Chapter 13. NASA Airfield Operations

13.1 General Requirements

13.1.1 A Center shall not operate an airfield (or helicopter landing area) unless the Center adopts and complies with an Airfield Operations Manual in accordance with Section 13.2 of this NPR. [426]

13.1.2 Each Center operating an airfield shall ensure that the FAA Regional Airports Division Manager is provided a complete copy of the Center's most current Airfield Operations Manual. [427]

13.1.3 Centers providing access to their airfield to the general public for aircraft operations conducted under civil regulations shall identify all deviations and non-compliance from 14 C.F.R. 139 and provide this information to the Office of Infrastructure and Administration for approval. [428] This information also will be provided to all aircraft operators using the airfield.

13.1.4 Centers will establish and maintain a Pre-Mishap Plan/Aircraft Incident Response Plan in accordance with NPR 8621.1, NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping, that meets the following requirements:

13.1.4.1 Each Center shall develop and maintain an airfield emergency plan designed to minimize the possibility and extent of personal injury and property damage on the airfield in an emergency. [429]

13.1.4.2 Each Center shall coordinate the plan with law enforcement agencies, rescue and firefighting agencies, medical personnel and organizations, the principal tenants at the airfield, and all other persons who have responsibilities under the plan. [430]

13.1.4.3 At least once every 12 consecutive calendar months, review the plan with all the
parties with whom the plan is coordinated, as specified in this NPR, to ensure that all parties know their responsibilities and to ensure that all information in the plan is current. [431]

13.1.4.4 Each Center shall hold a full-scale airfield emergency plan exercise at least once every 24 consecutive calendar months. [432]

13.1.5 Centers shall conduct training needed to meet the following requirements:

a. Providing sufficient and qualified personnel to comply with the requirements of this NPR.
b. Equipping personnel with sufficient resources to comply with the requirements of this NPR.
c. Training all personnel who access movement areas and safety areas and perform duties in compliance with the requirements of the Airfield Operations Manual and the requirements of this NPR. [433]

13.1.5.1 This training will be completed prior to the initial performance of such duties and at least once every 12 consecutive calendar months.

13.1.6 All NASA Centers operating airfields or aircraft ramp areas shall conduct a Pavement Condition Index (PCI) survey at least once every five years. [434]

13.1.7 Airfield condition reporting shall be conducted in a manner authorized by the Center Director and meet the following requirements: [435]

a. Provide for the collection and dissemination of airfield condition information to aircraft operators including alerts on bird and other wildlife activity.
b. Use the Notices to Airmen (NOTAM) system, as appropriate, and other systems and procedures authorized by the FAA.
c. Provide information on the following airfield conditions that may affect the safe operations of aircraft:

1. Construction or maintenance activity on movement areas, safety areas, or loading ramps and parking areas.
2. Surface irregularities on movement areas, safety areas, or loading ramps and parking areas.
3. Snow, ice, slush, or water on the movement area or loading ramps and parking areas.
4. Snow piled or drifted on or near movement areas.
5. Objects on the movement area or safety areas.
6. Malfunction of any lighting system, holding position signs, or Instrument Landing System (ILS) critical area signs.
7. Unresolved wildlife hazards.
8. Non-availability of any rescue and firefighting capability required.
9. Any other condition specified in the Airfield Certification Manual or that may otherwise adversely affect the safe operation of aircraft.
10. Procedures for identifying, marking, and lighting construction and other unserviceable areas.
11. Any other item that the Center Director finds is necessary to ensure safety in airfield operations.

13.2 Contents of Airfield Operations Manual
13.2.1 Each Center shall maintain an Airfield Operations Manual that includes descriptions of operating procedures, facilities and equipment, responsibility assignments, and any other information needed by personnel concerned with operating the airfield. [436] Federal Aviation Regulations, FAA Advisory Circulars, and National Fire Protection Association (NFPA) standards contain acceptable methods and procedures for the development of a Center Airfield Operations Manual.

13.2.2 Each Center shall include in the Airfield Operations Manual the following required elements: [437]

a. Lines of succession of airfield operational responsibility.

b. Copies of current waivers, variances, or deviations issued to the airfield.

c. Any limitations imposed by the Administrator.

d. A grid map or other means of identifying locations and terrain features on and around the airfield that are significant to emergency operations.

e. The location of each obstruction within the airfield's area of authority required to be lighted or marked.

f. A description of all movement areas available for civil and public aircraft operators and the airfield's safety areas, and all roads that serve them.

g. Procedures for avoidance of interruption or failure during construction work of utilities that serve facilities or NAVAIDS that support aircraft operations.

h. A description of airfield personnel training detailed in section 13.1.5.

i. Procedures for maintaining paved areas.

j. Procedures for maintaining unpaved areas.

k. Procedures for maintaining safety areas.

l. A plan showing the runway and taxiway identification system, including the location and inscription of signs, runway markings, and holding position markings.

m. A description of marking, signs, and lighting systems, and procedures for maintaining them.

n. A snow and ice control plan. Prompt notification will be given to all aircraft operators using the airfield when any portion of the movement area is less than satisfactorily cleared for safe operation of their aircraft.

o. A description of the facilities, equipment, personnel, and procedures for meeting the aircraft rescue and firefighting requirements detailed in section 13.3

p. Procedures for protecting persons and property during storing, dispensing, and handling fuel or other hazardous substances and materials.

q. A description of traffic and wind direction indicators and procedures for maintaining them.

r. The Pre-Mishap Plan/Aircraft Incident Response Plan as specified in section 13.1.4.

s. Procedures for conducting a biennial self-inspection program.

t. Procedures for controlling pedestrians and ground vehicles in movement areas and safety areas.

u. Procedures for obstruction removal, marking, or lighting.
v. Procedures for protection of NAVAIDS.

w. A description of public protection.

x. Procedures for wildlife hazard management as specified in section 13.4.

y. Airfield condition reporting procedures as specified in section 13.1.6.

13.3 Safety and Emergency Requirements

13.3.1 Centers will provide and maintain facilities, equipment, personnel, and procedures for meeting the aircraft rescue and firefighting requirements in accordance with NPR 8715.3, NASA General Safety Program Requirements, and NASA-STD-8719.11, Safety Standard for Fire Protection, for the capacity of aircraft and the level of aircraft operations being conducted at the airfield.

13.3.1.1 Each Center shall provide on the airfield, during aircraft operations at the airfield, at least the rescue and firefighting capability specified for the level of operations. [438]

13.3.1.2 In the event that fire protection is temporarily not available due to lack of personnel, equipment, or other emergencies, the Center must establish procedures to restrict the use of the airfield and notify aircraft operators of the temporary suspension of airfield operations.

13.3.1.3 All rescue and firefighting personnel shall participate in at least one live-fire drill prior to initial performance of rescue and firefighting duties and every 12 consecutive calendar months thereafter. [439]

13.4 Wildlife Hazard Management

13.4.1 Each Center shall take immediate action to eliminate wildlife hazards whenever they are detected. [440]

13.4.2 Each Center shall ensure that a wildlife hazard assessment is conducted by a wildlife damage management biologist who has professional training and/or experience in wildlife hazard management at airfields or an individual working under direct supervision of such an individual. [441]

13.4.3 Each Center shall conduct a training program by a qualified wildlife damage management biologist to provide airfield personnel with the knowledge and skills needed to successfully carry out the wildlife hazard management plan required by this chapter. [442]

13.4.4 Each Center shall track and report all bird strikes and other wildlife strikes either in the Incident Reporting Information System (IRIS) or the NASA Aircraft Anomaly Reporting System (NAARS) in accordance with NPR 8621.1. [443]

13.4.5 Each Center shall conduct a periodic review of the bird hazard using a team similar to the U.S. Air Force Bird/Wildlife Aircraft Strike Hazard (BASH) team. [444]

13.4.6 Each Center shall develop a wildlife hazard management plan using the wildlife hazard assessment as a basis. [445] The plan will:

a. Provide measures to eliminate wildlife hazards to aircraft operations.


c. Include a list of the individuals having authority and responsibility for implementing each aspect of the plan.

d. Include a list prioritizing the actions in table 13-1 identified in the wildlife hazard assessment
and specifying target dates for their initiation and completion.

e. Provide procedures to review and evaluate the wildlife hazard management plan every 12 consecutive months or following an event described in this section, including the plan's effectiveness in dealing with known wildlife hazards on and in the airfield's vicinity and aspects of the wildlife hazards described in the wildlife hazard assessment that should be reevaluated.

1. Wildlife population management.

2. Habitat modification.

3. Land use changes.

4. Requirements for and, where applicable, copies of local, State, and Federal wildlife control permits.

5. Identification of resources that the Center will provide to implement the plan.

6. Procedures to be followed during aircraft operations that, at a minimum, include:

   (a) Provisions to conduct physical inspections of the aircraft movement areas and other areas critical to successfully manage known wildlife hazards before air carrier operations begin.

   (b) Wildlife hazard control measures.

   (c) Methods to communicate effectively between personnel conducting wildlife control or observing wildlife hazards and the air traffic control tower.

   (d) Methods for the air traffic control tower to communicate with and provide alerts to aircraft operating in the vicinity of the airfield of wildlife hazards and conditions.

   (e) Establishing bird watch conditions to alert crews of the level of potential bird activity.

   (f) A standard field brief for all users to view and sign, acknowledging all field operating procedures and hazards at the airfield and local flying area.

Table 13-1 Wildlife Hazard Assessment

13.5 Noncomplying Conditions

13.5.1 Unless otherwise authorized by the Center Director or the FAA (in the case of civil aircraft operations), whenever the requirements of this NPR cannot be met to the extent that uncorrected, unsafe conditions exist on the airfield, the Center shall limit aircraft operations to those portions of the airfield not rendered unsafe by those conditions. [446]

13.6 Deviations

13.6.1 In emergency conditions requiring immediate action for the protection of life or property,
the Center may deviate from any requirement of this NPR or the Airfield Operations Manual to the extent required for the emergency. Each Center that deviates from a requirement under this section shall, within 14 days after the emergency, notify HQ AMD of the nature, extent, and duration of the deviation. [447] All events will be reported in accordance with the criteria and IRIS procedures in NPR 8621.1.