



United States Department of the Interior

BUREAU OF INDIAN AFFAIRS  
WASHINGTON, D.C. 20245

*Master*

IN REPLY REFER TO:

Forestry  
Code 231

59 BIAM Supp. 1, Release 1  
September 6, 1988

Memorandum

To: Holders of 59 BIAM  
From: Deputy to the Assistant Secretary - Indian Affairs (Operations)  
Subject: Aviation Safety

This release establishes the Bureau's Aviation Safety program. Included are requirements for inspecting, investigating and reporting on various aviation related activities. This release establishes Supplement 1 to 59 BIAM.

Deputy to the Assistant Secretary -  
Indian Affairs (Operations)

Filing Instructions:

(a) Remove superseded material:  
None

(b) Insert new material transmitted:

59 BIAM Supp. 1, Release 1, Dated 09/06/88:	Total	13 Sheets
59 BIAM Supp. 1, Table of Contents & Transmittal		( 2 sheets)
59 BIAM Supp. 1, Sections 1.1 - 10.1		(11 sheets)

(c) Pen-and-ink changes:  
None.

---

**AVIATION SAFETY**  
**Table of Contents**

---

0. TABLE OF CONTENTS

1. General

- .1 Policy and Scope
- .2 Authority
- .3 Responsibility
  - A. Assistant Secretary - Indian Affairs
  - B. Area Director
  - C. Superintendent

2. Federal Regulations

- .1 Federal Aviation Regulations (FAR's)
- .2 Department of the Interior Regulations
- .3 Bureau of Indian Affairs Regulations

3. Accident Prevention

- .1 Accident Prevention
- .2 Management Responsibilities
- .3 Safety Management Surveys
- .4 Safety Awards Program
- .5 Pilot Carding
- .6 Aircraft Carding

4. Accident Investigation

- .1 Accident Investigation
  - A. Aircraft Accident/Incident Investigations
  - B. Administrative Investigations
- .2 Investigation Team
- .3 Confidentiality
- .4 Reports
- .5 Follow-up

5. Accident Reporting

- .1 Accidents
- .2 Incident/Malfunction Report
- .3 Overdue Flights
- .4 Reports

993 11 1000 1

REL 1 9\*6 33

---

**AVIATION SAFETY**  
**Table of Contents**

---

6. Inspections
  - .1 Safety Inspections
    - A. Annual Inspection
    - B. Unscheduled Inspections
    - C. Department of the Interior Inspections
    - D. Historical Data Trends
7. Flight Operations
  - .1 Standard Operating Procedures
8. Flight Following Procedures
9. Transportation of Hazardous Materials
10. Air Space Closure/Military Training Routes

Note: It is the responsibility of each Area or Agency Aviation Manager to have and keep current all reference publications i.e., Departmental Manuals (DM's), Operational Procedures Memoranda (OPM's), Handbooks, Information Bulletins (IB's), Federal Aviation Regulations (FAR's), 59 BIAM and Safety Supplement.

---

**AVIATION SAFETY**  
**General**

---

**1. GENERAL**

1.1 Policy and Scope. The policy of the Bureau of Indian Affairs is that safety in aviation is an attitude that must be set forth from the highest managerial position to the lowest working level involved in aviation operations. It cannot be legislated, therefore, this Aviation Safety Manual is a guide to provide a source of information and instruction to all Bureau personnel relative to policies and procedures concerning aviation safety.

1.2 Authority. Authority is provided by law for programs to prevent accidents and incidents involving people and property, reduce injuries and encourage safe practices in the aviation work environment (See 5 U.S.C. 7902; Sections 6 and 19 of Public Law 91-596, Occupational Safety and Health Act of 1970 as Amended; 29 U.S.C. 651, et. seq., 29 CFR 1960; and Executive Order 12196.) The authority for the establishment of this program by the Director, Office of Aircraft Services (OAS), is stated in Department of the Interior Manual 110 DM 19 and further defined in 350 DM 1, Appendix 1; and 485 DM 1.

1.3 Responsibility. Managers and supervisors at all levels within the BIA are responsible for ensuring compliance with aviation safety standards and regulations.

A. Assistant Secretary - Indian Affairs. The Assistant Secretary through the Deputy to the Assistant Secretary - Indian Affairs (Trust and Economic Development) is responsible for an active and effective aircraft accident prevention program; this responsibility is delegated through established organization structure to the following:

(1) National Aviation Program Specialist. The National Aviation Program Specialist, Boise Interagency Fire Center (BIFC) develops management policy and guidelines for review and approval of the Assistant Secretary, as well as providing technical assistance to BIA Areas/Agencies.

B. Area Director. Area Directors are responsible for all aviation operations within their respective Area of jurisdiction. Each Area Director will designate an individual to function as Area Aviation Officer/Aviation Safety Officer. (See 59 BIAM)

(1) Area Aviation Officers. The Area Aviation Officers (may be collateral duties) are responsible for the coordination of all Area aviation activities within the Area's jurisdiction. This responsibility includes:

(a) Acting as primary contact for Area aviation activities.

59 BIAM Supp 1  
REL 1 9.6.88

**AVIATION SAFETY**  
**General**

- (b) Developing and recommending Area Aviation planning for aircraft utilization.
- (c) Conducting Agency Aviation Program reviews.
- (d) Participating in aviation accident investigation.
- (e) Developing aviation related training.
- (f) Serving as COAR on Area aviation related contracts.
- (g) Serving as principal staff and technical expert for the Area Aviation Program.

C. **Superintendent.** Superintendents are responsible for planning and conducting all aviation activities within their jurisdictional area to include Aviation Safety. Each agency utilizing aircraft and/or aircraft services will appoint an Agency Aviation Officer.

(1) **Agency Aviation Officer.** Agency Aviation Officers will be responsible within their respective agency and will be the focal point for guidance and technical expertise in all facets of the Aviation Program to include safety. This guidance will be in concert with and under the wide spectrum management of the National Aviation Program.

(2) **Project Inspector.** Project Inspector (PI) is the on-site aircraft supervisor/coordinator. The PI can fulfill this role or he/she may assign this responsibility as workload dictates. The PI will be responsible for insuring that all precautions are taken to protect lives and equipment.

(3) **Aircraft Dispatcher.** Aircraft Dispatcher, if appropriate, is responsible for obtaining aircraft, maintaining current OAS aircraft source lists, scheduling, flight following and economic analysis of planned flights.

(4) **Bureau of Indian Affairs (BIA) Employees.** All BIA employees are charged with the responsibility of conducting their individual actions in a manner which will enhance mission accomplishment in the safest possible way.

(5) **Pilots**

- |                              |            |
|------------------------------|------------|
| (a) Professional (BIA)       | (350 DM 5) |
| (b) Commercial               | (350 DM 5) |
| (c) Dual Function/Incidental | (350 DM 5) |
| (d) Co-Pilots                | (350 DM 5) |

59 BIAM SUPP. 1

REL. 1 9-6-88

---

AVIATION SAFETY  
Federal Regulations

---

2. FEDERAL REGULATIONS

2.1 Federal Aviation Regulations (FAR's).

2.2 Department of the Interior Regulations.

- A. Departmental Manual (350 - 354)
- B. Operational Procedures Memoranda (OPM's)
- C. Handbooks

2.3 Bureau of Indian Affairs Regulations.

- A. Aviation Management Manual
- B. Aviation Safety Supplement 1
- C. Area Manual Supplement
- D. Handbooks

---

AVIATION SAFETY  
Accident Prevention

---

3. ACCIDENT PREVENTION

3.1 Accident Prevention. Programs will be established as authorized in 350 DM 1, Appendix 1, Section II B.6 and will incorporate the elements as outlined in Part 352 Aviation Safety.

A. Aviation Accident Prevention Program. Area/Agency will, as a minimum, incorporate the following critical elements into their accident prevention programs/plans. (Part 352 Aviation Safety)

B. Mission/Project Planning. (350 DM 3 or 351 DM 6 as appropriate).

C. Wire Strike. Bureau missions often dictate that flights be conducted in close proximity to the ground where wires are most prevalent. To reduce wire strike potential, it is critical that a low-level risk assessment be conducted prior to all such flights. All preplanned low-level flights will require a thorough map reconnaissance of the route to be flown. It is mandatory that a low-level flight hazard map be constructed for the local operational area, as illustrated in the OAS "Aircraft Pre-Accident Plan and Hazard Map Instructions" available from OAS. Managers must be made aware of the associated risk and make a conscious decision to accept those risks. (352 DM 1, 2, and 6)

D. Environmental Considerations. Environmental conditions are those conditions over which there is no human control.

E. Cause Factors. Cause factors are under human control and can be eliminated. A cause factor could be an inadequate forecast, improper severe weather operating procedure or improper load calculations. Severe weather itself is not a cause factor.

F. Aviation Life Support Equipment (ALSE). Refers to and encompasses the entire array of personal protective equipment (PPE). (350 DM 3.9E)

G. Flight Following. Flight Plans are required for each flight within Department of the Interior (DOI) (351 DM) and the procedures as specified in 351 DM 1.3 will be strictly adhered to.

59 BIAM SUPP. 1  
REL. 1 9.6 85

---

**AVIATION SAFETY**  
**Accident Prevention**

---

H. Load Calculations. It is mandatory that the proper consideration and planning be given to the aircraft weight and balance computation and subsequent loading. Applicable data from aircraft flight manuals will be utilized to calculate proper loading relative to environmental and aircraft performance capabilities. This is appropriate for all aircraft but particularly for helicopters when operations are to be conducted at high elevations, unimproved helispots, moderate to high ambient temperatures, high gross weight loads or any combination of these factors.

3.2 Management Responsibilities. Managers at all Bureau levels will implement an Aviation Safety Program as specified in Departmental Manual, Part 352, Aviation Safety, Chapters 1, 2, and 6, and OAS Operational Procedures Memoranda as appropriate.

3.3 Safety Management Surveys. A Department of the Interior (DOI) Safety Management Survey will be conducted at least every three years. Area Air Officers will plan the survey to be accomplished during one of the OAS scheduled visits such as the state vendor renewal program, aircraft prework, conference, etc.

3.4 Safety Awards Program. A Safety Awards Program will be established in accordance with Part 352 Aviation Safety.

3.5 Pilot Carding. Pilot carding will be accomplished in accordance with 350 DM 3.

3.6 Aircraft Carding. Aircraft carding will be accomplished in accordance with 351 DM 4.

59 BIAM SUPP 1  
REL. 1 9 6 88



---

AVIATION SAFETY  
Accident Investigation

---

4. ACCIDENT INVESTIGATION

4.1 Accident Investigation. The Office of Aircraft Services (OAS) is responsible for investigating all accidents/incidents involving aircraft under the control of the BIA. In all cases, the Bureau will have a qualified accident investigator as a board member or representative.

A. Aircraft Accident/Incident Investigations. The Bureau will provide technical representation on accident/incident investigations. These investigations are highly technical in nature and comprise a systematic examination designed to disclose all relevant facts, analyze the acquired information, and develop recommendations to prevent recurrence of similar accidents. Aviation Specialists participating in aircraft accident investigations shall have had extensive training in this field.

B. Administrative Investigations. Not all investigative needs relating to a particular accident are technical. It is essential that Area/Agency offices provide for an administrative investigation of events leading up to a major aircraft accident. Such investigations are not to coincide or be a part of the OAS and/or Bureau's technical investigation. Administrative investigations should include, but not be limited to:

(1) Determining management involvement in planning of aircraft use.

(2) Reviewing policy, guidelines, and procedures relating to aircraft use and safety.

(3) Determining if the training levels of key personnel are at an acceptable level.

(4) Reviewing adequacy of communication throughout the chain of command.

(5) Examining the attitude of personnel involved toward procedures and guidelines.

(6) Reviewing areas of special concern that may have a direct or indirect bearing on the aircraft accident/incident such as authorization procedures, aircraft use guidelines, aircraft tracking, accident reporting, fatality reporting procedures, and release to the media.

(7) Determining if air operations were conducted in accordance with applicable DOI and BIA rules and regulations.

---

AVIATION SAFETY  
Accident Investigation

---

4.2 Investigation Team. The complexity of the accident will be the determining factor in selecting the number and type of investigators needed, e.g., medical, mechanical, rated pilot, etc. Investigators will be selected from outside and impartial organizations.

4.3 Confidentiality. No one will provide information involving serious injuries or death to any person other than to a responsible authority. All information shall be kept absolutely confidential pending notification of immediate family members.

4.4 Reports. Provisions as established in 352 DM 6.5 apply to accident/incident reporting that involve Bureau owned or operated aircraft, contract aircraft, offer-for-hire aircraft, and those aircraft operated by incidental pilots.

4.5 Follow-up. Data from accidents/incidents will be reviewed for causal factors and recommendations prepared for aircraft accident prevention efforts. This shall be accomplished by the Area Aviation Officer within 90 days of the accident/incident. (Also see 352 DM 6.7C)

59 BIAM SUPP 1  
REL 1 9 6 88

---

AVIATION SAFETY  
Accident Reporting

---

5. ACCIDENT REPORTING. (352 DM 6)

5.1 Accidents. When an aircraft accident or an aircraft ground mishap causing substantial damage has occurred the person or persons in the aircraft or witnessing the mishap will, by the most expeditious means available, notify the Agency Superintendent, Area Director, OAS and/or the National Aviation Program Specialist. Missing and abandoned aircraft are reported in the same way. (352 DM 6)

5.2 Incident/Malfunction Report. All incidents or malfunctions will be reported on Aircraft Accident Report Form OAS-34. This report will be reviewed by the Area Aviation Officer and appropriate copies sent to OAS with a copy to the National Aviation Program Manager, BIFC. (Note additional reports are required for injuries or fatalities.) (352 DM 6)

5.3 Overdue Flights. All Area/Agency Aviation Plans are to include a section pertaining to procedures dealing with aircraft overdue on a flight. (352 DM 6.4A(4))

5.4 Reports. Provisions as established in 352 DM 4 apply to accidents/incidents reporting that involve Bureau owned or operated aircraft, contract aircraft, offer-for-hire aircraft, or aircraft operated by incidental pilots.

A. Aviation Hazard Report Program will be in accordance with 485 DM 5 and reported on Form OAS-34A.

59 BIAM SUPP 1  
REL 1 9 6 88

---

AVIATION SAFETY  
Inspections

---

6. INSPECTIONS

6.1 Safety Inspections. Department of the Interior policy defining General Safety Inspections is found in Part 352 Aviation Safety, Chapters 1, 2, 6 and 110 DM 19 and further defined in 350 DM 1, Appendix 1; and 485 DM 1.

A. Annual Inspection. Annual inspections and/or reviews will be scheduled by Area Aviation Officers. Inspections or reviews can cover an entire Area or specific location such as an airfield, helibase.

B. Unscheduled Inspections. Unscheduled inspections will be accomplished by Area Aviation Officer any time that there is a violation of Air Safety Rules or Regulations.

C. Department of the Interior Inspections. Department of the Interior Inspections will be conducted upon request by the Area Director, Area Aviation Officer or the National Aviation Program Specialist.

D. Historical Data Trends. Each Area Office will maintain a file on accidents, incidents and hazards. See Part 352 Aviation Safety.

---

AVIATION SAFETY  
Flight Operations

---

7. FLIGHT OPERATIONS

7.1 Standard Operating Procedures (SOP). All Areas operating Bureau owned, leased, or bailed aircraft will have an Aircraft Standard Operating Procedures Handbook for all aircraft operations. This SOP will be in accordance with applicable DM's, OPM's, or Handbooks and include discussion on the activities/uses listed below. Development of this handbook will be a joint effort between Area Aviation Offices, Agency focal points and the National Aviation Program Specialist.

NOTE: Pilots are to be reminded that they must say "no" to flight requests or conditions that are unsafe.

A. Flight Safety. Flight safety is a matter of risk management. Aviation managers at all levels must objectively assess the degree of risk without getting emotionally involved in the mission or any possible accident. The medium for accomplishing this is through intelligent assessment and elimination of risk and hazards before the accident occurs. The responsibility of risk management therefore is placed with the National, Area and Agency aviation managers to be the decision makers if we are to have an intelligent and orderly method of addressing flight and ground safety. It follows that if aviation managers do not make these critical safety decisions, those with lesser knowledge and experience will be forced into this position.

B. Fixed Wing. (351 DM 1.6 Single Engine, 351 DM 1.7 Multi-Engine)

C. Rotary Wing. (351 DM 1.8)

D. Pilot Deviation. (FAR 91.3)

E. Aircraft Maintenance. (351 DM 4)

F. Smoking. During flight, smoking will be at the pilots discretion but prohibited on takeoff and landing. No smoking will be allowed within 100 feet of any aircraft or fueling facility.

G. Helicopter Load Calculations. (59 BIAM Operations 4.1F.)

H. Special Use Aircraft. (350 DM 3.9 and 6.4, Standards for Utilization of Aircarrier Commercial Operations.)

I. Personal Protective Equipment. (PPE) (351 DM 6.4E)

59 BIAM SUPP 1  
REL 1 9 6 85

---

**AVIATION SAFETY**  
**Flight Operations**

---

- J. Fuel Handling. (351 DM Aviation Fuel Handling Handbook)
- K. Summer Operations. Summer operations will be conducted in accordance with applicable FAR's DMs, OPMs, Handbooks and Certificate of Contractor. In-house operations will be in accordance with Local Aviation SOP, DMs, OPMs, Handbooks and BIA Aviation Management Manual and Safety Supplement.
- L. Winter Operations. Winter operations will be conducted in accordance with applicable FAR's DMs, OPMs, Handbooks and Certificate of Contractor. In-house operations will be in accordance with Local Aviation SOP, DM's, OPM's, Handbooks and BIA Aviation Management Manual and Safety Supplement.
- M. Mountain Operations. Mountain operations will be conducted in accordance with applicable FAR's DMs, OPMs, Handbooks and Certificate of Contractor. In-house operations will be in accordance with Local Aviation SOP, DM's, OPM's, Handbooks and BIA Aviation Management Manual and Safety Supplement.
- N. Weather Operations. Flight weather operations will be conducted in accordance with applicable FAR's. In-house operations will be in accordance with local aviation SOP and applicable FAR's.
- O. Night Operations. (351 DM)
- P. Aerial Ignition Devices. (Handbook to be developed)
- Q. Helicopter Rappelling. (Interagency Rappelling guide)
- R. Animal Damage Control. (ADC) (350 DM 3 Handbook)
- S. Airfreight/Paracargo. (350 DM 5 and 351 DM 3).
- T. Flight Following. (350 DM 5 and 351 DM 1). 59 BIAM 4.2D
- U. Restricted Category Aircraft. (350 DM 1.7)
- V. Water Operations. (351 DM 1.11)
- W. Transportation of Hazardous Materials. (351 DM 1.9 and OAS Handbook 351 DM 1, Aviation Transport of Hazardous Materials.
- X. Air Space Closure/Military Training Routes. (FAR 91.91)
- Y. Flight Tests. (351 DM 4.5 I)

59 BIAM SUPP 1  
REL 1 9 6 85

---

AVIATION SAFETY  
Flight Operations

---

2. Area Aviation Management Plans. Plans will include detailed course of actions for airspace closures (91.91). Area Aviation Officers are responsible for seeing that air space closures are in effect, where required, to keep an area free of aircraft not involved with the emergency. Closure procedures are found in Federal Air Regulations (FAR's 91.91.) Upon request, the Military will provide maps showing military training routes (MTR's), structures by state, and the publication AP-1B that describes locations of landmarks and things the pilot needs to know about respective routes, i.e., military bases, and telephone/power lines, towers, etc.

NOTE: It is the responsibility of aviation personnel to remind passengers that they can ask the pilot to "turn around" (go back) during conditions that appear to be unsafe. If a passenger feels that the flight may be marginal for such reasons as weather, weight and balance, pilot proficiency, mission requirements etc., they can elect not to go until they are satisfied that their concerns are addressed and the proper course of action has been taken.

---

AVIATION SAFETY  
Flight Following Procedures

---

8. FLIGHT FOLLOWING PROCEDURES

8.1 Flight Following Procedures. Each area utilizing aircraft services shall establish and utilize flight following procedures as specified in 350 DM 5 and 351 DM 1.



---

AVIATION SAFETY  
Transportation of Hazardous Materials

---

9. TRANSPORTATION OF HAZARDOUS MATERIALS

9.1 Transportation of Hazardous Materials. (351 DM 1.9 and OAS Handbook 351 DM 1 Aviation Transport of Hazardous Materials.) The Handbook also includes Department of Transportation exemption E-9198 which provides an exception from 49 CFR 175.5(a)(2) whereby the Department of the Interior (DOI) and other Government Agencies under contract to the Department of the Interior (DOI), may use aircraft which is under exclusive direction and control of the Department of the Interior (DOI) for periods of less than 90 days.

59 BIAM SUPP 1  
REL 1 9 6 88

## AVIATION SAFETY

Air Space Closure/Military Training Routes

## 10. AIR SPACE CLOSURE/MILITARY TRAINING ROUTES

10.1 Air Space. See FAR 91.91, Closure of the Air Space Allocated for Military Training Routes. Area aviation management plans will include detail pertaining to air space closures. Area Fire Management Officers are responsible to see that air space closures are in effect where required to keep an area free of aircraft not involved in the fire or operation. The person or persons that effect the closure are responsible to see that the closure is lifted as soon as possible after the need of the closure is over.

Upon request, the military shall provide free maps showing military training route structures by state and by the publication of AP-IB, which provides necessary information i.e., respective routes, military base installations, telephone numbers and other pertinent data.