

AVIATION MANAGEMENT PLAN

Columbia River Gorge National Scenic Area Gifford Pinchot National Forest Mt. Hood National Forest

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I. AVIATION MANAGEMENT PLAN SUPPLEMENT

A. PURPOSE OF THIS SUPPLEMENT

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. It was decided that one plan would be developed between the Columbia River Gorge National Scenic Area, Gifford Pinchot and Mt. Hood National Forests (hereafter referred to as the Columbia Cascade Units).

B. POLICY AND DIRECTION

The purpose of aviation management on the Columbia Cascade Units 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 Columbia River Gorge National Scenic Area/Gifford Pinchot/ and Mt. Hood National Forests, and is the guiding document to all aviation activities on these lands or by their employees. Only direction more specific or restrictive than that contained in parent plans, manuals, handbooks, and guides will be included. Information from those parent plans, 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 Columbia River Gorge National Scenic Area/Gifford Pinchot/Mt. Hood National Forests will always conform to direction supplied within this plan, regardless of aircraft ownership or procurement authority. Intra-agency aircraft and personnel conducting operations on the Columbia River Gorge National Scenic Area/Gifford Pinchot/Mt. Hood National Forests 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 Columbia Cascade Aviation Management Plan is **reviewed and updated annually**. The aviation programs contained in this plan are all within the scope and expertise of the Unit Aviation Staff to plan and supervise.

C. PROGRAM OVERVIEW

The Columbia Cascade aviation program involve 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 occur between May and October.

Call-When-Needed (CWN) Aircraft: Call-When-Needed contractors are a major supplier of aircraft services on the Columbia Cascade units. Light single and twin-engine fixed-wing aircraft are available through several vendors via the Region 6 CWN Light Fixed Wing Services contract administered by the Region 6 Aviation Contracting Officer. Services for light (Type III) helicopters are procured through the Region 6 Light Helicopter Contract. The Contracting Officer is located in Redmond, Oregon as a member of the Regional Aviation Group, and the Contracting Officers Representative will be designated by the Region 6 Aviation Contracting Officer.

Exclusive Use Contract Aircraft: Not Applicable

Facilities: The Columbia Cascade units maintain several permanent or semi-permanent aviation facilities; either under agreement with private and public land owners or on Forest Service administered land. Troutdale Air Tanker and Helibase facilities are located on Forest Service administered land.

Non-Fire Uses: Non-fire uses of aviation resources on the Columbia Cascade units 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, other than those covered in the Planned Aircraft Uses portion of this document will require an approved Project Aviation Safety Plan (PASP) before proceeding.

Ordering of aircraft, whether for fire or project work, will be channeled through Columbia Cascade Communication Center. Orders for aircraft for project work will be accompanied by an approved PASP.

D. ORGANIZATION AND STAFFING

Area Manager/Forest Supervisor

The Area Manager and the respective Forest Supervisors are responsible for all aviation activities on the Columbia Cascade units. Responsibilities outlined in FSM 5704.6 have been delegated to the Unit Aviation Officer (UAO).

Unit Aviation Officer (UAO)

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

During those times when the UAO is absent from the NSA/Forests, he/she will designate an Acting Unit Aviation Officer. The UAO 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 UAO should have a thorough knowledge of FSM 5700, accompanying Handbooks and Guides (see Reference Appendix). The UAO's background should include extensive experience in management and supervision of aircraft operations. The responsibilities of the UAO can be found in FSH 5709.16, 10.42e.

In addition to the duties in manual and handbook direction, the Unit Aviation Officer on the Columbia Cascade units will also be responsible for the following:

1. Reviews and approves Project Aviation Safety Plans
2. Coordinates with the Dispatch Manager on planned administrative aircraft use on the Forest.

3. Maintains coordination with other government agencies on subjects involving aviation operations.
4. Attends 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 NSA/Forests.
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 UAO 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 rental agreements.
12. Brief and debrief aircrews, Incident Management Teams and operators on NSA/Forests aviation missions.

Dispatch Manager

The Dispatch Manager is a member of the Forest Aviation Management Team. The Dispatch Manger will have 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 Dispatch Manager successfully complete Basic Air Operations (S-270), Intermediate Air Operations (S-370), IAT courses, and SLAM. The following duties are delegated from the Unit Aviation Officer to the Dispatch Manager:

1. Coordinates planned administrative aircraft use on the 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 .
4. Attends available training sessions to maintain proficiency. Training plan should include Aviation Conference and Education (ACE) courses.
5. Reviews all flights requests for fixed-wing and rotorcraft. Maintains a file of all approved aircraft and pilots available to the NSA/Forest, dispatches all fire related flights, and flight follows aircraft while in flight. Provides a cost analysis of aircraft types to enable the user to determine if a chartered flight is the most efficient mode of transportation.
6. May serve as COR on Forest light fixed-wing contracts.
7. Schedules all administrative flights on the NSA/Forest and coordinates these flights with the Northwest Coordination Center (NWCC) 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 with current phone numbers and contacts.
9. Verifies that a Fixed-Wing Flight Manager is assigned for all fixed-wing flights.

11. May brief and debrief aircrews and operators on Forest aviation missions.

District Ranger/Monument Manager

District Rangers/Monument Manager will designate a District Aviation contact for their respective District. District Rangers/Monument Manager will review and approve all Project Aviation Safety Plans (PASP) that occur on their respective District, to assure conformance to Forest Service policies and regulations.

Contracting Officer

The NSA/Forests Contracting Officer is responsible for contacting the Unit Aviation Officer whenever the use of aviation resources is proposed in a contract. They work together on clause development and inclusion in the contract to ensure that an appropriate Project Aviation Safety Plan has been developed.

NSA/Forests level aircraft contracts, rental agreements and use rates are approved through the Regional Aviation Contracting Officer. The Regional Aviation Contracting Officer, UAO, and Aircraft Inspector handle aircraft specifications, rates and inspections.

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, ACE, and Aviation COR training, and attendance at Aviation COR workshops.

Project Aviation Officer

A Project Aviation Officer will be designated for all major aviation projects on the NSA/Forests. This individual is responsible for the preparation of a Project Aviation Safety Plan. The Project Aviation Officer will provide supervision and management during aviation project operations. Project Aviation Officers will have a working knowledge of the capabilities and limitations of the aircraft with which they are working.

The duties of the Project Aviation Officer are:

1. Develop PASP's and/or other planning documents as required (see IHOG Planning Format, 3-3).
2. Present safety orientation to all personnel involved with the project, including the pilot(s).
3. Ensure the preparation of load calculations and manifests.
4. Prepares FS-6500-122's, Flight Use Report form, and submits for payment.
5. Keep the UAO, COR, and/or Contracting Officer briefed on daily progress.
6. Ensure that all aerial activities are conducted in accordance with all applicable policy, direction, and law.
7. Immediately report aircraft accidents/incidents to the RASO, UAO and submit a SAFECOM as soon as possible.
8. Maintain current records and document all project activities.

Air Tanker Base Manager (ATBM)

The ATBM's primary assignment is the safety, management, and supervision of the Air Tanker Base and its personnel. He/she may be assigned to other bases when needed. If the primary ATBM is away from the Troutdale Air Tanker Base, a fully qualified individual will be assigned to manage this facility. The ATBM's duties are listed in the Interagency Air Tanker Base Operations Guide.

Helicopter Manager

A qualified Helicopter Manager will be assigned, as required, to each helicopter activity throughout the NSA/Forests. (See IHOG chapter 2).

Fixed-Wing Flight Manager

The Fixed-Wing Flight Manager is a Government representative who works jointly with the pilot-in-command and aircrew members to ensure safe, efficient flight management on point-to-point flights. Some agencies previously referred to this position as "Chief of Party." This position does not include special-use operations.

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.

A flight manager will be designated for flights or missions with 2 or more passengers. Fixed-wing Flight Manager Duties are:

1. Brief the traveling personnel providing an overview of travel purpose and final destination, route of travel, intermediate stops, if applicable, and estimated time(s) of arrival.

2. Ensure the passenger manifest is accurate and contains the correct names and weights.
3. Provide one copy of the manifest to the pilot-in-command and ensure that additional copies are available for the receiving and sending dispatcher.
4. Assist the pilot-in-command with weight distribution and the stowage of bags, packs, and /or cargo.
5. Assemble the personnel in an orderly manner in the designated staging area.
6. Ensure the pilot and aircraft are currently authorized for the intended mission and pilot-in-command can verify the aircraft is within weight and balance limitation.
7. Maintain a current list of telephone numbers for sending and receiving units.

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 a flight crewmember or aircrew member. All Columbia River Gorge National Scenic Area, Gifford Pinchot and Mt. Hood National Forests 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).

All Columbia River Gorge National Scenic Area, Gifford Pinchot and Mt. Hood National Forests 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 can contact their unit aviation contact, UAO, or the Dispatch Manager if they have questions regarding aircraft use. Those employees who may utilize aircraft must obtain the appropriate training for their specific aviation mission.

Any employee that is an aircraft passenger may terminate or refuse any flight if he or she feels the pilot is operating in an unsafe manner. Unsafe flying may include, but is not limited to:

- 1) Flying below 500 feet above ground level.
- 2) Showing off or "hot dogging".
- 3) Flying in marginal weather conditions (poor visibility, icing, and turbulent conditions).
- 4) Being uncooperative.
- 5) Pressuring you to fly, or flying into an area when it "just doesn't feel right".

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 Unit Aviation Officer 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 Columbia Cascade Units 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
IADP	or	IA & 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, UAO	=	Aviation Manager
AOBS, ATGS, HLCO, HMGB	or	Smokejumper Spotter. Those that have had Chief of Party Training in 2002, 2003, 2004.	=	Fixed-Wing Flight Manager
AOBS, ATGS, HLCO, HMGB	or	Smokejumper Spotter, FHP Aerial Surveyor	=	Fixed-Wing Flight Manager – Special Use
HMGB	or	None	=	Helicopter Flight Manager
HMGB	or	None	=	Helicopter Manager - Resource
None		None		Passenger
AOBD	or	UAO, Rappel Base Manager, Assistant Rappel Base Manager, Smokejumper Base Manager, Assistant Smokejumper Base Manager	=	Project Aviation Manager

F. AVIATION MANAGEMENT ACTIVITIES

Operational planning of all aviation activities will ensure the utmost concern for safety. **All aviation projects require a Project Aviation Safety Plan (PASP) that will be reviewed by the UAO and approved by a Line Officer**, to assure conformance to Forest Service regulations and policies. The major aircraft uses of these NSA/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 UAO as soon in the planning process as possible for review. The Columbia Cascade Unit Aviation Officer, Steve Arasim, has been delegated the authority to review all Project Aviation Safety Plans on this unit. PASP’s that are unique, unusual, or “first of a kind” will be submitted to the UAO 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 requiring submittal of a PASP to the UAO.	Activities in which submittal of a PASP to the Region for review/approval is required.
<ul style="list-style-type: none"> • Fire Suppression Activities (see FSM, FSH, Guides and System Safety) • Administrative Travel (see PNW Administrative Aircraft Use Guide) • Law Enforcement (see PNW Law Enforcement Aviation Plan) 	<ul style="list-style-type: none"> •RAWS and Radio Maintenance •Lookout Re-supply •Aerial Ignition and pre-burn reconnaissance (Project) •Resource Reconnaissance •Any travel requiring landing at other than a developed airport or permanent helibase (other than activities listed in column one). 	<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

Aircraft uses on the Columbia Cascade Units.

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 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 or flight following with AFF and should designate the individual who will monitor the flight.

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 Moses Lake, Omak, Washington, and Redmond, La Grande, John Day, Klamath Falls, Medford, Oregon and Troutdale , Oregon (Reload). Leadplanes are based at Wenatchee, Washington, and Redmond, Oregon. Smokejumper aircraft are based at Winthrop, Washington and Redmond, Oregon.

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 24.3 Northwest Mobilization Guide). Pilots/Fixed-Wing Flight Managers will be instructed to check in at intermediate stops (schedule permitting) and at the destination. Authorization and documentation of administrative flights will be in accordance with the PNW Administrative Aircraft Use Guide. 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 UAO. 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. (Ref. PNW Aviation Contracting Guide).

Aerial Ignition: Aerial ignition projects will be planned in accordance with the Interagency Aerial Ignition Guide (IAIG). Dispatch or UAO will check with neighboring units or local contractors on the availability of either a Helitorch and 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 6 and National Helicopter Contracts. (Ref: PNW Law Enforcement Aviation Plan).

Covert flights are planned, coordinated and approved by the Regional Aviation Officer and Regional Special Agent. The UAO 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 are coordinated through the local Forest Service Law Enforcement Officers, who will in turn notify Dispatch and/or the UAO of planned areas and times of operation.

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 Pacific Northwest Region include; two C-23 Sherpas used for Smokejumper missions, and one Cessna 206. These aircraft are operated and managed by the Regional Aviation Group. Consult the Northwest Mobilization Guide for the requirements for ordering these resources.

2. Exclusive Use Contract Aircraft: Not Applicable

3. Call When Needed (CWN) Aircraft: Aircraft resources are available from the USFS Pilot and Aircraft Aviation Resources list, located on the Northwest Aviation Management web page. The Aviation Management Directorate Source List is located on the AMD web page. Both lists are available in the dispatch office. (AMD 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 ODF 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.

End-Product Exhibit

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?						

* 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

a. Administrative Flights (FSM 5711.3) (PNW Administrative Aircraft Use Guide)

Ordering and Scheduling: Passengers will contact Dispatch for assistance with the completion of cost comparisons and authorization documentation. Dispatch will contact vendors and order/schedule flights as required. Authorization and documentation of administrative flights will be in accordance with the Administrative Aircraft Use Plan in the Northwest Aviation Management Plan. The users will provide the ordering office, Dispatch, with the following data about the flight:

- a. The total number of passengers by name, grade level, weight, and cargo weights.
- b. Requested flight date and times.
- c. Points of departure and destination.
- d. Whether flight is one way or round trip and expected return time.
- e. Accounting charge numbers.

Flight orders should be placed at the earliest possible time to allow for ordering and coordination of flights. The Dispatcher will provide the ordering personnel with flight confirmation as soon as arrangements have been made.

Tracking of Aircraft: Dispatch 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 NSA/Forests use through the Columbia Cascade Communication Center must be able to communicate on the NSA/Forests primary frequencies. Mission aircraft will flight follow (15 minute AFF Check and 30 minute check-in Radio Call) with Columbia Cascade Communication Center 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 Columbia Cascade Communication Center by telephone.

Most Commonly Used Radio Frequencies:
(See Columbia Cascade Mobilization Guide)

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.

b. Fire Related, Project and Emergency Flights

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

Helicopters:

All helicopters used within the Columbia Cascade Units will be ordered and dispatched by the Columbia Cascade Communication Center. Policy requires 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 Unit Aviation Officer or a qualified Helicopter Manager and the pilot prior to use. They will have the following equipment; wind indicator, fire extinguisher, safety signs, adequate communications, and dust abatement as necessary.

Summary of Requirements and Approval for Passenger Air Transport

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

Personnel Type	Mission	Other Requirements	Approval Level	References
Federal Personnel See (1) below	Point-to-Point	See (3), (4) below	Local Line Officer	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	Local Line Officer	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	Local Line Officer	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	Local Line Officer	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	

- (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) that shall be over the incident when specified air tactical operations are being conducted.
- Ordered:** Aerial supervisory resource(s) that 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. The COR, UAO, and Aircraft Pilot Inspector are responsible for informing all contract and rental agreement pilots of payment procedures. Payments will be made upon receipt of the invoices. Contracts will follow the payment procedures specified in the Prompt Payment Act.

All local CWN fixed-wing and type 3 helicopter contracts solicited by the Region 6 Aviation Contracting Officer.

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, Center Director, Forest Supervisor, Area Manager 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 Dispatch and the UAO. (See FSH 5709.16, sec. 33.24b, FSM 1599, and the Columbia Cascade Communication Center 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
- Pacific Northwest Aviation Safety and Mishap Prevention Plan
- 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 NSA/Forests will be provided and briefed on the contents of the PNW Pilot Orientation Guide.

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")

Aviation Management Directorate (AMD) 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 footwear 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 provided in this document. 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

	SEVERITY			
LIKELIHOOD	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**.

Describe Hazard: Pre-Mitigation hazards rate out as:	Likelihood	Severity	Risk Level

Mitigation Controls: Post-Mitigation hazards rate out as:	Likelihood	Severity	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 UAO or acting 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 UAO as soon as possible. **Anyone involved with Forest Aviation operations may file a report at any time (see FSM 5700, 5720, IHOG Appendix C and the PNW Aviation Safety and Mishap Prevention Plan).**

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 UAO 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 UAO 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 District Aviation Officers 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 NSA/Forests will be compiled by the Unit Aviation Officer/ Columbia Cascade Communication Center, with input from Unit Aviation Officers, and 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).
- k. 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 Unit 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

**Columbia Cascade
Units Aviation Contacts**

Name	Title	Phone	E-Mail
Steve Arasim	Unit Aviation Officer	360-891-5142	sarasim@fs.fed.us
Deb Roy	GPF/MHF Forest Fire Staff Officer	503-668-1756	diroy@fs.fed.us
Darren Kennedy	CGF Fire Management Officer	541-308-1731	dkennedy01@fs.fed.us
Steve Arasim	Center Manager	360-891-5142	sarasim@fs.fed.us
Karen Hale	Asst. Center Manager	360-891-5123	khale@fs.fed.us
Bruce Haynes	Air Tanker Base Manager	503-666-3828	bhaynes@fs.fed.us
Leo Segovia	Hood River District Aviation Contact	541-490-6002	Lsegovia02@fs.fed.us
Kim Valentine	Barlow District Aviation Contact	541-467-5157	kvalentine@fs.fed.us
Mike Malone	ZigZag District Aviation Contact	503-622-3191	mmalone@fs.fed.us
Mike Moore	Clackamas Aviation Contact	503-630-8783	mmoore@fs.fed.us
Ron George	Cowlitz Valley District Aviation Contact	360-497-1177	rgeorge@fs.fed.us
Gail Bouchard	Mt. Adams District Aviation Contact	509-395-3440	gbouchard@fs.fed.us
Gary Walker	St. Helen Monument Aviation Contact	360-449-7819	gwalker@fs.fed.us
Al Watson	St. Helen Monument Aviation Contact	360-449-7881	awatson@fs.fed.us
Rocky Pankratz	St. Helen Monument Aviation Contact	360-449-7825	rpankratz@fs.fed.us

Regional Aviation Organization

Personnel	Name	Position Title	Work Phone
Region 6	Jon Rollens	Regional Aviation Officer	503 808-2359
	Gary Sterling	Regional Aviation Safety Manager	541 504-7263
	Julie Stewart	Air Space Coordinator	503 808-6728
Regional Aviation Group	Kim Reed	Aviation Operations Manager	541 504-72
	Ken Ross	Helicopter Program Manager	541 504-7265
	Dave Glose	Helicopter Operations Specialist	541-504-7274
	Jim Lucas	Helicopter Inspector Pilot	541-5047268
	Mike Cook	Aircraft Maintenance Inspector	541 504-7267
	Jim Reed	Avionics Program Manager	541 504-7254
	Ron Vail	Large Air Tanker/Lead Plane Program Manager	541 504-7256
	Jamie Tackman	Light Fixed-Wing Program Manager	509 884-8189
	Ron Barrett	Smokeyjumper Aircraft Program Manager	541 504-7260
	David Heydt	Aviation Maintenance Program Manager	541 504-7250
	Ben McGrane	Aviation Contracting Officer	541 504-7273
Scott Dewitz	ATGS Program Manager	541-504-7378	

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

Pacific Northwest Aviation Management Plan

Pacific Northwest Aviation Safety and Mishap Prevention 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
Columbia Cascade Communication Center Mobilization Guide
Northwest Area Interagency Mobilization Guide
National Interagency Mobilization Guide
Pacific Northwest Aircraft Radio Communications Plan and Frequency Users 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
Washington Department of Natural Resources (DNR) Air Operations Guide
Oregon Department of Forestry Aviation Guide
Washington Department of Transportation MOU with Civil Air Patrol
Pacific Northwest Interagency Aviation Orientation Guide
2008 System Safety Aviation Guide

E. APPENDIX

- I. AVIATION MISHAP RESPONSE GUIDE AND CHECKLIST (Under Separate Cover)
- II. TROUTDALE AIR TANKER BASE OPERATION PLAN (Under Separate Cover)
- III. HELIBASE OPERATION PLANS (**Draft**)
- IV. PROJECT AVIATION SAFETY PLAN
- V. AERIAL OBSERVER GUIDE (**Reserved**)
- VI. SAFECOM LOG (Under Separate Cover)
- VII. AIRCRAFT AND AVIATION FACILITY SECURITY PLAN
- VIII. AVIATION RISK MANAGEMENT WORKBOOK