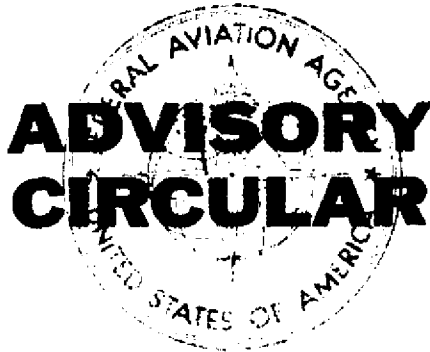


# Federal Aviation Agency



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AIRPORTS

EFFECTIVE :

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**SUBJECT :** CONSIDERATIONS FOR THE IMPROVEMENT OF AIRPORT SAFETY

1. PURPOSE. This advisory circular emphasizes that airport management should conduct self-evaluations and operational safety inspections of their airports in the interest of accident/incident prevention. It also encourages an exchange of information and suggestions to improve airport safety.
2. REFERENCES.
  - a. AC 91-9, Potential Hazards Associated with Turbojet Ground Operations.
  - b. AC 150/5200-1, Bird Hazards to Aviation.
  - c. AC 150/5200-2, Bird Strike/Incident Report Form.
  - d. AC 150/5200-3, Bird Hazards to Aircraft.
  - e. AC 150/5210-2, Airport Emergency Medical Facilities and Services.
  - f. AC 150/5210-3, Airport Emergency Operations--Aircraft Emergency.
  - g. AC 150/5230-1, Suggestions for Airport Safety Self-Inspection.
  - h. AC 150/5340-7, Marking of Deceptive, Closed, and Hazardous Areas on Airports.
  - i. AC 150/5370-2, Safety on Airports During Construction Activity.
  - j. AC 150/5380-1, Airport Maintenance.
  - k. AC 150/5380-2, Snow Removal Techniques Where In-Pavement Lighting Systems are Installed.

TOA TECHNICAL UNIT

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FOR RELEASE

3. BACKGROUND.


- a. Airport safety requires vigilance by all who have responsibility for conditions which affect aircraft operations. In a recent review of accidents and incidents, unsatisfactory conditions have been documented which show the desirability of a program of self-evaluation and operational safety inspection, safety training, and supervision at every airport. Just as pilots lose flying proficiency without continuous training and experience, airport personnel lose safety motivation and knowledge unless there is continuous re-emphasis and retraining.
- b. This advisory circular is not intended to present a categorization of or statistical report of aircraft accidents and incidents that have occurred on or adjacent to civil airports. A random sampling of all types of aircraft accidents and incidents has been reviewed and various areas have been noted where airport owners and operators, through a diligent self-inspection program, could eliminate many ground hazards at a relatively low cost. The estimated cost of property damage, as a result of the aircraft ground accidents reviewed, warrants serious and continuing attention by airport management.
- c. The following listing describes some of the accidents/incidents which might have been prevented through a program of systematic hazard identification and correction:
  - (1) Aircraft collided with snowbanks on runways, taxiways, and other areas.
  - (2) Aircraft, while on final approaches, collided with pole-lines, wires, trees, and other obstructions. In another case an aircraft collided with a truck parked improperly in the approach area.
  - (3) Aircraft, during taxi, takeoff, and landing, collided with unmarked ditches, holes, dikes, cement supporting bases for runway lights, and other obstructions.
  - (4) Aircraft collided with animals, such as cows and deer, on the runway.
  - (5) Aircraft encountered near misses with unauthorized vehicles on active runways when landing and taking off.

- (6) Aircraft were struck by birds and suffered extensive damage. In one case a bird strike caused propeller failure during aircraft climb to cruise. In another case an aircraft encountered a flock of birds on landing which caused a shattering of windshield panels.
- (7) Aircraft landing gear collapsed due to soft shoulders and rough, uneven terrain on airports.
- (8) Aircraft overran the ends and swerved off edges of runways due in part to ice, snow, water and slush on the runways.
- (9) Aircraft were damaged by colliding with eroded runway lips.
- (10) Ground personnel were killed and injured by aircraft jet blasts and propellers.

#### 4. SUGGESTED ACTION.

- a. It is strongly urged that airport operators establish procedures for continuous self-evaluation and operational safety inspections. Airport users also should be encouraged to be alert for and report to airport management potentially hazardous conditions. An analysis of the causes of accidents/incidents listed in paragraph 3c suggests the following general categories in which emphasis on elimination, improvement, or education should be placed:
  - (1) Hazards created due to weather conditions, such as snow, ice, and slush on or adjacent to runways, taxiways, and aprons.
  - (2) Obstacles in primary and transition surfaces and in approach, takeoff, taxi, and apron areas.
  - (3) Public protection.
  - (4) Hazards created by erosion, broken surfaces, and holes on runways, taxiways, and aprons.
  - (5) Hazards occurring on airports during construction activity, such as holes, ditches, obstacles, etc.
  - (6) Bird hazards on or adjacent to airports.
  - (7) Inadequate maintenance personnel or equipment.

- b. A review of the publications referenced in paragraph 2 should prove helpful to airport management in establishing and improving existing safety programs at airports. The Agency realizes that airport owners and operators are desirous of providing safe airports and many already have devised methods and procedures to improve safety. The Agency would like to receive, on a voluntary basis, any such ideas for improving airport safety. Information of this nature may prove beneficial to other airport operators and to the aviation community as a whole. The Agency plans to circulate those items that show greatest promise for significantly improving airport safety. Submit this information in narrative format to the Federal Aviation Agency, Airports Service, Attention: AS-570, Washington, D.C. 20553.
5. HOW TO OBTAIN THE REFERENCED CIRCULARS AND THIS PUBLICATION. Copies of the referenced circulars and additional copies of this advisory circular, AC 150/5200-5, Considerations for the Improvement of Airport Safety, may be obtained from the Federal Aviation Agency, Distribution Unit, HQ-438, Washington, D.C. 20553.



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