

STATE OF MAINE
AIRPORT MANAGERS

STUDY GUIDE



MaineDOT

Prepared by:

The Maine Department of Transportation
Office of Freight and Passenger Services

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State of Maine Airport Managers Study Guide

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Overview of the Airport Managers Training Program

Airport Managers Training Program

This Airport Managers Training Program was established in 2007 for the purpose of providing a base standard of knowledge for Maine's airport managers. This program is administered by the Maine Department of Transportation and is voluntary in nature. MaineDOT has undertaken this program under the auspices of Title 6 MRSA Chapter 6 for the purpose of enhancing public safety and protecting property. This program is available to staff members of all airport facilities, whether publicly or privately owned. The intent of this program is to ensure that all designated airport managers are trained on both Maine rules and laws on aviation, and FAA safety rules and regulations.

Title 6 does give minimum standards for airport managers and is stated as follows:

Chapter 6 §102.

2. Airport managers.

A. All air carrier and commuter air carrier airports shall designate a person generally available who has administrative responsibility for operation and management of the airport. All general aviation commercial airports, as defined under Chapter 6, shall have at least a part-time airport manager.

B. All airport managers shall perform the following duties.

(1) The airport manager, or his authorized representative, shall be available during all hours of operation. A current telephone number shall be on file with the department.

(2) The manager shall file a notice to airmen with the Federal Aviation Administration designating any changes in airport conditions that may effect safety. A "notice to airmen" file shall be maintained at the airport.

(3) The manager shall display the local traffic pattern, airport traffic safety rules, any noise abatement procedures, and any special orders relating to the airport and its operations at a prominent location on the airport.

(4) The manager shall submit a list of federal aviation registration numbers twice yearly to the department in May and November of all aircraft based at his airport.

Functions and Roles of Airport Managers

An airport manager is responsible for the daily operations of an airport. Either alone or through subordinate supervisors, the manager directs, coordinates, and reviews all aircraft operations, maintenance of the airfield and buildings, community relations and financial matters of the airport. Some airport managers are also responsible for running the airports fixed base operation (FBO) under a separate agreement with the airport owning jurisdiction.

No matter what specific duties an airport manager has each day, the number one responsibility of an airport manager is to operate a safe and efficient airport. The overall quality of the national airspace system depends on it.

An airport manager reports to, and receives direction from, the airport's owner/operator (herein referred to as Sponsor). In Maine, most public airports are owned by municipalities, airport authorities, or counties. The airport manager is also responsible for interpreting the functions and activities of the airport to the public. Public relations are also an important function of airport management.

An airport manager is the Sponsors representative and liaison to the MaineDOT for purposes of the determining and implementing the Airport Improvement Program.

Training Goals

Knowledge Standards:

General Aviation I Airports

- ➔ Understand state laws processes and procedures regarding the airport manager's availability and terms of employment (e.g., full- or part-time), the filing of Notices to Airmen, displaying the local traffic pattern, airport traffic safety rules, noise abatement procedures, and the submittal of aircraft registration information to MaineDOT/FAA.
- ➔ Understand state laws and regulations, including enforcement and penalties, pertaining to trespass and air traffic.
- ➔ Understand the laws regarding jurisdiction of political subdivisions with respect to the promulgation, administration and enforcement of airport zoning regulation.
- ➔ Understand the processes, procedures, and standards for the inspection of airport facilities, including, but not limited to, runways, buildings, beacons, and vehicles to determine repair or replacement needs.
- ➔ Understand federal laws and regulations regarding ownership and operations of an airport.
- ➔ Understand fueling facility safety, including compliance with fire safety regulations and the recommendations of the National Fire Protection Association.
- ➔ Understand the Federal Aviation Administration Grant Assurances and state grant assurances.
- ➔ Understand Airport Managers
- ➔ Understand the airport design, construction, and maintenance processes.

Air Carrier and Commuter Air Carrier Airports

The same as for General Aviation I airports above, with the addition of the following:

- Understand the F.A.A. requirements for 14 C.F.R. Part 139 continued certification as needed.

Training Resources:

- MaineDOT has prepared an Airport Managers web page that includes downloadable training materials for this program (also available in paper copy and on Compact Disk).
- MaineDOT's ad hoc Airport training opportunities. These opportunities may consist of a two-hour block of time to review material pertinent to Airport Managers. Additionally, airport self-inspection field visits to the host airports are also available.
- Upon request, MaineDOT will provide training at the airport managers' location.
- Upon request, Maine DOT will provide up to two hours of training at various forums.

Advisory Circulars (AC)s

- An Advisory Circular (AC) is an informational document produced by the Federal Aviation Administration to inform and guide institutions and individuals within the aviation industry, as well as the general public.
- Advisory Circulars are identified by a document number followed by an alpha character. When an AC is updated the alpha character is changed.
- All AC's referenced in this guide were current as of January 2021.
- It is the responsibility of the reader/student to ensure they are using the most up to date AC.
 - This can be found at https://www.faa.gov/regulations_policies/advisory_circulars/ by typing in the Document number without the alpha character.

Training Program Certification Test:

- The Airport Managers Certification Test is a take-home examination. It can be downloaded from the MaineDOT web page at <http://www.maine.gov/mdot/aviation/> , or e-mailed to you upon request.

CHAPTER ONE

TITLE SIX

Learning objectives:

Knowledge Standards:

General Aviation I Airports

- ➔ Understand state law, processes and procedures regarding the airport manager's availability and terms of employment (e.g., full- or part-time), the filing of Notices to Airmen, displaying the local traffic pattern, airport traffic safety rules, noise abatement procedures, and the submittal of aircraft registration information to MaineDOT.
- ➔ Understand laws and regulations, including enforcement and penalties, pertaining to airport and aircraft registration, trespass and air traffic.
- ➔ Understand the state law regarding fueling
- ➔ Understand the laws and regulations, including enforcement and penalties, pertaining to airport and aircraft registration, trespass and air traffic. Understand the laws regarding jurisdiction of political subdivisions with respect to the promulgation, administration, and enforcement of airport zoning regulation

Air Carrier and Commuter Air Carrier Airports

The same as for airports above, with the addition of the following:

- ➔ Understand the F.A.A. requirements for continued certification.

Reference materials:

- ➔ State of Maine Title Six - Aeronautics

The Maine Aeronautics Act:

- ➔ The processes, procedures and standards for the inspection of airport facilities, including, but not limited to, runways, buildings, beacons and vehicles to determine repair or replacement needs
- ➔ Understand fueling facility safety, including compliance with fire safety regulations and the recommendations of the National Fire Protection Association.
- ➔ Understand the Grant Assurances

The Maine Aeronautics Act was created to provide for the protection and promotion of the public interest and safety in connection with aeronautical activities. It defined the Department of Transportation's commissioner's duties regarding the laws relating to aeronautics. The

commissioner shall adopt and administer such rules concerning aeronautical activities not inconsistent with federal regulations covering aeronautics within the State by studying aviation needs, assisting and advising authorized representatives of political subdivisions within the state in the development of aeronautics and by cooperating and coordinating with such other agencies whether local, state, regional or federal, as may be working toward the development of aeronautics within the State.

The commissioner shall have, in any part of the State, the same authority to enforce and to make arrests for the violation of any of the provisions of this chapter or any rule or regulation promulgated there under as sheriffs, policemen, and constables have in their respective jurisdictions.

The commissioner shall have the power to conduct studies relating to aeronautical development within the State or any part thereof and may apply for and receive, on behalf of the State, Federal aid in connection with those studies.

The MaineDOT shall also have the responsibility to aid and assist municipalities in the:

- development, maintenance and operation of their public airports, and
- request for State and Federal aid in the development of the capital improvement programs, planning grants, design and construction of airport projects.

However, in the pursuit of seeking funding for the airport, no municipality or other political subdivision in this State, whether acting alone or jointly with another municipality, a political subdivision or with the State, shall submit to the administration any request for Federal aid, unless the project and the project application have first been approved by the commissioner. This subsection may be waived by the commissioner if no state funds are involved and the project falls within the latest airport master plan for that airport.

Training Resources:

Voluntary Training Program:

- MaineDOT has prepared an Airports and Aviation web page (<https://www.maine.gov/mdot/aviation/>) that includes downloadable training materials for this program (also available in paper copy and on jump drive).
- MaineDOT's Airport Meetings. These meetings may consist of a two-hour block of time to review material on various topics for the Airport Managers and/or staff. Additionally, airport managers or staff are welcome to join the Aviation Engineer when he completes the annual airport inspection field visits. Upon request, MaineDOT will provide training at the airport managers' location or via virtual training.
- Upon request, MaineDOT will provide up to two hours of training in conjunction with a Maine Aeronautical Advisory Board meeting.

Training Program Certification Test:

- The Airport Managers Certification Test is a take-home examination. It can be downloaded from the MaineDOT web page at <https://www.maine.gov/mdot/aviation/> or mailed to you in paper form upon request.

Minimum airport standards; airport managers; fire equipment and safety:

All air carrier and commuter air carrier airports, as defined under chapter 4, shall designate a person generally available who shall have administrative responsibility for operation and maintenance of the airport. All general aviation commercial airports, as defined under Chapter 6 shall have at least a part-time airport manager. All airport managers shall perform the following duties:

- The airport manager, or his authorized representative, shall be available during all hours of operation. A current telephone number shall be on file with the department.
- The manager shall file a “notice to airmen” with the Federal Aviation Administration designating any changes in airport conditions that may affect safety. A “notice to airmen” file shall be maintained at the airport.
- The manager shall display the local traffic pattern, airport traffic safety rules, any noise abatement procedures, and any special orders relating to the airport and its operations at a prominent location the airport.
- The manager shall submit a list of federal aviation registration numbers twice yearly to the department in May and November of all aircraft based at his airport.

Fire equipment and safety:

There shall be fire extinguishers of adequate size, type, and amounts in locations as recommended by the National Fire Protection Association.

Physical description of airports and minimum airport facilities:

Commercial airports:

- There shall be adequate toilet facilities approved by the proper authority in the community in which the commercial airport is located, an operation area contained in a building, which has an interior floor area measuring no less than 6 feet by 8 feet, and a public telephone.
- There shall be a wind direction indicator consisting of a windsock, a tetrahedron, or a wind tee.
- All paved runways shall be marked in accordance with the latest State or Federal Aviation Administration Advisory Circular.
- All lighted runways shall be lighted in accordance with the latest State or Federal Aviation Administration Advisory Circular.

Noncommercial airports; land; open to the public:

- ➔ There shall be a wind direction indicator consisting of a windsock, tetrahedron, or wind tee located adjacent to the landing area.
- ➔ Land airports without paved runways must have the boundaries of the usable landing area defined with clearly visible markers painted white.

Aviation fueling facilities:

Please see Chapter 7 of this Study Guide.

Enforcement:

It shall be unlawful:

- ➔ For any person to operate or authorize the operation of any civil aircraft which is not possessed of a valid identification mark assigned or approved therefore by the administration
- ➔ For any person to operate or authorize the operation of any civil aircraft within the State which is not possessed of a currently effective airworthiness certificate
- ➔ For any person to taxi takeoff from or land on any public highway in this State except in the case of emergency or with prior written permission granted by the commissioner
 - For any person to operate an airport, heliport or temporary landing gear as within the State without having first been issued and holding a valid state registration certificate as required by the commissioner pursuant to Chapter 4
 - For any person to operate an aircraft within the state without having first been issued and holding a valid state registration certificate as required by the commissioner. It shall be prime facie evidence that an aircraft is being operated unlawfully if a current decal is not affixed to the aircraft or an exemption obtained.
- ➔ For any person to operate an aircraft in the air or on the ground or water in careless or reckless manner so as to endanger the life or property of another. In any proceeding charging careless or reckless operation of an aircraft in violation of this section, the court in determining whether the operation was careless or reckless shall consider the standards for safe operation of aircraft prescribed by federal statutes or regulations governing aeronautics
- ➔ For any person to trespass upon the landing area of any licensed or registered airport.
- ➔ For any person to operate or attempt to operate an aircraft under the influence of intoxicating liquor or drugs or a combination of liquor and drugs or with excessive blood-alcohol level. Notwithstanding Section 203, a person is guilty of a Class D crime if that person operates or attempts to operate an aircraft.
 - While under the influence of intoxicating liquor or drugs or combination of liquor and drugs or
 - While having a 0.04% or more by weight of alcohol in that person's blood and

Penalties:

Any person who violates any provisions of Chapters 1 – 17 pertaining to registration, trespass or air traffic rules, or who violates any provisions of an order, rule, or regulation made

hereunder, or fails to answer a subpoena or to testify before the commissioner, shall be guilty of a Class E crime.

CHAPTER TWO

AIRPORT GRANT ASSURANCES AND AIRPORT COMPLIANCE

Learning objectives:

Understand the Federal and State Grant Assurances.

Reference materials:

- ➔ State of Maine Title Six – Aeronautics
- ➔ Federal Aviation Administration Grant Assurances: Airport Sponsors (full copy)
- ➔ State of Maine Grant Assurances - project contract (full copy).
- ➔ FAA Order 5190.6B: Airport Compliance Requirements (title page only, full copy on www.faa.gov website)
- ➔ FAA Order 5100.38D: Airport Improvement Program Handbook (title page only, full copy on www.faa.gov website)
- ➔ FAA Order [5150.5, Formulation of the NPIAS-ACIP](#) (full copy)
- ➔ AC 150/5100-19D: Guide for Airport Financial Reports Filed by Airport Sponsors (full copy)

Federal Aviation Administration Grant Assurance Obligations:

When airport owners or sponsors, planning agencies, or other organizations accept funds from FAA-administered airport financial assistance programs, they must agree to certain obligations (or assurances). These obligations require the recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. The assurances appear either in the application for Federal assistance and become part of the final grant offer or in restrictive covenants to property deeds. The duration of these obligations depends on the type of recipient, the useful life of the facility being developed, and other conditions stipulated in the assurances.

- ➔ FAA Order 5190.6B: Airport Compliance Requirements
- ➔ AC 150/5100-19D: Guide for Airport Financial Reports Filed by Airport Sponsors
- ➔ FAA Form 5100-127, Operating and Financial Summary

Federal Aviation Administration Authorization Act of 1994: Section 111 “Required sponsors to file two new reports. Section 111(a) required sponsors to report amounts airport paid to any other units of government and the purpose for each payment. It also required sponsors to report all services and property that the airport provided to other units of government and the amount of

compensation the airport received. Section 111 (b) required sponsors to use the FAA's uniform format to report funds collected and spent at their airports. These sections are codified at 49 U.S.C. 47107(19).

FAA Order 5190.6B: Airport Compliance Requirements

The Airports Compliance Program embraces the policy and guidelines of the FAA for monitoring the performance of airport owners under its obligations to the Federal Government. The obligations that airport owners assume in consideration of Federal aid flow from various agreements and statutes, including but not limited to:

- ➔ Grant agreements issued under the various Federal Grant programs.
- ➔ Surplus airport property instruments of transfer issued under the provisions of Section 13g of the Surplus Property Act of 1944.
- ➔ Deeds of conveyance issued under Section 16 of the Federal Airport Act of 1946, under Section 23 of the Airport and Airway Development Act of 1970, or under Section 516 of the Airport and Airway Improvement Act of 1982 (AAIA).
- ➔ Section 308(a) of the Federal Aviation Act of 1958, now codified at 49 U.S.C. § 40103(e) (exclusive rights).
- ➔ Title VI of the Civil Right Act of 1964.

FAA Order 5150.5, Formulation of the NPIAS-ACIP

The FAA formulates the ACIP, with voluntary cooperation of airport sponsors, states, airport planning agencies, and metropolitan planning agencies, to guide the distribution of AIP funds. The FAA establishes a regional ACIP that is a constrained, usually 3-5 year financial plan for the funding of airport development. The focus of which is usually specific to Airport Improvement Program (AIP) funding. In the development of such a financial plan, consideration is always given to all types of revenue streams available to an airport. The ACIP is a continuous process, Airport or State Evaluation and Development Stage. March through November. Each airport/state through a master plan effort or some other method creates a Capital Improvement Plan (CIP), which is for the individual airport or state. This CIP should focus on development within a 3-5-year timeframe. The plan should consider such things as realistic cost estimates, justification, environmental requirements, and all types of revenue streams. The state organizations are responsible for developing one state CIP for GA, reliever and commercial service airports within their states. The airports or states should also prioritize all of projects within the CIPs.

- ➔ Regional FAA Evaluation and Development Stage. March through November. The airport and the State communicates and coordinates these individual CIPs with the FAA. This can be accomplished through a series of meetings or in any other method, which is better suited for the individual situation. This is a continuous process. During the fall, the FAA planners will make an effort to coordinate and again update the CIPs prior to the regional analysis process. The planners will evaluate not only funding but also such things as the timing of a project, additional required elements such as environmental and sponsor performance.

- ➔ Regional ACIP Evaluation: December through May. The FAA will review the individual airport and State CIP's on a regional level and determine if these plans are reasonable, acceptable, do they meet FAA criteria and evaluate the likelihood of the AIP funding within the plans. Most of this effort will focus on those airports and projects that require AIP discretionary funding.
- ➔ For larger more complex development programs, the FAA and airports will have many more coordination and communication efforts. Under these types of projects, it will be imperative that all types of funding are under consideration within the financial plans. Alternative funding scenarios such as Letter of Intent (LOI)s will be considered.
- ➔ Washington Submittal: June 1st. The regional FAA office will establish and submit to FAA Washington a regional ACIP for 5 years by June 1st. The first three years must be considered sound financial plans. With the outer years not having to be as firm. Coordination between the FAA Region and Washington will result in funding planning levels. These planning levels are the basis for the financial planning being accomplished throughout the regional, airport and state evaluation and development processes and the regional ACIP evaluation step.

AC 150/5100-19D: Guide for Airport Financial Reports Filed by Airport Sponsors

This revision announces the following changes:

- ➔ Security Reimbursements. The FAA is including security reimbursements in Aeronautical Operating Revenue.
- ➔ Enplanements. Each year the air carriers report their enplanements to the FAA. In response to requests from the public, the FAA will now incorporate that enplanement data into the Form 5100-127, Operating, and Financial Summary.
- ➔ Hardcopy forms. Since airports may now enter information directly on the web, the FAA will no longer automatically accept hardcopy forms. The FAA will make exceptions for airport that have difficulty accessing the site.

The Federal Aviation Administration Authorization Act of 1994 required Sponsors to file two new reports report payments their airports made to other units of government and the purpose of those payments. It also requires sponsors to report all services and property their airports provided to other units of government and the amount of compensation received. FAA Form 5100-126 satisfies these requirements. Sponsors are required to report funds collected and spent at their airports. FAA Form 5100-127 satisfies this requirement. Congress enacted the reporting requirements to inform the public about how airports collect and disburse their funds and to provide the FAA with a means for evaluating the Sponsor compliance with revenue – use requirements. Sponsors are required to use airport revenue for the capital or operating costs of the airport, the local airport system, or other local facilities that are directly and substantially related to air transportation of passengers or property. Congress exempted certain financial arrangements for the requirement. This Advisory Circular provides Sponsors with guidance for filing reports in accordance with 49 U.S.C. §47107(a) (15) and (19). It does not impose any new obligations, so the terms “mandatory” and “must” refer to statutory obligations that already exist.

CHAPTER THREE

AIRPORT MASTER RECORD 5010 DATA

Learning objectives:

- ➔ The processes, procedures, and standards for the inspection of airport facilities, including, but not limited to, runways, buildings, beacons, and vehicles to determine repair or replacement needs.

Reference materials:

- ➔ Sample Airport Master Record

Airport Master Record – form 5010:

The purpose of providing airport data to the Federal Aviation Administration using Forms 5010-1 is to collect, maintain, and disseminate accurate, complete, and timely airport data for the safe and efficient movement of people and goods through air transportation. Within the FAA, this is accomplished through the Airport Safety Data Program. The Airport Safety Data Program is the primary means for gathering aeronautical information on landing facilities.

The information collected from the FAA 5010 forms is included in the Airport/Facility Directory (AFD). The AFD is a flight information publication published by the FAA's National Aeronautical Charting Office every 56 days and is effective on the first day of the 56-day airspace cycle.

https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/dafd/search/advanced/.

The 5010-1 Airport Master Record contains aeronautical data describing the physical and operational characteristics of civil public-use airports, joint-use military airports, and private-use military airports that are active and in the National Airspace.

The MaineDOT currently contracts with a consultant to do an official update every three years for each airport. One third of the state is completed each year. The consultant inspector will meet with each airport manager to review the data that is on the most recently published master record. During the inspection, the inspector will also review pavement conditions, airfield marking conditions, general conditions of the airport and will determine the controlling obstruction on each end of the airport. The results of the inspection are submitted to the airport, the MaineDOT and the FAA. The inspector will also update the information online.

Interim inspections can and will be done by staff of the MaineDOT. MaineDOT will do an annual inspection of each airport and denote any changes to the 5010 controlling obstruction data. This is completed specifically after any obstruction removal work has been completed. Interim data changes can now be done by the airport manager or by staff at MaineDOT. These are done electronically at: <https://adip.faa.gov/agis/public/#/login> if you have already registered as a user.

CHAPTER FOUR

NOTICE TO AIRMEN

Learning objectives:

- Understand filing of Notices to Airmen

Reference materials:

- FAA Order 7930.2S: Notice to Airmen (title page only, full copy on www.faa.gov website)
- AC 150/5200-28F: Notice to Airmen (NOTAMS) for Airport Operators (full copy)

Notice to Airmen:

This chapter is a primer only. Refer to the reference materials to learn the complete criteria and nomenclature for NOTAMS. NOTAMS are filed via <https://notams.aim.faa.gov/dnotam/#1>

The NOTAM system provides essential information to personnel concerned with flight and airport operations. NOTAMs provide timely information on unanticipated or temporary changes to components of or hazards in the National Airspace System (NAS). Component changes may pertain to facilities, services, procedures, or hazards in the NAS. A NOTAM provides information that becomes available too late to publicize in the associated aeronautical charts and related publications.

The NOTAM system is not intended to be used to impose restrictions on airport access for the purpose of controlling or managing noise, or to advertise data already published or charted.

The management of a public use airport is expected to make known, as soon as practicable, any condition, existing or anticipated, within 5 miles from the Airport Reference Point that will prevent, restrict, or present a hazard during the arrival or departure of aircraft. Local coordination with airport users such as air carriers and other commercial operations should be conducted as far in advance as possible to minimize the impact of construction projects, planned surface closures, or other conditions affecting operations on the airport.

Normally notification should be made not more than 3 days before the expected condition is to occur. Public notification is usually accomplished by the NOTAM system. This same notification system should be used when the condition has been corrected or otherwise changed. Airport operators are also responsible for ensuring NOTAMS are current and cancelled when the conditions that prompted the NOTAMS no longer exist.

Some facilities components, such as pavements, runway lights and guidance sign systems are always the responsibility of the airport operator. Others such as navigation facilities and approach

lights are usually the responsibility of the FAA. To avoid confusion airport operators should initiate a NOTAM on a facility only when its operation and maintenance are clearly within their sphere of responsibility. However, airport operators should make every effort to alert the responsible party when outages/discrepancies are observed in facilities that fall outside their sphere of responsibility.

Airport Operators are responsible for staying informed of NOTAM technology as advancements in NOTAM delivery capabilities change due to ongoing FAA modernizing efforts. Currently, the FAA web-based Digital NOTAM Manager (NOTAM Manager) is gradually replacing ENII and is the preferred system for initiating NOTAMs. For information on obtaining NOTAM Manager or to access the FAA's NOTAM Manager Self-Cert program, please go to <https://notams.aim.faa.gov/> and select "Applications".

Airport Operators shall provide an up-to-date list of airport employees who are authorized to issue NOTAMs to the Flight Service Station (FSS) air traffic manager.

It may be helpful to use the optional NOTAM Log (electronic or paper) in noted as Appendix A Sample Log on the next page or the NOTAM Manager system as a primary or backup method for originating, modifying, cancelling, tracking, and receiving acknowledgement of air carrier notification of NOTAM activity.

The party that enters the NOTAM data is responsible for classifying, formatting, canceling, and informing the controlling facility and other facilities/offices affected by the aid, service, or hazard contained in the new NOTAM.

Initiating a NOTAM

- ➔ Identify the affected facility and component.
 - a. Ex: !AUG AUG RWY 17/35 (*Augusta State Airport, Runway 17/35*)
- ➔ Describe the condition of the affected facility that prompted the NOTAM
 - a. Ex: CLSD (*closed*)
- ➔ Furnish the month, day, and the time for the beginning and end of the condition or the effective time. In addition to listing the outage time, NOTAMs should specify an expected time of return to service or previous condition. A 10-digit date-time group (YYMMDDHHMM) used to indicate the time at which the NOTAM comes into force (the date/time a condition will exist or begin) and the time at which the NOTAM ceases to be in force and becomes invalid (the expected return to service, return to normal status time, or the time the activity will end). These times must be separated by a hyphen "-"
 - a. Ex: 2107100630-2107101500

The entire example NOTAM from above would look like:

!AUG AUG RWY 17/35 CLSD 2107100630-2107101500

Submitting the NOTAM

Allowing Verification

Airport personnel can review their NOTAMs on the FAA website at <http://www.notams.aim.faa.gov/notamSearch/>.

APPENDIX A. SAMPLE NOTAM LOG

NOTAM ISSUED		
NOTAM# _____	FSS NOTAM# _____	
DATE ISSUED _____	TIME ISSUED _____ UTC	
ISSUED BY: _____		
NOTAM TEXT:		

AGENCIES NOTIFIED		
ATC Facility _____	AIR CARRIER(S) _____	FSS _____
FBOs _____	TENANT(S) _____	DoD _____

NOTAM CANCELLED		
DATE _____	TIME: _____ UTC	
CANCELLED BY: _____		
AGENCIES NOTIFIED		
ATC Facility _____	AIR CARRIER(S) _____	FSS _____
FBOs _____	TENANT(S) _____	DoD _____

CHAPTER FIVE

AIRPORT EMERGENCY PROCEDURES

Learning objectives:

- Understand Airport Emergency Procedures.

Reference materials:

- FAA's Emergency Plan Airports
- AC 150/5200-31C: Airport Emergency Plan (title page only, full copy on www.faa.gov website)
- 14 CFR Parts 121 and 139 Certification of Airports; Final Rule (full copy)

Airport emergency procedures:

The airport should create a written plan in cooperation with local authorities, first responders and possibly the Maine Emergency Management Agency. This plan should also encompass coordination with Local/Regional Disaster Plans and should include practice sessions so participants and members of the response teams are familiar with the airport and aircraft. The procedures should include the following:

- Execute life safety activities,
- Secure the scene,
- Preserve evidence.

National Transportation Safety Board Communication Center 24 hour phone number for investigative agencies:

1-844-373-9922 or 202-314-6290

Establish inner and outer perimeter:

- protect property
- prevent the disturbance of wreckage and debris except to preserve life, rescue the injured, or protect the wreckage from further damage
- protect and preserve ground scars and marks made by the aircraft
- admit public safety personnel access to the wreckage to the extent necessary to preserve life, and/or stabilize HAZMAT
- Maintain a record of personnel who enter the accident site.

Prior to NTSB arrival on scene, restrict access only to authorize personnel:

- Federal Aviation Administration

- Police/Fire/Emergency Medical Service
- Medical Examiner/Coroner
- Other Emergency Services Agency

After NTSB arrival on scene, no access without NTSB authorization:

BIOHAZARD/HAZMAT:

Potentially dangerous materials that might be present may include but are not limited to: Chemicals-explosives-biological-radioactive materials, fuel, pressure vessels, compressed air, hydraulics, batteries, accumulators, igniters, oxygen systems, oxygen bottles, fire extinguishers, evacuation chutes, flares, composite materials, ballistic parachute systems, tires

Wreckage Documentation (if possible):

- Use best judgment to obtain these goals:
- Obtain aircraft registration number (N number)
- Obtain number of casualties
- Photograph or video the overall wreckage including cockpit starting at the initial point of impact if possible
- Photograph or video any ground scars or marks made by the aircraft

Injured/Fatalities:

- Coordinate with the NTSB prior to the removal of fatalities. If unable, document that part of the scene to be disturbed, including switch/control positions, and instrument/gauge readings

Witness Documentation:

- Obtain name/address/phone numbers (home & work)
- Obtain their location relative to the accident site
- Obtain description of what they observed or heard
- Obtain name of person reporting accident (911 tapes)
- Provide relative G.A.R.D. information to the NTSB/FAA

Media Relations:

- Consistent with site security policies, only authorized emergency service individuals should be allowed on site
- No one should speculate on the cause of the accident
- Refer all media questions about the accident investigation to the NTSB
- Local authorities normally retain the responsibility for the release of victims' names

CHAPTER SIX

AIRPORT DESIGN, CONSTRUCTION, AND MAINTENANCE

Learning objectives:

- The processes, procedures, and standards for the inspection of airport facilities, including, but not limited to, runways, buildings, beacons, and vehicles to determine repair or replacement needs.
- Understand the airport design, construction, and maintenance process.
- Understand the Federal Aviation Grant Assurances and the state grant assurances.

Reference materials:

- State of Maine Title Six – Aeronautics
- AC 150/5320-17A: Airfield Pavement Surface Evaluation and Rating Manual (PASER Manual) (full copy)
- AC 150/5380-7B: Airport Pavement Management Program (full copy)
- AC 150/5100-14E: Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects (full copy)
- AC 150/5300-13A: Airport Design (title page only, full copy on www.faa.gov website)
- AC 150/5370-2G: Operational Safety on Airports During Construction (full copy)
- AC 150/5370-12B: Quality Management for Federally Funded Airport Construction Projects (full copy)

A/C 150/5320-17A: Airfield Pavement Surface Evaluation and Rating Manual and AC 150/5380-7B: Airport Pavement Management Program:

An airport manager's goal is to use available funds to provide a safe and economical pavement surface – no simple task. It requires balancing priorities and making difficult decisions in order to manage pavements. General aviation airfield pavements are often managed informally, based on the staffs judgment and experience. While this process is both important and functional, using a slightly more formalized technique can make it easier to manager pavements effectively.

Experience has shown that there are three especially useful steps in management pavements:

- Inventory all pavements
- Periodically evaluate the condition of all pavements
- Use the condition evaluations to set up priorities for projects and evaluate alternative treatments.

MaineDOT completed an inventory of pavement for all GA airports in 2018. This information has been made available to all airport sponsors and can also be found at :

<https://www.maine.gov/mdot/aviation/#> . This information contains the inventory and an evaluation of the condition as of 2018. The intent is that MaineDOT will update the condition approximately every 3-5 years. The Sponsor is responsible for interim condition inspection and reporting. The FAA requires sponsors to create their own Airport Pavement Management Plan (PMP).

The FAA recommends using the information and procedures contained in the Pavement Surface Evaluation Manual by airport staff and consultants to begin a comprehensive pavement maintenance program.

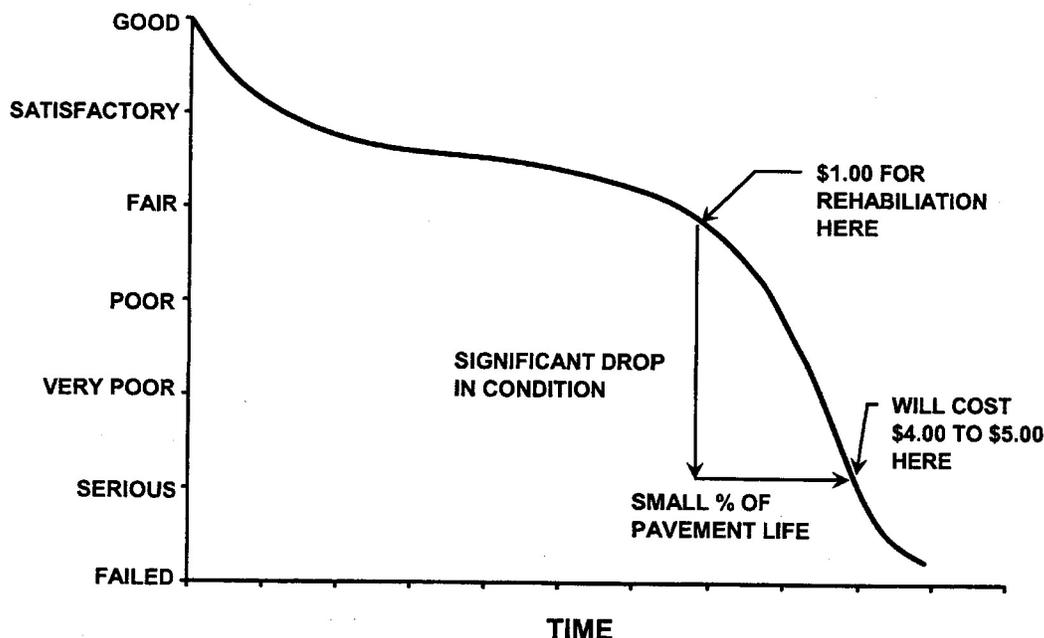


FIGURE 1. Typical Pavement Condition Life Cycle (Springer 2005)

Figure 1 shows that the ideal time for major rehabilitation is just as a pavement’s rate of deterioration begins to increase. Maintenance and rehabilitation solutions would be easy to plan if pavements exhibited clear signs they had reached this point, but unfortunately, they do not. The shape of the deterioration curve, and therefore the optimal maintenance and repair points, vary considerably within a pavement network. A pavement experiencing a sudden increase in operations or aircraft loading will have a tendency to deteriorate more rapidly than a pavement deteriorating solely from environmental causes. A pavement deteriorating from environmental damage may have a number of cracks that need filling but still remain structurally sound. Conversely, this same pavement may be in the early stages of load damage deterioration, which can only be detected with proper testing. Because it is difficult to determine when a pavement has reached the critical condition, a PMP helps identify the optimal rehabilitation point and allows decision-makers to target available resources where they will be most effective. The PMP does this by making use of data from a pavement condition rating system that helps predict future conditions and indicate whether the distress is load or environmentally related.

AC 150/5100-14E: Architectural, engineering, and planning consultant services for airport grant projects:

The FAA offers guidance for airport sponsors in the selection and engagement of architectural, engineering, and planning consultants. It also discusses services that normally would be included in an airport grant projects, types of contracts for these services, contract format and provisions, and guidelines for determining the reasonableness of consultant fees.

The FAA requires that consultants are selected based on qualifications. There are two separate and distinct categories of consultant services that are typically utilized for projects conducted under airport grant programs. The first category involves planning services. The second category involves professional services for the design and construction administration/inspection of airport development projects and for land acquisition projects.

Prior to undertaking a consultant selection process, airport managers should review the advisory circular and consult the MaineDOT for assistance. It is important to remember that the contract is between the Sponsor and the Consultant. MaineDOT staff are available to provide Independent Fee Estimates at no cost. Sponsors are requested to utilize MaineDOT contract templates in order to keep aviation consultant contracting consistent throughout the State of Maine, especially if the Sponsor is requesting matching funds from MaineDOT. MaineDOT templates are available at: <https://www.maine.gov/mdot/cpo/airport/>.

Environmental Impact Statements are unique because they require the FAA to participate in the selection process.

AC 150/5300-13A: Airport Design:

All airport development at federally obligated airports must conform to an FAA-approved ALP. An ALP is a scaled drawing of existing and proposed land and facilities necessary for the operation and development of the airport. Any airport will benefit from a carefully developed plan that reflects current FAA design standards and planning criteria. The ALP should conform to the FAA airport design standards existing at the time of its approval. Due to unusual site, environmental, or other constraints, the FAA may approve an ALP not fully complying with design standards. Such approval requires the FAA to determine the proposed modification to standards is safe for the specific site and conditions. See Order 5300.1. When the FAA revises a standard, airport owners should incorporate the changes in the ALP and implement the new standards before all new development.

AC/150/5070-6B, Airport Master Plans, contains background information on the development of ALPs, as well as a detailed listing of the various components that constitute a well-appointed ALP. The ALP map set includes a location map, vicinity map, basic data table, wind information, and an approach and clear zone plan.

AC 150/5370-2G: Operational Safety on Airports during Construction:

An airport operator has overall responsibility for all activities on an airport, including construction. This includes the pre-design, design, preconstruction, construction, and inspection phases. Additional information on the responsibilities listed below can be found throughout this AC.

This AC outlines the requirements for the Construction Safety and Phasing Plan (CSPP). Operational safety on the airport remains the sponsor's responsibility at all times. The sponsor must develop and submit CSPPs to the FAA in accordance with AC 150/5370-2 for each on-airfield construction project funded by the AIP or located on an airport certificated under Part 139. The FAA Airports Regional or Airports District Office (ADO) must review and approve or disapprove these CSPPs in writing. The sponsor's certification of plans and specifications does not include the approval of the CSPP.

AC 150/5370-12G: Quality Management for Federally Funded Airport Construction Projects

The sponsor is responsible for all project engineering, including the preparation of plans and specifications, construction supervision, and inspection and testing for acceptability and quality. If the sponsor does not have the staff or the expertise to perform these services, then the sponsor should retain a consulting engineering firm. The relationship of the consultant with the sponsor must be clearly defined by a written agreement before the start of work.

The airport sponsor has primary responsibility for supervision and inspection of construction work under the AIP. FAA Form 5370-1, Construction Progress and Inspection Report, or a form that provides equivalent information, must be maintained by the sponsor and submitted to the appropriate FAA Airports Regional or ADO upon request. If any problems, delays, or adverse conditions occur that will affect the project, the FAA may require the sponsor to submit an interim report. Use of this form is not mandatory and the sponsor may prepare and use customized forms.

The FAA program/project manager has the responsibility to monitor the project to ensure the terms and conditions of the grant agreement are met, to maintain a broad overview of the construction to be reasonably certain the work is accomplished in accordance with the plans and specifications, and to evaluate the adequacy of the sponsor's construction inspection and oversight. FAA project oversight does not relieve the sponsor of responsibility to ensure adequate supervision and inspection during all stages of the work and that the work is in conformance with the plans and specifications. The FAA program/project manager oversight responsibilities are outlined in Order 5100.38, Airport Improvement Program Handbook.

In order to meet the above responsibility, the FAA and MaineDOT need information as to what work is in progress, completed, or planned; recent testing; and problem areas. The information is discussed at the preconstruction conference and can be obtained in a convenient manner in an appropriate timeframe through use of FAA Form 5370-1, Construction Progress, and Inspection Report as noted above.

The sponsor is responsible for all project engineering, including the preparation of plans and specifications, construction supervision, and inspection and testing for acceptability and quality. If the sponsor does not have the staff or the expertise to perform these services, then the sponsor should retain a consulting engineering firm. The relationship of the consultant with the sponsor must be clearly defined by a written agreement before the start of work.

CHAPTER SEVEN AIRPORT FUELING

Learning objectives:

- ➔ Understand fueling facility safety, including compliance with fire safety regulations and the recommendations of the National Fire Protection Association.

Reference materials:

- ➔ State of Maine Title Six – Aeronautics
- ➔ AC 150/5230-4B: Aircraft Fuel Storage, Handling, and Dispensing on Airports (full copy)
- ➔ National Fire Protection Association 403: Standard for Aircraft Rescue and Fire-Fighting Services at Airports 2018 Edition (title page only- airports must purchase copy from NFPA) www.nfpa.org
- ➔ National Fire Protection Association 407: Standard for Aircraft Fuel Servicing 2017 Edition (title page only – airports must purchase copy from NFPA)

Title Six; Chapter Aviation fueling facilities:

Aircraft fuel servicing operations. Airports may, at their option, provide aircraft fuel servicing. The operations must meet the following minimum standards.

- ➔ Aviation fuel must be stored in National Fire Protection Association approved facilities.
- ➔ Aircraft fuel servicing must be conducted in accordance with accepted standards and requirements established by the National Fire Protection Association;
- ➔ There must be fire extinguishers of adequate size, type, and numbers in locations as recommended by the National Fire Protection Association.

National Fire Protection Association 407

Aviation fuel must be stored in National Fire Protection Association approved facilities. Fuel storage tanks must conform to the applicable requirements of NFPA 30. Fuel servicing stations can be installed in a cabinet above or below the ground. The authority having jurisdiction shall determine the clearances required from runways, taxiways and other aircraft movement and

servicing areas to any aboveground fuel storage structure or fuel transfer equipment, with due recognition given to national and international standards establishing clearances from obstructions. Each fuel system must have a means for quickly and completely shutting off the flow of fuel in an emergency. The emergency fuel shutoff system shall include shutoff stations located outside of probable spill areas this area and near the route that is normally used to leave the spill area or to reach the fire extinguishers provided for the protection of the area. At least one emergency shutoff control station shall be accessible to each vehicle loading position or aircraft fueling position. Each emergency fuel shutoff station location shall be placarded EMERGENCY FUEL SHUTOFF in letters at least 50mm (2 inches) high. The method of operation shall be indicated by an arrow or by the word PUSH or PULL, as appropriate. Any action necessary to gain access to the shutoff device (e.g. BREAK GLASS) shall be shown clearly. Lettering shall be of a color contrasting sharply with the placard background for visibility. Placards shall be weather resistant. Emergency fuel shutoff signs shall be located at least 2.1m (7 ft) above grade measured to the bottom of the placard. Emergency fuel shutoff signs shall be positioned so that they can be seen readily from a distance of at least 15.2m (50 ft).

During fueling operations, fire extinguishers shall be available on aircraft servicing ramps or aprons, in accordance with NFPA 410. All fire extinguishers shall conform to the requirements of NFPA 10. Each aircraft fuel servicing tank vehicle shall have two listed fire extinguishers, each having a rating of at least 40-B:C, and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent, with one extinguisher mounted on each side of the vehicle. One listed fire extinguisher having a rating of at least 40-B:C and a minimum capacity of 9.0 kg (20 lb) of dry chemical agent shall be installed on each hydrant fuel servicing vehicle or cart. Extinguishers shall be kept clear of elements such as ice and snow.

Extinguishers located in enclosed compartments shall be readily accessible. The locations of extinguishers shall be marked clearly in letters of contrasting color at least 50 mm (2 in.) high. Fuel servicing personnel shall be trained in the use of the available fire extinguishing equipment they could be expected to use.

Entrances to fueling areas shall be posted with “no smoking” signs. Open flames on aircraft fuel servicing ramps or aprons within 15 m (50 ft) of any aircraft fuel servicing operation or fueling equipment shall be prohibited. The category of open flames and lighted open-flame devices shall include but not be limited to, the following:

- (1) Lighted cigarettes, cigars, or pipes
- (2) Electronic cigarettes (e.g., personal vaporizers or electronic nicotine delivery systems)
- (3) Exposed flame heaters, liquid, solid, or gaseous devices, including portable and wheeled gasoline or kerosene heaters
- (4) Heat-producing welding or cutting devices and blowtorches
- (5) Flare pots or other open-flame lights.

Aircraft fuel servicing shall be performed outdoors. Aircraft fuel servicing incidental to aircraft fuel system maintenance operations shall comply with the requirements of NFPA 401. Aircraft being fueled shall be positioned so that aircraft fuel system vents or fuel tank openings are not closer than 7.6 m (25 ft) to any terminal building, hangar, service building, or enclosed

passenger concourse other than a loading walkway. Aircraft being fueled shall be positioned so that the vent or tank openings are not closer than 15 m (50 ft) of any combustion and ventilation air-intake to any boiler, heater, or incinerator room. If passengers remain onboard an aircraft during fuel servicing, at least one qualified person trained in emergency evacuation procedures shall be in the aircraft at or near a door at which there is a passenger loading walkway, integral stairs that lead downward, or a passenger loading stair or stand.

AC 150/5230-4B: Aircraft Fuel Storage, Handling, and Dispensing on Airports

This Advisory Circular (AC) contains specifications and guidance for the storage, handling, and dispensing of aviation fuel on airports. Although non-certificated airports are not required to develop fuel safety standards, the Federal Aviation Administration recommends these airports use the guidance contained in this AC to develop such standards for the continued enhancement of aviation safety. The Federal Aviation Administration does not intend this AC to replace airport procedures that are tailored to meet requirements imposed because of the use of special equipment or as a result of local regulations.

The FAA uses the standards contained in the most recent edition of National Fire Prevention Association (NFPA) 407, Standard for Aircraft Fuel Servicing. NFPA 407 provides a standard for the storage and delivery of aviation fuel in an airport environment. This document can be ordered from:

National Fire Protection Association
1 Batterymarch Park
P.O. Box 9101
Quincy, Massachusetts 02269-9101

Telephone: 1-800-344-3555
Website: <http://www.nfpa.org/catalog/>

The National Air Transportation Association's (NATA's) refueling and quality control guidebook provides information and detailed procedures on the safe handling and delivery of aviation fuels. The guide is available from:

National Air Transportation Association
4226 King Street
Alexandria, Virginia 22302

Telephone: 1-800-808-6282
Website: <http://www.nata.aero>

Additional information regarding refueling and facility specifications are available through the American Petroleum Institute at:

American Petroleum Institute

1220 L Street, NW
Washington, DC 20005

Telephone: (202) 682-8375
Website: <http://www.api.org>

Part 139.321(e) (1) requires that “[at] least one supervisor with each fueling agent must have completed an aviation fuel training course in fire safety that is authorized by the Administrator. Such an individual must be trained prior to initial performance of duties, or enrolled in an authorized aviation fuel training course that will be completed within 90 days of initiating duties, and receive recurrent instruction at least every 24 consecutive calendar months.” At airports not certificated under 14 CFR Part 139, fuel safety training programs should be developed.

CHAPTER EIGHT

14 CODE OF FEDERAL REGULATIONS PART 139

Learning objectives:

- ➔ Understand the F.A.A. requirements for 14 C.F.R. Part 139 continued certification.

Reference material:

- ➔ 14 CFR Parts 121 and 139 Certification of Airports; Final Rule (full copy)

14 Code of Federal Regulations Part 139:

14 CFR Part 139 requires the FAA to issue airport operating certificates to airports that serve

(1) Scheduled passenger-carrying operations of an air carrier operating aircraft configured for more than 9 passenger seats, as determined by the regulations under which the operation is conducted or the aircraft type certificate issued by a competent civil aviation authority; and

(2) Unscheduled passenger-carrying operations of an air carrier operating aircraft configured for at least 31 passenger seats, as determined by the regulations under which the operation is conducted or the aircraft type certificate issued by a competent civil aviation authority.

This Part does not apply to airports serving scheduled air carrier operations only by reason of being designated as an alternate airport; Airport Operating Certificates serve to ensure safety in air transportation. To obtain a certificate, an airport must agree to certain operational and safety standards and provide for such things as firefighting and rescue equipment. These requirements vary depending on the size of the airport and the type of flights available. The

regulation, however, does allow FAA to issue certain exemptions to airports that serve few passengers yearly and for which some requirements might create a financial hardship.

Basic Phases of a Part 139 Inspection

To ensure that airports with Airport Operating Certificates are meeting the requirements of Part 139, nearly 35 FAA Airport Certification Safety Inspectors conduct certification inspections. These inspections typically occur yearly, but the FAA can also make unannounced inspections. Certification inspections include the following steps:

- ➔ **Pre-inspection review** of office airport files and airport certification manual.
- ➔ **In-briefing with airport management.** Organize inspection time schedule, meet with different airport personnel.
- ➔ **Administrative inspection of airport files, paperwork, etc.** Also includes updating the Airport Master Record (FAA Form 5010) and review of the Airport Certification Manual/Specifications (ACM/ACS), Notices to Airmen (NOTAM), airfield self-inspection forms, etc.
- ➔ **Movement area inspection.** Check the approach slopes of each runway end; inspect movement areas to find out condition of pavement, markings, lighting, signs, abutting shoulders, and safety areas; watch ground vehicle operations; ensure the public is protected against inadvertent entry and jet or propeller blast; check for the presence of any wildlife; check the traffic and wind direction indicators.
- ➔ **Aircraft rescue and fire fighting inspection.** Conduct a timed-response drill; review aircraft rescue and firefighting personnel training records, including annual live-fire drill and documentation of basic emergency medical care training; check equipment and protective clothing for operation, condition, and availability.
- ➔ **Fueling facilities inspection.** Inspection of fuel farm and mobile fuelers; check airport files for documentation of their quarterly inspections of the fueling facility; review certification from each tenant fueling agent about completion of fire safety training.
- ➔ **Night inspection.** Evaluate runway/taxiway and apron lighting and signage, pavement marking, airport beacon, wind cone, lighting, and obstruction lighting for compliance with Part 139 and the ACM/ACS. A night inspection is conducted if air carrier operations are conducted or expected to be conducted at an airport at night or the airport has an instrument approach.
- ➔ **Post inspection briefing with airport management.** Discuss findings; issue Letter of Correction noting violations and/or discrepancies if any are found; agree on a reasonable date for correcting any violations, and give safety recommendations.

Compliance with Part 139

If the FAA finds that an airport is not meeting its obligations, it often imposes an administrative action. It can also impose a financial penalty for each day the airport continues to violate a Part 139 requirement. In extreme cases, the FAA might revoke the airport's certificate or limit the areas of an airport where air carriers can land or takeoff.

CHAPTER NINE

AIRPORT OPERATIONS AND SELF-INSPECTION

Learning objectives:

- The processes, procedures, and standards for the inspection of airport facilities, including, but not limited to, runways, buildings, beacons, and vehicles to determine repair or replacement needs.
- Understand federal laws and regulation regarding ownership and operations of an airport.

Reference materials:

- AC 150/5370-2G: Operational Safety on Airports During Construction (full copy)
- AC 150/5210-20A: Ground Vehicle Operations to include Taxiing or Towing an Aircraft on Airports (full copy)
- AC 150/5200-30D: Airport Field Condition Assessments and Winter Operations Safety (title page only, full copy on www.faa.gov website)
- AC 150/5210-24 - Airport Foreign Object Debris (FOD) Management (full copy)
- AC 150/5200-33C: Hazardous Wildlife Attractants on or Near Airports (full copy)
- AC 150/5200-32B: Reporting Wildlife Aircraft Strikes (full copy)
- AC 150/5200-18C: Airport Safety Self-Inspection (full copy)

Airport operations:

AC 150/5370-2G: Operational Safety on Airports during Construction

AC 150/5210-20A: Ground Vehicle Operations to include Taxiing or Towing an Aircraft on Airports

The overall responsibility for the operation of vehicles on an airport rests with the airport operator. The airport operator is also responsible for compliance with the requirements of part 139 at airports holding an airport operating certificate. Airport operators should establish procedures and policies concerning vehicle access and vehicle operation on the airside of the airport and anyone taxiing or towing aircraft. These procedures and policies should address such matters as access, vehicle operator requirements, vehicle requirements, operations, and enforcement and should be incorporated into tenant leases and agreements. Airport operators should establish consequences for non-compliance of airport rules, including penalties for violations. Tenant lease or use agreements may include these enforcement provisions.

Each bidding document, such as construction plans and/or specifications, used for development work on an airport, or for installing an air navigation facility (NAVAID), will incorporate a section on ground vehicle operations on airports during construction activity if the project is funded through the Airport Improvement Program (AIP).

AC 150/5200-30D: Airport Field Condition Assessments and Winter Operations Safety

This AC provides guidance to assist airport operators in developing a snow and ice control plan, assessing and reporting airport conditions through the utilization of the Runway Condition Assessment Matrix (RCAM), and establishing snow removal and control procedures. This AC also contains guidance on developing plans, methods, and procedures for snow and ice control equipment, materials, and removal that are acceptable to the FAA.

AC 150/5210-24 - Airport Foreign Object Debris (FOD) Management

The presence of FOD on an airport's air operations area (AOA) poses a significant threat to the safety of air travel. FOD has the potential to damage aircraft during critical phases of flight, which can lead to catastrophic loss of life and airframe, and at the very least increased maintenance and operating costs. FOD hazards can be reduced, however, through the implementation of a FOD management program and the effective use of FOD detection and removal equipment.

FOD comes from many sources, which complicates efforts to maintain safe airfield operations. FOD can be generated from personnel, airport infrastructure (pavements, lights, and signs), the environment (wildlife, snow, ice) and the equipment operating on the airfield (aircraft, airport operations vehicles, maintenance equipment, fueling trucks, other aircraft servicing equipment, and construction equipment).

AC 150/5200-33C: Hazardous Wildlife Attractants on or Near Airports

Information about the risks posed to aircraft by certain wildlife species has increased a great deal in recent years. Improved reporting, studies, documentation, and statistics clearly show that aircraft collisions with birds and other wildlife are a serious economic and public safety problem.

During the past century, wildlife-aircraft strikes have resulted in the loss of hundreds of lives worldwide, as well as billions of dollars in aircraft damage. Hazardous wildlife attractants on and near airports can jeopardize future airport expansion, making proper community land-use planning essential. This AC provides airport operators and those parties with whom they cooperate with the guidance they need to assess and address potentially hazardous wildlife attractants when locating new facilities and implementing certain land-use practice on or near public-use airports.

AC 150/5200-32B: Reporting Wildlife Aircraft Strikes

A wildlife strike has occurred when:

- ➔ A strike between wildlife and aircraft has been witnessed
- ➔ Evidence or damage from a strike has been identified on an aircraft
- ➔ Bird or other wildlife remains, whether in whole or in part, are found:
 1. Within 250 feet of a runway centerline or within 1,000 feet of a runway end unless another reason for the animal's death is identified or suspected

2. On a taxiway or anywhere else on or off the airport that you have reason to believe was the result of a strike with an aircraft. Examples might be:
 - i. A bird found in pieces from a prop strike on a taxiway.
 - ii. A carcass retrieved within 1 mile of an airport on the final approach or departure path after someone reported the bird falling out of the sky and a report of a probable wildlife strike.
- The presence of birds or other wildlife on or off the airport had a significant negative effect on a flight (i.e., aborted takeoff, aborted landing, high-speed emergency stop, or the aircraft left pavement area to avoid collision with wildlife).

This AC explains the importance of reporting collisions between aircraft and wildlife more commonly referred to as wildlife strikes. It also examines recent improvements in the FAA Bird/Other wildlife strike reporting system; how to report a wildlife strike; what happens to the wildlife strike report data; how to access the FAA National Wildlife Strike Database (NWSDB); and the FAA's Feather Identification program.

Airport self-inspections:

AC 150/5200-18C: Airport Safety Self-Inspection

While some hazardous airport conditions develop virtually instantaneously, others are gradual. It is important that the airport operator have an airport safety self-inspection program that monitors specific airport conditions in order to identify unsatisfactory conditions for prompt corrective actions.

Self-inspection is a primary responsibility of the airport owner, operator, or a duly authorized representative. The self-inspection checklist should cover, and primary attention should be given to operational items such as, pavement areas, safety areas, marking and signs, lighting, aircraft rescue and fire fighting, fueling operations, navigational aids, ground vehicles, obstructions, public protection, wildlife hazard management, construction, and snow and ice removal.

CHAPTER TEN AIRPORT MANAGERS TEST

The Airport Managers Test consists of a 25 Question, open book test. Multiple choice, T/F, matching, etc. All answers will be found in this Airport Managers Study Guide. The Airport Managers Study Guide Materials book will not be required to successfully complete the test but is available for further learning.

CHAPTER ELEVEN

DEFINITIONS/ACRONYMS

Airport Acronyms

A

A/C	Aircraft
ACFT	Aircraft
ADAP	Aircraft Development Aid Program
AF	Airway Facilities
AFB	Air Force Base
AFSS	Automated Flight Service Station
AGL	Above Ground Level
AIM	Airman's Information Manual
AIP	Airport Improvement Plan
ALS	Approach Lighting System
AMASS	Airport Movement Area Safety System
AMP	ARINC MESSAGE Processor
	Airport Master Plan
ANG	Air National Guard Base
AOA	Air Operations Area
AP	Acquisition Plan
APP	Approach
APS	Airport Planning Standard
ARFF	Aircraft Rescue and Fire Fighting
ARP	Airport Reference Point
ARSA	Airport Service Radar Area
ARSR	Air Route Surveillance Radar
ARTCC	Air Route Traffic Control Center
ARTS	Automated Radar Terminal System
ASCP	Aviation System Capacity Plan
ASOS	Automated Surface Observation System
ATA	Air Transport Association of America
ATC	Air Traffic Control
ATCCC	Air Traffic Control Command Center
ATCO	Air Taxi Commercial Operator
ATCT	Airport Traffic Control Tower
ATIS	Automated Terminal Information Service
ATISR	ATIS Recorder
AWIS	Airport Weather Information
AWOS	Automated Weather Observation System

B

BCA	Benefit/Cost Analysis
BCR	Benefit/Cost Ratio
BMP	Best Management Practices

C

CAA	Civil Aviation Authority
CAB	Civil Aeronautics Board
CGAS	Coast Guard Air Station
COE	U.S. Army Corps of Engineers
CTAF	Common Traffic Advisory Frequency

D

DEIS	Draft Environmental Impact Statement
DH	Decision Height
DME	Distance Measuring Equipment
DME/P	Precision Distance Measuring Equipment
DNL	Day – Night Equivalent Sound Level (Also called Ldn)
DOT	Department of Transportation

E

EIS	Environmental Impact Statement
ELT	Emergency Locator Transmitter
EPA	Environmental Protection Agency

F

FAA	Federal Aviation Administration
FAC	Facility
FAR	Federal Aviation Regulation
FBO	Fixed Base Operator
FCC	Federal Communications Commission
FED	Federal
FEIS	Final Environmental Impact Statement
FIRE	Fire Station
FL	Flight Level
FOIA	Freedom of Information Act
FSS	Flight Service Station
FSSA	Flight Service Station Automated Service

G

GA	General Aviation
GAA	General Aviation Activity
GADO	General Aviation District Office
GNSS	Global Navigation Satellite System
GPS	Global Positioning Satellite
GS	Glide Slope Indicator

H

HAT	Height Above Touchdown
HAZMAT	Hazardous Materials
HDQ	FAA Headquarters
HELI	Heliport
HWAS	Hazardous In – Flight Weather Advisory

I

IAP	Instrument Approach Procedures
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IMC	Instrument Meteorological Conditions
INM	Integrated Noise Model

J

K

Kbps	Kilobits Per Second
Khz	Kilohertz
KVDT	Keyboard Video Display Terminal

L

LAA	Local Airport Advisory
LF	Low Frequency
LOC	Localizer
LOI	Letter of Intent
LPV	Localizer Performance with Vertical Guidance

M

MALS	Medium Intensity Approach Lighting System
MALSF	MALS with Sequenced Flashers
MALSR	MALS with Runway Alignment Indicator Lights
MAP	Military Airport Program
MAP	Missed Approach Point
MISC	Miscellaneous
MLS	Microwave Landing System
MOA	Memorandum of Agreement
MOA	Military Operations Area
MOCA	Minimum Obstruction Clearance Altitude
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MPS	Maintenance Processor Subsystem
	Master Plan Supplement
MSL	Mean Sea Level
MVFR	Marginal Visual Flight Rules

N

NAS	National Airspace System
	Naval Air Station
NASP	National Airspace System Plan
NAVAID	Navigation Aid
NDB	Non-Directional Radio Homing Beacon
NEPA	National Environmental Policy Act
NEXRAD	Next Generation Weather Radar
NFAX	National Facsimile Service
NFDC	National Flight Data Center
NM	Nautical Mile
NOAA	National Oceanic and Atmospheric Administration
NOC	Notice of Completion
NOTAM	Notice to Airmen
NPIAS	National Plan of Integrated Airport Systems
NTP	National Transportation Policy
NTSB	National Transportation Safety Board
NWS	National Weather Service

O

OAG	Official Airline Guide
OFA	Object Free Area
OFZ	Obstacle Free Zone
OMB	Office of Management and Budget

P

PAPI	Precision Approach Path Indicator
PAR	Precision Approach Radar
PFC	Passenger Facility Charge
PHONE	Telephone
POLIC	Police Station
PUB	Publication
PVD	Plan View Display

Q

R

RAIL	Runway Alignment Indicator Lights
RAPCO	Radar Approach Control (USAF)
RAPCON	Radar Approach Control (FAA)
REIL	Runway End Identification Lights
RL	General Aviation Reliever Airport
RNAV	Area Navigation
ROD	Record of Decision
RPZ	Runway Protection Zone
RVR	Runway Visual Range
RW	Runway

S

SATCOM	Satellite Communications
SEL	Single Event Level
SHPO	State Historic Preservation Officer
SID	Station Identifier
SID	Standard Instrument Departure
SIGMET	Significant Meteorological Information
SIMMOD	Airport and Airspace Simulation Model
SIP	State Implementation Plan
SM	Statute Miles
SSALF	SSALS with Sequenced Flashers
SSALR	Simplified Short Approach Lighting System
STD	Standard
STOL	Short Takeoff and Landing
SVFR	Special Visual Flight Rules

T

TACAN	Tactical Aircraft Control and Navigation
TAF	Terminal Area Forecast
TAS	True Air Speed
TCA	Terminal Control Area
TERPS	Terminal Instrument Procedures
TH	Threshold
TL	Taxilane
TODA	Takeoff Distance Available
TORA	Take-off Run Available
TRACON	Terminal Radar Approach Control Facility
TRNG	Training
TSA	Taxiway Safety Area
TW	Taxiway
TWR	Tower (non-controlled)

U

UHF	Ultra High Frequency
URA	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
USAF	United States Air Force

V

VASI	Visual Approach Slope Indicator
VDME	VOR with Distance Measuring Equipment
VFR	Visual Flight Rules
VHF	Very High Frequency
VLF	Very Low Frequency
VMC	Visual Meteorological Conditions
VNAV	Visual Navigational Aids
VNTSC	Volpe National Transportation System Center
VOR	VHF Omnidirectional Range
VOR/DME	VHF Omnidirectional Range/Distance Measuring Equipment
VORTAC	VOR collocated with TACAN
VRS	Voice Recording System
VTOL	Vertical Takeoff and Landing

W

WAAS	Wide Area Augmentation System
WAN	Wide Area Network
WTHR	“Weather”
WX	Weather

X

Y

Z