

AVIATION MANAGEMENT PLAN

Fishlake National Forest 2016

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I. AVIATION MANAGEMENT PLAN

A. PURPOSE

The purpose of this plan is to align Unit Aviation planning and operations to a national standard. This plan is designed to accompany and supplement the National/Regional Aviation Management Plans, Forest Service Manual 5700, and applicable handbooks and Operational Guides to derive one complete planning document. Another purpose is to aid the user in discovering the scope of aviation services available on the Area and Forests and the policies, regulations, and procedures to be followed while involved with the program. This plan also identifies the Forest personnel involved in aviation management and their responsibilities.

The Fishlake National Forest aviation workload can be described as relatively moderate compared to other Forests in the Intermountain Region. The Forest utilizes fixed wing and rotor-wing aircraft for wildland fire management and natural resource projects. The majority of aviation projects are related to wildland fire management operations. They include fire detection, retardant delivery, aerial patrol, aerial ignition operations, and helitack operations. Other, less dynamic aviation operations include aerial seeding, timber survey, insect and disease survey, wildlife management, game counts and tracking, search and rescue operations, and marijuana grow site cleanup.

Operating Area: All districts of the Fishlake National Forest are located within Central Utah portion of Utah within the jurisdiction of the Intermountain Region (R-4) of the USDA Forest Service. Most operations will be over steep, rugged inaccessible terrain with elevations from, 4500 feet to 11,500 feet above sea level. Climatic conditions range from hot, dry summers requiring rapid attack on fires, to heavy snowfall accumulations during the winter months.

B. POLICY AND DIRECTION

The purpose of aviation management on the Fishlake National Forest is to provide safe, efficient and economic use of aircraft in conjunction with land management and fire suppression activities. It is believed that this goal may only be accomplished with thorough risk assessment, planning and management. This document is specific to the Fishlake National Forests and is a guide to all aviation activities on these lands or by their employees. Only direction more specific or restrictive than that contained in this document, manuals, handbooks, and guides will be included. Information from manuals, handbooks, and guides may be included where it is important to include as a reference.

All aviation operations will be planned and conducted under applicable direction and criteria specified in the Forest Service Manual (FSM 5700 Aviation Management), Federal Aviation Regulations (14 CFR), National, Regional, and Forest directives and plans. This plan references and supplements those plans and handbooks. Operational Guides will be utilized to supply guidelines, but do not necessarily supply policy or direction unless otherwise noted within this plan. Employees of the Fishlake National Forest will always conform to direction supplied within this plan, regardless of aircraft ownership or procurement authority. Intra-agency aircraft and personnel conducting operations on Fishlake National Forest administered land will be expected to operate under standards set forth within this plan, or their home unit plan, whichever is more restrictive.

This document is only a tool with which effective planning may be accomplished. Responsibility and the corresponding authority for management is assigned to individuals' on-scene and in the dispatch sections to maintain vigilance and hold to the standards established in this and other plans, in order to assure safety in all aspects of our operations. The Fishlake National Forest Aviation Management Plan is **reviewed and updated annually**. The aviation programs contained in this plan are all Fishlake National Forest within the scope and expertise of the Forest Aviation Staff to plan and supervise.

Objectives:

The goals of the aviation management plan are to:

- Foster the safe and efficient use of aircraft to meet program objectives.
- Inform users of organizational structures, policies and procedures relevant to aviation activities.
- Guide users in the appropriate procedures for requesting flight services and project planning.

Authority:

The Air Commerce Act of 1926, as amended (49 U.S.C. 171-184), provides the authority for:

- Forest Service aviation management functions and safety in the operation of public aircraft used exclusively by the Government and;
- The rulemaking, enforcement, and investigative responsibilities governing civil aircraft operations.

The Civil Aeronautics Act of 1938, as amended; the Federal Aviation Act of 1958, as amended (49 U.S.C. 1301 *et seq.*); and the Federal Aviation Regulations (FARs) codified in Title 14 of the Code of Federal Regulations (FSM 5703-5703.32) provide authorization for functions such as aircraft and pilot approvals, operational standards, evaluations, and accident prevention and investigation.

C. PROGRAM OVERVIEW

The Fishlake National Forests aviation program involves fire detection, fire suppression, administrative travel, reconnaissance, and special projects, involving both fixed-wing and rotor-wing aircraft. The highest usage of aviation assets is for Fire Management and these activities generally occur between May and October.

Call-When-Needed (CWN) Aircraft: Call-When-Needed contractors are a major supplier of aircraft services on the Fishlake National Forest. Light single and twin-engine fixed-wing aircraft are available through vendors via the Region 4 CWN Light Fixed Wing Services contract administered by designated Region 4 Aviation Contracting Officer. Services for light (Type III) helicopters are procured through the Region 4 Light Helicopter Contract. The Contracting Officer is located in Boise, Idaho as a member of the Regional Aviation Group, and the Contracting Officers Representative will be designated by the Region 4 Aviation Contracting Officer.

Exclusive Use Contract Aircraft: Out year budget request (USFS) will need to identify exclusive use contract request, a minimum of two years in advance for fiscal planning. These aircraft services are typically 60, 90 or 120 day contracts that are bid on every three or five years. No current contracts on the forest.

Non-Fire Uses: Non-fire uses of aviation resources on the Fishlake National Forest include; search and rescue, law enforcement, administrative flights, reconnaissance (other than fire detection flights), aerial ignition, aerial application, collection services, and special regional flights. Non-fire projects if determined to be special use will require an approved Project Aviation Safety Plan (PASP) before proceeding. See chart on page 11.

Ordering of aircraft, whether for fire or project work, will be channeled through the Richfield Interagency Fire Center, here after referred to as RIFC, which serves as a focal point for aircraft coordination, the linked agency radio systems provide the infrastructure for aircraft communications. Orders for aircraft for project work will be accompanied by an approved PASP.

D. ORGANIZATION AND STAFFING**Forest Supervisor**

The Forest Supervisor is responsible for all aviation activities on the Fishlake National Forest areas. Responsibilities outlined in FSM 5704.6 have been delegated to the Forest Aviation Officer (FAO).

Forest Aviation Officer

The FAO or designated is responsible for the planning and supervision of the Fishlake National Forest Aviation program. The FAO or designated oversees aircraft operations for compliance with policy and standards in all situations and initiates action for aircraft accident/incident reports and investigations. The FAO or designated monitors aerial activities for compliance with Forest Service Manuals, Health and Safety Code handbook (FSH 6709.11), and FAA regulations. The FAO or designated has the delegation and authority necessary to accomplish this job.

During those times when the FAO is absent from the Forest, the Forest FMO will become the FAO, he/she will designate an Acting Forest Aviation Officer. The FAO will ensure that this acting has the experience and training needed to meet the unit needs and is knowledgeable about current issues affecting these duties.

The FAO should have a thorough knowledge of FSM 5700; accompanying Handbooks and Guides (see Reference Appendix). The FAO's or assigned background should include extensive experience in management and supervision of aircraft operations. The responsibilities of the FAO can be found in FSH 5709.16, 10.42e.

In addition to the duties in manual and handbook direction, the Forest Aviation Officer on the Fishlake National Forests will also be responsible for the following:

1. Assists project managers in the development of, reviews and when appropriate approves Project Aviation Safety Plans.
2. Coordinates with the RIFC aircraft desk on planned administrative aircraft use on the Forest.
3. Maintains coordination with other government agencies on subjects involving aviation operations.
4. Attend training sessions to maintain proficiency. Training plan should include Interagency Aviation Training (IAT) Courses.
5. Coordinates activities with the local FAA, military, and other concerned agencies that may operate on, over, or near the Fishlake National Forest.
6. Ensures that Flight invoices are processed in accordance to agency guidelines.
7. Reviews SAFECOMs and makes recommendations to the Regional Aviation Safety Manager when appropriate.
8. Maintains a SAFECOM Log.
9. Participates in contract development and contract administration as necessary. Assists Regional and Forest Contracting Officer(s) in developing aircraft service contracts.
10. The FAO or designated has the responsibility and delegated authority to stop aviation activities that are unsafe or are not operating within agency policy guidelines.
11. Serves as the COR for CWN light fixed- wing and Helicopter contracts.
12. Brief and debrief aircrews, Incident Management Teams and operators on Fishlake National Forest aviation missions.
13. When necessary, assist RIFC and/or project manager in completing cost analysis of aircraft types.

Center Manager

The dispatch Center Manager is a member of the Forest Aviation Management Team. The Center Manager will have a thorough knowledge of aviation operations that includes; aircraft capabilities and limitations, Forest Service policies and regulations, aircraft rental, contracting, and administration procedures, payment procedures, and experience in using and directing aircraft in Forest management operations. It is recommended that the Center Manager successfully complete Basic Air Operations (S-270), and IAT courses. The following duties are delegated from the Forest Aviation Officer to the Center Manager:

1. The Center Manager and dispatch staff coordinates aviation project plans with the designated project manager and provides flight following and communications for all aviation projects on the Fishlake National Forest.
2. Maintains coordination with other government agencies on subjects involving aviation operations.
3. Initiates actions to order for a detection aircraft and aerial observer or standby during high fire danger days as per the Forest Fire Preparedness Plan and in coordination with Forest Fire Management.
4. Attends available training sessions to maintain proficiency. Training plan should include Aviation Management courses.
5. Reviews, all flights requests for fixed-wing and rotorcraft. Maintains a file of all approved aircraft and pilots available to the Fishlake National Forest, dispatches all fire related flights, and flight follows aircraft while in flight. Completes cost

comparisons analysis, when needed the FAO or designated will assist in completing cost analysis of aircraft types to enable the user to determine if it's the most efficient mode of transportation.

6. Responsible for ordering aircraft, and providing dispatch services for all flights on the combined agency lands, with the exception of job contract or end product contracts, which are obtained through agency specific procurement processes.
7. Schedules all administrative flights on the Fishlake National Forest and coordinates these flights with the Great Basin Coordination Center (GBCC) as needed.
8. Initiates aviation related search and rescue operations as outlined in the Unit's Aviation Mishap Response Guide and Checklist: Ensures that the Guide is updated annually with current phone numbers and contacts.
9. Verifies that a Fixed-Wing Flight Manager is assigned for all fixed-wing flights.
10. May brief and debrief aircrews and operators on Forest aviation missions.

All duties of Center Manager may be delegated to the Aircraft Dispatchers,

Interagency Aircraft Dispatchers:

Interagency Aircraft dispatchers are responsible for:

- Dispatching all aircraft (except commercial and special use permit flights).
- Scheduling the use of rental or CWN aircraft.
- Insuring that Flight Managers have completed electronic payment reports.
- Insuring an agency flight plan has been filed as necessary.
- Insuring flight following procedures are implemented and adhered to.
- Coordinating all requests for the use of National Air Tankers.

Contracting Officer's Representative (COR)

The COR's duties and responsibilities will be outlined in their Delegation of Authority from the Regional Aviation Contracting Officer. For aircraft contracts, the COR will have formal training in aircraft operations, fire business management, Basic Air Operations, Aviation Management, and Aviation COR training.

Project Manager

Project Manager will be assigned for all agency resource mission project flights. The Project Manager develops the mission objectives, and coordinates with the RIFC, to determine aircraft needs, is responsible for insuring the preparation of a Project Aviation Safety Plan. The Project Manager is responsible for obtaining line officer approval, and providing dispatch with the cost accounting structure for the project. The Project Manager will provide supervision and management during aviation project operations. Project Manager will have a working knowledge of the capabilities and limitations of the aircraft with which they are working. The duties of the Project Manager are:

- Development of PASP's, when needed the FAO or designated will assist and/or other planning documents as required (see IHOG Planning Format, 3-3).
- Present safety orientation to all personnel involved with the project, including the pilot(s).
- Ensure the preparation of load calculations and manifests.
- Prepares daily contracts, electronic payment documents, and submits for payment.
- Keep the FAO or designated, COR, and/or Contracting Officer briefed on daily progress.
- Ensure that all aerial activities are conducted in accordance with all applicable policy, direction, and law.
- Immediately report aircraft accidents/incidents to the RASM, FAO or designated and submit a SAFECOM as soon as possible.
- Maintain current records and document all project activities.

Project manager's duties may delegate to:

Helicopter Manager (HMGB)

A helicopter manager or helicopter flight manager will be assigned for all agency resource mission project flights that will be conducted using a helicopter. They provide technical aviation expertise for the Project Manager, assists with developing the Project Aviation Safety Plan, and coordinates aircraft requirements with the dispatch center. During the project, they will be on scene, and is responsible for all helicopter operations.

A qualified helicopter manager, per direction in the Interagency Helicopter Operations Guide (IHOG), will supervise all helicopter flights. Qualification requirements differ between fire and project missions. The IHOG chapter 2 provides the details of differences. The Interagency Aviation Training program provides details for additional training and currency requirements for BLM, Park Service, and USFS.

Helicopter manager/ helicopter flight manager responsibilities are:

- Directing helicopter operations within the Fishlake National Forest, insuring all policies, guidelines and safety procedures encompassed in the Forest Service Manuals (FSM), DOI Department Manuals, Interagency Helicopter Operations Guide (IHOG) and Interagency Aerial Ignition Guide (IAIG) are followed on all fire and non-fire projects.
- Providing on the job training for helicopter crewmembers within the Fishlake National Forest.
- Managing personnel and contractors on CWN and Exclusive Use operations.
- Completing the daily contract electronic payment documents and contract daily diaries.
- Organizing, directing and supervising helicopter operations for their respective crew and exclusive use contractor employees.
- Managing risk for helicopter operations and crew activities.
- Briefing off unit helicopter crews/pilots that report directly to their operations base.
- Each helicopter supervisor is designated as a Project Inspector for aircraft contracts. They direct contractors regarding work schedules, temporary operating bases, project parameters, and monitor contract performance.
- Crew supervisors will be tasked with providing aviation training for their crews and for other personnel as needed.
- Maintain a current list of telephone numbers for the sending and receiving units. Ensures proper flight following procedures is met. National Interagency Coordination Center (NICC) flight following phone number is 1-800-994-6312.

No Fishlake National Forest helicopter flight shall take place without a qualified helicopter manager supervising the flight by being on the flight or at the original take off location after initial briefing.

Fixed Wing Flight Manager

A Fixed Wing Flight Manager will be assigned for all point-to-point aircraft flights in which agency personnel are being transported. This person will act as the government representative for the duration of the flight, and is responsible for ensuring safety briefings are conducted, and communications are maintained with the dispatch center. He/she is required to have completed training and meet currency requirements prior to performing the position's duties. Fixed Wing Flight Manager supervises point-to-point non-special use airplane flights. The duties and responsibilities of the Fixed Wing Flight Manager are to:

- Provide a briefing for the traveling personnel and pilot covering the following subjects:
 - Overview of travel purpose and final destination; and route of travel, intermediate stops, if applicable, and estimated time(s) of arrival.
 - Ensure the passenger manifest is accurate and contains the correct names and weights.
 - Provide one copy of the manifest to the pilot-in-command and ensure that additional copies are available for the receiving unit and the sending dispatcher.
 - Assist the pilot-in-command with weight distribution and the stowage of bags, packs, and/or cargo.
 - Assemble the personnel in an orderly manner in the designated staging area.
 - Ensure the pilot and aircraft are currently authorized for the intended mission and the pilot-in-command can verify the aircraft is within weight and balance limitations.

- Maintain a current list of telephone numbers for the sending and receiving units. Ensures proper flight following procedures is met. National Interagency Coordination Center (NICC) flight following phone number is 1-800-994-6312.
- Fixed Wing Flight Manager or Pilot will be responsible for completing the electronic flight use payment report for all flights except for domestic air carriers, airlines, and NIFC contract aircraft.
- Ensure all personnel have a copy of their resource orders with request number and position assigned.

Fixed-Wing Flight Manager- Special Use

The Fixed-Wing Flight Manager- Special Use is a Government representative who works jointly with the pilot-in-command and aircrew members to ensure safe, efficient flight management of missions other than point-to-point flying, i.e., Reconnaissance below 500 feet: infrared, aerial photo and other missions requiring special training and/or equipment.

Pilots

Pilots employed by and contracted by the USDA-Forest Service and DOI-OAS has the responsibility to:

- Ensure safe accomplishment of the mission.
- Maintain flight proficiency and mission currency in accordance with applicable Federal Aviation Regulations, interagency guides (FSM 5706), Forest Service Manual and Handbooks, DOI-Department Manuals 350-354 and National Park Service RM-60.
- Brief passengers on operational and emergency procedures.
- Cancel, postpone, or change flights when existing or impending conditions make those flights unsafe. The decision of the pilot-in-command is final.
- Follow fire and aviation administrative policy and direction on cost efficiency and effectiveness.
- Follow Flight following FAA protocols and flight management procedures in FSM 5700, FSH 5709.16, 351.DM 1.4, and in the National Interagency Mobilization Guide.
- Complete and maintain all required records and reports referenced in the aviation manual and handbook.

Aircrew Members

Aircrew members: are defined as individuals working in and around aircraft and is essential to ensure the safety and successful outcome of the mission. Aircrew members are required to either be on board or attend to the loading and unloading of passengers and cargo at all landings and takeoffs, and to ensure that passengers have received a safety briefing prior to all non-point-to-point missions.

Passengers

Any person on board an aircraft: who does not perform the function of an aircrew member.

All personnel that ride in non-fire fixed-wing aircraft are required to meet the Passenger IAT training requirements. (A-101, A-105, A-106, A-108, A-113, and A-200, all are available on-line).

Fishlake National Forest Employees

Forest Service employees have the responsibility to immediately report to the appropriate official any instance of unsafe equipment or aviation operations (FSM 5704.9). All employees should realize that aviation resources can be a valuable tool to accomplish resource management objectives. It is imperative that when employees consider the use of aircraft that they become familiar with the processes and policies that direct their use and solicit help in preparing for the use of aircraft. Employees should contact the FAO or designated if they have questions regarding aircraft use. Those employees who may utilize aircraft must obtain the appropriate training for their specific aviation mission. All Forest Service employees (FSM 5704.9) share responsibility for aviation safety and are expected to take timely action to prevent unsafe conditions, as follows (FSM 5720.46). All agency employees are responsible to report to their supervisor, aviation officer/manager, or line officer any aviation operation they believe is being conducted in a hazardous manner or that does not adhere to applicable agency policy or Federal Aviation Regulations. This report shall be documented in writing within 48 hours of the incident on a SAFECOM form at <https://www.safecom.gov/>.

In addition, all agency employees are responsible to immediately initiate action(s) to stop any aviation operation when conditions indicate further activity would jeopardize the safety of agency employees, the public, or aircraft vendor personnel.

No agency employee will ride in any aircraft or with any pilot not carded and approved for the mission, or without a valid letter of approval for cooperator pilots and aircraft. Individual aircraft users are responsible to check agency and interagency approval cards prior to undertaking the flight or mission.

All aviation accidents or incidents occurring on lands managed by the combined agencies will be immediately reported to the RIFC upon discovery or notification. This includes all general aviation (private), commercial, military, and contractor or cooperator aircraft.

Forest Service employees not employed as pilots who act as a pilot for any mission, except point-to-point transportation of the employee alone, shall meet the qualifications of a Forest Service pilot, including special qualifications for specific missions. For point-to-point transportation of the employee alone, when in official travel status, the following minimum qualifications are mandatory: See FSH 5712.35.

As a government employee, further restrictions apply to the private use of aircraft during off duty time and leave compensated hours. These restrictions apply to ethics and conduct dealing with employees and government contracted, rented, or leased aircraft. Contact the FAO for clarification of this.

E. TRAINING

Aviation training should be addressed in all employees Individual Training Plans. See the Interagency Aviation Training Guide for education, qualification, and currency requirements and for position descriptions and required modules.

Required training and experience requirements for fire related aviation positions can be found in the Wildland Fire Qualifications Subsystem Guide, 310-1 and FSH 5109.17. It is the policy of the Fishlake National Forest that all aviation trainees meet agency standards.

Fire operations personnel at or above the Division Supervisor or ICT3 level are encouraged to reinforce their aviation tactical and logistical skills. Firefighters occupying these positions should attend Interagency Aviation Training (IAT), Intermediate Air Operations (S-370), and Interagency Airspace Coordination.

NWCG Crosswalk to IAT Project Aviation Positions				
NWCG /FSH 5109.17 Qualification		Employed Daily Position		IAT Project Qualification
HECM	or	Smokejumper, Pilot, IR Technician, Recon, Detection	=	Aircrew Member
ACDP	or	Aviation Dispatcher	=	Aviation Dispatcher
AOBD, ASGS, ATGS, HLCO, HEB2	or	One who is currently responsible for Aviation Program oversight such as RAO, RASM, FFMO, DFFMO, FAO	=	Aviation Manager
AOBS, ATGS, HLCO, HMGB	or	Smokejumper Spotter. Those that have had Flight Manager Training	=	Fixed-Wing Flight Manager
AOBS, ATGS, HLCO, HMGB	or	Smokejumper Spotter or Aerial Surveyor	=	Fixed-Wing Flight Manager – Special Use
HMGB	or	Helicopter Manager, Helitack Supervisor	=	Helicopter Flight Manager
HMGB	or	None	=	Helicopter Manager - Resource
None		None		Passenger
AOBD	or	FAO, Base Manager, Assistant Base Manager,	=	Project Aviation Manager

F. AVIATION MANAGEMENT ACTIVITIES

Operational planning of all aviation activities will ensure the utmost concern for safety. **Special Use: aviation projects require a Project Aviation Safety Plan (PASP) that will be reviewed by the FAO and approved by a Line Officer,** to assure conformance to Forest Service regulations and policies. The major aircraft uses on the forests involve fire detection/reconnaissance, resource reconnaissance, fire suppression, administrative travel, law enforcement, aerial application, aerial ignition and external loads.

FSM 5711.1 – Project Aviation Safety Plan will be the standard applied to all aviation planning. Individuals developing a PASP will consult the System Safety Aviation Risk Management Workbook for information regarding the hazards, risks, and suggested mitigations associated with their specific aviation project. Any aviation projects not approved in this plan should be submitted to the FAO or designated as soon in the planning process as possible for review. The Fishlake National Forest, Forest Aviation Officer is Blake Ford, and has been delegated the authority to review all Project Aviation Safety Plans on these forests. PASP’s that are unique, unusual, or “first of a kind” will be submitted to the FAO or designated who will review and submit to the Region for review. Once Regional review has occurred line officer approval will be required.

Activities approved under this Aviation Plan.	Activities (Special Use) requiring submittal of a PASP to the FAO or designated.	Activities (Special Use) in which submittal of a PASP to the Region for review/approval are required.
<ul style="list-style-type: none"> • Fire Suppression Activities (see FSM, FSH, Guides and System Safety) • Administrative Travel (see Administrative Aircraft Use Guide) • Law Enforcement (see Law Enforcement Aviation Plan) 	<ul style="list-style-type: none"> •RAWS and Radio Maintenance •Longline missions •Aerial Ignition and pre-burn reconnaissance (Project) •Resource Reconnaissance •Any travel requiring landing at other than a developed airport or permanent helibase (other than fire suppression). 	<ul style="list-style-type: none"> •Any new, unique, or first time projects not listed in columns one or two. •Any project requiring or proposing modification to the airframe, avionics, or power plant. •Flights with cooperators or contractors •Aerial Application (Seeding, PSD, and Helitorch ops, etc...)

Aircraft uses on the Fishlake and Manti-La Sal National Forests.

Aerial Detection/reconnaissance: These flights may be made with either fixed or rotor wing aircraft, (fixed-wing aircraft will remain above 500 feet AGL). All flights will be requested through Dispatch. Flights will follow a flight plan filed with dispatch. Other flight activities (e.g. low level military, heli-logging, etc.) will be considered when planning flight routes. Plans will include a 15-minute time interval between check-ins or flight following with Automated Flight Following (AFF) and should designate the individual who will monitor the flight.

Resource reconnaissance: These flights may be made with either fixed or rotor wing aircraft, (fixed-wing aircraft will remain above 500 feet AGL). All flights will be requested through Dispatch. Flights will follow a flight plan filed with dispatch. Other airspace users (e.g. low level military) will be considered when planning flight routes. Plans will include a 15-minute time interval between check-ins and / or flight following with AFF and should designate the individual who will monitor the flight.

Fire suppression:

Fixed and rotor wing aircraft may be used for initial attack and extended support of fire suppression activities. Fixed wing resources within the region normally include Type I or II Air tankers at Cedar City, Utah, Hill Air Force Base Layton, Utah, Grand Junction, Colorado, Battle Mountain, Nevada and Prescott, Arizona. Lead planes are based at Cedar City, Utah and

Salt Lake City, Utah. Temporary Smokejumper aircraft are based at Cedar, City Utah, Ely, Nevada, Grand Junction, Colorado, Spanish Fork, Utah and Ogden, Utah.

Administrative Travel: Light fixed wing aircraft may be used for moving firefighters to fires or other personnel to training/meetings when it is the most efficient method of travel. In addition to the pilot filing an FAA flight plan, the sending dispatcher is responsible for resource tracking and informing pilots of flight following procedures (Chapter 20-34. Great Basin Mobilization Guide). Pilots/Fixed-Wing Flight Managers will be instructed to check in at intermediate stops (schedule permitting) and at the destination. The Fixed-Wing Flight Manager will assure that both aircraft and pilot have proper cardings for the transport of passengers.

Aerial Application – Seed, Fertilizer, and Spraying: Aerial application projects may be implemented with Forest Service personnel or contracted by the job. All Flight Services Contracts will require a Project Aviation Safety Plan approved through the FAO. End-Product Contracts will not require a Project Aviation Safety Plan. Use 5711.2, to identify whether a project requires a flight services contract or an end-product contract.

Aerial Ignition: Aerial ignition projects will be planned in accordance with the Interagency Aerial Ignition Guide (IAIG). Dispatch, FAO, or designated will check with local and neighboring units on the availability of either a Helitorch or Plastic Sphere Dispensers. Qualified personnel will implement the project and appropriate checklists will be used.

External Loads: By their nature, these projects contain the most hazards for all involved. Safety of personnel and equipment will be the primary planning consideration. (Ref: IHOG Chapter 11)

Law Enforcement: All Law Enforcement flights involving Forest Service personnel are coordinated through Dispatch. Contract helicopter pilots have the right of refusal as specified in current Region 4 and National Helicopter Contracts. Covert flights are planned, coordinated and approved by the Regional Aviation Officer and Regional Special Agent. The FAO and Dispatch will be informed by the Special Agent in Charge to coordinate safety procedures or other support as requested. Flight following will be performed in accordance with procedures specified in the approved PASP.

Covert flights by the county Sheriff's Office, Utah Highway Patrol, DEA, etc... are coordinated through the local Forest Service Law Enforcement Officers, who will in turn notify Forest Supervisor of planned areas and times of operation. These flights are often low level, short turn around projects with limited notification and time sensitive.

Other Aviation Projects: Other occasional aviation uses include Regional Aerial Photo, Search and Rescue, Forest Health Surveys, and Media flights.

G. AIRCRAFT

1. Government Owned, Leased and Operated Aircraft: Government owned aircraft within the Inter Mountain Region are operated and managed by the Regional Aviation Group. Consult the Great Basin Mobilization Guide for the requirements for ordering these resources.

2. Exclusive Use Contract Aircraft: No aviation contracts currently. Fishlake National Forest level of aircraft contracts, rental agreements and use rates are approved through the Regional Aviation Contracting Officer. The Regional Aviation Contracting Officer, Regional Aviation Officer, and Aircraft Inspector handle aircraft specifications, rates, and inspections.

3. Call When Needed (CWN) Aircraft: Aircraft resources are available from the USFS Pilot and Aircraft Aviation Resources list. The DOI Source List is located on the **Office of Aviation Services (OAS)** web page <http://oas.doi.gov/>. Both lists are available in the dispatch office. (OAS aircraft have a surcharge)

4. Other Agency Aircraft: The use of other public agency aircraft must be pre-approved by the Regional Aviation Officer. This is typically done by the issuance of a letter of approval for Federal use. In the local area this would apply to the DNR and Utah State aircraft (Fixed-wing & Helicopter)

5. End Product Contracts: An end-product contract (FSM 5710.5) is intended to efficiently and effectively accomplish certain projects with no internal operational controls from the Forest Service. Participation by Forest Service employees in end-product contracts is limited to quality assurance of the end product goals only.

Forest Service Grants of Exemption (FSM 5710.5 and 5714) from the Department of Transportation, Federal Aviation Administration (FAA) regulations, do not apply to end-product contracts. The contractor is required to comply with all State and Federal regulations for the type of work being performed. If departures from the applicable regulations are necessary, the contractor is responsible for obtaining them.

The decision to use an end-product contract removes the Forest Service from having operational control, thereby placing accountability for any aircraft accident with the operator/contractor.

If the answer is YES to any question below you must use the flight services process and contract. If the answers are NO, you may use the end-product contract.	Aerial photo remote sensing	Aerial application (spray/seed)	Aerial Ignition	Animal capture (net gun, dart, paintball, etc.)	Animal herding/gathering	Your project *
¹ Are agency personnel going to be on the aircraft for this mission?						
^{2,10} Is the aircraft currently being used as a public aircraft?						
³ Is a helicopter manager required for this mission?						
⁴ Is a “flight manager” required for this?						
⁵ Are you asking or requiring (written or verbal) the pilot/crew to wear PPE?						
⁶ Are you asking for aircraft and pilot requirements (i.e. Cessna 206 or pilot must have PPE and Flight helmet)?						
⁷ Are you requiring “pilot standards”?						
⁸ Are you directing aircraft maintenance?						
⁹ Are you controlling or directing aircraft “movement” (telling the aircraft where to go, how to do the project, how often to check in)?						
¹⁰ Are you requesting exclusive control? Is the aircraft already under Government contract?						

End-Product Exhibit

* This may include incidental use of aircraft for various missions not identified in the exhibit. When evaluating such missions, local or regional aviation managers can assist in making decisions on type of procurement to use.

6. Aircraft Ordering, Scheduling, Dispatching and Flight Following

Administrative Flights (FSM 5711.3)

Aircraft Cost Comparison Planning: (Cost Analysis)

All non-emergency flights must have a cost analysis conducted before any aircraft is hired. The flight requestor will coordinate with the Center Manager at RIFC/MIFC or FAO for assistance in preparing the analysis. RIFC/MIFC has the Cost Comparison form. Form DOI-OAS 9400 1a & 1b, or USFS equivalent is to be used. The cost comparison will be filed with copies of the Project Aviation Safety Plan/ flight request. (FSM 5711.1, DOI-OAS, OPM 07) A cost analysis must occur for aircraft rentals. Aircraft rentals are used when airlines, exclusive use contract aircraft, or ground transportation are unavailable, unfeasible or not cost effective. Small airplanes may be used to transport personnel to

meetings, administrative activities, or training sessions when it is the most cost effective mode of transportation. These services are typically less than \$25,000.00 and point-to-point for passenger transport. Aircraft and pilots that provide these services must meet Forest Service policy standards and have current credentials for the type of services provided.

The Forest Service and the OAS has separate rental contracts systems. The Fishlake and Manti-La Sal National Forests can use OAS: ARA aircraft, but the proper billee code must be used and there is a 14% surcharge added on to the cost.

The **Office of Aviation Services**, OAS web page: <http://oas.doi.gov/> has all available rental aircraft listed with costs and qualifications along with pilot qualifications, for project planning purposes. Rental procurement is limited to a maximum limit of \$ 25,000 for OAS contracts.

Ordering and Dispatching Flights:

All official flights over the Fishlake and Manti-La Sal National Forests by agency personnel on Forest Service or DOI contracted or cooperating agency aircraft will be ordered through the RIFC/MIFC. FAO, Flight manager, or designated will assist in completing cost comparisons and authorization documentation. Dispatch will contact vendors and order/schedule flights as required. The users will provide the Dispatch, with the following data about the flight:

- Project name
- Project objective
- Name of project contact/ manager
- Project location
- The total number of passengers by name, grade level, weight, and cargo weights.
- Requested flight date and times.
- Points of departure and destination.
- Whether flight is one way or round trip and expected return time.
- Accounting charge numbers. Management code.
- Known hazards (ground/ air
- Will there be low-level flight below 500 feet AGL?

Tracking of Aircraft: The RIFC will be responsible for tracking (flight following) all initial attack suppression aircraft. Tracking of aircraft on project fires will be a joint venture between Dispatch, the Air Tactical Group Supervisor and the Air Operations Branch Director assigned to that fire.

Aircraft operating on end product contracts may not be tracked through dispatch. However; dispatch will be kept aware of these operations to avoid airspace conflicts, and provide this information to other aircraft operating in those areas of the Forests.

See National Interagency Mobilization Guide, 24.3, for Automated Flight Following (AFF) procedures.

Communication: Aircraft ordered for Fishlake National Forest use through RIFC must be able to communicate on the Fishlake National Forest primary frequencies. Mission aircraft will flight follow (15 minute or AFF, Check in Radio Calls) with RIFC as long as they are airborne. They will monitor the published Common Traffic Advisory Frequency (CTAF) on take-off and landing, and the assigned air to air frequency for the area of operation. Air Guard will be monitored during all mission flights. Aircraft may be assigned an alternate frequency to flight follow for a specific incidents/projects, then return to the primary frequency for the ferry flight home (see IHOG chapter 4).

Point-to-Point fixed wing aircraft typically do not have FM radios. It is the Fixed-Wing Flight Manager responsibilities to inform dispatch prior to departure, and as soon as possible, after landing.

In the event communications are lost, do not continue the mission. Return to the departure or alternate base. If this is not practical, land at the nearest approved landing area: for your type aircraft and check in with Fishlake National Forest, RIFC dispatch office by telephone.

Most Commonly Used Radio Frequencies:
(See Central Utah frequency lists)

In the event communications are lost, do not continue the mission. Return to departure base if within 15 minutes, otherwise land at the nearest approved landing area for your type aircraft and check-in with Dispatch by telephone.

Fire Related, Project and Emergency Flights

Ordering and Scheduling: All aircraft involved in fire suppression will be ordered/ dispatched through the RIFC in accordance with administrative procedures established in Chapter 20 of the Great Basin Mobilization Guide.

Helicopters

All helicopters used within the Fishlake National Forest will be ordered and dispatched by RIFC Policy require a helicopter manager be assigned to each flight. When a scheduling conflict occurs between administrative use and emergency use, the emergency shall take precedence.

Helicopter Landing Areas will be planned according to IHOG chapter 8, and Helibases will be approved by the FAO and/or a qualified Helicopter Manager and the pilot prior to use. They will have the following minimum equipment; wind indicator, fire extinguisher, safety signs, adequate communications, and dust abatement as necessary.

Personnel Type	Mission	Other Requirements	Approval Level	References
Federal Personnel See (1) below	Point-to-Point	See (3), (4) below	Forest Supervisor or District Ranger	See (5) below
	Day Trip	”	”	
	Reconnaissance	”	”	
	Survey	”	”	
	Fire	” Also communicate with Air Tactical Group Supervisor (ATGS)	Incident Commander with Delegation of Authority <u>or</u> Local Line Officer	
Volunteers See (2) below	Point-to-Point	See (3), (4) below	Forest Supervisor or District Ranger	See (5) below <u>and</u> FSH 6509.33 FTR 301-1
	Day Trip	”	”	
	Reconnaissance	”	”	
	Survey	”	”	
	Fire	” Also communicate with ATGS	Incident Commander with Delegation of Authority <u>or</u> Local Line Officer	
Media	Point-to-Point	See (3), (4) below	Forest Supervisor or District Ranger	See (5) below
	Day Trip	”	”	
	Reconnaissance	”	”	
	Survey	”	”	
	Fire	” Also communicate with ATGS	Incident Commander with Delegation of Authority <u>or</u> Regional Forester	
Other Non-Federal Personnel	Point-to-Point	See (3), (4) below	Forest Supervisor or District Ranger	See (5) below <u>and</u> FSM 5716.4 FSH 6509.33- FTR 301-1
	Day Trip	”	”	
	Reconnaissance	”	”	
	Survey	”	”	
	Fire	” Also communicate with ATGS	Incident Commander with Delegation of Authority <u>or</u> Local Line Officer	

Summary of Requirements and Approval for Passenger Air Transport

The following exhibit outlines consolidated manual and handbook direction for personnel air transport:

- (1) Federal personnel deemed essential to performance of the mission or administrative flight.
- (2) For purposes of this exhibit, volunteers are considered agency employees.
- (3) For SES personnel, use GSA Form 3641. For others use Form FS-5700-12 (Day Use Authorization).
- (4) If landing at a helispot or uncontrolled landing area, personal protective equipment is required.
- (5) IHOG Chapters 9 & 10; FSM 5711.2; FSM 5716.31; FSM 5716.41; 41 CFR 101-37.4 and FAA Advisory Circular (AC) 00-1.1. Definitions for material in the above exhibit can be found in FSM 5705 and FSM 5710.5.

Aerial Supervision over Incidents: (5716.32)

Ensure effective aerial supervision and timely mission accomplishment by qualified individuals for all aircraft flying over an incident. This table summarizes interagency aviation supervision requirements and guidelines for when aerial supervision is needed on an incident.

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	
Level 2 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 earlier than 30 minutes prior to sunrise, or later than 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	Required if no Lead/ATCO/ASM1	3
When requested by airtanker or ATGS	Required	1	Required	
Smokejumper or Paracargo aircraft with 2 or more airtankers over an incidents	Order if NO ATGS	1	Order if No Lead/ATCO/ASM1	1,4
Incident has 2 or more branches.			Order	1,4

Reference Information:

1. Interagency Lead Plane operations Guide and Interagency Air Tactical Group Supervisor Guide (NFES 1393)
2. Requires determination by ATGS or LEAD that visibility and safety factors are suitable and dispatch has been notified of the determination.
3. USFS FSM 5716.32
4. Both the ILOG and ATGS Guide reference ordering and ATGS only for these missions. FSM 5716.32 classifies these missions as complies. An ATCO and/or HLCO should be ordered as appropriate in addition to the ATGS.

Definitions of Key Words Used in the aerial supervision requirement chart.

- Required:** Aerial supervisory resource(s): which shall be over the incident when specified air tactical operations are being conducted.
- Ordered:** Aerial supervisory resource(s), which shall be ordered by the controlling entity. (Air tactical operations may continue while the aerial supervision resources are en route to incident. Operations can be continued if the resource is not available).
- Over:** The air tactical resource is flying above or is in a holding pattern adjacent to the incident.
- Assigned:** Tactical resources allocated to an incident. The resource may be flying en route to and from, or on hold at a ground site.

7. Justification, Financial Management and Reporting

a. Justification: Aircraft requirements are established through preplanned dispatch cards, IC/on-scene requests, and/or the experience of the dispatch coordinator for initial attack response. When the Forest Service uses a State/local government owned and operated aircraft and reimburses the State/locality for that service, certification that the use was necessary to respond to a substantial and imminent threat, and that no service by a private operator was reasonably (based on the situation at the time) available to meet the threat, may be required.

b. Financial Management: The COR and/or dispatch will review/submit flight invoices. (see Aviation Business System (ABS) @ www.fs.fed.us/business/abs) The Dispatcher and/or Flight Manager will be responsible for logging start and stop times for each flight for verification of flight invoices on detection and local recon flights. Payments will be made upon receipt of the invoices. Contracts will follow the payment procedures specified in the Prompt Payment Act.

8. Search and Rescue (5713.53)

In emergency situations, such as search and rescue or medical evacuation, Forest Service employees may need to ride in unapproved public agency, military, commercial, or private aircraft. The employee's District Ranger, Forest Supervisor, or other line officer may authorize each flight, and document it on Form FS-5700-14, Aviation Safety Communiqué (SAFECOM) Report. As soon as possible inform RIFC/MIFC Dispatches and the FAO or designated. (See FSH 5709.16, sec. 33.24b, FSM 1599, and the Great Basin Mobilization Guide: for additional search and rescue direction.)

H. AVIATION ACCIDENT PREVENTION PROGRAM

No person will engage in aviation operations who do not meet the safety requirements set forth in:

- Forest Service Manual 5700, Aviation Management
- Forest Service Handbook 6709.11, Health and Safety Code
- Forest Service Handbook 5709.16, In-Service Flight Operations Handbook
- Forest Service Handbook 5709.14, Smokejumper and Paracargo Handbook
- Interagency Helicopter Operations Guide
- Interagency Helicopter Rappel Guide
- Interagency Smokejumper Operations Guide
- Interagency Aerial Ignition Guide
- Interagency Airspace Coordination Guide
- Interagency Aviation Transportation of Hazardous Materials Guide
- Interagency Aviation Training Courses
- Pertinent Federal Aviation Regulations
- System Safety Aviation Risk Management Workbook
- State and local laws

All Pilots that are assigned to the Fishlake National Forest will be provided and briefed on the contents of the Central Utah pilot briefing packet.

Safety instructions for personnel should include items requiring special care in and around aircraft, both on the ground and in the air. Forest Service personnel will be trained and used to manage passengers and other personnel around aircraft at airfields.

When planning aircraft needs, project planners should select aircraft that will perform the duties with the greatest degree of safety. The Regional Aviation Group should be contacted in the earliest stages of planning to provide additional assistance in areas of aircraft capabilities, landing field requirements, writing technical specifications, etc.

All rented, leased, or contracted pilots and aircraft able to perform special missions for the Forest Service are certified by a qualified Regional Aircraft/Pilot Inspector. Certifications for pilots or aircraft are documented on the following forms:

1. FS-5700-20 or FS-5700-21 (pilots, "pilot card")
2. FS-5700-4 or FS-5700-4a (aircraft, "aircraft data card")
3. AMD -30A or AMD -30B (pilots, "pilot card")
4. AMD -36A or AMD -36B (aircraft, "aircraft data card")

OAS inspectors and documentation are adequate approval for Forest Service aircraft. Other federal or state agency approvals are not acceptable without a letter from the Regional Aviation Officer, carried with the aircraft, outlining such approval and stating any restrictions.

Exceptions to the above inspection and approval process or "carding" process are the approved point-to-point pilots and aircraft. The pilot may have a card stating that his or her approval is for point-to-point missions only, or the pilot and aircraft may be covered together under a letter of approval.

All aircraft will be operated in a safe and prudent manner in accordance with the applicable Federal Aviation Regulations and Forest Service policies and guidelines. The Pilot in Command (PIC) is responsible for the safety of the aircraft, passengers, and cargo and ensuring that an aircraft is properly loaded within weight and center of gravity limits. The PIC or any involved employee can cancel, postpone, or change a flight when existing or impending conditions would make aviation operations hazardous. The Forest Service reserves the right to suspend operation of any pilot or aircraft which, in the opinion of the Forest employee in charge, operates in an unsafe manner, violates standard operating procedures, violates contract provisions, or otherwise performs in an unsatisfactory manner.

Personal Protective Equipment (PPE): (FSM 5716.31)

Personnel participating in low-level flights (below 500 feet above ground level excluding takeoff and landing) shall wear the personal protective equipment specified in this section at all times during such flights.

1. All Aircraft. Shirt and trousers or one-piece flying suit made of fire-resistant cloth that overlaps gloves and footgear when the individual is in the sitting position is required. Gloves must be leather or other fire-resistant material. Single-engine airtanker pilots are required to wear leather boots.
2. Helicopters. Nomex clothing (fire resistant shirt, pants or one-piece flight suit) that overlaps gloves and foot gear when the individual is in the sitting position are required. Gloves must be leather or other fire-resistant material. Refer to the Interagency Helicopter Operations Guide (IHOG), chapter 9 for more detail on clothing and flight helmet requirements. National approval by the Director, Fire and Aviation Management Staff, Washington Office is required for waivers (IHOG chapter 9, page 9-7(F)) associated with increased-risk missions.
3. ATGS Operations and Fire Reconnaissance: Leather shoes or boots and natural fiber shirt, full length cotton or Nomex pants or flight suit are required. See Interagency Standards for Fire and Fire Aviation Operations (Red Book), Chapter 16, Aviation Operations.

Aviation Risk Management

Risk management is a decision-making process. All personnel involved in an operation should have a part in risk management. Those at the ground level are ideally situated to identify hazards and determine their risk. They can also

recommend to the decision maker the appropriate controls. The process of managing risks makes operations safer without compromising the mission. The following information is provided to assist in the process of risk management.

Risk Management follows a five-step cyclic process that must be integrated into the decision making process at all levels. The five steps are as follows (see IHOG 3-2, for Risk Management Applied):

1. Identify Hazards
2. Assess Hazards
3. Implement Controls (mitigations)
4. Make Risk Decision
5. Supervise

In keeping with the steps above, a thorough review of the completed System Safety Risk Assessments applicable to the planned mission(s) must be conducted and all hazards mitigated in like or appropriate manner. The hazards and mitigations listed in the Aviation Program Risk Assessments are thorough but incomplete. Each project will likely have additional hazards that must be identified, assessed, and mitigated. Then the risks must be weighed against the expected benefit of performing the operation.

Risk Management Instructions: To conduct a complete Risk Analysis for your project;

1. Review and utilize the applicable System Safety data available at:
http://www.fs.fed.us/fire/av_safety/Systems_Safety/av_risk_mgt/index.html
2. Implement the mitigations as listed in the System Safety Assessments.
3. Complete and follow the reminder lists below.
4. Conduct your individual analysis of the project following the five steps above and utilizing the Risk Assessment Matrix System Safety has predetermined values, but, as mentioned above, each project will present its own specific hazards that you must identify, mitigate, and manage.

SYSTEM SAFETY RISK ASSESMENT MATRIX

LIKELIHOOD	SEVERITY			
	Negligible	Marginal	Critical	Catastrophic
Frequent	Medium	Serious	High	High
Probable	Medium	Serious	High	High
Occasional	Low	Medium	Serious	High
Remote	Low	Medium	Medium	Serious
Improbable	Low	Medium	Medium	Medium

-Steps 1 & 2: Identify and describe the hazards present for this project. Assess the **Likelihood** of an occurrence of each hazard and determine the potential **Severity** of the outcome by referring to the definitions at the System Safety Matrix site. Click on this link: http://www.fs.fed.us/fire/av_safety/Systems_Safety/av_risk_mgt/matrix.pdf and then click the link to the **Risk Assessment Matrix**.

Once you have identified the likelihood and severity, determine the **Risk Level** using the matrix above.

-Step 3: Identify the mitigation controls to follow that will reduce the **Likelihood** of a hazard occurrence. ****Remember**, the severity will likely remain the same as first determined. The mitigations generally only affect the likelihood of an occurrence. Once you have established the mitigations and changed the likelihood, determine the post-mitigation **Risk Level**.

Total Risk Assessment Value (The highest risk level identified from the System Safety Assessments and the above determined risks shall be applied as the overall total risk value):

- Low Medium Serious High

Step 4: Make Risk Decision – weigh the risk against the benefit of performing the operation. From the determined overall risk, a determination must be made to conduct the operation as planned, apply further controls that may reduce the overall risk further, or not to perform the operation.

Accident/Incident Reporting: All aircraft Incidents, Incidents with Potential, and Accidents will be reported immediately to Dispatch, or in the case of an incident to the AOBD or IC, as appropriate. In the case of Accidents or Incidents with Potential, the FAO will be notified immediately by Dispatch, regardless of the time of day. The Forest employee most directly involved with the incident will be responsible to file a SAFECOM with the Regional Aviation Safety and Training Manager and the FAO as soon as possible. **Anyone involved with Forest Aviation operations may file a report at any time (see FSM 5700, 5720, IHOG**

The following National Transportation Safety Board definitions apply to Forest Service operated, owned, leased, contracted, rented, or borrowed aircraft:

1. Aircraft Accident: An occurrence associated with the operation of an aircraft, which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.
2. Serious Injury: Any injury which:
 - a. Requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received;
 - b. Results in a fracture of any bone (except simple fractures of fingers, toes, or nose);
 - c. Causes severe hemorrhages, or nerve, muscle, or tendon damage;
 - d. Involves any internal organ, or;
 - e. Involves second or third degree burns, or any burns affecting more than five percent of the body surface.
3. Substantial Damage: Damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. For purposes of direction in FSM 5720, the following are not considered substantial damage:
 - a. Engine failure or damage limited to an engine if only one engine on multi-engine aircraft fails or is damaged;
 - b. Bent fairings or cowlings;
 - c. Dented and/or small puncture holes in the skin or fabric;
 - d. Damage that occurs to rotor or propeller blades during ground operations; and
 - e. Damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips.
4. Aircraft Incident: An occurrence other than an accident associated with the operation of an aircraft, which affects or could affect the safety of operations. Aircraft incidents are documented on a SAFECOM form.

Overdue or Downed Aircraft: For any overdue or downed aircraft, refer immediately to the Aviation Mishap Response Guide and Checklist.

I. PROGRAM AND ACTIVITY MONITORING, REVIEW, AND FOLLOWUP

Aviation program activities will be monitored by the FAO for safety, cost effectiveness, suitability (as a means of mission accomplishment), and for planning and training for future projects. Follow-up on mission effectiveness will be conducted by the FAO with assistance from the appropriate program manager. An annual program review with Forest Supervisor involvement is strongly encouraged. Changes in the program will be made as necessary. These changes will be forwarded to the Forest Aviation Officer or designated and if necessary, training will be conducted related to these changes. The manual and handbooks will be reviewed a minimum of annually and this plan will be amended to reflect supplements or revisions to the manual or handbooks referenced in this document.

II. AVIATION OPERATIONS

A. HAZARD MAPS

1. A hazard map for the Fishlake National Forest will be compiled by the Forest Aviation Officer with the aid of RIFC dispatch offices, and be updated annually or as needed. Also, a hazard map will be maintained at each air operations facility for review by flight crews.

Include the following on the hazard maps:

- a. Power lines.
- b. Telephone lines (around landing areas).
- c. Aerial logging and/or high line cable operations.
- d. High bridges.
- e. Lookout towers.
- f. Microwave towers.
- g. Military low level training routes (MTR).
- h. Restricted and/or prohibited areas.
- i. Military Operations Areas (MOA's).
- j. Wind turbine towers

(Note: On special projects, a larger scale hazard map of the project area should be used showing: hazards, alternate landing areas, private land boundaries, etc.)

2. Additional maps should be developed that show:

- a. Detection routes; normal, alternate and high fire risk.
- b. Approach and departure routes and traffic patterns for operated landing fields and helibases.

B. AIRSPACE COORDINATION

Airspace coordination and de-confliction is a shared responsibility among ALL aviation users. The primary focus in airspace coordination is mid-air collision avoidance. Positions such as the Forest Aviation Officer, Dispatchers and on-scene Aviation personnel are all responsible for airspace coordination. Personnel involved in aviation operations shall follow all processes and procedures outlined in the Interagency Airspace Coordination Guide. (IACG). Dispatch will provide the contact with the military, airspace coordinator and the project manager.

The possibility of conflicts with military activities should be considered on all Forest aviation projects. Requests for temporary flight restrictions for airspace will be processed through the dispatch office for those incidents projected to continue beyond the initial attack phase or where other aircraft will pose a hazard to incident aircraft. Coordination, especially in congested areas or in Special Use Airspace (MTRs, MOAs) is critical to safe flight.

The following should be addressed pre-season:

- Airspace hazard identified and posted on the hazard map.
- Dispatch personnel trained in airspace coordination.
- Critical contact phone lists are updated annually.

C. PERSONNEL DIRECTORY***Interagency Aviation Contacts***

Name	Title	Phone	E-Mail
	Fishlake National Forest		
Allen Rowley	Fishlake Forest, Forest Supervisor	435-896-1001	arowley@fs.fed.us
Gayle Sorenson	Fishlake Forest Fire Management Office	435-896-1614	gsorenson@fs.fed.us
Tyler Monroe	Fishlake N.F. Forest Assistant Fire Management Officer	435-896-2328	tmonroe@fs.fed.us
Blake Ford	Fishlake National Forest, Forest Aviation Officer	435-865-4644	blakeford@fs.fed.us
	Utah -BLM		
Cameron Dingman	Utah State Aviation Manager	801-539-4241	cdingman@blm.gov
	Color Country-BLM		
Heather Whitman	Color Country District Office Manager	435-865-3022	hwhitman@blm.gov
Walter Burdick Jr	Color Country District Office FMO	435-865-3018	wlburdic@blm.gov
Todd Murray	Color Country District Office AFMO	435-896-1543	tmurray@blm.gov
Bryan Brazzeal	Color Country Unit Aviation Manager	435-865-4621	bbrazzeal@blm.gov
	West Desert-BLM		
Kevin Oliver	West Desert District Office Manager	801-977-4310	koliver @blm.gov
Justin Kincaid	West Desert District Office FMO	801- 977-4316	jkincaid@blm.gov
Gary Bishop	West Desert District Office AFMO	435-743-3138	gbishop@blm.gov
Jamie Seng	West Desert District Unit Aviation Manager	801-977-4322	jseng@blm.gov
	Capitol Reef National Park		
Leah McGinnis	Capitol Reef National Park Superintendent	435-425-3791	Leah_McGinnis@nps.gov
Ray Ucha	Utah Parks Aviation Manager	435-865-4640	Ray_Ucha@nps.gov)
	Utah State		
Marv Turner	South Central Utah Area Manager	435-896-5697	marvturner@utah.gov
Fred Johnson	Southwest Utah Area FMO	435-835-4076	fredjohnson@utah.gov
	Richfield Interagency Dispatch Center	435-896-8404	
Cheryl Carpenter	Richfield Interagency Fire Center-Center Manager	435-896-1669	ccarpent@blm.gov
Marlene Chappell	Asst. Center Manager-Operations	435-865-1659	mchappell@fs.fed.us
Sherrie Taylor	Aircraft Dispatcher-Seasonal	435-896-1650	sherrietaylor@fs.fed.us
	Aircraft Lead Dispatcher	435-896-1651	@blm.gov
Kristi Hardy	Utah State Seasonal Dispatcher	435-896-1653	kristihardy@utah.gov

Regional Aviation Organization

Personnel	Name	Position Title	Work Phone
Region 4	Sue Stewart	Fire & Aviation Management Director	801-625-5507
	Samuel Ramsay	Regional Aviation Officer	801-620-1890
	Andrew Kingsbury	Regional Aviation Safety Manager	801-620-1898
Regional Aviation Group	Shannon Hall	Helicopter Program Manager	801-620-1880
	Vacant	Helicopter Operations Specialist	801-620-1882
	Vacant	Asst. Helicopter Operations Specialist	801-620-1881
	Gregory McDonald	Light Fixed-Wing Program Manager	801-620-1849
	Kevin Bailey	Aviation Maintenance Program Manager	801-620-1870
	Jeff Watts	Aviation Maintenance Inspector	801-620-1871
	Bill Mank	Pilot Smokejumper Supervisory	801-620-1855
	Alan Baum	Pilot Smoke Jumper	801-620-1856
	Paul Delmonte	Pilot Smoke Jumper	801-620-1853
	Daniel Johnson	Pilot IR Supervisory	801-620-1862
	Vacant	Pilot IR	801-620-1860
	Vacant	Pilot IR	801-620-1864
	Todd Novinger	Aviation Contracting Officer	208-387-5272

AREA AIRPORTS AND HELIPORTS**Airports**

10 airports are located within the area encompassed by the combined agencies, and provide varying levels of service to the local area. Pertinent information on these facilities is described below:

Airport	Lat / Long Coordinates	Elevation	Runway Dimensions	VHF-AM Frequency	Fuel	Lights	Remarks
Richfield –	38 44.50N 112 05.71W	5301’	6645’ x 75’	122.8 CTAF 133.375 AWOS-3	AvGas Jet	*L	
Fillmore -	38 57.50N 112 21.80W	4988’	5040’ x 75’	122.8 CTAF 127.75 AWOS-3	AvGas Jet	*L	
Nephi -	39 44.33N 111 52.30W	5829’	6298’ x 100’	122.8 CTAF	AvGas Jet	*L	
Delta -	39 22.84N 112 30.46W	4759’	5935’ x 85’ 5500’ x 75’	122.8 CTAF 127.75 AWOS-3	AvGas Jet	*L	
Beaver	38 13.84N 112 40.53W	5863’	4984’ x 75’	122.9 CTAF 119.925	AvGas	*L	
Manti-Ephraim	39 19.75N 111 36.88W	5500’	4584’ x 75’	122.8 CTAF	no	*L	
Salina-Gunnison	39 01.75N 111 50.30W	5159’	3855’ x 60’	122.9 CTAF	no	*L	Gunnison is a power on landing, the gate is locked & Rulon Miller has the key (in Redmond).
Junction	38 15.00N 112 13.53W	6069’	4505’ x 60’	122.9 CTAF	no	no	
Hanksville	38 25.08N 110 42.24W	4444’	5675’ x 75’	122.8 CTAF	no	L	
Loa-Wayne Wonderland	38 21.75N 111 35.76W	7023’	5900’ x 75’	122.9 CTAF	AvGas	*L	
Halls Crossing	37 26.53N 110 34.18W	4388	5700’ x 60’	123.0 CTAF 134.375 AWOS-3	AvGas Jet	*L	

Airport	Lat / Long Coordinates	Elevation	Runway Dimensions	VHF-AM Frequency	Fuel	Lights	Remarks
Bluff Airport (66V)	37°15.00N 109°38.04W	4476		122.9		N	Unattended , No facilities
Blanding Airport (BDG)	37°34.98N 109°28.00W	5865			Jet A & AV	Y	Limited facilities
Canyonlands Airport (CYN)	38°45.30 N 109°45.28 W	4553	(7100 x 75)	122.8 ASOS 118.525	Jet A & AV	Y	Full service airport
Green River Airport (U34)	38°57.68 N 110°13.64 W	4225		122.8	Jet A 100LL	Y	Limited facilities
Monticello/San Juan Airport (U43)	37°56.23 N 109°20.79W	6998			Jet A 100LL	Y	New Runway to the west of the highway
Huntington Airport (69V)		5909					Limited facilities
Price Airport (PUC)	39°36.84 N 110°45.09 W	5953		122.8	Jet A & AV	Y	Full service airport
Grand Junction (GJT)	39°07.35N 108°31.60W	4845			Jet A & AV	Y	Full service airport
Cortez (CEZ)	37°18.18 N 108°37.68 W	5914			Jet A & AV	Y	Full service airport

Helibases:

Richfield Interagency Helitack Helibase is located adjacent to the runway at the Richfield Municipal Airport, at Latitude. 38°44.50 Longitude. 112° 05.71.

Remote Helispots

There are no designated remote helispots on lands managed by the combined agencies. Numerous unimproved landing areas can be found in close proximity to work areas for resource project activities, and fire management operations.

These landing areas may be utilized as temporary helispots, providing the requirements are met for helispot selection and operations as outlined in the Interagency Helicopter Operations Guide (IHOG).

D. REFERENCES

Chapter 14, Code of Federal Regulations (CFR), Federal Aviation Regulations (FAR)
14 CFR Part 61 Certification
14 CFR Part 91 General operating and flight rules
14 CFR Part 121 Certification and operations
14 CFR Part 133 Rotorcraft external load operations
14 CFR Part 135 Air taxi operators and commercial operators
14 CFR Part 137 Aerial Application
Federal Aviation Regulations/Aeronautical Information Manual (FAR/AIM)
Forest Service Manual (FSM) 5700
Forest Service Manual (FSM) 6500, Form FS-6500-122
Forest Service National Aviation Management Plan
R1/R4 Aviation Management Plan
Forest Service Handbook (FSH) 5709.16, In-Service Flight Operations Handbook
Forest Service Handbook (FSH) 6709.11, Health and Safety Code
Forest Service Handbook (FSH) 5109.17, Fire and Aviation Management Qualifications Handbook
Chapter 49, Code of Federal Regulations, Hazardous Material Regulations
Interagency Helicopter Operations Guide (IHOG), January 2002
Interagency Helicopter Rappel Guide
Interagency Smokejumper Operations Guide (ISMOG)
Interagency Air Tactical Group Supervisors Guide, February 2004
Interagency Leadplane Operations Guide (ILOG), April 2001
Interagency Single Engine Air Tanker Operations Guide, 2005
Interagency Aviation User Pocket Guide, April 1998
Interagency Aviation Technical Assistance Directory
Basic Aviation Safety, April 1997
Wildland Fire Qualifications Subsystem Guide, 310-1
Aviation Mishap Response Guide and Checklist
Great Basin Communication Center Mobilization Guide
Great Basin Interagency Mobilization Guide
National Interagency Mobilization Guide
Interagency Standards for Fire and Fire Aviation Operations
Interagency Aerial Ignition Guide, January 2004
Interagency Airspace Coordination Guide, July 2003
Call When Needed (CWN) National Helicopter Contract
Call When Needed (CWN) Regional Light Fixed-Wing Contract
National Airtanker Contract
2008 System Safety Aviation Guide

III Appendix

A. Guide For Witness Of Aircraft Accidents

The guide has been prepared for Forest Service personnel who may witness an aircraft accident or arrive on the accident scene before the Accident Investigation team.

A. Rescue - This is the first action to be taken at the scene. If survivors are in the wrecked aircraft and rescue appears possible, remember:

1. Use care in approaching the wreckage by vehicle, particularly if the approach is along the crash path, as survivors may have been thrown out.
2. Render first aid to survivors until relieved by medical personnel.
3. If there are indications of a spreading post-crash fire or possible explosion from fuel vapor, move survivors a safe distance away; otherwise, do not disturb them except as necessary for first-aid. The witness should either request medical assistance for the injured or transportation to the nearest hospital.
4. Keep bystanders or any unauthorized personnel out of the area.
5. Establish a no smoking rule to help prevent possible fire.

B. Searching the wreckage - Notification of an aircraft crash should be through regular command channels to the Regional Air Safety Officer. The following basic information should be included in the crash notification:

1. Your name and location from where you are calling.
2. Report the time the aircraft crashed and whether or not there is a fire.
3. Give accurate geographical location, road net, distances/or compass directions on how to reach the crash site.
4. Number or extent of injuries.
5. Medical help needed.
6. Report damage to private property.
7. Report the number on the tail of the aircraft and type or model of aircraft.

C. Protect Property - Fire and explosion are always possibilities at a crash scene until firefighters or other appropriate personnel have properly secured the area. Fire sources include residual fuel ignited by hot metal or oxygen bottle cook off from head generation. To fight aviation gas and jet fuel fires, high-pressure water fog, foam, carbon dioxide, or dry chemical powder can be used.

D. Preservation of the Accident Site - Each and every piece of the aircraft, its location, and its exact position is important to investigators in determining the sequence of events, causes of the accident, and injuries involved. Lessons learned from each accident are used to prevent future accidents from like causes and to improve aircraft equipment design. Nothing should be disturbed other than what is necessary to rescue survivors. If there are fatalities, the bodies should not be moved until positive identification is made, since location of bodies may help determine significant facts about the accident. Above all, no part, no matter how small, should be disturbed, for even instrument readings, control positions and injury patterns can be determined from smashed equipment. Every effort should be made to prevent souvenir hunting, as a small component is often a key factor. Even marks on the ground are important clues, so entry and movement of people and vehicles should be held to a minimum for this reason.

Witnesses - Witnesses are extremely important in helping to determine the cause of the accident. Names and addresses of all witnesses should be taken for subsequent interview by accident investigators.

Appendix B AVIATION BOUNDARY OPERATIONS CHECKLIST

The boundary zone between adjacent jurisdictional agencies has the potential for conflicted airspace when more than one center or agency dispatches aviation resources to these areas. The definition of boundary zone area for the purposes of conflicting airspace shall be defined as an area 5 nautical miles either side of jurisdictional boundaries.

Aviation Dispatchers are responsible for assuring that agency aircraft dispatched to initial or extended attack incidents, leave their bases with accurate mission information. If aircraft are crossing or working in close proximity to unit boundaries utilize the following checklist:

HAVE NEIGHBORING DISPATCH CENTER(S) BEEN NOTIFIED OF YOUR RESPONSE?

Yes ____ No ____

HAVE COMMON FREQUENCIES BEEN ASSIGNED TO ALL RESPONDING AIRCRAFT?

Yes ____ No ____

IF EXTENDED ATTACK, HAVE DISPATCH CENTERS AGREED ON SINGLE ORDERING POINT FOR INCIDENT RESOURCES?

Yes ____ No ____

ARE FLIGHT CREWS AWARE OF ORDERING POINT AND FLIGHT FOLLOWING CENTER?

Yes ____ No ____

DO YOU HAVE AN EXISTING TEMPORARY FLIGHT RESTRICTION (TFR) ON YOUR UNIT?

Yes ____ No ____

HAVE YOU NOTIFIED COOPERATING AGENCIES?

Yes ____ No ____

ARE THERE MILITARY TRAINING ROUTES (MTR) OR SPECIAL-USE AIRSPACE (SUA) IN THE INCIDENT AREA?

Yes ____ No ____

HAVE FLIGHT CREWS BEEN INFORMED OF MTR's OR SUA's?

Yes ____ No ____

Aircraft will NOT be dispatched until this checklist has been completed and initialed by aircraft dispatcher.