2.faa.gov/arp/certification/index.cfm?ARNav=cert).

Additional resources:

Rochester FSDO Video Tape Library
(Video tapes; free 14-day rental)
#7: "Airport Self Inspection"
Phone: 716-436-3880
Web: www.newyorkaviation.net/fsdo_tapes.htm

Safety Program Video Library
Helena Flight Standards
District Office
(Video tapes; free 14-day rental)
#V-13: "Airport Self-Inspection"
Phone: 800-457-9917
Web: www.faa.gov/fsdo/hln/video.htm

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