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ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

SUBJECT: AIRPORT SAFETY SELF-INSPECTION

1. **PURPOSE.** This circular suggests functional responsibility, procedures, a checklist, and schedule for an airport safety self-inspection. This guidance can be modified as necessary to meet individual local situations. The information and suggestions in this publication serve as a basis on which each civil airport, for certification or safety inspection purposes, may develop its own self-inspection program.
2. **CANCELLATION.** AC 150/5230-1, Suggestions for Airport Safety Self-Inspection, dated 30 March 1964, is cancelled.
3. **REFERENCES.** Obtain additional copies of this advisory circular and the publications referenced below from the Department of Transportation, Distribution Unit, TAD 484.3, Washington, D.C. 20590. Copies of Federal Aviation Regulation Part 139, Volume X, may be obtained from the U. S. Government Printing Office, Washington, D.C. 20402. Make check or money order for \$4.50 payable to the Superintendent of Documents. No C.O.D. orders are accepted.
 - a. AC 150/5280-1, Airport Operations Manual.
 - b. AC 150/5340-22, Maintenance Guide for Determining Degradation and Cleaning of Centerline and Touchdown Zone Lights.
4. **DISCUSSION.** Most airports have some form of a safety self-inspection program. The safety systems used vary in scope and effectiveness from verbal instructions and unscheduled and unrecorded inspections to very comprehensive inspection programs with multiple daily schedules and widely distributed responsibilities. As of 21 May 1973, all airports regularly serving scheduled air carriers operating large aircraft must have an airport operating certificate. One of the minimum standards of Federal Aviation Regulation (FAR) Part 139 is a requirement for the operator of each certificated airport to regularly conduct a safety

self-inspection program to insure that prompt and accurate corrective action is taken to eliminate unsafe conditions on the airport. The regulation calls for the operator to:

- a. Conduct a safety inspection of the airport at least once each day unless otherwise authorized in the Airport Operations Manual.
- b. Conduct an additional safety inspection whenever required by circumstances such as rapidly changing meteorological conditions, immediately after any accident or incident, pertinent construction, or any other unusual conditions on the airport.
- c. Maintain, for at least six months, a record of each inspection indicating the conditions found and corrective action taken.

5. RESPONSIBILITIES.

- a. Safety Self-Inspection. Self-inspection is a primary responsibility of the airport owner, operator, or authorized representative. It is customary to assign the job of assuring overall airport ground safety to the airport manager or operations supervisor. At this level, primary attention is given to such operational areas as pavement areas; safety areas; marking and lighting of runways, taxiways, aprons, and thresholds; non-FAA visual approach aids; airport fire fighting and rescue equipment and service; handling and storing hazardous articles and materials; emergency plan; ground vehicles; obstructions; protection of NAVAIDS; public protection; bird hazard reduction; airport condition assessment and reporting; and identifying, marking, and reporting construction and other unserviceable areas. Inspection of areas which have been allocated to individual air carriers, fixed base operators, or other tenant users is normally made the responsibility of the user with airport management retaining overall inspection supervision.
- b. Frequency. The airport shall be inspected at least once daily unless otherwise authorized in the Airport Operations Manual. The inspection, which is normally conducted when activity is low, should include a check of all airport lighting. Some airports schedule power generator and lighting circuit resistance tests at least once a week. The scheduled use of a dated checklist will assure the regularity and thoroughness of safety inspections and follow-up.
- c. Inspection Recording. For even the smallest airport, it is desirable to use a safety self-inspection checklist which constitutes a written record of conditions noted and serves as a source of information and a check on follow-up actions taken.

This checklist can be an important administrative tool for airport management. It is most desirable to use a simple format (see example, Appendix 1) in which each inspected area of the airport complex is positively noted. Retain this checklist until indicated actions are completed but for not less than six months from date of inspection. Complex airports may use additional specialized forms such as maintenance work orders, Notice to Airmen (NOTAMs), fire station and first aid reports, etc., but the operations checklist should be the basic log indicating that operational supervisory responsibilities are being met.

6. ITEMS FOR SELF-INSPECTION.

- a. Pavement Areas. Check condition of pavement areas for erosion, ponding, sunken spots, soft shoulders, edge damming, turf growth, slipperiness, drainage, washouts, debris, cracks, sand, spalling, chuck holes, and loose gravel. If deficiencies exist, indicate contributing item and identify on a sketch. If holes are discovered, give dimension and depth. Take photographs if appropriate.
- b. Safety Areas.
 - (1) Determine if there are any ruts, depressions, humps or variations from the normal grade.
 - (2) Check to determine that no object is located in a safety area, except objects that must be maintained in safety areas because of their functions as a landing or safety aid.
 - (3) Check storm sewer system to verify that inlets are not clogged and drainage channels are free of debris.
- c. Marking and Lighting of Runways, Taxiways, Aprons, and Other Areas.
 - (1) Check that the following are operable, if installed, and that the optical systems are not obscured by vegetation or deposits of foreign material. Also, check to determine if runway lights are properly aligned.

- (a) Runway and taxiway edge lights.
- (b) Apron edge taxiway lights.
- (c) Runway centerline and touchdown zone lights. See Advisory Circular number AC 150/5340-22 entitled "Maintenance Guide for Determining Degradation and Cleaning of Centerline and Touchdown Zone Lights" for guidance.
- (d) Taxiway centerline lights.
- (e) Guidance signs.
- (f) Non-FAA visual approach aids owned by applicant; SAVASI, REILS, VASI, and MALS. The aiming of lights with adjustable optical systems should be checked for proper aiming.
- (g) Lighted wind tees and wind socks.

(2) Check that the following are operable, if installed:

- (a) Floodlights.
- (b) Rotating airport beacon.
- (c) Obstruction lights.
- (d) Lighting in fuel storage area.

(3) Report all defective lighting fixtures or outages.

(4) Determine whether runways and taxiways are properly marked and that all marking is legible.

d. Airport Fire and Rescue Equipment and Service.

- (1) Check fire and rescue equipment availability.
- (2) Determine that all required fire trucks are in operable condition and adequate crews are available.
- (3) Check communications systems for operability.

e. Handling and Storing of Hazardous Articles and Material.

- (1) Check grounding and fire protection and control of access to storage areas.
- (2) Determine if any unsafe practices are being exercised by tenant organizations.

f. Traffic and Wind Direction Indicators.

- (1) Check to determine whether these devices are operating properly or if maintenance is necessary.
- (2) When lighted, check lighting and make necessary bulb replacements.

g. Ground Vehicles.

- (1) Determine if appropriate procedures and arrangements for the orderly operations of ground vehicles are being followed.
- (2) Report any deficiencies.

h. Obstructions. Check to determine whether obstructions are properly marked and lighted.

i. Public Protection.

- (1) Check gates, fencing, locks, etc., for security.
- (2) Check for unauthorized personnel, vehicles, and animals.

j. Bird Hazard Reduction.

- (1) Check for dead birds on runways, aprons, and ramps and remove.
- (2) Report any potential hazard created by birds on or adjacent to the airport.

k. Follow-Up. Follow-up on complaints or requests for corrective action.

1. Daily Work Schedules.

- (1) Check with maintenance foreman for daily work schedules requiring the closing of aircraft operational areas or interruptions of water, electricity, or other facilities.
- (2) Notify the interested tenants and Government agencies of construction work or any other matter that may affect aircraft operations.

m. Check the following for any potential problems:

- (1) Control of passenger access.
- (2) Loading and off-loading areas.
- (3) Fueling areas.
- (4) Other areas frequented by the general public.

n. Surrounding Areas: Perform periodic inspections of the areas surrounding the airport to determine whether a structural hazard has been erected or development is taking place which may become a hazard to air operations or result in conflict between the airport and its surrounding communities or property owners.

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APPENDIX I. SUGGESTED CHECKLIST FOR AIRPORT SELF-INSPECTION

AIRPORT

Inspection _____ : _____ A.M.

Day Month Year

| <u>Condition</u> | <u>Action Taken</u> | <u>Date NOTAM Issued</u> | <u>Date Condition Corrected</u> | <u>Remarks</u> |
|------------------|---------------------|--------------------------|---------------------------------|----------------|
|------------------|---------------------|--------------------------|---------------------------------|----------------|

Pavement area

Safety areas

Marking and lighting
of runways, taxiways,
and aprons

Fire and rescue
facilities

Handling and storage
of dangerous material

Ground vehicle
control

Obstructions

Protection of
NAVAIDS

Public protection

Bird hazard
reduction

| <u>Condition</u> | <u>Action Taken</u> | <u>Date Issued</u> | <u>Date Condition Corrected</u> | <u>Remarks</u> |
|--|---------------------|--------------------|---------------------------------|----------------|
| Airport condition assessing and reporting | | | | |
| Identifying marking and reporting construction and other unserviceable areas | | | | |
| Other lights and NAVAIDS | | | | |
| Wind indicating devices | | | | |
| Standby power system | | | | |
| Updating of Notices to Airmen | | | | |
| Terminal buildings | | | | |
| Hangars | | | | |
| Other buildings | | | | |
| Miscellaneous | | | | |

Signature _____

Title _____

Date _____

NOTE: Attach airport sketch for location data. Retain for 6 months from above date. Items to inspect can be added or deleted depending upon the size and complexity of the airport.