

Chapter 9 – Aviation Safety (REDACTED)

9.1 Purpose

This chapter provides the safety requirements and responsibilities that govern the safe operation of Ames aircraft in flight and on the ground. The purpose of this chapter is to provide guidance to protect Ames aircraft assets and ensure the safety of aviation personnel employed by or working at Ames Research Center (ARC).

9.2 Applicability

This manual is applicable to: (1) all Ames Employees; and (2) all persons and entities who agree in writing to comply with this manual.

9.3 Authority

All NASA aviation safety programs shall follow the applicable guidelines for each respective flight activity set forth in chapter 7 of NHB 1700.1 (V1-B), "NASA Safety Policy and Requirements Document;" NPG 7900.3 (V1), "Aircraft Operations Management Manual;" and NPG 7900.3 (V2), "Mission Management and Aircraft Operations Manual."

Additional documents that address aviation safety include AMM 1740-1, "Airworthiness and Flight Safety Reviews," which establishes airworthiness and flight safety review requirements that are commensurate with the degree of risk involved and AHB 1740-2, "Outline for Airworthiness and Flight Safety Reviews," which sets out the schedule and outline format for preliminary, design, and operational airworthiness and flight safety reviews.

Safety requirements in this chapter stem primarily from AHB 6530-1, "Flight Operations Manual," which addresses the safety of aircraft in flight and on the ground and AHB 6540-1, "Aircraft Maintenance and Inspection Manual," which addresses the safety requirements for the maintenance and inspection of aircraft. Aircraft accident/incident notification and reporting procedures are found in AHB 1710-1, "Aircraft Operations Division Pre-Accident Plan," and crash rescue procedures for assigned aircraft are set out in AHB 1786-1, "Crash Rescue and Survival Handbook."

9.4 Responsibilities & Requirements

9.4.1 Center Management

1. Ensure that an aviation safety program that meets applicable NASA requirements is in place.
2. Allocate aviation resources to meet objectives/programs safely, promulgate safety awareness, conduct mishap investigations, and develop/implement corrective actions.
3. Appoint a Mishap Investigation Board for all Type A mishaps that involve aircraft.
4. Attend or send a representative to selected program Airworthiness and Flight Safety Reviews.
5. Appoint the Aviation Safety Officer (ASO).

6. Ensure that current policies/procedures that address safety in flight, flight test, airfield, and aircraft operations are in place.

9.4.2 Aviation Safety Officer

1. Foster aviation safety measures and use all resources available to promote mishap prevention.
2. Assist with aircraft mishap investigation.
3. Attend all Airworthiness and Flight Safety Reviews.

9.4.3 Safety Division (Code QH)

The Safety Division, Code QH, responsibilities are listed in Chapter 2, "Safety and Health Responsibility." Specific responsibilities include:

1. Support the periodic revision of this chapter.
2. Assist with the identification, evaluation, and control of ground safety hazards.
3. Perform safety surveys, at least annually, in all NASA facilities, including those that house aircraft.
4. Provide assistance, as requested, to mishap investigations.

9.4.4 Aviation Personnel

Aviation personnel include ground crews, support staff, researchers, and pilots.

1. Determine and observe the safety requirements for the work being performed.
2. Report any potential or obvious safety hazard to management.
3. Use specified personal protective equipment (PPE).
4. Do not use damaged equipment that could pose a hazard.
5. Take all required safety training and adhere to all medical monitoring protocols.

9.4.5 Aviation Safety Subcommittees

The two Aviation Safety Subcommittees are:

- The Aircraft and Ground Safety Subcommittee is responsible for reviewing ground operations of aircraft to detect and reduce safety hazards to persons, aircraft, and ground support equipment. The scope of committee activities includes hangar and ramp safety, personnel activities, and employment of equipment in support of aircraft operations.
- The Aviation Management Office is responsible for the review of the safety aspects of pilot training and proficiency requirements and flight procedures and practices.

The coordination and integration of these two subcommittees is provided by the Aviation Safety Officer, who chairs them both. Responsibilities for the committees include:

1. Attend all Airworthiness and Flight Safety Reviews.
2. Identify and evaluate hazards that impact flight and ground safety.
3. When hazards are identified, implement the necessary safety controls.
4. Ensure that personnel are trained and have adequate skills to perform their work safely.
5. Resolve safety issues reported by workers.
6. Maintain documentation of hazard assessments, mishap reports, and personnel training.

7. Utilize ARC safety resources as needed to fulfill safety responsibilities.
8. Perform periodic visual inspections of work areas to ensure that safety controls are in place, are being used, and are effective.

9.5 Airworthiness & Flight Safety Reviews

It is Ames policy, as expressed in AMM 1740-1, "Airworthiness and Flight Safety Reviews," to establish airworthiness and flight safety review requirements that are commensurate with the degree of risk involved as applied to acceptance or modification of Center aircraft, changes in flight envelopes or operations procedures, and the performance of missions. AHB 1740-2, "Outline for Airworthiness and Flight Safety Reviews," sets out the schedule and outline format for preliminary, design, and operational airworthiness and flight safety reviews that may be required for projects that involve the use, modification, design, or fabrication of existing and proposed Center aircraft. At the discretion of the Chairman of the Airworthiness and Flight Safety Review Board (AFSRB), one or more of these reviews may be required. The Chairman determines the need for reviews and the extent of them on the basis of Aircraft Flight Project Requests submitted by cognizant project personnel in accordance with the provisions of AMM 1740-1.

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