

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46

Chapter 16 Aviation Operations/Resources

Purpose and Scope

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.

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

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

Risk management is a necessary requirement for the use of any aviation resource. XXX The Risk risk management process must include risk to ground resources, and the risk of not performing the mission, as well as the risk to the aircrew.

Organizational Responsibilities

National Office

DOI

Aviation Management Directorate (AMD)

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

Bureau of Land Management (BLM)

National Aviation Office (NAO) - NAO develops BLM policy, procedures, and standards. It also maintains functional oversight, and facilitates interagency coordination for all aviation activities. The principal goals are safety and cost-effectiveness. The NAO supports BLM aviation activities and missions. This includes fire suppression, through strategic program guidance, managing aviation programs of national scope, coordination with AMD, and interagency partners. The Fire and Aviation Directorate has the responsibility and authority, after consultation with State FMOs, for funding and acquisition of all fire aircraft, prioritizing the allocation of BLM aircraft on a Bureau wide basis, and

1 approving State Office requests to acquire supplemental aircraft resources.
2 Refer to *BLM National Aviation Plan and Manual 9400* for aviation policy and
3 guides. (Refer to 112 DM 12 for a list of responsibilities.)
4

5 **Forest Service (FS)**

6 The FS has responsibility for all aspects of its aviation program, including
7 aviation policy development, aircraft acquisition, and maintenance management.
8 In addition, the FS has operational responsibility including development of
9 aviation procedures and standards, as well as functional oversight of aviation
10 assets and facilities, accident investigation, and aircraft and pilot inspection.
11

12 The **XXX National Aviation Officer (NAO) Assistant Director, Aviation**, is
13 responsible to the Director of Fire and Aviation Management **XXX (Aviation)**
14 for the management and supervision of the National Headquarters Office in
15 Washington DC, and the detached **XXX Boise Aviation Unit XXX in Boise**.
16 The **XXX NAO AD, Aviation** provides leadership, support and coordination for
17 national and regional aviation programs and operations. (Refer to FSM 5704.22
18 for list of responsibilities.)

19 The **XXX National Aviation Operations Officer (NAOO) Branch Chief,**
20 **Aviation Operations** reports to the **XXX NAO AD, Aviation**, and oversees the
21 **detached Boise Aviation Unit**, and is responsible for **XXX all national aviation**
22 **operational aspects of the aviation program XXX management and oversight.**
23

24 **XXX The Branch Chief, Airworthiness** reports to the AD, Aviation and is
25 responsible for national aircraft worthiness and maintenance program
26 management and oversight.
27

28 **XXX The Branch Chief, Aviation Risk Management** reports to the AD, Risk
29 Management and Training and is responsible for the national aviation safety and
30 risk management program and oversight.
31

32 **State/Regional Office**

- 33 • *BLM - State FMOs are responsible for providing oversight for aircraft*
34 *hosted in their state. State FMOs have the authority and responsibility to*
35 *approve, with National Office concurrence, acquisition of supplemental*
36 *aircraft resources within their state. State FMOs have the authority to*
37 *prioritize the allocation, pre-positioning and movement of all aircraft*
38 *assigned to the BLM within their state. State Offices will coordinate with*
39 *the National Office on movement of their aircraft outside of their State. A*
40 *State Aviation Manager (SAM) is located in each state office. SAMs are*
41 *delegated as the Contracting Officers Representative (COR) for all*
42 *exclusive use aircraft hosted by their state. SAMs implement aviation*
43 *program objectives and directives to support the agency mission and state*
44 *objectives. A state aviation plan is required to outline the state aviation*
45 *program objectives and to identify state specific policy and procedures.*

- 1 • **NPS/FWS** - A Regional Aviation Manager (RAM) is located in each
2 regional office. RAMs implement aviation program objectives and
3 directives to support the agency mission and region objectives. Several
4 regions have additional support staff, and/or pilots assigned to support
5 aircraft operations and to provide technical expertise. A regional aviation
6 operations and management plan is required to outline the region's aviation
7 program objectives and to identify region-specific policy and procedures.
- 8 • **FS** - Regional Aviation Officers (RAOs) are responsible for directing and
9 managing Regional aviation programs in accordance with the National and
10 Regional Aviation Management Plans, and applicable agency policy
11 direction. (Refer to FSM XXX-5720.47e 5700 and FSH 5709.16 for list of
12 responsibilities.) RAOs report to Director of Fire and Aviation for their
13 specific Region. Regional Aviation Safety Managers (RASMs) are
14 responsible for aviation safety in their respective Regions, and work closely
15 with the RAO to ensure aviation safety is an organizational priority XXX
16 (refer to FSM 5700 and FSH 5709.16 for list of responsibilities). Most
17 Regions have additional aviation technical XXX experts specialists and
18 pilots who help manage and oversee the Regional aviation programs. Most
19 Regions also have Aviation Maintenance Inspectors, XXX Airtanker Fixed-
20 wing Program Managers, Helicopter Program Managers, Helicopter
21 Operations Specialists, Inspector Pilots, etc.

23 Local Office

24 Some areas have interagency aviation programs that utilize an Aviation Manager
25 for multiple units. Duties are similar as other local level managers.

- 26 • **BLM** - Unit Aviation Managers (UAMs) serve as the focal point for the
27 Unit Aviation Program by providing technical expertise and management of
28 aviation resources to support Field Office/District programs. Field/District
29 Offices are responsible for hosting, supporting, providing daily
30 management, and dispatching all aircraft assigned to their unit.
31 Field/District Offices have the authority to request additional resources; to
32 establish priorities, and make assignments for all aircraft assigned to the
33 BLM within their unit or zone.
- 34 • **NPS** - Organizational responsibility refer to DO-60, RM-60.
- 35 • **FS** - Unit Aviation Officers (UAOs)/Forest Aviation Officers (FAOs) have
36 the responsibility for aviation activities at the local level, including aviation
37 mission planning, XXX risk management and safety measures, supervision,
38 and evaluation. UAOs/FAOs assist Line Officers with risk
39 assessment/management and cost analysis. (Refer to FSH 5709.16_10.42)

41 Aviation Information Resources

42
43 Aviation reference guides and aids for agency aviation management are listed
44 for policy, guidance, and specific procedural requirements.

- 45 • **BLM** - 9400 Manual Appendix 1, National Aviation Plan, State and Unit
46 Aviation Plans (In all cases DOI policy Department Manuals [DMs],

- 1 *Operational Procedural Memoranda [OPMs], and BLM policy will take*
 2 *precedence.) IHOG, ISOG and Interagency Aerial Supervision Guide*
 3 *(IASG).*
 4 ● *FWS - Service Manual 330-339, Aviation Management and IHOG.*
 5 ● *NPS - RM-60 Aviation Management Reference Manual and IHOG &*
 6 *IASG.*
 7 ● *FS - FSM 5700, XXX ISMOG, FSH 5709.16 and XXX IHOG & IASG*
 8 *applicable aviation guides as referenced in policy.*

9
 10 Safety alerts, operational alerts, instruction memoranda, information bulletins,
 11 incident reports, and other guidance or information are issued as needed.

12
 13 An up-to-date library with aviation policy and procedural references will be
 14 maintained at all permanent aviation bases, dispatch, and aviation management
 15 offices.

16 Aviation Safety

17
 18 The FS and the BLM have adopted Safety Management Systems (SMS) as the
 19 foundation to our aviation safety program. The four pillars of SMS are Safety
 20 Policy, Safety Risk Management, Safety Assurance and Safety Promotion. SMS
 21 is the standard for safety set by the International Civil Aviation Organization
 22 (ICAO) and the Federal Aviation Administration (FAA).

23
 24 ~~XXX SMS will promote the transition from the traditional approach to aviation~~
 25 ~~safety which:~~

- 26 ● ~~Reacts to undesirable events~~
 27 ● ~~Focused on compliance~~
 28 ● ~~Culture of blame and individual accountability~~
 29 ● ~~Addresses only known safety concerns~~
 30 ● ~~Identifies who, so we know who to punish~~

31
 32 ~~To the contemporary approach that is:~~ XXX SMS focuses on

- 33 ● Emphasis on proactive risk management
 34 ● Promotes a “Just” culture
 35 ● Addresses systemic safety concerns
 36 ● Holds the organization accountable
 37 ● Identifies “What” so we can manage the manageable
 38 ● Communicates the “Why” so the culture can learn from mistakes

39
 40 The intent of SMS is to improve the aviation culture by increasing hazard
 41 identification, reduce risk taking behavior, learn from mistakes and correct
 42 procedures before a mishap occurs rather than after the accident. More
 43 information on SMS is available at the Wildland Fire Lessons Learned Center
 44 under the Lessons Learned in Link at wildfirelessons.net

45

1 **Risk Assessment and Risk Management**

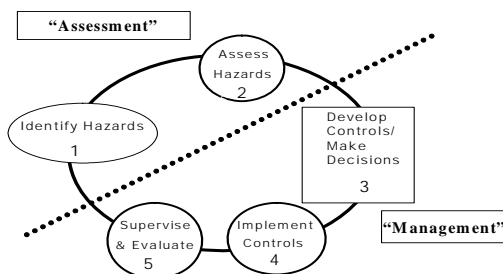
2 The use of Risk Management will help to ensure a safe and successful operation.
 3 Risk is the probability that an event will occur. Assessing risk identifies the
 4 hazard, the associated risk, and places the hazard in relationship to the mission.
 5 A decision to conduct a mission requires weighing the risk against the benefit of
 6 the mission and deciding whether the risks are acceptable.

7
 8 Aviation missions always have some degree of risk. The four sources of hazards
 9 are methods, medium, man, and machine. Managing risk is a 5-step process:

- 10 ● Identify hazards associated with all specified and implied tasks for the
 11 mission.
- 12 ● Assess hazards to determine potential of occurrence and severity of
 13 consequences.
- 14 ● Develop controls to mitigate or remove risk, and make decisions based on
 15 accepting the least risk for the best benefit.
- 16 ● Implement controls - (1) education controls, (2) physical controls, and (3)
 17 avoidance controls.
- 18 ● Supervise and Evaluate - enforce standards and continuously re-evaluate
 19 their effectiveness in reducing or removing risk. Ensure that controls are
 20 communicated, implemented, and enforced.

21

THE RISK MANAGEMENT PROCESS



22

23 **How to Properly Refuse Risk (Aviation)**

24 Every individual (government and contracted employees) have the right and
 25 obligation to report safety problems affecting his or her safety and has the right
 26 to contribute ideas to correct the hazard. In return, supervisors are expected to
 27 give these concerns and ideas serious consideration. When an individual feels
 28 an assignment is unsafe, he or she also has the obligation to identify, to the
 29 degree possible, safe alternatives for completing that assignment. Turning down
 30 an assignment is one possible outcome of managing risk.

31

32 A "turn down" is a situation where an individual has determined he or she
 33 cannot undertake an assignment as given and is unable to negotiate an

1 alternative solution. The turn down of an assignment must be based on
2 assessment of risks and the ability of the individual or organization to control or
3 mitigate those risks. Individuals may turn down an assignment because of
4 safety reasons when:

- 5 • There is a violation of regulated safe aviation practices.
- 6 • Environmental conditions make the work unsafe.
- 7 • They lack the necessary qualifications or experience.

8
9 Individuals will directly inform their supervisor that they are turning down the
10 assignment as given. The most appropriate means of documented turn down
11 criteria is using the Aviation Watch Out Situations (page XXX 46 52 IRPG).

12
13 Supervisors will notify the Air Operations Branch Director (AOBD) XXX or
14 unit aviation leadership immediately upon being informed of a turn down. If
15 there is no AOBD, notification shall go to the appropriate Section Chief, the
16 Incident Commander or local XXX fire and aviation staff. Proper handling of
17 turn downs provides accountability for decisions and initiates communication of
18 safety concerns within the incident organization.

19
20 If the assignment has been turned down previously and the supervisor asks
21 another resource to perform the assignment, he or she is responsible to inform
22 the new resource that the assignment had been turned down and the reasons
23 why. Furthermore, personnel need to realize that a “turn down” does not stop
24 the completion of the assigned operation. The “turn down” protocol is an
25 integral element that improves the effective management of risk, for it provides
26 timely identification of hazards within the chain of command, raises risk
27 awareness for both leaders and subordinates, and promotes accountability.

28
29 If an unresolved safety hazard exists the individual needs to communicate the
30 issue/event/concern immediately to his or her supervisor and document as
31 appropriate.

32

33 Aviation Safety Support

34

35 During high levels of aviation activity it is advisable to request an XXX
36 Aviation Safety and Technical Assistance Team (ASTAT). An ASTAT's
37 purpose is to XXX enhance risk management, assist and review XXX helicopter
38 and/or fixed wing aviation operations on wildland fires. XXX They An ASTAT
39 should be requested through the agency chain of command and operate under a
40 Delegation of Authority from the appropriate State/Regional Aviation
41 Manager(s) or Multi Agency Coordinating Group. Formal written reports XXX
42 will shall be provided to the appropriate manager(s) as outlined at the in-brief.

43 A team should consist of the following:

- 44 • Aviation Safety Manager
- 45 • Operations Specialist (helicopter and/or fixed wing)
- 46 • Pilot Inspector

- 1 • Maintenance Inspector (optional)
- 2 • Avionics Inspector (optional)

3

4 **Aviation Safety Briefing**

5 Every passenger must receive a briefing prior to each flight. The briefing is the
6 responsibility of the Pilot in Command (PIC) but may be conducted by the pilot,
7 flight manager, helicopter manager, fixed-wing base manager, or an individual
8 with the required training to conduct an aviation safety briefing. The pilot
9 should also receive a mission briefing from the government aircraft manager
10 Refer to the *Incident Response Pocket Guide (IRPG)* and *IHOG* Chapter 10.

11

12 **Aviation Hazard**

13 An aviation hazard is any condition, act, or circumstance that compromises the
14 safety of personnel engaged in aviation operations. Pilots, flight crew personnel,
15 aviation managers, incident air operations personnel, and passengers are
16 responsible for hazard identification and mitigation. Aviation hazards may
17 include but are not limited to 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 Aviation hazards also exist in the form of wires, low-flying aircraft, and
31 obstacles protruding beyond normal surface features. Each office will post,
32 maintain, and annually update a "Known Aerial Hazard Map" for the local
33 geographic area where aircraft are operated, regardless of agency jurisdiction.
34 This map will be posted and used to brief flight crews. Unit Aviation Managers
35 are responsible for ensuring the development and updating of Known Aerial;
36 Hazard Maps (IHOG Ch 3.V.J.1.c page 3-20)

37

38 **Aerial Applications of Wildland Fire Chemical Safety**

39 Chapter 12 contains information concerning the aerial application of wildland
40 fire chemicals.

41

42 **SAFECOM**

43

44 The DOI and the FS have an incident/hazard reporting form called The Aviation
45 Safety Communiqué (SAFECOM). The database, available at

1 <https://www.safecom.gov/> fulfills the Aviation Mishap Information System
2 (AMIS) requirements for aviation mishap reporting for the DOI agencies and the
3 FS. Categories of reports include: Accidents, Airspace, Hazards, Incidents,
4 Maintenance, Mishap Prevention and Kudos. The system uses the SAFECOM
5 Form **XXX GAS AMD**-34 or FS-5700-14 to report any condition, observation,
6 act, maintenance problem, or circumstance with personnel or aircraft that has the
7 potential to cause an aviation-related mishap. The SAFECOM system is not
8 intended for initiating punitive actions. Submitting a SAFECOM is not a
9 substitute for "on-the-spot" correction(s) to a safety concern. It is a tool used to
10 identify, document, track and correct safety related issues. A SAFECOM does
11 not replace the requirement for initiating an accident or incident report.

12
13 Any individual (including cooperators) with knowledge of an incident/hazard
14 should complete a SAFECOM. The SAFECOM form should be entered directly
15 on the internet at <https://www.safecom.gov/> or can be faxed to the Department
16 of the Interiors Aviation Management Directorate, Aviation Safety (208)433-
17 5069 or to the FS at (208) 387-5735 ATTN: SAFETY. Electronic cc copies are
18 automatically forwarded to the National, Regional, and State and Unit Aviation
19 Managers.

20
21 The agency with operational control of the aircraft at the time of the
22 hazard/incident/accident is responsible for completing the SAFECOM and
23 submitting it through agency channels.

24 **Aircraft Incidents/Accidents**

25
26
27 **XXX Notify** Notification to the FS or AMD and DOI agency Aviation Safety
28 Managers **XXX of-is required for** any aircraft mishap involving damage or
29 injury. Use the hotline (888) 464-7427 or the most expeditious means possible.
30 Initiate the appropriate unit Aviation Mishap Response Plan.

31 **Low-level Flight Operations**

32
33
34 The only fixed-wing aircraft missions authorized for low-level fire operations
35 are:

- 36 • Para-cargo.
- 37 • Aerial Supervision Module (ASM) and Lead/ATCO operations.
- 38 • Retardant, water and foam application.

39 **Operational Procedures:**

- 40 • A high-level recon will be made prior to low-level flight operations.
- 41 • All flights below 500 feet will be contained to the area of operation.
- 42 • PPE is required for all fixed-wing, low-level flights. Helmets are not
43 required for multi-engine airtanker crews, smokejumper pilots and ASM
44 flight/aircrew members.

45
46

1 Congested Area Flight Operations

2

3 Airtankers can drop retardant in congested areas under DOI authority given in
4 *FAR Part 137*. FS authority is granted under exemption 392, from *FAR 91.119*
5 *as referenced in FSM 5714*. When such operations are necessary, they may be
6 authorized subject to these limitations:

- 7 • Airtanker operations in congested areas may be conducted at the request of
8 the city, rural fire department, county, state, or federal fire suppression
9 agency.
- 10 • An ASM/Lead/ATCO is ordered to coordinate aerial operations.
- 11 • The air traffic control facility responsible for the airspace is notified prior to
12 or as soon as possible after the beginning of the operation.
- 13 • A positive communication link must be established between the aerial
14 supervision module ASM or Lead/ATCO, airtanker pilot(s), and the
15 responsible fire suppression agency official.
- 16 • The IC for the responsible fire agency or designee will advise the
17 ASM/leadplane/airtanker that all non-essential people and movable property
18 have been cleared prior to commencing retardant drops.

19

20 Airspace Coordination

21

22 The Interagency Airspace Program is an aviation safety program designed to
23 enhance aviation safety and reduce the risk of a mid-air collision. Guidance for
24 this program is found in the *Interagency Airspace Coordination Guide (IACG)*,
25 which has been adopted as policy by the DOI and FS. Additional guidance may
26 be found in the *National Interagency Mobilization Guide* and supplemented by
27 local Mobilization Guides.

28 ~~XXX~~ <http://www.fs.fed.us/r6/fire/aviation/airspace/web/guide/index.html>,
29 www.airspacecoordination.net or <http://airspace.nifc.gov/>

30

31 All firefighting aircraft are required to have operative transponders and will use
32 a ~~XXX~~ [setting transponder code](#) of 1255 when engaged in, or traveling to,
33 firefighting operations (excluding ferry flights), unless given a discrete code by
34 Air Traffic Control (ATC).

35

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

39 ~~XXX TFRs are updated every 30 minutes during normal business hours 7 days a~~
40 ~~week.~~ A tactical chart with TFR specific information with incident names,

41 frequencies and altitudes are available. These charts can be found at

42 <http://airspace.nifc.gov/mapping/nifc/index.cfm>

43 Additional references can be found by contacting:

- 44 • **BLM - State Aviation Managers, ~~XXX Regional Airspace Coordinator and~~**
45 **~~the BLM National Aviation Office Airspace Coordinator- National Airspace~~**
46 **~~Program Manager.~~**

Release Date: January 2011

16-9

- 1 • NPS - Regional Aviation Managers
- 2 • FS - Regional Aviation ~~XXX Safety Officers XXX Regional Airspace~~
- 3 ~~Coordinators and the FS Airspace Program Manager.~~
- 4 • FWS - National Aviation Safety and Operations

6 Flight Request and Approval

- 7 • ~~BLM – XXX The 9400 1a, Aircraft Flight Request/Schedule Form, will be~~
- 8 ~~used for approval and flight planning. This form will be completed between~~
- 9 ~~the aircraft dispatcher and flight manager for flights not requested on a Fire~~
- 10 ~~Resource Order. The fixed wing or helicopter manager will use this form to~~
- 11 ~~brief the pilot on the mission. Reference the BLM National Aviation Plan,~~
- 12 ~~Chapter 3, available at:~~
- 13 ~~<http://www.blm.gov/style/medialib/blm/nifc/aviation/administration.Par.39>~~
- 14 ~~484.File.dat/NAP.pdf~~
- 15 • NPS - Reference RM 60, Appendix 3 & 4.
- 16 • FS - Refer to FSM ~~XXX 5700 5711.3~~ for administrative use, FSM 5705 for
- 17 ~~point-to-point and mission use for types of FS flights. XXX All non-tactical~~
- 18 ~~flights require a flight schedule to be completed with a flight following~~
- 19 ~~method identified prior to departure; with information passed to all~~
- 20 ~~responsible dispatch centers.~~

- 21
- 22 **Point-to-point flights** ~~XXX typically~~ originate at one developed airport or
- 23 permanent helibase, with the direct flight to another developed airport or
- 24 permanent helibase. These flights require approved pilots, aircrew, and aircraft.
- 25 • A point-to-point flight shall be conducted higher than 500 feet above ground
- 26 level (AGL).

27

28 Agency policy requires designating a Flight Manager for point-to-point flights

29 transporting personnel. The Flight Manager is a government employee that is

30 responsible for coordinating, managing and supervising flight operations. The

31 Flight Manager is not required to be on board for most flights. For those flights

32 that have multiple legs or are complex in nature a Flight Manager should attend

33 the entire flight. The Flight Manager will meet the qualification standard for the

34 level of mission assigned as set forth in the *Interagency Aviation Training Guide*

35 (IAT).

- 36 • ~~BLM – XXX All agency flights shall be approved using an aircraft~~
- 37 ~~request/flight schedule, USDI form 9400 1a. This form is used to authorize,~~
- 38 ~~plan and brief the pilot on non-fire flights. Reference the BLM National~~
- 39 ~~Aviation Plan, Chapter 3, available at:~~
- 40 ~~<http://www.blm.gov/style/medialib/blm/nifc/aviation/administration.Par.39>~~
- 41 ~~484.File.dat/NAP.pdf~~
- 42 • NPS - Reference RM-60, Appendix 3 for agency specific policy.
- 43 • FS - Refer to FSM ~~XXX 5740.5 5711.3~~ for administrative use, FSM 5705
- 44 ~~for point-to-point and mission use for types of FS flights.~~

45

1 Mission Flights

2 Mission flights are defined as flights not meeting the definition of point-to-point
3 flight. A mission flight requires work to be performed in the air (retardant or
4 water delivery, fire reconnaissance, smokejumper delivery), or through a
5 combination of ground and aerial work (delivery of personnel and/or cargo from
6 helibases to helispots or unimproved landing sites, rappelling or cargo let-down,
7 horse herding).

8
9 ~~XXX A Fixed-wing Flight Manager Special Use is required for all non fire
10 fixed-wing missions other than point to point flying (i.e. reconnaissance below
11 500 feet, infrared, aerial photo, and other missions requiring special training
12 and/or equipment). The Fixed-wing Flight Manager Special Use will meet the
13 qualification standard for the level of mission assigned as set forth in the
14 Interagency Aviation Training Guide (IAT).~~

15 • PPE is required for any fixed wing mission flight conducted below ~~XXX~~
16 ~~within~~ 500' AGL. Flight helmets are not required for multi-engine airtanker
17 crews, smokejumper pilots and ASM flight/aircrew members.

18 • ~~XXX Required attire for ATGS and fire reconnaissance are:~~

19 ~~Leather shoes or boots~~

20 ~~Natural fiber shirt, full length cotton or nomex pants, or flight suit~~

21 • The use of PPE is required for all helicopter flight (point to point and
22 mission) and associated ground operations. The specific items to be worn
23 are dependent on the type of flight, the function an individual is performing,
24 or the ground operation being conducted. Refer to the tables in Chapter 9 of
25 the IHOG for specific requirements.

26 • All personnel will meet training and qualification standards required for the
27 mission.

28 • Agency FM radio capability is required for all mission flights.

29 • All passengers must be authorized and all personnel onboard must be
30 essential to the mission.

31
32 Mission flights for fixed-wing aircraft include but are not limited to the
33 following:

- 34 • Water or retardant application
- 35 • Parachute delivery of personnel or cargo
- 36 • Airtanker coordinator operations
- 37 • Takeoff or landing requiring special techniques due to hazardous terrain,
38 obstacles, or surface conditions

39
40 Mission helicopter flights include but are not limited to the following:

- 41 • Flights conducted within 500 feet AGL
- 42 • Water or retardant application
- 43 • Helicopter coordinator and ATGS operations
- 44 • Aerial ignition activities
- 45 • External load operations

- 1 • Rappelling
- 2 • Takeoff or landing requiring special techniques due to hazardous terrain,
- 3 obstacles, pinnacles, or surface conditions
- 4 • Free-fall cargo
- 5 • Fire reconnaissance

6

7 Flight-Following All Aircraft

8

9 Flight-Following is mandatory for all flights. ~~XXX The pilot has the~~
10 ~~responsibility to determine which flight following procedure is to be utilized.~~
11 ~~Mission Flights are required to utilize agency flight following radio or~~
12 ~~automated flight following (AFF). Point to point, non mission flights can~~
13 ~~utilize Agency or FAA flight following. Refer to the *National Interagency*~~
14 ~~*Mobilization Guide* XXX section 24.3 for specific direction.~~

- 15 • ~~XXX Aircraft Managers, Pilots and Dispatchers are responsible for~~
16 ~~coordinating and confirming the method of flight following to be utilized.~~
- 17 • ~~XXX Flight following reports from the aircraft are the responsibility of the~~
18 ~~pilot in command (PIC) in accordance with 14 CFR.~~
- 19 • ~~XXX Agency FM radio capability is required for all mission flights.~~
- 20 • ~~XXX For mission flights, there are two types of Agency Flight Following:~~
21 ~~Automated Flight Following (AFF), and radio check-in. AFF is the~~
22 ~~preferred method of agency flight following. If the aircraft and flight~~
23 ~~following office have AFF capability, it shall be utilized. Periodic radio~~
24 ~~transmissions are acceptable when utilizing AFF. Reference the AFF~~
25 ~~procedures section of the *National Interagency Mobilization Guide* for more~~
26 ~~information.~~
- 27 • All dispatch centers designated for fire support shall have the ability to
28 monitor AFF as well as the capability to transmit and receive “National
29 Flight Following” and “Air Guard”
- 30 • If AFF becomes inoperable the aircraft will normally remain available for
31 service, utilizing radio/voice system for flight following. Each occurrence
32 must be evaluated individually and decided by the COR/CO.
- 33 • ~~XXX The default standard for lower 48 interagency fire operations is for all~~
34 ~~aircraft to maintain positive radio contact with 15 minute check ins.~~
- 35 • Helicopters conducting Mission Flights shall check-in prior to and
36 immediately after each takeoff/landing per IHOG 4.II.E.2
- 37 • ~~XXX Aircraft operating under certain contracts may not be required to be~~
38 ~~equipped with AFF and/or FM radios. Consult the appropriate procurement~~
39 ~~document for the aircraft in question to determine applicability.~~
- 40 • ~~XXX Violation of flight following standards requires submission of a~~
41 ~~SAFECOM.~~

42

43

44

45 Sterile Cockpit All Aircraft

1
2 Sterile cockpit rules apply within a 5-mile radius of the airport. The flight crew
3 will perform no radio or cockpit communication during that time that is not
4 directly related to safe flight of the aircraft from taxi to 5 miles out and from 5
5 miles out until clearing the active runway. This would consist of reading
6 checklists, communication with Air Traffic Control (ATC), Flight Service
7 Stations, Unicom, or other aircraft with the intent of ensuring separation or
8 complying with ATC requirements. Communications by passengers or air crew
9 members can be accomplished when the audio panels can be isolated and do not
10 interfere with flight operations of the flight crew.

11
12 **Exception:** When conducting firefighting missions within 5 miles of an
13 uncontrolled airport, maintain sterile cockpit until departing the traffic pattern
14 and reaching final altitude. Monitor CTAF frequency if feasible while engaged
15 in firefighting activities. Monitor CTAF as soon as practical upon leaving the
16 fire and returning to the uncontrolled airport. When conducting firefighting
17 missions within Class B, C, or D airspace, notify dispatch that ATC
18 communications will have priority over dispatch communications.

20 **Interagency Interim Flight and Duty Limitations**

21
22 ~~XXX Refer to the *Interagency Aerial Supervision Guide* (NFES 2544).~~

23 **Phase 1** - Standard Flight and Duty Limitations (Abbreviated Summary)

- 24 • Fourteen (14) hour maximum duty day
- 25 • Eight (8) hours maximum daily flight time for mission flights
- 26 • Ten (10) hours for point-to-point, with a two (2) pilot crew
- 27 • Maximum cumulative flight hours of thirty-six (36) hours, up to forty-two
28 (42) hours in six (6) days
- 29 • Minimum of ten (10) hours uninterrupted time off (rest) between duty
30 periods

31 This does not diminish the authority or obligation of any individual COR
32 (Contracting Officer Representative) or Aviation Manager to impose shorter
33 duty days or additional days off at any time for any flight crew members for
34 fatigue. This is currently provided for in agency direction and contract
35 specifications.

37 **Interim Flight and Duty Limitations Implementation**

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

43
44 Implementation decisions will be made on a coordinated, interagency basis,
45 involving the GACC, NICC, NMAC and National Aviation Representatives at
46 NIFC.

Release Date: January 2011

16-13

1
2 Official notification of implementation should be made by the FS Regional
3 Aviation Officer (RAO) and DOI Aviation Managers through the GACC and,
4 for broader scope implementations, by National Aviation Management through
5 NIFC.

6

7 **Phase 2 - Interim Duty Limitations**

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

10

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

16

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

22

23 **Phase 3 - Interim Duty Limitations**

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

27

28 Flight crew members shall have a minimum of twelve (12) consecutive hours of
29 uninterrupted rest (off duty) during each duty day cycle. The standard duty day
30 shall be no longer than twelve (12) hours, except a crew duty day extension shall
31 not exceed a cumulative fourteen (14) hour duty day. The next flight crew rest
32 period shall then be adjusted to equal the extended duty day, i.e., thirteen (13)
33 hour duty day, thirteen (13) hours rest; fourteen (14) hour duty day, fourteen
34 (14) hours rest. Extended duty day applies only to completion of a mission. In
35 no case may standby be extended beyond the twelve (12) hour duty day.

36

37 Double crews (two (2) complete flight crews assigned to an aircraft), augmented
38 flight crews (an additional pilot-in-command assigned to an aircraft), and
39 aircraft crews that work a rotating schedule, i.e., two (2) days on, one (1) day
40 off, seven (7) days on, seven (7) days off, or twelve (12) days on, twelve (12)
41 days off, may be exempted from Phase 2 Limitations upon verification that their
42 scheduling and duty cycles meet or exceed the provisions of Paragraph a. of
43 Phase 2 and Phase 1 Limitations.

44 Exemptions of Phase 3 provisions may be requested through the local Aviation
45 Manager or COR, but must be approved by the FS RAO or DOI Area Aviation
46 Manager.

1 Aviation Assets

2
3 Typical agency aviation assets ~~XXX are include: Helitack and Rappel crews, Smokejumpers, Large Airtankers, Single Engine Air Tankers, Water Scoopers, Helitankers, Air Attack, Aerial Supervision Modules, Lead Planes, Airtanker Bases, SEAT Bases, Helibases, Smokejumper Bases. Helitack or Rappel, Aerial Supervision (ATGS, Lead, ASM), Large (multi-engine) Airtankers, Single Engine Airtankers, and Smokejumpers.~~

- 9
10 • **BLM** - All BLM acquired aircraft, exclusive use On-Call, CWN and Variable Term, are available to move to areas of greatest Bureau need, thereby maximizing efficiency and effectiveness. Specific authorities and responsibilities for Field/State and National Offices are outlined earlier in this chapter. Offices are expected to adhere to procedures established in the National Aviation Plan for both acquisition and use reporting.

18 Helitack

19
20 Helitack crews perform suppression and support operations to accomplish fire and resource management objectives.

22 Organization - Crew Size

- 23 • **BLM** - The standard BLM exclusive-use helitack crew ~~XXX size for a type 3 helicopter~~ is a minimum of seven personnel (PFT supervisor, long-term assistant, long-term ~~XXX lead squad boss~~ and four temporaries). The standard BLM exclusive-use helitack crew ~~XXX size for a type 2 helicopter~~ is a minimum of ten personnel (PFT supervisor, long-term assistant, long-term ~~XXX lead squad boss~~ and seven temporaries). BLM helicopters operated in Alaska need only be staffed with a qualified Helicopter Manager (HMGB). Exception to these minimum crew staffing standards must be exempted by the National Aviation Office.
- 32 • **NPS** - Helicopter Exclusive Use modules will consist of a minimum of 8 fire funded personnel. The NPS regions may establish larger crew size and standards for their exclusive use helicopter crews based on the need for an all hazard component (Fire, SAR, Law Enforcement, and EMT). Exception to minimum helicopter crew staffing standards must be approved by the National Aviation Office. ~~Buckley Placeholder~~
- 38 • **FS** - Regions may establish minimum crew size and standards for their exclusive use helitack crews. Experience requirements for exclusive-use helicopter positions are listed in FSH 5109.17, Chapter 40.

42 Operational Procedures

43 The Interagency Helicopter Operations Guide (IHOG) ~~XXX NFES 1885~~ is policy for helicopter operations.

- 45 • ~~XXX FWS - IHOG does not serve as policy for natural resource missions.~~

46 Communication

Release Date: January 2011

16-15

1 The helitack crew standard is one handheld programmable multi-channel FM
 2 radio per every 2 crew persons, and one multi-channel VHF-AM programmable
 3 radio in the primary helitack crew (chase) truck. Each helitack crew (chase)
 4 vehicle will have a programmable VHF-FM mobile radio. Each permanent
 5 helibase will have a permanent programmable FM radio base station and should
 6 be provided a VHF-AM base station radio.

7

8 **Transportation**

9 Dedicated vehicles with adequate storage and security will be provided for
 10 helitack crews. The required Gross Vehicle Weight (GVW) of the vehicle will
 11 be dependent upon the volume of equipment carried on the truck and the number
 12 of helitack crewmembers assigned to the crew.

- 13 • **BLM - Minimum vehicle configuration for a seven person crew will consist**
 14 **of one Class 661 Helitack Support Vehicle and one Class 156, 6-Pack**
 15 **pickup or Class 166 carryall.**

16

17 **Training and Experience Requirements**

18 All helitack members will meet fire qualifications as prescribed by the *National*
 19 *Wildfire Coordinating Group (NWCG) 310-1* and their agency manual
 20 requirements. The following chart establishes experience and training
 21 requirements for FS, BLM, NPS, and FWS Exclusive Use, Fire Helicopter Crew
 22 Positions.

23

24 Non-Exclusive Use HECM's and HMGB's should also meet the following
 25 currency requirements.

26

Exclusive Use Fire Helicopter Position Prerequisites			
POSITION ¹	MINIMUM PREREQUISITE EXPERIENCE ²	MINIMUM REQUIRED TRAINING ³	CURRENCY REQUIREMENTS
Fire Helicopter Crew Supervisor	One season ⁴ as an Assistant Fire Helicopter Crew Supervisor, ICT4, HMGB, HEB2		RT-372 ⁵
Assistant Fire Helicopter Crew Supervisor	One season as a Fire Helicopter Squad Leader, ICT4, HMGB, HEB2 (T)	I-200, S-200, S-215, S-230, S-234, S-260, S-270, S-290, S-371, S-372	RT-372 ⁵
Fire Helicopter Squad XXX Leader Boss	One season as a Fire Helicopter Crewmember, FFT1, ICT5	S-131, S-133, S-211, S-212	
Fire Helicopter	One season as a FFT2, HECM(T) XXX	I-100, S-130, S-190, S-271	

Crewmember	Taskbook		
------------	----------	--	--

- 1 ¹ All Exclusive use Fire Helicopter positions require an arduous fitness rating.
- 2 ² Minimum experience and qualifications required prior to performing in the
- 3 Exclusive use position. Each level must have met the experience requirements of
- 4 the previous level(s).
- 5 ³ Minimum training required to perform in the position. Each level must have
- 6 met the training requirements of the previous level(s).
- 7 ⁴ A “season” is continuous employment in a primary wildland fire position for a
- 8 period of 90 days or more.
- 9 ⁵ After completing S-372, must attend Interagency Helicopter Manager
- 10 Workshop (RT-372) in three years and every three years thereafter.
- 11 ~~XXX FS- 5109.17_27.1 requires biennial attendance after certification in~~
- 12 ~~the position occurs.~~
- 13 ⁶ ~~XXX Must receive S-271 or serve as S-271 instructor, once every three years.~~
- 14 **Note:** Exceptions to the above position standards and staffing levels may be
- 15 granted, on a case-by-case basis by the BLM National Aviation Office, NPS
- 16 Regional Office FWS Regional Office, or FS Regional Office as appropriate.
- 17 • Some positions may be designated as COR/Alternate-COR. If so, see
- 18 individual Agency COR training & currency requirements.
- 19 • Fire Helicopter Managers (HMGB) are fully qualified to perform all the
- 20 duties associated with Resource Helicopter Manager.

Helicopter Rappel & Cargo Let-Down

- 23 Any rappel or cargo let-down programs must be approved by the appropriate
- 24 agency national headquarters.
- 25 • *BLM - BLM personnel involved in an Interagency Rappel Program must*
- 26 *have SAM approval.*
- 27 • *NPS - Approval is required by the National Office.*
- 28 • *FS - Approval is required by the XXX Regional National Office.*

30 All rappel and cargo let-down operations will follow the *Interagency Helicopter*
 31 *Rappel Guide (IHRG)*, as policy. Any exemption to the guide must be by the
 32 program through the state/region for approval by the National Aviation Office
 33 ~~XXX (BLM), or Director of Fire and Aviation (FS).~~

Aerial Ignition

37 *The Interagency Aerial Ignition Guide (IAIG)* is policy for all aerial ignition
 38 activities.

Aerial Supervision

42 ~~XXX Aerial supervision resources will be dispatched, when available, for initial~~
 43 ~~and extended attack to enhance efficiency and safety of ground and aerial~~

1 operations. During initial response operations, aerial supervision priority order
2 with regard to safety and efficiency are as follows:

- 3 ● ASM
- 4 ● ATGS
- 5 ● ATCO (Leadplane)
- 6 ● HLCO Helicopter Coordinator
- 7 ● Smokejumper Spotter
- 8 ● HMGB (Helicopter Manager)

9
10 If aerial operations continue beyond initial response, an ASM, ATGS, or
11 Lead/ATCO will be ordered. Aerial supervision response will be commensurate
12 with expected complexity.

13
14 XXX Aerial supervision resources will be dispatched when available to
15 initial/extended attack incidents in order to enhance safety, effectiveness, and
16 efficiency of aerial/ground operations.

17
18 When aerial supervision resources (ATGS, Lead, or ASM) are collocated with
19 Airtankers, they should be launched together to maximize the safety of the flight
20 crews, the efficiency of chemical delivery, and the effectiveness of the fire
21 chemical.

22 Incidents with three or more aircraft over/assigned to them should also have
23 aerial supervision in the form of ATGS or ASM.

24 Policy dictates additional aerial supervision requirements which are referenced
25 in the *Interagency Aerial Supervision Guide* (NFES 2544).

26 27 **Air Tactical Group Supervisor (ATGS)**

28
29 The ATGS manages incident airspace and controls incident air traffic. Specific
30 duties and responsibilities are outlined in the *Fireline Handbook (PMS 410-1)*
31 and the *Interagency Aerial Supervision Guide*. The ATGS reports to the Air
32 Operations Branch Director (AOBD), or in the absence of the AOBD, to the
33 Operations Section Chief (OSC), or in the absence of the OSC, to the IC.

34
35 The following PPE attire is required for all interagency ATGS operations:

- 36 ● Leather shoes or boots
- 37 ● Natural fiber shirt, full length cotton or nomex pants or flight suit.

38 39 **Operational Considerations**

- 40 ● Relief aerial supervision should be ordered for sustained operations to
41 ensure continuous coverage over an incident.
- 42 ● Personnel who are performing aerial reconnaissance and detection will not
43 perform aerial supervision duties unless they are fully qualified as an
44 ATGS.

- 1 • Air tactical aircraft must meet the avionics typing requirements listed in the
2 Interagency Aerial Supervision Guide and the pilot must be carded to
3 perform the air tactical mission. XXX Rotor-wing pilots are not required to
4 be carded for air tactical missions.
5 • Ground resources will maintain consistent communication with Aerial
6 Supervision in order to maximize the safety, effectiveness, and efficiency of
7 aerial operations.
8

9 **Leadplane**

10
11 A leadplane is a national resource. The *Interagency Aerial Supervision Guide* is
12 agency policy and is available online at
13 http://www.blm.gov/nifc/st/en/prog/fire/Aviation/aerial_supervision.html.

14
15 Agency policy requires an ASM/or Lead/ATCO to be on order prior to aerial
16 applications over a congested area. Operations may proceed before the ASM/or
17 Lead/ATCO arrives, if communications are established with on-site resources,
18 authorization is granted from the IC, and the line is cleared prior to commencing
19 water/chemical application operations.
20

21 **Aerial Supervision Module (ASM)**

22
23 The Aerial Supervision Module is crewed with both a Lead/ATCO qualified Air
24 Tactical Pilot (ATP) and an Air Tactical Supervisor (ATS). These individuals
25 are specifically trained to operate together as a team. The resource is primarily
26 designed for providing both functions (Lead/ATCO and Air Attack)
27 simultaneously from the same aircraft, but can also provide single role service,
28 as well.
29

30 The Air Tactical Pilot is primarily responsible for aircraft coordination over the
31 incident. The ATS develops strategy in conjunction with the Operations Section
32 Chief.

- 33 • *BLM - The Interagency Aerial Supervision Guide is policy for BLM. The*
34 *Interagency Aerial Supervision Guide is available online at*
35 *http://www.blm.gov/nifc/st/en/prog/fire/Aviation/aerial_supervision.html*
36

37 **Operational Considerations**

38 The ASM is a shared national resource. Any operation that limits the national
39 resource status must be approved by the agency program manager. Aerial or
40 incident complexity and environmental considerations will dictate when the
41 ASM ceases low level operations. The ASM flight crew has the responsibility
42 to determine when the complexity level of the incident exceeds the capability to
43 perform both ATGS and leadplane functions from one aircraft. The crew will
44 request additional supervision resources, or modify the operation to maintain
45 mission safety and efficiency.
46

1 **Policy**

2 Only those individuals certified and authorized by the BLM - National Aviation
3 Office, or the FS - National Aviation Operations Officer, will function as an Air
4 Tactical Supervisor (ATS) in an ASM mission profile.

5
6 **Aerial Supervision Module Program Training and Qualifications**

7 Training and qualification requirements for ASM crewmembers are defined in
8 the *Interagency Aerial Supervision Guide* XXX (NFES 2544).

9
10 **Reconnaissance or Patrol flights**

11
12 The purpose of aerial reconnaissance or detection flights is to locate and relay
13 fire information to fire management. In addition to detecting, mapping and
14 sizing up new fires, this resource may be utilized to provide ground resources
15 with intelligence on fire behavior, provide recommendations to the IC when
16 appropriate, and describe access routes into and out of fire areas for responding
17 units. Only qualified Aerial Supervisors (ATGS, ASM, HLCO and
18 Lead/ATCO) are authorized to coordinate incident airspace operations and give
19 direction to aviation assets. Flights with a "Recon, Detection or Patrol"
20 designation should communicate with tactical aircraft only to announce location,
21 altitude and to relay their departure direction and altitude from the incident.

22
23 **XXX Large (Multi-engine) Airtankers**

24
25 Airtankers are a national resource. Geographic areas administering these aircraft
26 will make them available for initial attack and extended attack fires on a priority
27 basis. ~~XXX All airtanker services are obtained through the contracting process~~
28 ~~(except the MAFFS, which are military aviation assets and used to supplement~~
29 ~~the contract fleet when needed).~~ The GACC will ensure that all support
30 functions (e.g. dispatch centers and tanker bases) are adequately staffed and
31 maintained to support the mobilization of aircraft during normal and extended
32 hours.

33
34 For aviation safety and policy concerning wildland fire chemicals see chapter 12
35 (Wildland Fire Chemical Policy and Use)

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

- 39 • *BLM - The requirements of the DM and BLM Manual 9400*
- 40 • *FS - FS operates Large Airtankers under FSM 5703 and Grant of*
41 *Exemption 392 as referenced in FSM 5714.*

42
43 **Categories**

44 Airtanker types are distinguished by their retardant load:

- 45 • Type 1 - 3,000 gallons
- 46 • Type 2 - 1,800 to 2,999 gallons

- 1 • Type 3 - 800 to 1,799 gallons
- 2 • Type 4 - 799 gallons (single engine airtankers)

3

4 **Airtanker Base Operations**

5

6 Certain parameters for the operation of airtankers are agency-specific. For
7 dispatch procedures, limitations, and times, refer to geographic area
8 mobilization guides and the *Interagency Airtanker Base Operations Guide*
9 (*IATBOG*).

10

11 **Airtanker Base Personnel**

12 There is identified training for the positions at airtanker bases; the *IATBOG*
13 contains a chart of required training for each position. It is critical that reload
14 bases are prepared and staffed during periods of moderate or high fire activity at
15 the base. All personnel conducting airtanker base operations should review the
16 *IATBOG* and have it available.

17

18 **Startup/Cutoff Time for Multi Engine Airtankers**

19 ~~XXX These limitations apply to the time the aircraft arrives over the fire.~~

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

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

25 ~~— A qualified ATGS, ASMI, or ATCO is on the scene; and~~

26 ~~— Has determined visibility and other safety factors are suitable for
27 dropping retardant; and~~

28 ~~— Notifies the appropriate dispatcher of this determination.~~

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

34 ~~XXX Refer to the *Interagency Aerial Supervision Guide* (NFES 2544).~~

35

36 **Single Engine Airtankers**

37

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

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

41

42 **SEAT Manager Position**

43 In order to ensure adherence to contract regulations, safety requirements, and
44 fiscal accountability, a qualified SEAT Manager (SEMG) will be assigned to
45 each operating location. The SEMG's duties and responsibilities are outlined in
46 the *ISOG*. To maintain incident qualifications currency a SEAT Manager is

1 required to attend RT-273 every three years. Elements and criteria of RT-273
2 can be found in the *Field Managers Course Guide*, PMS 901-1.

3

4 **Operational Procedures**

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

8

9 Depending on location, operator, and availability, SEATs are capable of
10 dropping suppressants, water, or approved chemical retardants. Because of the
11 load capacities of the SEATs (500 to 800 gallons), quick turn-around times
12 should be a prime consideration. SEATs are capable of taking off and landing
13 on dirt, gravel, or grass strips (pilot must be involved in selection of the site); a
14 support vehicle reduces turn-around times.

15

16 Reloading at established airtanker bases or reload bases is authorized. (SEAT
17 operators carry the required couplings). All BLM and FS Airtanker base
18 operating plans will permit SEAT loading in conjunction with Large Airtankers.

19

20 **XXX Communication**

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

23

24 **Smokejumper Pilots**

25

26 The *Interagency Smokejumper Pilot Operations Guide (ISPOG)* serves as policy
27 for smokejumper pilots' qualifications, training and operations.

28

29 **Military or National Guard Aircraft and Pilots**

30

31 The *Military Use Handbook (NFES 2175)* will be used when planning or
32 conducting aviation operations involving regular military aircraft. Ordering
33 military resources is done through National Interagency Coordination Center
34 (NICC); National Guard resources are utilized through local or state
35 Memorandum of Understanding (MOU).

36