

Chapter 08 Aviation Operations

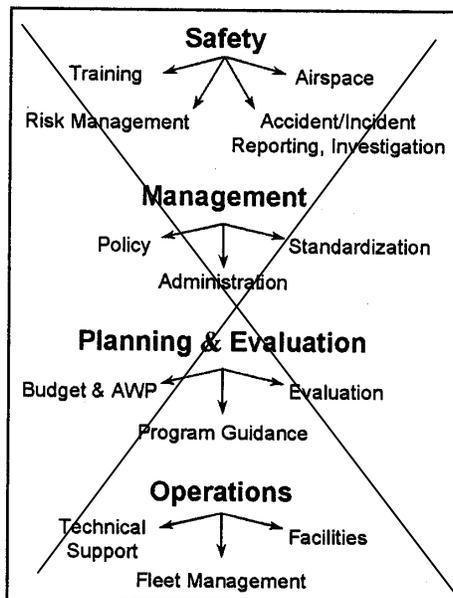
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Introduction

Aviation managers have leadership responsibility for resource missions that use aircraft. Standard and prerequisite qualifications ensure that aviation services are practical, low risk, and benefit the Bureau of Indian Affairs (BIA) and the public.

Clear direction and good management practices can reduce risks inherent to aviation missions. Aviation program success increases with planning, high standards, training, and commitment to safety for each mission.

The four major emphases of aviation management are safety, management, planning and evaluation, and operations. Refer to the chart for an illustration of these component and their sub-components.



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Aviation resources are one of a number of tools available to accomplish fire related land management objectives.

Aviation use must be prioritized based on management objectives and probability of success.

1 The effect of aviation resources on a fire is directly proportional to the speed at
2 which the resource(s) can initially engage the fire, the effective capacity of the
3 aircraft, and the employment of ground resources.

4
5 These factors are magnified by flexibility in prioritization, mobility, positioning,
6 and utilization of the versatility of many types of aircraft.

7
8 Risk management is a necessary requirement for the use of any aviation
9 resource. That risk management process must include the risk to ground
10 resources, and the risk of not performing the mission, as well as the risk to the
11 aircrew.

12 13 **Roles and Responsibilities**

14 15 **Aviation Management Directorate**

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17 The Aviation Management Directorate (AMD), of the National Business Center,
18 is responsible for aviation policy development, aircraft acquisition, financial
19 services, and maintenance management within the agencies of the Department
20 of the Interior (DOI). AMD has no operational responsibility. AMD provides
21 aviation safety program oversight, accident investigation, aircraft, pilot
22 inspection and approval for DOI use agencies.

23 24 **National Office Level**

25
26 The BIA, Wildland Fire and Aviation Management program develops Bureau
27 policy, procedures, standards, and maintains functional oversight and
28 interagency coordination for all aviation activities. The BIA-National
29 Interagency Fire Center (NIFC) office has established two Inter-Regional
30 aviation management offices to provide technical aviation expertise support for
31 Regional, Agency, and other field offices. Each of these offices is assigned
32 specific BIA Regions for primary support. Each of the Inter-Regional offices is
33 staffed by an inter-Regional Aviation manager (IRAM) and an Aviation
34 Operations Specialist (AOS), both of which are available to provide support for
35 any Region. In addition, there is a National Safety and Training Manager
36 specifically assigned to support aviation activities. The primary goals of each of
37 these positions are safety and cost-effectiveness. The BIA-NIFC National
38 Aviation Office office (NAO) supports BIA aviation activities and missions,
39 including fire suppression, through strategic program guidance, managing
40 aviation programs of national scope, coordination with AMD, and interagency
41 partners. National Office of Fire and Aviation Management (OF&A) has the
42 responsibility and authority, after consultation with Regional FMOs, for funding
43 and acquisition of all fire aircraft, prioritizing the allocation of BIA aircraft on a
44 Bureau wide basis, and approving Regional Office requests to acquire
45 supplemental aircraft resources.

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2 Refer to *Indian Affairs Manual; Part 57* for further information on aviation
3 policy and procedures.
4

5 **Regional Office Level**
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7 **Regional FMOs** are responsible for providing oversight for aircraft hosted in
8 their state. Regional FMOs have the authority and responsibility to approve,
9 with National Office concurrence, acquisition of supplemental aircraft resources
10 within their region. Regional FMOs have the authority to prioritize the
11 allocation, pre-positioning and movement of all aircraft assigned to the BIA
12 within their region. Regional Offices will coordinate with the National Office
13 on movement of their aircraft outside of their region.
14

15 **Regional aviation program managers** are associated with every BIA Region.
16 They implement aviation program objectives and directives to support the BIA
17 mission and each Region's goals. Some Regions may have additional support
18 staff assigned to support aircraft operations and to provide technical expertise.
19 A regional aviation operations management plan is required to outline goals of
20 the Region's aviation program and to identify policy and procedures specific to
21 that Region.
22

23 **Important Note:** A Region is not generally authorized to supplement this
24 policy with more restrictive policy or procedures than the national policy, unless
25 the policy or procedure is approved by the Director, Branch of Fire
26 Management.
27

28 **Agency/Field Office Level**
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31 **Field Managers** staff and manage their programs as necessary to conduct their
32 aviation operations safely. Agency/Field Offices are responsible for hosting,
33 supporting, providing daily management, and dispatching all aircraft assigned to
34 their unit. Field Offices have the authority to request additional resources,
35 establish priorities, and make assignments for all aircraft assigned to the BIA
36 within their unit or zone. All local offices utilizing aircraft should have an
37 aviation management plan on file.
38

39 **Unit Aviation Managers (UAMs)** serve as the focal point for the Unit Aviation
40 Program by providing technical expertise and management of aviation resources
41 to support Agency/Field Office programs. While many field offices have
42 aviation management as a collateral duty, during periods of intense wildfire
43 activity, it is still absolutely critical that aviation oversight be maintained.
44 Assistance from the Regional office, cooperators, resource ordering, Aviation

1 Safety Assistance Team (ASTAT), are all resources that should be considered
2 when other duties interfere with aviation management.

3

4 **Aviation Information Resources**

5

6 There is a significant amount of aviation reference materials available to BIA
7 aviation managers and users. Agency and interagency manuals, handbooks, and
8 guides provide both broad policy guidance and specific procedural requirements.

9 Note: In all cases Departmental policy (DMs, OPMs, and bureau policy) will
10 take precedence.

11

12 **Reference Materials**

13

- 14 1. **Aviation Managers** will act as the focal point to receive and
15 disseminate: Safety alerts, instruction memoranda, Information
16 Bulletins, incident reports, and other guidance or information as the
17 need arises.
- 18 2. **Regional and local aviation managers** must maintain an up-to-date
19 reference library with all aviation policy and procedural references.
- 20 3. **Tactical aircraft bases and other fire users of aviation resources**
21 (e.g., air tactical group supervisors) should maintain those applicable
22 portions of the overall aviation reference library. An up-to-date library
23 with aviation policy and procedural references will be maintained at all
24 permanent aviation bases, dispatch, and aviation management offices.

25

26 **Aviation Safety**

27 The BIA and the interagency partners have adopted Safety Management
28 Systems (SMS) as the foundation to our aviation safety program. The four
29 pillars of SMS are Safety Policy, Safety Risk Management, Safety Assurance
30 and Safety Promotion. SMS is the standard for safety set by the International
31 Civil Aviation Organization (ICAO) and the Federal Aviation Administration
32 (FAA).

33

34 SMS will promote the transition from the traditional approach to aviation safety
35 which:

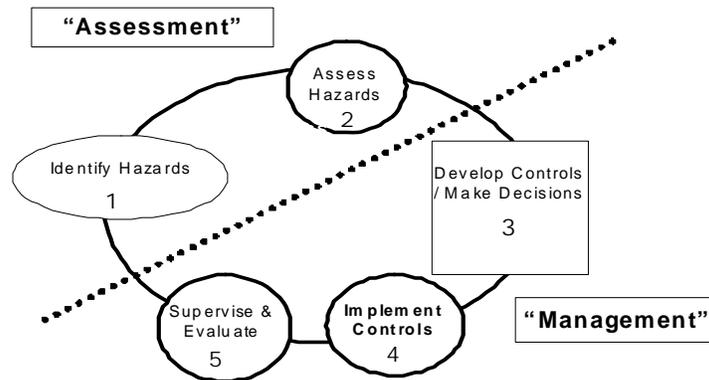
- 36 • Reacts to undesirable events
- 37 • Focused on compliance
- 38 • Culture of blame and individual accountability
- 39 • Addresses only known safety concerns
- 40 • Identifies who, so we know who to punish

41 To the contemporary approach that is:

- 42 • Emphasizes proactive risk management
- 43 • Promotes a “Just” culture
- 44 • Addresses systemic safety concerns

- 1 • Holds the organization accountable
- 2 • Identifies “What” so we can manage the manageable
- 3 • Communicates the “Why” so the culture can learn from mistakes
- 4
- 5 The intent of SMS is to improve the aviation culture by increasing hazard
- 6 identification, reduce risk taking behavior, learn from mistakes and correct
- 7 procedures before a mishap occurs rather than after the accident
- 8
- 9 The use of Risk Management will help to ensure a safe and successful operation.
- 10 Risk is the probability that an event will occur. Assessing risk identifies the
- 11 hazard, the associated risk, and places the hazard in relationship to the mission.
- 12 A decision to conduct a mission requires weighing the risk against the benefit of
- 13 the mission and deciding whether the risks are acceptable.
- 14
- 15 Aviation missions always have some degree of risk. The four sources of hazards
- 16 are methods, medium, man, and machine. Managing risk is a 5-step process:
- 17 • Identify hazards associated with all specified and implied tasks for the
- 18 mission.
- 19 • Assess hazards to determine potential of occurrence and severity of
- 20 consequences.
- 21 • Develop controls to mitigate or remove risk, and make decisions based
- 22 on accepting the least risk for the best benefit.
- 23 • Implement controls - (1) education controls, (2) physical controls, and
- 24 (3) avoidance controls.
- 25 • Supervise and evaluate - enforce standards and continuously re-
- 26 evaluate their effectiveness in reducing or removing risk. Ensure that
- 27 controls are communicated, implemented, and enforced.
- 28
- 29

THE RISK MANAGEMENT PROCESS



1 Aviation Safety Assistance

2

3 During high aviation activity as in wildfire suppression activity, it is advisable to
 4 request, through the BIA Regional and National aviation offices, an ASTAT for
 5 helicopter or fixed-wing operations. They should be requested through the
 6 agency chain of command and operate under a Delegation of Authority from the
 7 appropriate National/Regional Aviation Manager(s) or Multi Agency
 8 Coordinating Group. Formal written reports will be provided to the appropriate
 9 manager(s) as outlined during the in-briefing.

10

11 An ASTAT may include the following positions:

12

- 13 • Aviation Safety Manager
- 14 • Operations Technician Specialist
- 15 • Pilot Inspector
- 16 • Maintenance Inspector (optional)
- 17 • Avionics Inspector (optional)

17

18 ASTAT members will be identified by the IRAM or the National Aviation
 19 Program Manager, and resource ordered to the area region or agency.

20

21 Aviation Watch-out Situations

22

23 Risk Management

24 As part of risk management, especially during high wildfire activity, each
 25 aviation manager and employee should ask the following questions:

26

- 27 • Is the flight necessary?
- 28 • Who is in Charge?

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- 1 • Are all hazards identified and have you made them known?
- 2 • Should the operation or flight be stopped due to change in conditions?
- 3 • Communications?
- 4 • Confusion?
- 5 • Personnel?
- 6 • Weather, Turbulence?
- 7 • Conflicting priorities?
- 8 • Is there a better way to do it?
- 9 • Are you driven by the task and a sense of urgency?
- 10 • Can you justify your actions?
- 11 • Are other aircraft in the area?
- 12 • Does the pilot accept the mission?
- 13 • Are any guidelines being ignored or policies being broken?
- 14 • Are communications getting tense?
- 15 • Are you deviating from the assigned operation or flight?

17 **Mission Planning/Hazard Mitigation**

19 **Pre-flight Planning**

20 Pre-flight planning will reduce inherent risks to any aviation mission to
21 acceptable levels. During flight planning and scheduling, at a minimum, the
22 following must be addressed:

- 23 • Completion/submission of the aircraft flight request/schedule.
- 24 • Cost Analysis.
- 25 • Assessment and mitigation of hazards.
- 26 • Selection of aircraft.
- 27 • Scheduling of aircraft with vendors or agency pilots.
- 28 • Pilot and aircraft approvals checked.
- 29 • Pre-flight briefings.

31 **Aircraft and Pilot Carding**

32 AMD is responsible for procurement, approval, and carding of pilots and aircraft
33 used and paid for by BIA. With the exception of life-threatening situations or
34 undercover law enforcement missions, personnel shall not fly with pilots or in
35 aircraft that have not been approved (carded). Note that some state agency
36 aircraft and pilots are approved by either the AMD or the USDA Forest Service.
37 These pilots may or may not carry a card, but they must have a letter of
38 approval.

40 The BIA may use aircraft carded by the USDA Forest Service for exclusive use
41 and Call-When-Needed (CWN) flight services.

43 For aircraft carding, contact the BIA IRAM or the AMD.

1
2 Dispatchers or aviation managers are responsible for verifying pilot and aircraft
3 carding during mission planning and aircraft procurement. Prior to any flight, it
4 is the responsibility of the helicopter manager, flight manager, or employee to
5 check for pilot and aircraft cards or letters of approval.

6
7 Field personnel have no authority to suspend or revoke a pilot's card. Only the
8 agency contracting officer or other agency-designated officials may suspend or
9 revoke a card. However, other individuals (e.g., helicopter managers, helibase
10 managers) can suspend operations that are being conducted improperly.

11 12 **Use of Military or National Guard aircraft and pilots**

13 *The Military Use Handbook, (NFES 2175)* should be used when planning or
14 conducting aviation operations involving military aircraft. All ordering of
15 military assets is done through the National Interagency Coordination Center
16 (NICC); all ordering of National Guard assets is done through the governor of
17 the state that owns the Guard resources.

18 19 **Aviation Safety Briefing**

20 Every passenger will receive a briefing prior to each flight. The briefing may be
21 conducted by the pilot, flight manager, helicopter manager, fixed-wing base
22 manager, or an individual with the required training and experience to conduct
23 an aviation safety briefing. For Briefing procedures, refer to the Incident
24 Response Pocket Guide (IRPG) and IHOG Chapter 10.

25 26 **Low-level Flight and Congested Area Operations**

27
28 **Note:** When referring to retardant dropping in congested areas, the terms
29 airtanker coordinator, leadplane pilot, air tactical pilot, air tactical group
30 supervisor, and aerial supervision module (ASM) all mean the same thing.

31
32 Aircraft engaged in fire retardant or water drops may operate without regard for
33 the following requirements, provided the deviation is limited to fire operations
34 for cargo dropping, and leadplane operations associated with the aerial
35 application of water, fire suppression, or retardants are conducted by or for DOI.

- 36 • A thorough air survey for obstacles, and check for air conditions in
37 each operating area, shall be made prior to low-level flight operations.
- 38 • All flights below 500 feet shall be confined to immediate areas being
39 treated or where operational requirements make such low-level flight
40 essential.
- 41 • All aircraft must follow planned flight course.
- 42 • Low-level flight operations must be under VFR conditions and during
43 daylight hours – ½ hour before sunrise to ½ hour after sunset. (See
44 local sunrise/sunset chart for actual times)

45

- 1 • Prior clearance must be obtained from the appropriate air traffic
2 controller before any flight can be made in a controlled air space.
3 • Pilot will avoid creating any hazard to passengers or to persons or
4 property on the ground.

5
6 Airtankers can drop retardant in congested areas during emergencies under the
7 authority given by the Federal Aviation Administration (FAA). Dropping fire
8 retardant in congested areas shall be avoided in normal situations. Where such
9 operations are considered necessary, depending on special circumstances, they
10 may be authorized subject to these special limitations:

11
12 Airtanker operations in congested areas may be conducted at the special request
13 of the responsible agency (city, rural fire department, county, state or federal fire
14 suppression agency)

15
16 A qualified airtanker coordinator (leadplane pilot/air tactical pilot) will be
17 ordered immediately on identification of the congested area and will directly
18 supervise all airtanker drops.

19
20 The FAA office (air traffic control center, tower, or flight service station)
21 responsible for airspace control in the vicinity of proposed airtanker operations
22 will be notified prior to or as soon as possible after the beginning of the
23 operation, and the appropriate airspace restriction must be requested by the
24 responsible fire agency prior to or as soon as possible after beginning airtanker
25 operations. (Request all temporary flight restrictions from the ATC, but notify
26 local tower and FSS)

27
28 No operation shall be conducted until a positive communication link has been
29 established between the airtanker coordinator or ASM (Air Attack), airtanker
30 pilot(s), and the official directly supervising fire suppression for the responsible
31 fire suppression agency.

32
33 The official supervising fire suppression for the responsible fire agency or
34 designee shall advise the Air Attack that all non-essential people and movable
35 property has been cleared from the area to be treated by airtankers prior to
36 commencing airtanker operations.

37
38 The Air Attack shall be personally satisfied that no non-essential people or
39 movable property will be placed in hazard by the proposed airtanker operation
40 prior to ordering any airtanker drops.

41
42 The first retardant pass of each series (repeated retardant drops using the same
43 pattern) shall be preceded by a dry run flow on the same pattern as the planned
44 retardant drops.

45

1 Temporary Flight Restriction protocols are published in the *Interagency*
2 *Airspace Coordination Guide (IACG)* referenced in **Appendix H - - H-4.**

3

4

5 **Aviation Hazards**

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7

8 **Definition**

9 An aviation hazard is any condition, act, or set of circumstances that
10 compromises the safety of personnel engaged in aviation activities.

11

12 All aviation personnel are responsible for hazard identification and mitigation.

13 This includes pilots, flight crew personnel, aviation managers, incident air
14 operations personnel, and passengers

15 Pilots, flight crew personnel, aviation managers, incident air operations
16 personnel, and passengers are responsible for hazard identification and
17 mitigation. Aviation hazards include the following:

- 18 • Deviations from policy, procedures, regulations, and instructions.
- 19 • Improper hazardous materials handling and/or transport.
- 20 • Airspace conflicts/flight following deviation.
- 21 • Deviation from planned operations.
- 22 • Failure to utilize PPE or Aviation Life Support Equipment (ALSE).
- 23 • Failure to meet qualification standards or training requirements.
- 24 • Extreme environmental conditions.
- 25 • Improper ground operations.
- 26 • Improper pilot procedures.
- 27 • Fuel contamination.
- 28 • Unsafe actions by pilot, air crew, passengers, or support personnel.

29

30 **Aerial Hazards**

31 Aviation hazards also exist in the form of wires, low-flying aircraft, and
32 obstacles protruding beyond normal surface features. Each office will post,
33 maintain, and annually update a “known aerial hazard map” for the local
34 geographic area where aircraft are operated, regardless of agency jurisdiction.

35 This map will be posted and used to brief flight crews. Unit Aviation Managers
36 are responsible for ensuring the development and updating of Known Aerial;
37 Hazard Maps (IHOG Ch 3.V.J.1.c page 3-20).

38

39

40 **Aircraft Incident/Accidents**

41

42 **Incidents**

43

1 An aircraft “incident” results in damage which meets less than serious criteria,
2 or in an injury not requiring medical attention (first-aid only). Examples of
3 incidents are:

- 4 • Damage to aircraft (less than accident criteria).
- 5 • Forced landing necessitated by failure of engines, systems, or
6 components.
- 7 • Precautionary landing necessitated by apparent impending failure of
8 engines, systems or components, or incapacitation of the flight crew.
- 9 • Aircraft ground mishap (in which there is no intent to fly).
- 10 • Ground damage to aircraft (damage is incurred requiring repair or
11 replacement before flight).
- 12 • Near mid-air collision (when airborne aircraft encroaches within 500
13 feet of another airborne aircraft, or a pilot or crew member determines
14 that a collision hazard existed).

15

16

17 **SAFECOM - Incident/Hazard/ Maintenance Deficiency Reporting**

18

19 The DOI bureaus and USDA Forest Service have adopted a common
20 incident/hazard reporting form called the SAFECOM (Safety Communiqué), see
21 **Appendix H - 1**.

22

23 The local aviation management staff or designed individual is responsible for
24 immediate completion and transmittal of the form. In their absence, any
25 responsible agency individual with knowledge of the accident should make the
26 report. This form is routed immediately to AMD, the Agency’s headquarters
27 office, Regional Aviation Manager, and National Aviation Safety Manager.

28

29 The report shall be forwarded by electronic mail or telefax to the national
30 aviation manager within 72 hours after occurrence. Notify AMD and BIA
31 aviation safety managers whenever an aircraft mishap involved damage or
32 injury. Use the hot line or the most expeditious means possible. Call 1-888-
33 464-7427. An electronic version of the SAFECOM form can be accessed at the
34 following web site: <http://www.safecom.gov>.

35

36 The objectives of the form are:

- 37 • o report any damage or injury (less than accident criteria) and any
38 condition, act, observance, maintenance deficiency or circumstance
39 which has potential to cause an aviation-related accident.
- 40 • To document all aviation hazards and incidents.
- 41 • To perform trend analyses for short or long term changes in policy and
42 procedures, identify areas needing training, etc.
- 43 • To provide accountability for aviation mission participants and
44 employee safety.

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Responsibility

It is the responsibility of any individual (including contractors) who observes or who is involved in an aviation mishap to report the occurrence immediately to local aviation management staff. The local aviation manager is responsible for reviewing the report and forwarding it through agency channels. Within 48 hours after an aircraft incident, aviation hazard, or maintenance deficiency, the local aviation manager or participant in the flight shall complete and submit the SAFECOM form. Timely reporting is essential in problem identification and accident prevention.

The agency with operational control of the aircraft at the time of the occurrence is responsible for completion of the SAFECOM and to submit it through its agency channels.

Accidents

The definition of aircraft “accident” is lengthy and fairly technical. An investigation team will make the final determination as to classification. In general, if an occurrence was more serious than those described under the definition of “incident” above, then the occurrence should be treated as an accident.

Air Operations

The DOI DM 350-354 DM and Indian Affairs Manual (IAM) Part 57, Aviation Management are the umbrella documents for aviation policy and operations in the Bureau. It is the responsibility of aviation managers and associated personnel (pilots, dispatchers, fire managers, etc.) to obtain necessary documents and become familiar with their contents.

Interagency Interim Flight and Duty Limitations

Phase 1 – Standard Flight and Duty Limitations (Abbreviated Summary)

- Fourteen (14) hour maximum duty day.
- Eight (8) hours maximum daily flight time for mission flights.
- Ten (10) hours for point-to-point, with a two (2) pilot crew.
- Maximum cumulative flight hours of thirty-six (36) hours, up to forty-two (42) hours in six (6) days.

- 1 • Minimum of ten (10) hours uninterrupted time off (rest) between duty
2 periods.

3
4 This does not diminish the authority or obligation of any individual Contracting
5 Officer Representative (COR) or Aviation Manager to impose shorter duty days
6 or additional days off at any time for any flight crew members for fatigue at
7 their discretion, as is currently provided for in agency direction and contract
8 specifications.

9
10 **Interim Flight and Duty Limitations Implementation**

11 During extended periods of a high level of flight activity or maximum 14-hour
12 days, fatigue factors must be taken into consideration by Fire and Aviation
13 Managers. Phase 2 and/or Phase 3 Duty Limitations will be implemented for
14 specific Geographic Area's Aviation resources. The minimum scope of
15 operation should be by Geographic Area, i.e., Northwest, Great Basin, etc.

16
17 Implementation decisions will be made on a coordinated, interagency basis,
18 involving the GACC, NICC, NMAC and National Aviation Representatives at
19 NIFC.

20
21 Official notification of implementation should be made by the Regional
22 Aviation managers through the GACC and, for broader scope implementations,
23 by National Aviation Management through NIFC.

24
25
26 **Phase 2 – Interim Duty Limitations**

27
28 When Phase 2 is activated, pilots shall adhere to the flight and day-off
29 limitations prescribed in Phase 1 and the duty limitations defined under Phase 2.

30
31 Each flight crew member shall be given an additional day off each fourteen (14)
32 day period. Crews on a twelve (12) and two (2) schedule shall have three (3)
33 consecutive days off (11 and 3). Flight crews on six (6) and one (1) schedules
34 shall work an alternating weekly schedule of five (5) days on, two (2) days off,
35 then six (6) days on and one (1) day off.

36
37 Aircraft fixed daily rates and special rates, when applicable, shall continue to
38 accrue during the extra day off. Contractors may provide additional approved
39 crews to maximize utilization of their aircraft. All costs associated with
40 providing the additional crew will be at the contractor's expense, unless the
41 additional crew is requested by the Government.

42
43 **Phase 3 – Interim Duty Limitations**

44

1 When Phase 3 is activated, pilots shall adhere to the flight limitations of Phase 1
2 (standard), the additional day off of Phase 2, and the limitations defined under
3 Phase 3.

4
5 Flight crew members shall have a minimum of twelve (12) consecutive hours of
6 uninterrupted rest (off duty) during each duty day cycle. The standard duty day
7 shall be no longer than twelve (12) hours, except a crew duty day extension shall
8 not exceed a cumulative fourteen (14) hour duty day. The next flight crew rest
9 period shall then be adjusted to equal the extended duty day, i.e., thirteen (13)
10 hour duty day, thirteen (13) hours rest; fourteen (14) hour duty day, fourteen
11 (14) hours rest. Extended duty day applies only to completion of a mission. In
12 no case may standby be extended beyond the twelve (12) hour duty day.

13
14 Double crews (two complete flight crews assigned to an aircraft), augmented
15 flight crews (an additional pilot-in-command assigned to an aircraft), and
16 aircraft crews that work a rotating schedule, i.e., two (2) days on, one (1) day
17 off, seven (7) days on, seven (7) days off, or twelve (12) days on, twelve (12)
18 days off, may be exempted from Phase 2 Limitations upon verification that their
19 scheduling and duty cycles meet or exceed the provisions of Paragraph a. of
20 Phase 2 and Phase 1 Limitations.

21
22 Exemptions based on Paragraph b. of Phase 3 provisions may be requested
23 through the local Aviation Manager or COR, but must be approved by the Inter-
24 regional Aviation Manager.

25

26 **Helicopter Operations**

27

28

29 *The Interagency Helicopter Operations Guide (IHOG)* is policy for helicopter
30 operations whether in support of wildland fire or natural resource missions, and
31 provides guidance for helitack and helicopter operations.

32

33 **PPE Requirements**

34 As stated in the IHOG, for firefighters “the only acceptable situation where a
35 hard hat may be substituted for a flight helmet is as follows: passenger
36 transportation between an established, managed helispot/helibase and an
37 established, managed helispot/helibase.” Firefighters in this case are defined as
38 hand crews being shuttled to and from camp primarily on project type fires. All
39 other firefighters, e.g., initial attack (IA) helitack crews, miscellaneous fire
40 overhead, for recon and scouting, will be required to wear full PPE, including a
41 flight helmet.

42

43 **Helicopter Rappel and Cargo Let-Down**

44 The Interagency Heli-Rappel Guide (IHRG) is the reference for helicopter
45 rappel and cargo let-down operations; all rappel and cargo let-down operations

1 must be in compliance with the IHRG, reviewed by the National Aviation
2 Program Manager and approved by Director, Branch of Fire Management.

3

4 **Aerial Ignition**

5 *The Interagency Aerial Ignition Guide (IAIG)* is the reference for all aerial
6 ignition activities. All Aerial Ignition operations must be in compliance with the
7 IAIG, reviewed by the Regional Aviation Program Manager and approved by
8 the appropriate Line Officer.

9 These guides (IHOG, IHRG, and IAIG) were developed to:

- 10 • Define and standardize national interagency operating procedures for
11 all helicopter operations, both fire and non-fire;
- 12 • Facilitate the exchange of personnel from other agencies during periods
13 of high fire activity (through standardization);
- 14 • Provide a common interagency approach in the government's
15 relationship with helicopter contractors;
- 16 • Provide checklists, operational requirements, and special instructions
17 for personnel at helibases;
- 18 • Provide a framework within which each government helibase with
19 contract helicopters can provide supplemental site-specific guidance.

20

21 **Helitack**

22

23 Helitack crews provide highly trained and skilled personnel to perform
24 suppression and support operations on IA, extended attack, and large wildfires,
25 and to manage helicopter operations in order to accomplish resource
26 management objectives.

27

28 **Policy**

29 The BIA has adopted the IHOG as its standard for operations. Wording in the
30 IHOG denotes mandatory, required except for justifiable reasons, and optional
31 compliance. "Must" and "shall" mean mandatory; "ought" and "should" mean
32 required unless justified; and "may" and "can" mean optional.

33

34 **Organization**

35 The standard helitack configuration is a module of seven crew personnel. Daily
36 operations shall always meet the minimum staffing of a Helicopter manager and
37 two qualified crewmen.

38

39 Individual crew structure is based on the following positions, with career status
40 positions based on local need:

- 41 • Fire Helicopter Crew Supervisor (FHCS-PFT)
- 42 • Assistant Fire Helicopter Crew Supervisor (FHAS-PST)
- 43 • Fire Helicopter Squad Leader (FHSL-PST/SEA)
- 44 • Fire Helicopter Crew Member (FHCM-SEA)

1
2 Exception to these minimum crew staffing standards must be exempted by the
3 National Aviation Office.

4

5 **Safety**

6 Helitack crews provide safe and efficient aviation services in support of bureau
7 and Interagency goals and objectives. All helitack crews will consider risk and
8 take appropriate action in order to fight fire safely. Tactical decisions will be
9 made in accordance with the 10 Standard Fire Orders, 18 Watch-out Situations,
10 and principles of LCES. Personnel involved in helicopter operations must
11 follow rules, regulations, and mandates specified by the FAA, OAS, BIA, and
12 other contractual and operational procedures identified in the IHOG.

13

14 A continual risk assessment will be made during helitack and aviation missions.
15 For further information on the risk assessment and management process, see the
16 IHOG, Chpt. 3.

17

18 **Training, Qualifications and Experience**

19

20 The primary helitack crew mission is to fight fire; therefore, all members will
21 meet minimum fire qualifications as prescribed by the National Wildfire
22 Coordinating Group (NWCG) Wildland Fire Qualifications System Guide (PMS
23 310-1). In addition, personnel will meet the Department and Bureau training
24 and experience requirements for each position, see **Appendix H - 8-2**,
25 Interagency Aviation Training (IAT) matrix (www.iat.gov).

26

27 **Physical Fitness Standards**

28

29 Helitack personnel must meet the physical fitness requirements for arduous
30 assignments. It is recommended that helitack crews meet the fitness
31 requirements typical of a Type I Crew.

32

33 **Operational Procedures**

34 The IHOG specifies how helicopter operations should be conducted, whether in
35 support of wildland fire or natural resource missions, and provides guidance for
36 bureau helitack and helicopter operations. The IHOG serves as the interagency
37 standards for operations, and has been adopted by the BIA, as well as other
38 agencies.

39

40 Exclusive-use Type 3 helicopters and helitack crews are controlled and
41 dispatched locally by the administrative unit.

42

43 Type 2 helicopters and helitack crews may be categorized as either national or
44 local resources. As national resources, they are available for assignment when
45 ordered by NICC, unless otherwise already committed.

1
2 When aircraft are re-assigned to another location the respective GACC/Dispatch
3 Center will be notified and coordinated with by the local unit. All movement
4 will be conducted in accordance with local geographic area Aircraft
5 Mobilization/ Demobilization guidelines. Under no circumstances will an
6 aircraft be moved without a resource order.

7
8 Recommended and required equipment for helitack crews and helicopters
9 changes frequently. Consult the IHOG (Chapter 9) and the terms of the contract
10 as appropriate, if uncertain about requirements.

11 12 **Communications**

13 The helitack crew standard is one handheld programmable multi-channel FM
14 radio per every 2 crew persons, and one multi-channel VHF-AM programmable
15 radio in the primary helitack crew (chase) truck. Each helitack crew (chase)
16 vehicle will have a programmable VHF-FM mobile radio. Each permanent
17 helibase will have a permanent programmable FM radio base station and VHF-
18 AM radio base station.

19 20 **Transportation**

21 Due to both the amount and cost of cost of the specialized equipment required
22 for the helitack operation, a dedicated vehicle(s) with adequate storage and
23 security will be provided for helitack crews. The required gross vehicle weight
24 (GVW) of the vehicle(s) will be dependent upon the size class of the helicopter
25 and the number of helitack crew members. The recommended minimum vehicle
26 compliment for a seven person crew will consist of one Class 661 Helitack
27 Support Vehicle and one Class 156, six passenger pickup or Class 166 carryall.

28 29 **Air Tankers**

30 Airtankers are a national resource. Geographic areas administering these aircraft
31 will make them available for initial attack and extended attack fires on a
32 priority basis. All airtanker services are obtained through the contracting
33 process (except the MAFFS, which are military aviation assets and used to
34 supplement the contract fleet when needed).

35
36 Airtankers are operated by commercial vendors in accordance with FAR Part
37 137. The management of Large Airtankers is governed by:

- 38 • FS - Forest Service operates Large Airtankers under FSM 5703 and
- 39 Grant of Exemption 392 as referenced in FSM 5714.
- 40 • BLM - the requirements of the DM' and BLM Manual 9400

41 42 **Airtanker Base Personnel**

43
44 The IATBOG identifies a generic table of organization and recommended
45 staffing level for airtanker bases. This guide also describes the duties of various

1 positions used at airtanker bases. There is currently no identified training for the
2 positions at airtanker bases; however, the IATBOG contains a chart identifying
3 recommended training for each position. It is also critical that reload bases staff
4 up commensurate with the need during periods of moderate or high wildfire
5 activity at the base.

6
7

8 **Airtanker Categories**

9

10 Airtankers are typed by the size of retardant load that they can carry.

11

- 12 • Type 1 - 3,000 gallons
- 13 • Type 2 - 1,800 to 2,999 gallons
- 14 • Type 3 - 800 to 1,799 gallons
- 15 • Type 4 - 799 gallons (Single Engine Airtankers, SEAT)

16

17 **Qualifications**

18 Airtanker crews fall into two categories: IA qualified, and IA candidates.

19

20 **IA Qualified:** Means the crew may drop retardant on arrival at a fire without
21 aerial supervision. This does not negate the requirements for a lead plane, if
22 ordering agency policies, terrain, or congested areas dictate otherwise.

23

24 **IA Candidate:** Refers to a crew that is in the process of acquiring the
25 experience, training, and prerequisite drop-but in the interim requires aerial
26 supervision.

27

28 **Tanker Bases & Reload Facilities**

29 Tanker bases may be Type 1 bases, meaning they have tankers assigned there, or
30 reload facilities. They may be contract bases or operated on Force Account, and
31 may be operated by the Bureau of Land Management (BLM), USDA Forest
32 Service, or state agencies. Types of retardant (dry powder, liquid concentrate,
33 etc.) will vary with locations.

34

35 The fleet provides a mix of capabilities and availability. Certain parameters for
36 the operation of airtankers are agency-specific. For dispatch procedures and
37 limitations, startup/cutoff times, specific requirements for Air Tactical Group
38 Supervisor (ATGS) or Airtanker Coordinator (ATCO), and other operational
39 considerations, refer to geographic area mobilization guides and the Interagency
40 Airtanker Base Operations Guide (IATBOG).

41

42 **Airtanker Base Operations**

43 Large airtankers are procured under national contracts. The management of
44 these resources are governed by the requirements of the IAM Part 57 and the

1 IATBOG. Airtankers are operated by commercial vendors in accordance with
2 Federal Acquisition Regulations (FAR) Part 137.

3
4 The IATBOG is the reference for all airtanker base operations. This guide
5 defines and standardizes national interagency operating procedures at all
6 airtanker bases; facilitates the exchange of personnel from other agencies during
7 periods of high fire activity (through standardization); provides a common
8 interagency approach in the government's relationship with airtanker and
9 retardant contractors; provide checklists, orientation outlines, and special
10 instructions for personnel at airtanker bases; and provides a framework within
11 which each airtanker base can provide supplemental site-specific guidance.

12
13 All personnel conducting airtanker base operations should know the IATBOG
14 and have it available.

15
16 **Startup/Cutoff Times**

17 The startup/cutoff times are as outlined in *the Interagency Leadplane*
18 *Operations Guide (ILOG)*. These limitations apply to the time the aircraft
19 arrives over the fire.

20
21 Normally airtankers shall be dispatched to arrive over the fire not earlier than 30
22 minutes after official sunrise and not later than 30 minutes before official sunset.

23
24 Airtankers may be dispatched to arrive over a fire as early as 30 minutes prior to
25 official sunrise, or 30 minutes after official sunset, provided:

- 26
- 27 • A qualified ATGS, ASM1, or ATCO is on the scene and has
 - 28 • determined visibility and other safety factors are suitable for dropping
retardant; and
 - 29 • Notifies the appropriate dispatcher of this determination.
- 30

31 An airtanker, crewed by an initial attack-rated captain, may be dispatched to
32 arrive over a fire without aerial supervision provided the airtanker's arrival and
33 drop activities are conducted between 30 minutes after official sunrise and 30
34 minutes before official sunset in the lower 48 states. In Alaska, an airtanker
35 pilot will not drop retardant during periods outside civil twilight.

36
37 **Canadian Airtankers**

38 Use of Canadian airtankers is approved under DOI policy if that aircraft is
39 working under an agreement between the BIA and Canada or one of our
40 cooperators and Canada. If questions arise, contact an IRAM or the BIA-NIFC
41 office.

42

43

44 **Single Engine Airtanker (SEAT) Operations, Procedures and Safety**

45

1 Single Engine Airtankers (SEATs) are an effective, efficient and safe BIA fire
2 suppression tool that are not a national resource and can, with proper planning,
3 be obtained on a local basis. Even though these aircraft have been effectively
4 used on extended attack wildfires, they are most effective when included as an
5 integral part of the IA strategy.

6

7 *The Interagency SEAT Operating Guide (ISOG)* (NFES #1844) defines
8 operating standards and is policy for both the DOI and FS.

9

10

11 **SEAT Manager Position**

12 In order to ensure adherence to contract regulations, safety requirements, and
13 fiscal accountability, a qualified SEAT Manager (SEMG) will be assigned to
14 each operating location. The SEMG's duties and responsibilities are outlined in
15 the ISOG.

16

17 **Operational Procedures**

18 Using SEATs in conjunction with other aircraft over an incident is standard
19 practice. Agency or geographical area mobilization guides may specify
20 additional procedures and limitations.

21

22 Depending on location, operator, and availability, SEATs are capable of
23 dropping suppressants, water, or approved chemical retardants. Because of the
24 load capacities of the SEATs (400 to 800 gallons), quick turn-around times
25 should be a prime consideration. SEATs are capable of taking off and landing
26 on dirt, gravel, or grass strips (pilot must be involved in selection of the site); a
27 support vehicle reduces turn-around times.

28

29 Reloading at established airtanker bases or reload bases is authorized. (SEAT
30 operators carry the required couplings). All BLM and Forest Service Airtanker
31 base operating plans will permit SEAT loading in conjunction with Large
32 Airtankers.

33

34 **Communications**

35 All SEATs must have two VHF-AM and one VHF-FM (programmable) multi-
36 channel radios. (See contract specifications.)

37

38

39 **Leadplane Operations**

40

41 Leadplanes are national resources responsible for the tactical deployment of
42 airtankers over an incident. Leadplane pilots evaluate flight hazards, visibility,
43 wind, storm activity, turbulence, terrain, and other factors to ensure aerial
44 suppression operations are conducted safely and efficiently. Congested

1 airspace, populated areas, and the limited maneuverability of large airtankers all
2 contribute to the need for leadplanes.

3

4 **Policy**

5

6 The ILOG is adopted by the Wildland Fire and Aviation Management program
7 as operating procedures for BIA. Unless for reasons of safety, and deviation
8 from the policies and procedures contained in the ILOG must be approved in
9 writing by the Director, Branch of Fire Management.

10

11 The only approved fixed wing, low-level operation below 500 feet for fire
12 suppression activities are leadplane, ASM, and paracargo missions with
13 approved pilots, aircraft and aircrew.

14

15 The ILOG is the reference standard for leadplane operations. This guide was
16 developed to define and standardize national interagency operating procedures
17 for leadplanes; facilitate the exchange of personnel for other agencies during
18 periods of high fire activity (through standardization); and provide checklists,
19 orientation outlines, and special instructions for leadplane pilots.

20

21 All personnel conducting or involved in leadplane operations (e.g., ATGSs)
22 should know the ILOG and have it available.

23

24 A leadplane is required when:

25

- 26 • The airtanker pilot is not initial attack rated
- 27 • MAFFS C-130 airtankers are assigned to the incident
- 28 • When foreign government airtankers are being used
- 29 • When two or more airtankers are over the incident, a leadplane or ASM
30 must be on order.
- 31 • When the airtanker flight crew requests a leadplane

32

33 **Operating Practices**

34

35 There are a number of techniques used by leadplanes. The three most frequent
36 are:

37

- 38 1. The leadplanes orbits the fire at 1,000 feet above ground level and
39 directs the airtankers by radio. The high level technique affords better
40 visibility of both the ground and air operations, but radio exchanges are
41 often time consuming, which is costly.
- 42 2. The leadplanes perform a low-level “show me” pass with the airtanker
43 observing from a higher vantage orbit. In this manner the leadplane

- 1 can switch positions with the airtanker and observe the drop from a
 2 higher vantage point.
- 3 3. The leadplane performs a low-level “follow me” pass, simulating the
 4 airtanker run, and identified the target for the airtanker captain by radio
 5 or a smoke trail. The leadplane pilot also confirms if there are
 6 firefighting personnel or others in the proposed drop area, and if so,
 7 notifies the ATGS or incident commander (IC) so ground resources can
 8 be warned or moved.

9
 10
 11

12 **Operational Considerations**

13 Some operating practices are specific by agency as follows:

14
 15

15 **USDA Forest Service**

16
 17
 18
 19
 20
 21
 22

- Require leadplanes to be ordered when two or more airtankers are over the incident.
- For operations over congested areas, USDA Forest Service policy is that air operations be conducted under an FAA Grant of Exemption No. 392, from FAR 91.119.

23

23 **BIA**

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 30

- Require aerial supervision to be on order when more than two aircraft are actually over the incident.
- The BIA does not require leadplanes to operate SEATs. The “more than two aircraft” standard for requiring aerial tactical supervision can be met with an ATGS.

31

31 **Aerial Supervision Modules**

32
 33
 34
 35
 36

Some of the leadplanes will carry an ATGS. In those instances, the leadplane may perform both the leadplane and ATGS missions. This combination of the leadplane pilot and ATGS is an Aerial Supervision Module 1 (ASM-1). Additional training is required for an ASM to be fielded operationally.

Situation	Lead/ATCO /ASM1	Ref	ATGS	Ref
Airtanker not IA rated.	Required	1		
MAFFS	Required	1		
Retardant drops in congested areas.	Order	1	May use if no Lead/ATCO/ASM1.	

Situation	Lead/ATCO /ASM1	Ref	ATGS	Ref
Level 2 rated SEAT operating over an incident with more than one (1) other tactical aircraft on scene.	Required if no ATGS	1	Required if no Lead/ATCO/ASM1.	1
Foreign Government airtankers.	Required if no ATGS	1	Required if no Lead/ATCO/ASM1.	1
Retardant drops conducted between 30 minutes prior to, and 30 minutes after sunrise, or 30 minutes prior to sunset to 30 minutes after sunset.	Required if no ATGS	1, 2	Required if no Lead/ATCO/ASM1.	1, 2
4 or more airtankers assigned.	Order	1	Order	1
2 or more helicopters with 2 or more airtankers over an incident.	Order	1	Order	1
Periods of marginal weather, poor visibility or turbulence.	Order	1	Order	1
2 or more airtankers over an incident.	Order	1	Order if no Lead/ATCO/ASM 1.	3
When requested by airtanker or ATGS	Required	1	Required	
Smokejumper or paracargo aircraft with 2 or more airtankers over an incident.	Order if no ATGS	1	Order if no Lead/ATCO/ASM 1.	1, 4
Incident has two or more branches.			Order	1, 4

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Air Tactical Operations

The ATGS provides direction, coordination, and supervision to aerial suppression resources—from initial attack to project fires. The ATGS ensures safe and effective air operations to support ground operations, monitors fire behavior, and provides aerial oversight and guidance for firefighters. The minimum Red Card qualifications for an ATGS is Division Supervisor. Although not required, it is highly recommended that ATGS candidates have an aviation background. The transponder code for tactical fire aircraft, on a mission, is 1255.

1 Policy

2 Aerial supervision is required to be on order when operations are conducted over
3 congested areas. An ATGS, ASM, or ATCO is required for aerial supervision.

4
5 Aerial supervision over an incident is recommended when there are more than
6 two aircraft or a mix of aircraft over the incident at the same time. An ASM,
7 ATGS, ATCO (Leadplane), or smokejumper spotter (during smokejumper
8 operations), is recommended for aerial supervision.

9
10 During initial response operations the aerial supervision, in priority order with
11 regard to safety and efficiency, is as follows:

12
13

- 14 • ASM
- 15 • ATGS
- 16 • ATCO (Leadplane)
- 17 • Smokejumper spotter
- 18 • Helicopter manager
- 19 • If aerial operations will continue beyond initial response, an ASM,
20 ATGS or ATCO will be ordered. Aerial supervision response will be
21 commensurate with expected complexity.

22
23 The only approved fixed-wing, low-level operations for fire suppression
24 activities are leadplane, ASM, and paracargo dropping missions. These
25 missions will be conducted with approved and qualified pilots, aircraft, and
26 aircrew. PPE is required for all fixed-wing, low-level flights. Helmets are not
27 required for smokejumpers pilots and ASM flight/aircrew members.

28
29 PPE (flight suit or fire shirt and pants, gloves, and boots) is recommended, but
30 not required for fire reconnaissance and air tactical missions; these missions are
31 not low level.

32
33 Fire aircraft will use transponder settings of 1255 when over incident or not in
34 controlled airspace.

35

36 Organization

37

38

39 ATGS

40 The ATGS is an identified position in the ICS, with training and qualifications
41 prescribed by the NWCG 310-1. The ATGS is a tactical position with two
42 subordinate specialty positions to assist when required - ATCO and Helicopter
43 Coordinator (HLCO). The ATCO, commonly called a leadplane pilot, deals
44 with fixed-wing retardant aircraft, while the HLCO deals with tactical

1 coordination and airspace management for rotary wing aircraft. Some
2 geographic areas and agencies have full time ATGS personnel, while the
3 majority of field units rely on a qualified local person or order the position
4 through the coordination system to perform the job.

5

6 **Operational Procedures**

7 Currently there are four operational modes for ATGSs

8

- 9 1. ASM-1 - The ATGS is in the aircraft with a qualified leadplane pilot.
10 In this module, the ATGS and ATCO missions are combined, with
11 low-level “follow me” and “show me” passes performed as well as the
12 command and control function of the ATGS. ASM Crew Resource
13 Management, and ground and flight familiarization in aircraft type and
14 with avionics is required prior to an ATGS becoming operational in this
15 module. Leadplane pilots and qualified air tactical personnel are
16 responsible for familiarization. Currently only BIA, Alaska State
17 Department of Forestry, and designated USDA Forest Service ATGS
18 are authorized to be on the aircraft, if low-level flight is anticipated.
19 Other ATGS personnel are not authorized to be part of this module.
20 Authorization for other agency personnel to operate in this module
21 must be initiated by the requesting agency and approved by the BIA
22 Aviation Program Manager. Aerial or incident complexity and
23 environmental conditions will dictate when the module ceases low-
24 level operations. The ASM-1 is a national resource.
- 25 2. The ATGS is in a contracted, CWN, or Aircraft Rental Agreement
26 (ARA) fixed-wing aircraft in orbit over the incident. This is not a low-
27 level flight scenario; it will always occur above 500 AGL.
28 Pilot/aircraft carding requirements must be met, and PPE is
29 recommended.
- 30
- 31 3. The ATGS is in a contracted, CWN, or ARA rotary wing aircraft. This
32 mode of operation occurs most often on Type 1 or Type 2 incidents.
33 (Refer to Chapter 13, Aviation Operations)
- 34 4. The ATGS is on the ground with a vantage point of the entire incident.
35 Generally only used due to an aircraft shortage, it is effective when the
36 entire area can be viewed from the ground and the ATGS has VHF-AM
37 and VHF-FM radio communication capability. Helicopter coordination
38 has been used extensively in this manner.

39

40 Any aircraft selected should have as a minimum of two 720 channel VHF-AM
41 radios and one programmable VHF-FM with stand alone guard; the pilot will be
42 carded to perform the air tactical mission. Handheld VHF-FM radios are not
43 acceptable as the only VHF-FM.

44

1 Operational Considerations

- 2 • A relief ATGS and aircraft should be ordered for sustained operations
- 3 to ensure continuous coverage over an incident.
- 4 • Personnel who are performing aerial reconnaissance and detection
- 5 should not perform tactical duties unless they are fully qualified as an
- 6 ATGS.

9 Airspace Coordination

10 The Interagency Airspace Program is an aviation safety program designed to
11 enhance aviation safety and reduce the risk of a mid-air collision. Guidance for
12 this program is found in the *Interagency Airspace Coordination Guide (IACG)*,
13 which has been adopted as policy by the DOI and USDA Forest Service.

14 Additional guidance may be found in the National Interagency Mobilization
15 Guide and supplemented by local Mobilization Guides.

16 All firefighting aircraft are required to have operative transponders and will use
17 a setting of 1255 when engaged in, or traveling to, firefighting operations
18 (excluding ferry flights), unless given a discrete code by Air Traffic Control
19 (ATC).

20
21 Flight planning and Temporary Flight Restriction (TFR) information on World
22 Aeronautical, Sectional and Global Navigational Charts has been made available
23 at the National Interagency Airspace System website <http://airspace.nifc.gov>.

24 TFRs are updated every 30 minutes during normal business hours 7 days a
25 week. A tactical chart with TFR specific information with incident names,
26 frequencies and altitudes are available. These charts can be found at
27 <http://airspace.nifc.gov/mapping/nifc/index.cfm>

28
29 Additional references can be found by contacting the:

- 30
- 31 • Regional Aviation Manager
- 32 • Inter-regional Aviation Manager
- 33 • GACC Airspace Coordinator

34
35 Regional Aviation Managers are the primary contacts for airspace management
36 issues.

39 Flight Management/Flight Following**42 Policy**

- 1 • All flights will have a flight plan with aircraft and passenger
2 information.
- 3 • Special use flight plans require approval by the immediate supervisor
4 and final approval by the appropriate line manager.
- 5 • Bureau policy requires designating a fixed-wing manager for each
6 point-to-point flight transporting personnel.
- 7 • Flight following is the responsibility of the scheduling office and will
8 remain so until transferred through a documented, positive hand-off.
9 Flight-following reports from the aircraft are the responsibility of the
10 pilot-in-command (PIC) in accordance with 14 CFR. Violation of
11 flight following standards requires submission of the SAFECOM per
12 the Departmental Manual.
- 13 • For tactical aircraft that cross dispatch area geographic boundaries, the
14 receiving unit is responsible to confirm arrival of the aircraft via
15 telephone to the receiving GACC.
- 16 • National Flight Following Frequency is 168.650

18 **Types of Flights – Fire & Fire Support**

19
20

21 There are two basic types of flights: Point-to-point and special use.

22

23 **Point-to-point flights** typically originate at one developed airport or permanent
24 helibase, with the direct flight to another developed airport or permanent
25 helibase. Point-to-point flights are conducted solely for the purpose of
26 transportation of personnel or cargo, and do not involve special use flight.

27

28 A point-to-point flight is conducted at greater than 500 feet above ground level
29 (AGL) with no descent at any time below 500 feet AGL. By exclusion, all other
30 flights are special use.

31

32 **Special use flights** are defined by exclusion as all flights not meeting the
33 definition of point-to-point flight. As such, special use flight requires work to
34 be performed in the air (e.g. retardant or water delivery and fire reconnaissance),
35 or through a combination of ground and aerial work (e.g., delivery of personnel
36 and/or cargo from helibases to helispots or unimproved landing sites, rappelling
37 or cargo letdown, horse herding).

38

39 Special use flights inherently require greater planning due to the greater number
40 of hazards and consequent higher degree of risk commonly involved in non-
41 point-to-point flights. These special use flights require approved pilots, air
42 crew, and aircraft.

43

44 Includes the following flight missions:

- 1 • Flights conducted within 500 feet AGL
- 2 • Water or retardant application
- 3 • Parachute delivery of cargo
- 4 • ATGS operations
- 5 • Airtanker coordinator operations
- 6 • Takeoff or landing requiring special techniques due to hazardous
- 7 terrain, obstacles, pinnacles, or surface conditions.
- 8 • Fire reconnaissance (precision recon)

9

10 **End Product Flights**

11

12 Some activities requiring the use of aircraft, such as aerial reseeding,
13 photography, BAER projects, chemical application and others, may be
14 accomplished under an End Product Agreement, acquired through conventional
15 Tribal or BIA procurement or contract administration. This requires no specific
16 aviation oversight, as the result of the operation is the product and the agency is
17 not responsible for flight operations. However, in the event that aviation services
18 are acquired through the AMD the activity is, by definition, a full service
19 aviation contract and is subject to all the oversight required of any other flight
20 activity, to include the risk assessment and approval process, a project aviation
21 plan, and operational oversight by qualified aviation management personnel.

22

23 If an aviation service is requested through AMD, it shall be requested and
24 approved through the appropriate IRAM and administered by a qualified
25 Contracting Officers Representative (COR).

26

27 **Flight Manager Responsibilities for Fixed-wing Aircraft Point-to-point** 28 **Flights**

29

- 30 • Check pilot card to ensure qualifications are current for aircraft type.
- 31 • Check aircraft card to ensure that aircraft is current and approved for
32 mission.
- 33 • Flight plan/flight following: filed with FAA or Agency, facilitate as
34 needed. (Filing, opening, and closing the FAA flight plan is the
35 responsibility of the pilot.) National Flight Following Frequency is
36 168.650.
- 37 • Brief pilot on flight routine/mission objective.
- 38 • Pilot briefing to passengers.
- 39 • Ensure passengers have received and understand briefing; all personnel
40 on board are either crew members, or authorized or official passengers.
- 41 • Check fiscal documents; ensure flight payment paperwork is accurate
42 and, if BIA is paying for the flight that the aircraft is under some type
43 of procurement document and all signatures secured.

44

1 Tactical/Special Use Flights - Fixed Wing

2

3 Tactical missions are aircraft operations associated with IA of wildfires and
4 large wildfire support. The fixed-wing or helicopter manager will brief the pilot,
5 and is responsible for the welfare of the Bureau/Tribal employee(s) while on the
6 mission. All SEAT dispatches will be backed up by a resource order.

7

- 8 • PPE is required for a special-use mission.
- 9 • All personnel will meet training and qualification standards required for
10 the mission.

11

12 Tactical/Special Use Flights - Helicopters

13

14 All dispatches of contract or CWN helicopters for initial attack or other tactical
15 missions will be backed up by a resource order.

16

17 Special-use helicopter flights includes the following:

- 18 • Flights conducted within 500 feet AGL.
- 19 • Water or retardant application.
- 20 • Helicopter coordinator and air tactical group supervisor operations.
- 21 • Aerial ignition activities
- 22 • External load operations
- 23 • Night vision goggle operations
- 24 • Hoversite/autosurvey
- 25 • Rappelling
- 26 • Aerial capture, eradication, and tagging of animals
- 27 • Offshore vessel or platform landings
- 28 • Toe-in, single-skid and step-out landings (prior authorization or
29 exemption required).
- 30 • Takeoff or landing requiring special techniques due to hazardous
31 terrain, obstacles, pinnacles, or surface conditions.
- 32 • Free-fall cargo

33

34 The use of PPE is required for both helicopter flight missions and ground
35 operations. The specific items to be worn are dependent on either the type of
36 flight, the function an individual is performing, or the type of ground operation
37 being conducted. Refer to the tables in Chapter 9 of the IHOG for specific
38 requirements.