Northwest Aviation Management Plan 2004

Bureau of Land Management Oregon/Washington
USDA Forest Service Region 6
USDA Pacific Northwest Research Station

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Pacific Northwest Region

2004

APPROVED Linda Goodman DATE: 7/12/04
Regional Forester

APPROVED Elaine M. Zielinski DATE: 7/12/04
State Director

APPROVED Thomas M. Quigley DATE: 7/16/04
Pacific Northwest Station Director

Summary of Revision

Any policy changes or additions since the last revision (June 2004) are identified in this document by highlighting lines at the paragraph margins (see example at right), and the specific information within the paragraph is formatted in *italics*. There have been some minor edits to this document such as personnel responsibility changes, charts and graph updates, name changes in the organization chart, and web page updates that are not highlighted. Listed below are the major items that have been revised:

Various spelling and grammatical revisions throughout the document.

Page 2	Updated graph and flight times.
Page 3	Updated Organization Chart.
Page 4	Deleted "group" from Regional Aviation Group Operations Manager.
Page 5	Same revision as on page 4.
Page 5	Deleted RAG, added Regional Aviation.
Page 5	Deleted Support Services Specialist duplication.
Page 5	Deleted seven, added four.
Page 6	Added "or trains to pilot."
Page 7	Added IAT requirements for Aircraft Managers.
Page 9	Deleted "Regional Aviation Group" from Regional Aviation Group Support Services Specialist.
Page 9	Changed information on UAO Representative, and conference call as added item for meetings.
Page 11	Clarified budget process for BLM.
Page 11	Added information on flight time reporting requirements.
Page 13	Added ATGS Program information.
Page 14	Updated aerial photo A-76 requirement.
Page 15	Added information on Forest Service requirements under IAT.
Page 16	Added clarifying language for National Flight Following.
Page 20	Updated web page URL.
Page 21	Added "reduced with passengers and load", updated aircraft costs, and number of aircraft.
Page 23	Added information for BLM LE flights.
Page 33	Added the URL for the Aviation Accident Prevention Plan, and deleted redundant aviation mishap reporting sentence.

Page 33	Added the RASM “handles Forest Service”, and added “When it is updated and finalized the Forest Service and BLM “Aviation Accident Prevention Plan Pacific Northwest” will be found at the following web site:”.
Page 37	Removed duplicated URL.
Appendices	
A	Updated phone numbers and names.
B	B-4 Deleted dispatch mailing list twice a year, added Regions Dispatchers once a year.
C	C-10 Deleted all Baron 58P information and pilots, added AC50 information and pilots.
D	D-1 Added “and areas greater then 100 square miles.”
	D-1 Deleted “**Projected Cost of Aviation Resources**” information.
	D-2 Moved “**Program Specialist Duties**” information and added “He is assisted by a camera operator in these duties.”
	D-2 Added Flight and Ground Training: Pilots will meet the requirements of FSH 5709.16 and receive the training and orientation as outlined in the Regional Aviation Group New Pilot Orientation prior to starting aerial photography missions
	D-5 Changed 3000 to 4000, added “Make sure aircraft TCAD is utilized”, and deleted “bingo” and added “minimum.”
	D-6 Deleted old weight and balance and added new weight and balance.
	D-8 Added “Rick Watkins and/or” and “Butler Aircraft.”
	D-9 Deleted 2200 and added 2400.
E	E-1 Deleted “The mission is too complex for any other method of contracting.”
F	Replaced Chief of Party with Flight Manager throughout appendix F F-9 Updated names, titles, and phone numbers F-11 Added “lines of lattitude and longitude” F-14 Deleted Avoid up-canyon flying. and added No up-canyon flying F-16 Added Observers employed prior to 2002 are exempt from the task book requirement. F-24 Updated Exhibit 2 and renamed Exhibit F2
J	Updated the header page and added the URL where the Interagency Aviation Mishap Response Plan can be found
L	All pages replaced with updated information.
M	C-2 Deleted Shane Bak and added Dave Spliethof. C-2 Deleted Sandra LaFarr C-3 Deleted Mier Lowry and added Steve Dickenson C-3 Deleted six and added four

D-5 Deleted IAMS and added Interagency Aviation Training Moduales.

E-1 Deleted detailer information and added A part time office assistant is emplopyed to assist with day-to-day functions and special projects.
E-1 Deleted Keys information and added ID for Visitors information
E-2 Added EUSC information.
E-2 Added SF-1164 Claim for Reimbursement is done the same as the SF-182 and is In the same folder.
H-1 Deleted OAS and added AMD
I-3 Asses Robert Meade as the manager of Moses Lake Tanker Base
I-3 Russ Hurst and Don Cavin are CORs
J-1 Added and the ISMOG when it is finalized and approved and changed the NTSB Base Managers name to Vacant
K-1 Changed heavy to large, added "and transporting cargo. Transporting fire crew personnel is considered a fire suppression activity."
K-2 Added "Caution should be excercised with larger tours so that there is not an excess amount of weight in the aft section of the aircraft. " and deleted with groups larger than 10 persons, both tail jacks shall be installed prior to visitors entering the aircraft.
K-2 Deleted EXH and added "During summer operations engine exaust" and ", and the ISPOG when it is finalized and approved."
K-2 Deleted personell and added fire crew and or cargo missions and added Aircraft Program to Smokejumper Manager.
L-2 Deleted rental car and hotel information
M-1 Changed the location of the pilots lounge
M-1 and M-2 Updated phone numbers O-2 Deleted hotel and per diem information.
P-2 Deleted hotel and per diem information and replaced dispatch with "tanker base" for the contact for fuel needs.
Q-1 Deleted FAR 135 and added "*the North West Aviation Management Plan."*
Q-2 Added the text for FAR 61.57(d) and FAR 135.217

N N-1 Deleted "Sandra LaFarr" added Vacant.
N-2,N-3,N-4 Updated each persons program of work.

Q Q-1 Deleted "such as keypad or lock box type system."

TABLE OF CONTENTS

BLM Standard Plan Format Table of Contents Cross Reference

I. AVIATION MANAGEMENT PLAN SUPPLEMENT

A. PURPOSE OF THIS PLAN

To provide aviation management and operations planning in conformance to a national standard. This plan is designed to accompany and supplement the Forest Service National Aviation Management Plan, BLM Aviation Program Improvement Strategic Plan, and provide management guidance to National Forests and BLM Units in Oregon and Washington. The plan also provides a foundation for information compilation in the Northwest. Information not distributed in official regulations and guides, such as letters and memos, will be clarified and distributed as addendums to this plan by the regional staff. Issues should be resolved at the lowest level possible. Notify the chain of authority for dealings with other agencies and higher levels of authority.

Unit Aviation Plans are reviewed and updated annually. The Northwest Aviation Management Plan is scheduled for review and updating in April of each year to provide the field units time for their update prior to the beginning of field season. For more information on Project Aviation Safety Plans see page 13. Paragraph F. 17.

B. PURPOSE AND OBJECTIVES

1. Mission Statement:

Perpetuate an environment that provides for safety and effectiveness within a multi-agency environment.

2. Objectives for Northwest Aviation Management are:

* Provide quality program leadership, direction, service, support, and assistance at the geographic area and national level.

* Implement the Aviation Management Plan and the principles of the Aviation Management Triangle. Those principals are Safe, Cost Effective and Right.

* Provide a learning environment for professional aviators and aviation management personnel, knowledgeable and supportive of interagency mission, vision and guiding principles.

* Strive towards and attain zero aircraft accident and reduction of serious incident rates through emphasis on the human factors aspects of accident prevention.

* Identify and implement appropriate aviation technologies and automated systems support.

* Develop line officer leadership and participation in aviation management programs and activities.

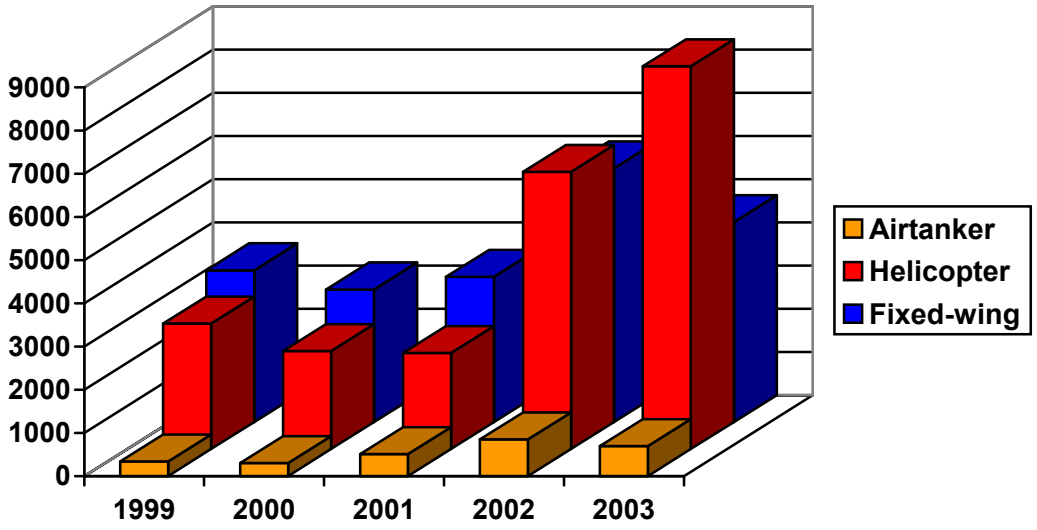
* Promote cost-effective interagency coordination and cooperation.

These may only be accomplished with thorough risk assessment, planning and management.

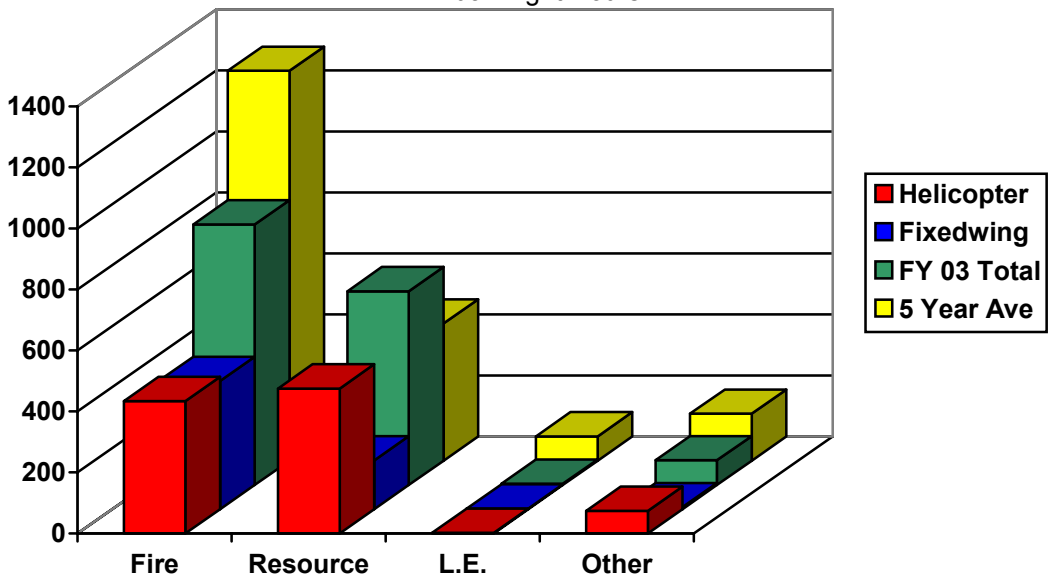
C. PROGRAM OVERVIEW

Northwest BLM and FS aviation activity involves approximately 261 force account and contract aircraft averaging 9905 flying hours per year. Our highest use of aviation assets is for fire suppression. Peak use occurs between June 1st and October 15th each season. Non-fire aircraft use is 50% for BLM and 31% for the Forest Service.

R-6 Forest Service
Annual Flight Hours

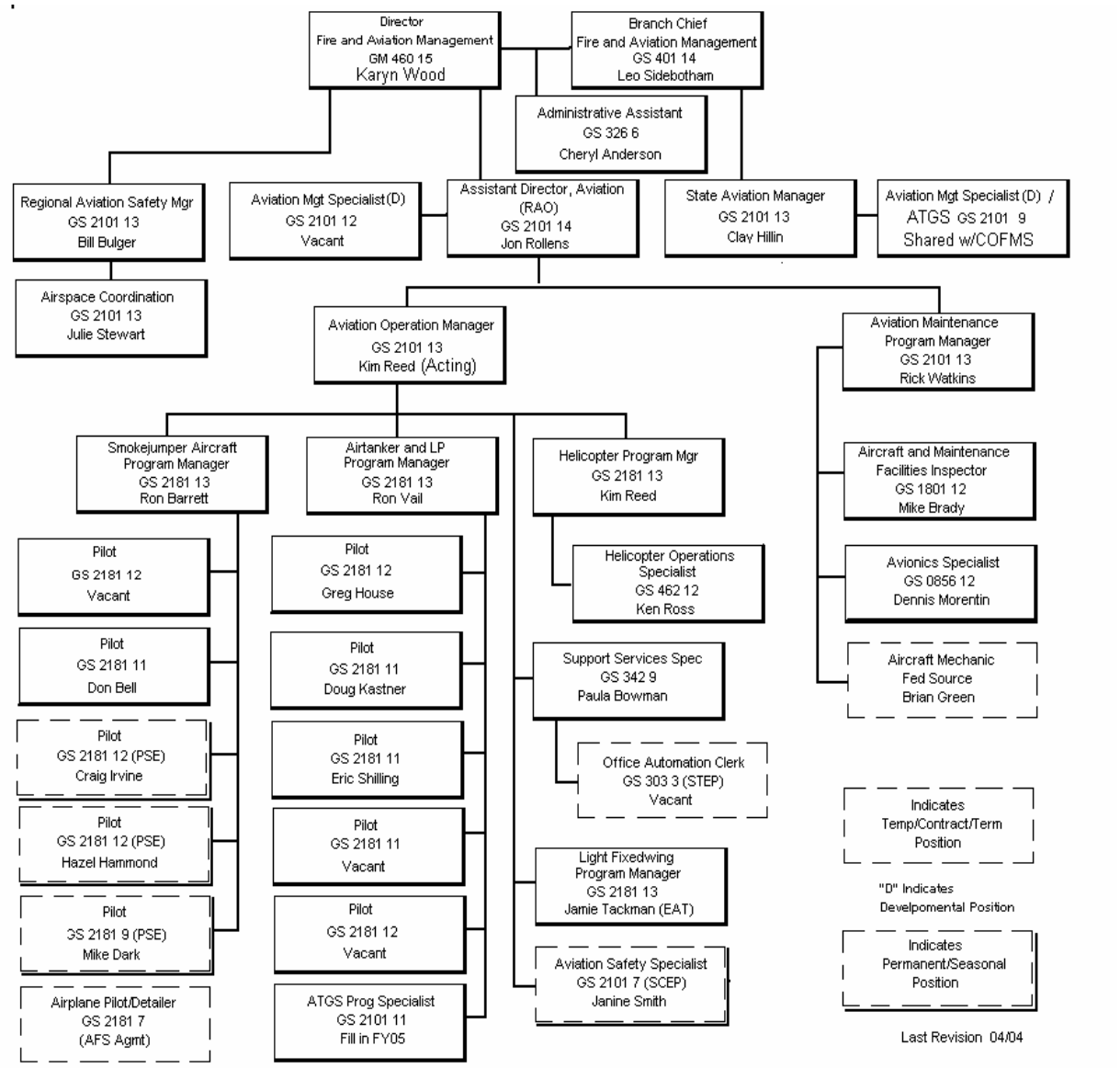


Bureau of Land Management OR-WA
Annual Flight Hours



D. ORGANIZATION AND STAFFING

1. Northwest Fire and Aviation Management: The Director Fire and Aviation Management and the BLM Branch Chief Fire and Aviation Management oversee the aviation program in the Northwest through the BLM State Aviation Manager (SAM) and the Regional Aviation Officer (RAO). In the absence of the RAO the SAM provides backup and vice versa.



a. Branch Chief/Region Director Fire and Aviation Management: Responsible to the Regional Forester and State Director. Overall Fire and Aviation Policy and Management.

b. Regional Aviation Officer (RAO)/Assistant Director, Aviation: Responsible to the Director Fire and Aviation Management. Leadership and Management of Aviation in the Region. Nationally coordinates with other RAO's to influence national policy. The RAO supervises RO Aviation

Management Specialist, the Aviation Operations Manager, and Aviation Maintenance Program Manager Focal point with cooperating agencies for resolution of aviation program issues. Member of the Northwest Aviation Leadership Team (ALT). Member of Pacific Northwest Wildfire Coordinating Group (PNWCG) Aviation Working Team (AWT).

c. BLM State Aviation Manager (SAM): Responsible to the Branch Chief Fire and Aviation Management. Although the State Director has overall responsibility for the State Aviation Program, this is delegated to the SAM through the Deputy State Director of Resources and the Branch Chief Fire and Aviation Management. The SAM provides leadership and management of the Oregon/Washington BLM Aviation Program. Develops and implements the statewide Aviation Management Plan and aircraft safety and accident prevention measures for BLM and combined units. Serves as Contracting Officer Representative on all BLM exclusive use aviation contracts in the state. Provides aviation-training support to the Oregon State Office, District Offices and cooperative agencies. Maintains currency as Interagency Aviation Trainer. Supervises and mentors the Developmental Aviation Manager Focal point with cooperating agencies for resolution of aviation program issues. Member of Northwest Aviation Leadership Team (ALT). Member of PNWCG Aviation Working Team (AWT).

d. Regional Aviation Safety and Training Manager (RASM): Responsible to Director Fire and Aviation Management. Overall Aviation Safety Management and Aviation Training oversight in the Northwest for Forest Service. Provides liaison with National Transportation Safety Board and Safety and Health. Focal point for aviation training and coordinates with the National Offices for training issues. Member of the Aviation Safety Council. Member of the Northwest Aviation Leadership Team (ALT). Member PNWCG Aviation Working Team (AWT).

e. Airspace Specialist: Responsible to RASM and the National Aviation Safety Officer. Airspace coordination and program management for regional and USFS Nationally. Responsible for training, education, liaison with DOD and FAA, responds to SAFECOMs involving airspace issues. Mentor field airspace coordinators and develops airspace training locally and nationally.

f. Aviation Management Specialist: Responsible to the RAO. Coordinates and performs administrative duties as assigned including, the Northwest Aviation Management Plan, web pages, and Unit Aviation and Project Aviation Safety Plan reviews.

g. Developmental Aviation Manager: Responsible to the SAM/RAO/COFMS UAO. This is a shared position with SORO and COFMS. Aviation Management development position for Unit and State Aviation Management Positions. Attends training and is mentored by the SAM/RAO/UAO in a variety of tasks to gain the knowledge and experience necessary to be competitive for aviation management positions. This position also provides staffing for the exclusive use contracted ATGS aircraft in Central Oregon.

h. Aviation Maintenance Program Manager: Responsible to RAO. See Regional Aviation Group.

i. Regional Aviation Operations Manager: Responsible to the Assistant Director, Aviation/RAO. See Regional Aviation Group below.

2. Regional Aviation Group (RAG): This group is located at the Redmond Air Center. Leadplanes, smokejumper aircraft and photo aircraft are also located at this facility.

Individual Program Managers are assigned areas of responsibility within the unit for the Helicopter Program, Smokejumper Aircraft Program, Light Fixed wing Program, and the Air tanker Program. Each program manager determines needs and objectives in collaboration with members of the RMT and

manages the program as required. The Regional Aviation Group Program of Work is contained in Appendix A of this plan.

Redmond aviation positions and their responsibilities are as follows:

a. Regional Aviation Operations Manager: The Operations Manager leads and manages the Regional Aviation Group as the supervisory pilot.. Pilots various fleet aircraft. Coordinates the WCF aircraft program. Conducts pilot and aircraft inspections. Member of the Northwest Aviation Leadership Team (ALT). Chairs the Regional Aviation Group Management Team (RMT)

b. Support Services Specialist: Responsible to Regional Aviation Operations Manager. Responsible for administrative and office management functions of pay, procurement, mail and file, reception, directives, office equipment, telecommunications, computers and personnel. Develops, submits, monitors and adjusts RAG annual budget. Manages billing and record documentation of aircraft flight use for four WCF aircraft. Develops F.O.R. and Use Rates for the R-6 Baron and Commander. Serves as member of the Aviation Leadership Team (ALT).

c. Smokejumper Aircraft Program Manager: Responsible to Regional Aviation Operations Manager. Coordinates and provides aircrew training and scheduling to meet smokejumper program objectives. Coordinates aircraft maintenance to minimize downtime and maximize mission readiness. Supervises and coordinates training for developmental pilots. Pilots smokejumper and other fleet aircraft. Serves as a member of the Regional Aviation Group Management Team (RMT).

d. Air Tanker Program Manager: Responsible to Regional Aviation Operations Manager. Coordinates with contracting officer and base managers for prework and post-season inspections and reviews. Pilot of Leadplane on fire missions. Pilots smokejumper and other fleet aircraft. Serves as Member of the Regional Aviation Group Management Team (RMT).

e Light Fixed-Wing Program Manager: Technical specialist with oversight of fixed wing pilot and aircraft carding in Region 6. Coordinates with *Aviation Management Directorate* and Forest Service Units for aircraft and pilot inspections annually. Pilots smokejumper and other fleet aircraft. Serves as a member of the Regional Aviation Group Management Team (RMT).

f Helicopter Program Manager: Responsible to RAG Operations Manager. Supervises RAG Helicopter Operations Specialist. Coordinates pilot and aircraft inspections and carding. Manages Federal Excess Property Program for helicopters. Supports WO Type I and II rotor wing program. Pilot of type II and III helicopters. Serves as a member of the Regional Aviation Group Management Team (RMT).

g Helicopter Operations Specialists (HOS): Responsible to Helicopter Program Manager. Coordinates and provides training for helicopter support personnel including aerial ignition, rappel, management and survey.

h. Aviation Maintenance Program Manager: Responsible to RAO. Schedules and coordinates WCF aircraft maintenance. Conducts aircraft inspections and approves contract aircraft for return to service. Provides oversight and guidance for R6 Aviation Security Program. Member of the Regional Aviation Group Management Team (RMT). Member of the Northwest Aviation Leadership Team (ALT).

i. Aircraft and Maintenance Facility Inspector: Responsible to Aviation Maintenance Program Manager. Inspects contract and fleet aircraft. Manages Region 6 maintenance program.

j. Maintenance Avionics Specialist: Responsible to Aviation Maintenance Program Manager. Schedules and coordinates and performs avionics maintenance on WCF aircraft. Conducts avionics inspections on contract aircraft. Performs duties for WO in support of National Avionics program.

k. Airplane Pilot(s): Pilots or trains to pilot leadplane, smokejumper, and photo aircraft. Inspect and card aircraft. Technical support as liaisons to forest/units. Maintain records. Other duties as assigned.

3. Unit Aviation Officer/Manager (UAO/Ms): Responsible to the Unit Agency Administrator. UAO/Ms are appointed at the BLM District/Forest level. They may have responsibility for one or more Forests and/or BLM Districts. They may manage aviation within these units through sub-unit aviation officers and with technical assistance from RAG/OAS. Policy and coordination at the State/Regional and National level is provided by SORO. A list of current UAO/M's is contained in Appendix A, and on the Internet at http://www.fs.fed.us/r6/fire/aviation/.

a. Responsibilities include:

i. Ensuring that all operations are conducted within the parameters of Agency guidelines, and that all aviation users meet the training requirements of Interagency Aviation Training.

ii. Ensuring that a Helicopter Manager, or Chief of Party/Flight Manager is designated for all special use flights.

iii. Ensuring that Project Aviation Managers are qualified Flight Managers.

iv. Ensure that flight records disposition is in accordance with department direction. (Aviation plans will be retained at the unit for 3 years after they are replaced or no longer in effect.)

v. Keep the State Aviation Manager and Regional Aviation Officer informed of district aviation program requirements and problems.

vi. Develop and complete annual review/update of Unit Aviation Plan, and Special Use Project Aviation Safety Plans.

b. Training for this position includes:

i. Interagency Aviation Training modules required for the position (Required).

ii. Computer training for word processing, analysis and communication. (Recommended)

iii. Annual UAO workshop participation. (Recommended)

iv. S-270 or equivalent. (Recommended)

v. Management Skills Training such as Managerial Grid, etc. (Recommended)

vi. M-410 Facilitative Instructor. (Recommended)

vii. Human Factors in Aviation at USC or TSI. (Recommended)

viii. Private Pilot Ground School. (Recommended)

ix. Aviation COR Training. (Recommended)

4. Aircraft Dispatcher: Logistics Coordinators and Lead Dispatchers normally fulfill aircraft dispatcher duties. Responsible for procurement of rental aircraft for administrative, fire, and resources flights. Ensures that flight following and documentation requirements are met. Initiates Emergency/Search and Rescue procedures when necessary. May serve as a Project Inspector on BLM aviation contracts.

a. Aircraft Dispatcher responsibilities include:

i. Provide a proactive communication channel with users to gather and provide information necessary for the proper planning and procurement of aviation resources.

ii. In addition to filling orders, quality control requests, authorizations, and documentation of flight use.

iii. Ensure that personnel and equipment meet training and qualifications by confirming documentation.

b. Aircraft Dispatcher training for this position includes:

i. Interagency Aviation Training modules required for this position (Required).

ii. Support Dispatcher (EDSD) qualification per Wildland Fire Qualification System PMS 310-1. (Recommended)

iii. Aircraft Dispatcher Task Book (Oregon/Washington) Completion. (Recommended)

iv. Use of the Aircraft Dispatcher Job Aid (Oregon/Washington). (Recommended)

v. Annual Airspace Coordination Training. (Recommended)

vi. Annual attendance of at least one Aviation Workshop or training class (Helicopter Manager, Airtanker Base Manager, Rappel, SEAT, etc.) (Recommended)

vii. Private Pilot Ground School. (Recommended)

5. Aircraft Managers: This includes individuals who serve as Helicopter, Single Engine Air Tanker (SEAT), *or Fixed Wing Managers for special use flights*. Responsible for planning, coordinating, and supervising aircraft operations according to policy and regulations. BLM personnel in these positions serves as Project Inspector on BLM exclusive use, Call When Needed (CWN), or Aircraft Rental Agreement (ARA) aviation contracts in the field. FS personnel in these positions serve as Contract Officer Representative on CWN and exclusive use contracts. Directs pilot and crews, conducts risk and hazard analysis, completes flight invoices, daily diaries and other documentation. Briefs aircrew, project leaders, passengers, and the public on aircraft safety and operations. *The additional training requirements and recurrent training requirements for non fire activities are in accordance with Interagency Aviation Training and required every three years. These are available at http://iat.nifc.gov*.

6. Chief of Party (COP)/Flight Manager: Government employee designated for a given flight. Responsible for duties outlined in the Interagency Aviation Users Pocket Guide. Initials (OAS) or signs (FS) flight invoices.

7. Employees. Responsible for knowing and following aviation policy and regulations. Using the appropriate personal protective and life support equipment, reporting potential and actual problems, incidents, and accidents. Maintaining currency in required aviation safety training. Ensuring their own safety as well as that of other personnel. (BLM reference OPM 04).

E. PERSONNEL MANAGEMENT

1. BLM State Office/FS R6 Regional Office: Personnel recruiting, benefits and other personnel issues are processed through the RO Human Resources and OR 934 Oregon State Office. The support staff provides pay, travel, and administrative service. Performance and training are discussed twice annually during performance reviews.

2. RAG: Personnel recruiting, benefits and other personnel issues are processed through either the RO Human Resource or the Deschutes Human Resource Office. The Support Services Specialist provides assistance in processing pay, travel and other administrative tasks. Performance and training are discussed twice annually during performance reviews.

a. Pilot Development: New employees receive the orientation outlined in the New Pilot Orientation contained in the RAG Operations Plan Appendix M. It requires approximately two weeks to fulfill all of the requirements. The objectives of the New Pilot Orientation are:

Ensure employee and management standards are aligned.

Provide the employee with a solid foundation for beginning a career with the Forest Service.

Minimize time and resources required to become fully functional.

New employees are assigned a mentor who is responsible for scheduling orientation and training. Pilot qualification requirements are specified in the Interagency Leadplane Operation Guide (ILOG) for Leadplane pilots and FSH 5709.16, Chapter 20 for other pilots.

b. Pilot currency: Requirements are specified in FSH 5709.16, Chapter 20. Each pilot is responsible for maintaining proficiency and currency. Pilot records are maintained in the RAG Office.

F. AVIATION MANAGEMENT ACTIVITIES:

1. Pacific Northwest Wildfire Coordinating Group (PNWCG): Coordination and resolution of interagency aviation issues are accomplished via the Pacific Northwest Wildfire Coordinating Group's (PNWCG) Aviation Working Team (AWT). The AWT is composed of senior level aviation managers of all the Federal and State agencies. See the AWT charter for a more complete description of the groups functions. Both fire and non-fire issues are addressed by the AWT.

FS/BLM Aviation activities are managed under the leadership of the Assistant Director, Aviation/RAO and SAM. FS and BLM aviation program issues are coordinated and resolved via the NW Aviation Leadership Team (ALT), which provides staff advice to the Assistant Director, Aviation/RAO. The ALT is composed of the Assistant Director, Aviation, Regional Aviation Safety and Training Manager, State Aviation Manager, RAG Operations Manager, RAG Aviation Maintenance Manager, RAG Support Services Supervisor, FS/BLM Unit Aviation Manager Representative See ALT charter for a more complete description of function of the ALT.

2. AVIATION LEADERSHIP TEAM (ALT):

CHARTER

a. MISSION: The Aviation Leadership Team (ALT) serves as focal point for the leadership structure of the USDA Forest Service and Bureau of Land Management aviation programs in the Northwest. The ALT provides aviation management oversight to all functional levels within the aviation program and takes the lead in pursuing opportunities for improving services supporting all field operations.

b. OBJECTIVES:

(1) Develop strategy for insuring that all functional areas of the aviation program are effectively serving the needs of the field.

(2) Develop a standard method to process program issues, including a method to track issue status and provide feedback to the field in a timely manner.

(3) Insure top level management (F&AM Director/Branch Chief) is kept apprised of aviation program concerns and accomplishments.

(4) Represent SORO interests with National program activities.

(5) Maintain focus of providing the safest, most cost effective aviation services available.

(6) Document the actions and decisions of the team in the meeting notes.

c. MEMBERSHIP: The primary ALT members will be representatives from the program management and primary functions within the program. These positions are:

FS Regional Aviation Officer
BLM State Aviation Manager
FS Regional Aviation Safety and Training Manager
FS Regional Aviation Operations Manager
FS Support Services Specialist
FS/BLM Unit Aviation Manager *Representative rotated annually between COFMS, OKF-WEF, Burns BLM, LAD-FRF-WNF, Vale BLM, and Tri-Forest (UMF, MAF, WWF) units.*
FS Aviation Maintenance Program Manager

d. MEETINGS: Meetings will be held on a regular basis. A quorum is composed of those members present at any ALT meeting. All meetings are open to everyone and participation is encouraged. UAO c*onference calls will be scheduled during the meetings to provide an interface with all units.*

e. DUTIES AND RESPONSIBILITIES:

(1) Chairperson: Is elected by the primary members, and serves a one year term.
(a) Responsible for establishing meeting schedules.
(b) Develops meeting agendas.
(c) Responsible for leading meetings.
(d) Tracks and reports on status of assignments.
(e) Insures notes from ALT meetings are routed to interested personnel.

(2) Assitant Director, Aviation/RAO and/or State Aviation Manager: Serves as direct liaison between ALT and top level managers (Directors and Assistants).

(3) ALT Members:
   (a) Responsible to attend all meetings possible to ensure all functions are represented when conducting ALT business.
   (b) Responsible for providing updates on their specific functional areas and fully participating in the ALT process of discussing and recommending solutions to issues brought before the team.

The membership will strive to insure issues and program concerns are routed through the appropriate personnel prior to coming before the ALT. Personnel with program responsibilities such as Unit Aviation Officers and Regional Aviation Group liaisons to PNW Units must be given the opportunity to perform their duties. This will insure the system, already in place, has the opportunity to be successful. The ALT will work closely with other working groups and communities such as the Unit Aviation Officers, the Northwest Interagency Wildfire Coordinating Group and the PNWCG Aviation Working Group.

Additional personnel may attend or be requested to attend ALT meetings as needed to serve as subject matter experts, or to simply participate in the ALT process. The costs associated with attendance at ALT meetings will be paid from each member's budget.

3. Aviation Business Management

a. Budget: Budgeting is done on a three year cycle. Out year budget requests are submitted to the Washington Office (WO) in January two years prior to the fiscal year for which they were submitted. Next year's budget goes from the WO to the White House, were it has been aggregated with all other agency and program requests into the President's Proposed Budget, which goes to Congress in the spring of the year. The current year budget is finalized after congress passes an appropriations bill.

As can be seen, given that we operate on this three-year cycle, our ability to respond quickly to changing situations, especially those that require large amounts of funding, is difficult at best. The following table depicts our annual budget cycle:

Month	Budget Action
January	FS: Finalize Adjusted Working Budget numbers and targets for in-year budget. Out-year FIREBUDGET numbers due to WO.
March	FS: Financial review of in-year budget
May/June	FS: Develop RO internal costs for upcoming fiscal year.
July/August	BLM: Develop State Office and FS internal costs for upcoming fiscal year
September	FS: Determine Forest allocations for upcoming fiscal year Working Budget FS: Finalize narratives and numbers for in-year Working Budget
November	FS: Letter to field asking for out-year numbers (2 years ahead). RO review internal budget numbers for out-year. Operations coordinate with shared resources for out-year submissions.
December	BLM: Finalize Annual Work Plan (AWP) for in-year. FS: Numbers due to RO for out-year budget.

Our Northwest Fire and Aviation (NWFAM) budget requests are generated primarily through the National Fire Management Analysis System (NFMAS) fire planning effort. NFMAS is a tool used to determine how much preparedness funding would be necessary to minimize emergency suppression spending and net value change. We typically request funds that meet the planned NFMAS capabilities but we are typically financed at something less than that amount.

Funds for the aviation program are included in the Wildland Fire Preparedness (WFPR) program. Money for salaries, facilities, program support, contracts, fixed operating rates (FOR), etc. are normally WFPR funds. These funds are separate from funds for the management of National Forests,

but include all shared as well as local suppression resources. Funds are allocated to the various federal wildland fire agencies through the Department of Interior and Related Agencies annual appropriations bill. The Washington Office then distributes funds to SORO, based on out-year requests. SORO then distributes to Forests and Districts. At each level, some funding is reserved for program support.

For the last several fiscal years, the shared suppression resources, such as airtankers, helicopters, and hotshot crews, have been funded at or near 100% of the planned NFMAS capabilities. With the introduction of the National Fire Plan in 2000, funding is expected at 100% of the planned NFMAS capabilities for all fire activities. In the past the agency's overall WFPR allocation was usually less than of the planned NFMAS capabilities (typically around 85%), and as reserves for program support grew, funding for the local suppression resources and overall fire program administration was becoming increasingly more constrained.

Some other funding sources, in addition to WFPR, are available to the fire program. Wildland Fire Suppression (WFSU) funds are used for emergency suppression responses. These are the funds used when a "P" code is employed. Wildland Fire Hazardous Fuels (WFHF) funds were new in FY 98. They are to be used to plan and conduct projects designed to reduce unnatural fuel buildups prevalent in many areas of the Northwest. Brush Disposal (BDBD) funds are monies collected through the timber sale program, and are used on sale areas to reduce fuels created through timber harvest activities.

In addition to the previously outlined budget process there exists the opportunity for the Regional Office and State Office staff to input budget requests for programs that are not otherwise covered. Such items as ATGS, SEAT, CWN helicopter, aviation management development, aviation training and other aviation programs, may receive additional funds via budget requests directly at the Regional/State level. These requests will receive the same scrutiny as other budget items and the funds don't appear overnight. The normal process takes about two years to realize the funds for these requests.

b. Accounting: The Forest Service in Region 6 uses a new accounting system called FFIS. Program managers receive accounting reports about a month after the transactions occur. These are reviewed and adjustments made as required. It is extremely important that accounts are reviewed due to multiple billing, inadvertent data input errors being prevalent in our accounting system.

c. Form FS-6500-122, Flight Use Report: Forward the white copy to the Forest or Regional Office unit holding the contract of agreement. Retain the pink copy for the using unit's files. The vendor retains the yellow copy.

d. OAS-23 For each flight on a Contract or ARA aircraft, an OAS-23 must be completed by the vendor and BLM employee. The OAS-23 must be submitted to OAS for processing and payment.

e. Flight Time Reporting:

The Aviation Management Directorate (AMD) will provide the SAM a quarterly report containing all of the flight reports (OAS 23) processed. These will come in Exel spreadsheets (.xls) and in Word (.doc) formats. These files will be posted on the Intranet for download and an email sent to each UAO/M with notification of the posting and location.

Information contained in the spreadsheets will be imported into the BLM Flight Management Database (Access) which is accessible on the Northwest Aviation Management Intranet. This

database provides the ability for aviation managers to track their unit flying accomplishments by monitoring flight time and other charges as they are processed into more operationally meaningful categories. The basic categories consist of the following codes;

Fire:	***Resource:***	***Law Enforcement:***	***Other:***
All 1, 2 and 3 codes	*All 4, 5, 6, 7 and 8 codes*	*6L and 9L*	*All other 9 codes*

Annual flying time reports will be extracted from this data.

Note: *At the present time AMD processes flight data in the FY that it is received and that data is reported in the FY that it is processed even though the flight may have taken place in the previous FY. For this reason flight data reports from AMD may differ from what is shown in the Northwest Aviation Flight Activity report as this report is consistent with the USFS reports which include flight data based on date of flight instead of the date the report is processed.*

Annually the SAM will collect the Cooperator flying time that the Forest Service posts in the AMIS program and any other cooperator flight time from other than USFS from the BLM District Aviation Officer/Managers. The SAM will submit an OAS-23 containing all of the cooperator flight time to the AMD in November each year.

Forest Service flight time is entered into the Aviation Management Information System (AMIS) within 30 days of its occurrence in accordance with current policy. Flight time reports are available online. Users need to request a user ID and password by applying on line. The Developmental Aviation Manager is the Regional AMIS Contact and will provide activation for these requested profiles.

4. RAG Business Management Plan: Business management and associated services is the responsibility of the RAG Support Services Specialist with the exception of purchasing and computer assistance. During times of unavailability and when referred to in following text the Redmond Air Center Support Services Supervisor can be of assistance. Refer to Regional Aviation Group Operations Plan. Appendix M.

5. Air Tanker Program: The Air Tanker Program Manager works for the Regional Aviation Group Operations Manager when performing the duties within the air tanker program, and when performing the duties of Leadplane Pilot and Smokejumper Pilot. Refer to Regional Aviation Group Operations Plan. Appendix M.

6. Leadplane Program: Leadplane operations are accomplished in accordance with the Interagency Leadplane Operations Guide (ILOG). This is a National program supported through being available if not committed elsewhere. Pilots and aircraft available for Leadplane missions are shown in the Northwest Mobilization Guide.

Lead plane pilot refresher training is generally held annually in February. In past years this training has been conducted in Redmond, Oregon as well as out of region. Required annually, training consists of about two hours flight time in 'typical' terrain and then a check ride from a check airman from out of region. Training covers flight training, equipment checks, safety briefs, target description and communications. Leadplanes are used for the mission, and Airtankers are simulated with other leadplanes and smokejumper aircraft.

Instrument refresher is generally held in October of every year. Sessions include; flight training, equipments checks, new technologies, and open forum for individuals to maintain currency and pursue proficiency. Instrument currency and proficiency is an ***INDIVIDUAL* pilot** responsibility. It is also an individual pilot responsibility to become and stay proficient with new technologies.

7. Smokejumper Aircraft Program: Provides for safe and efficient operation of contract smokejumper and force account Sherpa aircraft for missions in the Pacific Northwest. The Smokejumper Aircraft Program Manager is responsible for the formulation of procedures to insure the safe and effective operation of the Regional smokejumper aircraft and assist in the management of contract resources for smokejumper operations in the Pacific Northwest. Refer to Regional Aviation Group Operations Plan. Appendix M.

8. Helicopter Program: The primary responsibility of the program is to provide support and technical expertise to the National Forests and BLM Districts within the geographical boundaries of FS Region 6. In addition, support and service are provided to WO and co-operator units. Communication and coordination with forest and district aviation personnel is essential. Refer to Regional Aviation Group Operations Plan Appendix M.

9. Light Fixed Wing Program: Provides all R6 Forests technical expertise and perform aircraft and pilot inspections to meet their needs for CWN and contract aircraft. Coordinates with the *Aviation Management Directorate* to accomplish annual inspections. Refer to Regional Aviation Group Operations Plan Appendix M.

10. Single Engine Air Tanker (SEAT) Program: Mark Bickham in the BLM National Office manages the national SEAT program. BLM, BIA and FS coordinate for standardization and cooperation in the program through their national program managers. The SEAT program in this geographic area consists of the coordination of local resources between neighboring units, and is accomplished by the Fire Management Staff for those units. The COR for CWN contracts is Mark Bickham. FS COR at John Day is Jeff Meyerholtz. The SAM and the National Program Manager coordinate with the local units to provide staff assistance and coordinate training for the units. The *Aviation Management Directorate* provides technical assistance for all SEAT contracts. SEATs are managed in accordance with the Interagency Single Engine Air Tanker Operations Guide (ISOG).

11. ATGS Program

The formal Region 6 Air Tactical Group Supervisor Program is scheduled for implementation in FY 2005. This program was approved in 2003 by the Fire and Aviation Leadership Team and will consist of four fixed wing aircraft, staffing for each aircraft, a PFT Program Manager/ATGS Check Airman, and a training program that provides base 8, travel and classroom funding for developmental ATGS. In the interim period of 2004 leading up to implementation, Doug Kastner and Steve Mizikowski will serve as program points of contact. Steve Mizikowski will provide information desemination to the ATGS community and represent the Pacific Northwest at any national meetings or workshops. Doug Kastner will coordinate the hiring process for the ATGS Program Manager with a planned report date of October 1, 2004. Doug is also the point of contact for development of contract specifications for the aircraft to be contracted, and provide initial collaboration with the hosting units for staffing for these aircraft. Initial bases for the ATGS aircraft will be Prineville, La Grande, Wenatchee, and Klamath Falls. The ATGS aircraft based in Prineville for the 2004 season will be staffed by a person who holds a position shared by SORO and COFMS. This person will coordinate regional training opportunities for the Wenatchee, Prineville and Vale ATGS aircraft for 2004 season. Regional funding will not be provided for this training in the 2004 field season unless severity funding becomes available.

The ATGS Program Manager will be assigned to the Regional Aviation Group and will be supervised by the Air Tanker Program Manager. Duties and responsibilities will include;

Development and oversight of the Region 6 ATGS Program.
Coordinate ATGS classroom and field training opportunities including ATGS biennial workshops.
Serve as the Regional Check Airman for ATGS.

Develop the ATGS Development and Training Program for Region 6.
Provide staff assistance for other ATGS locations.
Represent the Region and BLM State Office at National ATGS meetings and workshops.
Participate in ASM development and coordination meetings and training sessions.

Program Manager Training Required;
Qualification as ATGS including required ground fire assignments
Human Factors in Aviation
Private Pilot Ground School (Recommended)
Forest Service Crew Resource Management training biennially
M-410 Facilitative Instructor or similar class.
Management Development
Agency employee required training i.e. defensive driving, EEO, etc.
Interagency Aviation Training modules required for Aircrew member as well as Technical specialist.

12. Aerial Photography: Operations are conducted in accordance with the Aerial Photo Aviation Safety Plan contained in appendix D of this plan. Objectives of this program are:

a. The Aerial Photo Program has no national program responsibilities.

b. To evaluate the cost of WCF aircraft operation and obtain and/or maintain the most cost effective aircraft based on mission requirements. A-76 is reviewed every five years. The next review is due September 2004.

c. To maintain aircraft reliability through out the year, the Aero Commander is flown at least once every other week for ½ hour (maintenance schedule providing) and hangared at all times. This prevents seals from drying out, leaks from developing, and keeps electrical circuits in good operating order.

d. To conduct annual preseason training, including human factors training, for the aerial photo crew as outlined in the Aerial Photo Project Safety Plan in appendix D.

13. Forest Insect and Disease Survey: Refer to FID Aviation Operations Plan. Appendix F.

14. Law Enforcement Program: Refer to Law Enforcement Aviation Operations Plan. Appendix G.

15. Administrative Aircraft Use Program: Refer to Administrative Aircraft Use Plan. Appendix C.

16. Aviation Training Program: Aviation training is conducted in Region 6 as directed in National Forest Service and *Aviation Management Directorate* policy. Personnel engaged in BLM aviation activities, from passengers to upper management, must meet the training and experience requirements commensurate with their assigned aviation responsibilities as listed in OPM 004 and NWCG 310-1.

a. When guidance or clarification is required, the Regional Aviation Safety and Training Manager and State Aviation Manager serves as the points of contact. These issues are presented to the appropriate office and staffed as required. The results are then distributed to the field through normal channels. Aviation Training support includes:

1. Ensures the local units have sufficient and current training materials to meet their needs.
2. Provides assistance to geographic training coordinators regarding aviation courses.
3. Provide information and link between the PNWCG Aviation Working Team and the Training Working Team.
4. Provide coordination for aviation training as requested by units.

b. Interagency Aviation Training *has been* developed to streamline training for aviation personnel, while aviation training for fire positions *remains* unchanged (Wildland Fire Qualification Subsystem 310-1).
All personnel involved in aviation mission activities will annually receive the following training;

1. Review of applicable operations plan(s) including the risk assessment and 12 Standard Aviation Questions that Could Save Your Life.
2. Review of previous year Safecom and Accident Analysis provided by the Aviation Safety Manager. Aviation training information may be found at the following web sites:
Intranet http://fsweb.r6.fs.fed.us/fam/aviation/AvTraining/avtrain.htm
Internet http://www.fs.fed.us/r6/fire/aviation/nwav_training.htm

c. *With the publication of the Forest Service Manual 5700 expected in 2004, Interagency Aviation Training will become mandatory for Forest Service employees and will be consistent with DOI policy. The Interagency Aviation Training web page is located at http://iat.nifc.gov and provides current information on training requirements and resources. As this is a new system for the Forest Service, having received only informal compliance in the past several years, implementation of these training requirements will be in a two year phase in for the Forest Service in Region 6 beginning in 2004, pending publication previously mentioned, in order to provide the time and resources necessary to meet the new training requirements.*

d. *Unit Aviation Officers/Managers will forward unit training needs to their geographic fire training representatives annually in June and cc: the BLM State Aviation Manager. The BLM State Aviation Manager will coordinate with the fire training coordinators and AMD for the appropriate classes needed to meet the training needs for the Pacific Northwest. Any additional funding requirements will be identified and requested in the normal budget process by the SAM. This training will also be coordinated with the Aviation Working Team and Training Working Team of the PNWCG for the most efficient use of training and travel funds. To the extent possible classes will be provided at the local level and the Aviation Conference and Education (ACE) forum used as a backup for obtaining the required training. Annual aviation training sessions and workshop will be consolidated and include IAT modules identified in the needs analysis to relieve dependence on ACE sessions.*

e. *Some of the Interagency Aviation Training modules are available online. In most cases it is desired that the initial training be obtained in a classroom environment to allow students and instructors to clarify information presented and ensure student understanding. Subsequent training of the same subject may then be accomplished by reviewing the online modules. In the rare instance where the student is not able to accomplish the training in a classroom environment, the Unit Aviation Officer/Manager may approve the use of online modules on a case by case basis as long as the UAO/M is available for student questions and to ensure that the student has received a comparable level of training from the online modules. For the transition period of 2004-2005, Forest Service personnel who have been serving and qualified in their aviation position previously may utilize the online IAT modules to meet the initial training for their position(s).*

f. *As described in the IAT Guide, refresher training in each subject area is required every three years. Until specific recurrent training is developed for each subject area, the material used for initial training will be utilized for subsequent refresher.*

g. *Interagency Aviation Training records will be maintained in the IAT database as well as any locally maintained record system.*

17. Communication Plan: Aviation Frequencies are issued and controlled in accordance with FSH 6609.14. Dennis Morentin (dmorentin@fs.fed.us) coordinates frequency information updates to the Pacific Northwest Aviation Users Guide. The guide is updated and published as changes occur. Regionally the following table lists commonly used aviation frequencies.

Use	Frequency	Use	Frequency
* Emergency Air Guard	168.6250	* National Flight Following	168.6500
Air Tactical Forest Service 1	166.6750	Air Tactical Forest Service 2	169.1500
Air Tactical Forest Service 3	169.2000	Air Tactical Forest Service 4	170.0000
Air Tactical Forest Service 5	167.9500	National Airtanker Base Frequency	123.975

a. All Units are required to have the capability to use and monitor Emergency Air Guard and National Flight Following frequencies at their Dispatch Centers.

b. *168.650 is designated Interagency Air Net and is commonly referred to as National Flight Following. It is designed for flight following, dispatch and/or re-direction of locally, regionally and nationally dispatched aircraft. Communications on this frequency is limited to administrative exchanges regarding aircraft status such as 15 minute check-ins, reporting takeoff and landings, deviation updates on flight tracks, redirection of the aircraft, updating estimates of arrival and departure times, etc. Aircraft coming from off unit locations are expecting to be able to talk to each dispatch unit which has ordered them on this frequency.*

c. *Any tactical or mission communications should be handled on other local frequencies. For example, an aircraft on a fire reconnaissance using 168.650 for flight following sees a suspect smoke and goes over to investigate. Changes to the planned flight route would be coordinated with dispatch on this frequency. If the smoke turns out to be a wildfire, the aircraft will be switched to a different frequency to discuss the fire behavior, location, ordering of resources, directing ground resources, etc. as well as continued aircraft tracking. If the suspect fire turns out to be something else, the aircraft would make that report and coordinate their return to the original planned route on 168.650.*

d. *Another example would be a survey aircraft that is collecting data and plans to traverse several dispatch zones during the course of their flight. Coordination for this would normally occur on the ground, but sometimes in flight changes do occur. In the latter case the aircraft would report airborne on 168.650, define their route of flight to include a neighboring dispatch unit, and request dispatch to coordinate their flight following with the other dispatch unit. The two dispatch units would be able to work out flight following responsibilities on a land line, then advise the aircraft of their expectations on 168.650. Depending on the dispatch unit and automated flight following capabilities, the aircraft may simply need to advise dispatch when they were going in for a landing, or provide 15 minute radio calls for position reporting to both units simultaneously, or any other variation that effectively and efficiently tracks the aircraft and best utilizes the dispatcher's capabilities. If it is necessary to discuss this at length, the aircraft would be switched to another frequency, and then switched back to 168.650.*

e. *The essential idea behind the development of this frequency is to provide a single non-emergency channel where by pilots are able to contact dispatch that is the same across the nation. This channel will be used by any number of aircraft at the same time, and if communications are held to those previously discussed, congestion on the channel should not be an issue, and should aid in the pilot's situation awareness of the location of other aircraft. Other unit frequencies may be used for flight following as well, but are limited to on unit flights such as tactical missions, project work, etc.*

18. Unit Aviation Plans and Project Plans. Unit plans and supplements are reviewed and updated annually as needed. Unit Aviation Officers/*Managers* will ensure that the Unit Aviation Plan includes procedures for all aviation operations conducted by the Unit either continuing or intermittent basis. Most projects can be included in the Unit's Aviation Plan, and they may be approved in advance if sufficient detail is known about the project.

- When there is insufficient detail available, a separate Project Aviation Safety Plan (PASP) is submitted independent of the Unit Aviation Plan when that information becomes available. The format to be used is provided on the Aviation Intranet web site at: http://fsweb.r6.fs.fed.us/fam/aviation, and should be used for preparing both fixed wing and helicopter project plans.
- Once an initial PASP is approved, it becomes an appendix of the Unit Aviation Plan.
- The Forest Service Unit Aviation Officer may then be authorized, by name, to approve all subsequent PASPs of the same type in the letter of approval from the Regional Aviation Officer.
- A project aviation safety plan is required for each project unless the flights are covered by the Unit Aviation Plan or an Incident Action plan. The PASP should specifically address;

  - The physical sites involved in the project
  - A hazard analysis
  - Pilot briefings
  - On sight aviation management

Refer to Appendix E. for Forest Service *and* BLM End Product Contracts.

a. Forest Service: The UAO will review solicitations for aviation services for projects, on the unit and ascertain that standard contract specifications are utilized, if available through the Regional Office Property and Procurement Management.

(1) When delegated authority by the Regional Aviation Officer, UAO's will approve PASP's, otherwise they will submit all plans requiring review or approval to the Aviation Management Specialist at the Regional Office electronically (Microsoft word or Adobe pdf format preferred).

- The Aviation Management Specialist will coordinate plan review with the Forest Liaison, Helicopter Program Manager, Light Fixed Wing Program Manager (FWM), and Regional Aviation Safety and Training Manager (RASTM) for review. The plan will be posted to the Intranet SORO Share Library at http://fsweb.r6.fs.fed.us/fam/aviation/library/. A discussion thread will be initiated on the AVDiscussion page containing the name of the plan and a link to the document, and directions to the reviewers to post comments to the thread as replies to the thread.
- The technical review will clarify concerns and provide comments and recommendations.
- The RASM will ensure that safety program concerns are met which may require some information from the Job Hazard Analysis/Risk Analysis.
- The Aviation Management Specialist will coordinate revision of the plan incorporating review comments, complete the approval letter, and forward the plan and letter to the RAO for final approval

(2) When approved, the RAO will forward the approved Unit plans to the Unit Line Officer and PASPs to the UAO. Normal approval time for plans submitted electronically should not exceed three weeks for Unit Aviation Plans. The time normally required for project aviation plans

should be one week, but may be as short as a few hours if all parties are present. Hard copy handling of plans will add approximately one week to the process.

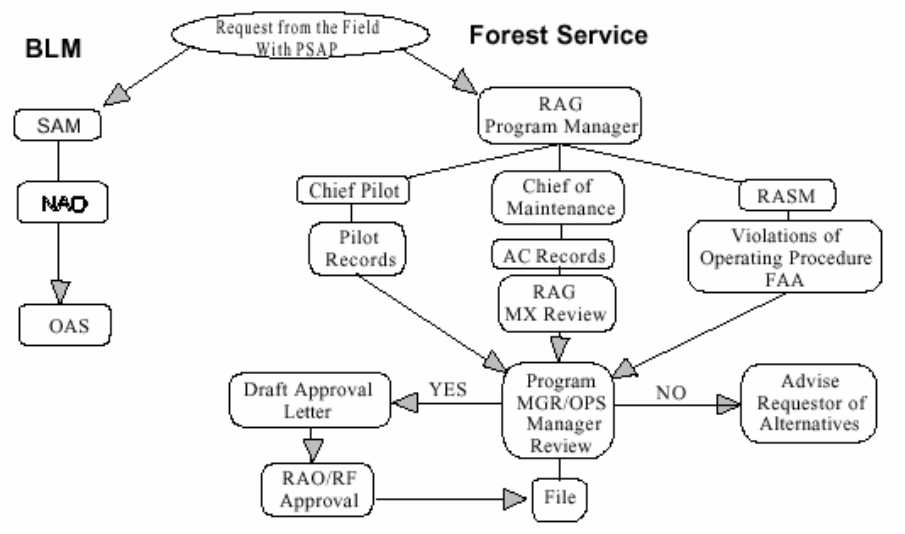
b. BLM: Unit and Project safety plans are initiated by the Unit Aviation Officer/*Manager*, and approved by the District Manager. BLM Units with combined Forest Service programs will also submit these plans to the *Aviation Management Specialist* as outlined above for review by the Regional Technical Staff.

(1) General Use Flight. Point-to-Point *and high reconnaissance are* General Use Flight, and shall meet the following requirements:

a. Approved Aircraft Request.
b. Approved pilot and aircraft, specific to flight.
c. Qualified Chief of Party/Flight Manger assigned to flight.
d. Passengers will be manifested and briefed on safety procedures.
e. FAA IFR, VFR, and/or Agency flight plan & flight following in place.

(2) Special Use Flights. All flights other than above are considered Special Use Flights (i.e. Low Level below 500' AGL, Wildlife Surveys, Aerial Ignition etc). Special Use flights *other than fire* require a project Aviation Safety Plan developed to identify hazards and mitigate risk. The District Manager or State Director will approve each *Aviation Safety* plan. The format for the Safety Plan is maintained in the Northwest Aviation Management Library

c. Cooperators Aircraft and Pilots or flights: Requests for approval for Cooperators Aircraft and Pilots or flights in aircraft not inspected and carded will be accompanied with a PASP for all mission flights except for Search and Rescue and fire suppression. The FS UAO/M will submit the request and a PASP to the Aviation Management Specialist. BLM cooperator requests will be processed through SAM to the National Aviation Office (NAO) for BLM to OAS (See BLM Manual 9400 .72 OSO Supplement, and 351 DM 4 for policy). In all cases personnel will not use annual leave or time off as a means of accomplishing agency duties in cooperator or private aircraft. When a federal agency uses a State/Local government aircraft and reimburses that entity for services, documentation of the circumstances that necessitated its use (imminent threat of life or property and that no service by a commercial operator was reasonable available to meet the threat) must be maintained in the Dispatch office and provided to the FAA, if requested.



The Program Manager will coordinate the following;

(1) Work through the operator/cooperator's Chief Pilot to review pilot records.

(2) Coordinate with the operator/cooperator's Chief of Maintenance for information needed by the RAG Maintenance Inspector for a review of maintenance records and/or an inspection of the aircraft.

(3) Coordinate with the Regional Aviation Safety Manager for a review of FAA records for accidents and violations of operating procedures for the preceding five years.

(4) Documentation of these activities will be reviewed by the appropriate program manager and the RAG Operations Manager for a decision on the approval. The program manager will advise the UAO of those not approved and provide alternatives for project completion.

(5) Cooperators and/or flights approval letters will be drafted by the program manager with an effective time stipulation not to exceed one year, and forwarded to the Assistant Director, Aviation/RAO. When signed the letter will be sent to the cooperator/operator, and a CC forwarded to RAG, UAO, Assistant Director, Aviation/RAO, SAM, RASM, PNWCG, and OAS. RAG program managers will forward all documentation relating to these approvals to the RAG HOS for filing with the PASP.

19. Aviation Information Management: Dissemination and clarification of information to the field is the responsibility of the SORO Staff. The design of this plan is to provide a foundation for information compilation. The tab structure of the plan is laid out so that there is an appropriate place for everything. A new tab is included in this plan for policy letters. Managers should distribute information quickly and efficiently as it is received, and should also prepare the information as an addendums to this plan. These addendums will include;

a. Clarification of National Policy and how it will be implemented in the Northwest.

b. Effective dates the policy/addendum will remain in effect.

c. Standardized filing locations for the information.

Northwest Aviation Management maintains an Intranet web page for the dissemination of information within the government, and an Internet web page for public access to information. This page contains aviation information and links to other sites that will keep you up to date on operations, personnel, training and safety issues.

These sites are located at the following URL's:

Intranet http://fsweb.r6.fs.fed.us/fam/aviation/
Internet http://www.fs.fed.us/r6/fire/aviation/

The importance of accurate, comprehensive flight and administrative records cannot be overemphasized. All documentation should be retained locally for three years. Typical files include: General Use and Project Aviation Safety Plans, The Northwest Aviation Management Plan and Unit Aviation Plans should be retained for three years after they are superceded.

20. Unit Liaison Program: Regional Aviation Group members are assigned *Forest Service* units of responsibility by the Operations Manager. Refer to the Regional Aviation Group Operations Plan in Appendix M for individual/Unit assignment. The objective of this program is to provide the Units continuity in technical assistance from the Regional Aviation Group. Since the aviation activity differs from unit to unit each liaison meets annually with Unit Aviation Officers to determine unit needs for the coming fiscal year. These items will be included in the liaisons' program of work. Liaisons are expected to assist in training and planning at the BLM/FS unit level. *BLM units and the RAG interface in the following ways:*

a. Technical assistance*: The* BLM is normally provided technical assistance by the National Business Center Aviation Management Directorate for exclusive use contracts and aircraft rental agreements. The Regional Aviation Group at times may also provide technical assistance such as clarification on operational, mechanical, or aeronautical information when requested by BLM units and when conducting assistance visits.

b. BLM SEAT: RAG provides a liaison for this program, which provides an information-sharing channel between BLM local, state and national managers and the Regional Aviation Group.

21. Aviation Management Actions During Peak Activity: Staffing levels are suitable for normal seasons in the Pacific Northwest. However, during periods of extreme fire behavior, or when aviation resources are being utilized at activity levels well above normal standards, the following management actions will be instated.

a. Communications will be enhanced.
(1) Telephone call list will be updated and distributed.
(2) Establish 24 hour Aviation conference call capability
(3) Daily conference calls will be implemented and include UAO/M, AOBD, ACAC, MAC
(4) Liaison, RAO, SAM, Program Managers, Airspace Coordination Managers, Frequency Managers, AWT Members as appropriate. 0800-0900 PDT has worked well historically
(5) Safety Alerts will be issued on concentration on the basics and any new information available.
(6) Daily flight activity will be consolidated and reported upward by Unit Aviation Officers for implementation of interim flight and duty restrictions if necessary.
(7) RAO and SAM will participate in daily conference call with Directors (AD2). 1700 PDT has worked as a good time for this historically.
(8) E-mail reminders to Units to keep UAOs in place

b. Safety

(1) Aviation Working Team will be requested to activate these if the activity is multi-agency in nature.
(2) RAO or SAM will request STAT(s) as necessary for agency specific needs.
(3) Letters of delegation will be prepared and distributed for STAT.
(4) Daily conference calls will be used to manage and report STAT activities. 0700-0800 PDT has worked well historically.
(5) Monitor pilot fatigue and consider interim duty limitations

c. Program Management will be augmented.

(1) Program Managers will concentrate their efforts on program management and order additional resources to help them fill in any gaps.
(2) Technical Specialist will be ordered to administer programs that normally not administered as such (example, ATGS, SEAT, etc.) Note: A SEAT Coordinator is ordered as a THSP until that pneumonic is listed.
(3) RAO and SAM will assist UAOs in obtaining additional aviation management staffing to assist during these periods.
(4) Training opportunities will be optimized by ensuring that trainees/developmental employees are accompanying AD's and other highly skilled individuals.
(5) Consider detailer needs at SORO/RAG
(6) Establish central points to receive in-coming helicopters
(7) Delegate Area Commanders oversight of all A/C except NSR's
(8) Establish PFT program managers as needed
(9) Establish Aviation Advisor to MAC at NWCC
(10) Establish Airspace Coordinator at MAC

G. AIRCRAFT

1. Force Account:

a. Beechcraft 58 P Baron: These are all weather, turbocharged, pressurized, airplanes. They have seating for five passengers. They have a range of 700 NM with full fuel, reduced with passengers and load. Region 6 manages one of these aircraft. They are National Shared Resources based at Redmond, OR and/or Wenatchee, WA year around. These aircraft are piloted by agency pilots and are used primarily for Leadplane missions. When not engaged in fire suppression activity they may be used for personnel transportation. The current FOR is $*6,552* per month, $218 per day, and a use rate of $*381* per flying hour.

b. Shorts C-23A (Sherpa): These are all weather turbo propeller aircraft. Utilized primarily in Smokejumper operations, Region 6 employs two (2) of these aircraft that carry a jumper load of up to 14 and respond from their primary operating base at Redmond, OR. They are also a National Shared Resource but are managed from the WO in Boise, ID. The current FOR is $*10115* per month, $337 per day, and a use rate of $*932* per flying hour.

c. Aero Commander 500B: This aircraft is restricted from flight into icing conditions. It is otherwise an all weather turbocharged, unpressurized airplane that is used primarily for Aerial Photography. The Aero Commander operates out of Redmond, OR. This aircraft is a Region 6 owned aircraft. The FOR rate is $*2984* per month, $99 per day, and $*280* per flight hour.

d. Personnel: The Working Capital Fund (WCF) Manager in Region 6 is Steve Cramer. His office is in the Regional Office at 503 808-2472, Vicky Marlin is his assistant at 503 808-2947. The Regional Aviation Group Operations Manager, Aviation Maintenance Manager, Avionics Specialist, and RAG Administrative Specialist develop FOR and use rates of the aircraft annually prior to the beginning of each fiscal year.

e. Accounting: Forest Service policy regarding the accounting of costs, for aircraft are contained in ID 6509.11f-96-1 paragraph 38.22. Required is the establishment of a fixed ownership rate (FOR) to recover fixed cost and a use rate to recover variable costs. Fixed Operating Rate is used for the costs of, navigation charts, personal protective equipment, uniforms and other personal equipment, hangar rental, and program management. The following table of A-126/A-76 cost comparison and accounting elements is accompanied with an explanation of how Region 6 sets rates for WCF aircraft.

Direct Operating Annual Costs (USE)

Item	Not Used in WCF Rate	Used in WCF Rate
1 Fuel and Other Fluids		$2.50 X 38 GPH (JC 906601).
2 Crew Costs (PFH)	N/A w/PFT Pilots	
3 Aircraft Lease or Rental	N/A for WCF owned aircraft	
4 Landing and Tiedown	N/A in Region 6. Too small to budget if any	
5 Variable Maintenance and Spares a. Labor cost @ multiplied by XXX man-hours PFH b. Maintenance Parts c. Maintenance Contracts d. Engine Overhaul, etc. e. Reserves f. Total variable maintenance	 Not used. Included above.	 $50 per hour. Annual scheduled and unscheduled + Avionics/½ for labor and ½ for parts (JC 810XXX) Reserves for extraordinary Mx (JC 830XXX)
Total maintenance from above.		
6 Total Direct Operating Cost Per Flight Hour		Totals of above/Flight Hours
7 Flight Hours for PWS		Estimated flight hours
8 Total Direct Operating Cost		Line 6 x Line 7

Fixed Operating Annual Costs (FOR)

9 Crew		1.5 hours of pilot salary for each programmed flight hour. National Standard. (JC 906625)
10 Fixed Maintenance a. Maintenance Labor b. Maintenance Parts c. Maintenance Contracts	 N/A	 All maintenance costs are accounted for in USE rate.
11 Aircraft Lease	N/A	
12 Depreciation		CV-SV-CD/Mo Rem X 12 (JC 906640)
13 Self Insurance a. Hull b. Liability c. Other c1. Casualty c2. Personnel Liability d. Total Self Insurance Cost/IRC	 1% of Bluebook value. $ 750 + 6 seats @ $250 each.	 CV X 3%/Mo Rem X 12mo (JC 906352)
14 Overhead		Program Mgmt + Hangar and Office rent (JC 906624)
15 Cost of Capital or Finance expense/General Administration		Assessed at RO @ 10% (JC 906636)
16 Total Fixed Operating Annual Costs		(Line 9 thru 15)
17 Total In House Performance Cost		(Line 8+16)

2. **Contract:** Refer to Appendix E for End Product Contracts.

a. Region 6 Forest Service contracts for the following aircraft:

- All CWN Helicopters
- Forest Insect and Disease Survey aircraft for Washington
- Air Tactical Group Supervisor Fixed Wing for Redmond and Wenatchee.

Forest Service units contract for CWN fixed wing aircraft at the Forest level. Usually only one Forest contracts with each vendor. Other Forests are expected to process requests through the contract holding Forest when needing the service of these vendors. This is to prevent double scheduling of these resources.

b. BLM contracts exclusive use aviation services on a national level through the National Office and the OAS. Exclusive use contracts for both a Type 3 Helicopter and a SEAT are maintained at Vale, Burns, Lakeview, and Prineville Districts. An ATGS aircraft is contracted for Ontario, Oregon.

(1) Flights on scheduled commercial airlines are initiated with the designated travel agency or TMO in accordance with applicable Travel regulations. All non-airline/schedule commercial aircraft acquisition and procurement will be accomplished by designated and qualified Aviation Managers, Logistics Coordinators, and Aircraft Dispatchers in respective OR/WA BLM offices.

(2) Aircraft Contracts. Aircraft services identified in the AWP to be accomplished within a specified time frame and in excess of $25,000, require a formal aviation contract. Request for contract services and submission of OAS-13 and OAS-13A (Airplane) or OAS-13H (Helicopter) are made to the State Aviation Manager (SAM) and forward to the BLM National Office and OAS. OAS will solicit and award the contract and assign a Contracting Officer (CO) and Contracting Officer Technical Representative (COTR). The SAM will serve as the Contracting Officer's Representative (COR) and delegate field administration of the contract to one or more Project Inspectors (PI).

(3) Aircraft Rentals/Charters. Procurement of aircraft for administrative flights and aviation projects can be accomplished through the use of an ARA. Aircraft acquired under an ARA cannot exceed $25,000 in total cost. Approved ARA aircraft and pilots are found on the OAS Source List. ARA aircraft requests should be made through the local Unit Aviation Officer/Manager or Dispatch Office. Districts can request a local vendor aircraft be added to the Source List by submitting an OAS-20 (Request for Rental Services) to the SAM.

3. **Aircraft Ordering, Scheduling, Dispatching and Tracking**

a. Ordering and Scheduling: The focal point for aircraft ordering and coordination is the Northwest Coordination Center in Portland Oregon. 503 808-2720. Administrative flights will be administered and cost comparisons accomplished in accordance with the Administrative Aircraft Use Plan Appendix C. Individual employees are not authorized to order aircraft directly through an operator unless they have prior approval from the Assistant Director, Aviation/RAO. Tactical and other mission flights will be ordered and tracked in accordance with the Northwest Mobilization Guide. All flights will be coordinated through the Unit Aviation Officer/Manager or Dispatch Office. *BLM Law Enforcement flight activities in conjunction with the war on drugs will notify the State Aviation Manager when time/security allows and are authorized with the agencies listed in Aviation Management/OAS IB 03-02 available from the Aviation Management web site* *http://www.oas.gov/library/ib/03-02.pdf*

b. Resource Tracking: Resource tracking of aircraft requires either a Resource Order or an Agency flight plan (Form 9400-1a NW Mob Guide) for all flights in the Pacific Northwest. Pilots will notify dispatch of departure and arrival times and deviation of more than 30 minutes from the planned itinerary at intermediate stops and final destination. If necessary to obtain a location of an airborne resource, dispatchers shall call the agency providing the local flight following, or for aircraft on FAA flight plans, telephone the Flight Service Station or use commercially available software such as Flight Explorer. Utilization of Instrument Flight Rules (IFR) flight plans will enable real time resource tracking with commercially available software such as Flight Explorer

c. Flight Following: For the purpose of crash search and rescue will be by the most effective method available. Pilots will utilize the capabilities of Air Traffic Control (ATC) to the maximum extent possible. Except for local training and maintenance flights conducted in VFR conditions, FAA flight plans will be filed whenever local mission flight following is not being conducted. Local mission flight following will be conducted for all missions where ATC communications are not beneficial in accomplishment of the resource mission, i.e. firefighting, survey, etc. Policy requires the maximum check-in interval is every 15 minutes, with check-ins more often as conditions warrant. Projects which may need check-in intervals in excess of 15 minutes will address this in the Project Aviation Safety Plan. Pilots will ensure the transfer of flight following responsibilities between dispatch units as well as the FAA is positive by advising relieved units with the name of the new responsible party. Aircraft operating over fire suppression incidents shall utilize a transponder code of 1255. Any aircraft that has not been accounted for within 30 minutes of the last check-in is overdue. The Aircraft Dispatcher initiates the actions listed in the Crash, Search and Rescue Guide/Interagency Accident Mishap Plan as applicable.

***d. Automated Flight Following (AFF). AFF** is a satellite/web-based system. The dispatcher can "see" an aircraft icon on a computer screen and view, real time; it's location, speed, heading, altitude, and flight history. Radio Check-in / Check-out flight following requires verbal communication via radio every 15 minutes. The dispatcher logs the aircraft call sign, location, and heading.*

***NOTE:** An agreement between the pilot and dispatcher must be made on which type of Agency flight following will be utilized, preferably by phone prior to takeoff, but may be done via radio while airborne.*

Procedures for Pilot/Observer:

1. *Contact dispatch with request to utilize AFF (preferably via phone prior to flight).*
2. *Provide Dispatch with appropriate flight information (same as radio check-in procedures).*
3. *If Dispatch is willing and able to accommodate AFF request, obtain appropriate FM frequencies and tones to be monitored during flight and brief on radio calls you will make and what response is expected.*
4. *Shortly after take off, and outside of sterile cockpit environment, contact dispatch via radio stating "Nxxxx off (airport or helibase name) AFF".*
5. *If radio contact is not made with dispatch office, return to airport/helibase.*
6. *If radio contact is made, and AFF is verified by dispatch office, monitor assigned frequencies, including guard, for duration of flight.*
7. *If a deviation from planned and briefed flight route occurs, contact dispatch office via radio with the change.*
8. *If AFF capability is lost at the dispatch office, or the signal is lost during the flight, flight following will revert to 15 minute radio check-in procedures.*
9. *Monitor the appropriate radio frequencies at all times during the flight.*
10. *Inform dispatch upon landing that you are on the ground.*

Procedures for Aircraft Dispatcher:

1. *When AFF is requested, ensure AFF program access is available and request standard flight information from the pilot/Chief of Party (COP). Document using existing dispatch forms and logs.*
2. *Provide pilot/observer with appropriate frequencies to monitor during the flight (Dispatch frequency, National flight following, etc.). Ensure these frequencies are monitored during duration of flight.*
3. *If flight following will be handed off to another dispatch office during the flight, brief this with the pilot/COP, providing frequency change, call sign, and other appropriate information.*
4. *Brief with pilot/observer on radio calls expected and responses you will provide.*
5. *Check AFF system to ensure icon for the aircraft is shown.*
6. *Shortly after take off, pilot/COP will call via radio stating "Nxxxx off (airport or helibase name) AFF". Check aircraft Icon color and verify time and date. Respond to the radio call, stating "Nxxxx, (dispatch call sign) AFF".*
7. *Keep the AFF system running on your computer during the entire flight.*
8. *Set 15 minute timer, and check flight progress as appropriate during the flight. Document using existing forms and logs.*
9. *If the icon turns RED, it means the signal has been lost. Immediately attempt contact with the aircraft via radio and follow normal lost communication, missing aircraft, or downed aircraft procedures as appropriate.*
10. If radio contact is made after a lost signal, flight may continue utilizing 15 minute radio check-ins for flight following. Use same procedure if computer system goes down during flight.

e. Transport of Hazardous Materials. Department of Transportation (DOT) has granted exemption for the transport of certain hazardous materials aboard aircraft under contract or exclusive direction and control by the USDA Forest Service and DOI for periods of less than 90 days. (Refer to Aviation Transport of Hazardous Material Handbook and DOT Exemption 9198).

4. End Product Contracts: Refer to Appendix E.

5. Seat Fare Operations: The following guidance is provided for transportation of employees under a seat fare program.

a. Supervision: The UAO/M will supervise obtaining air transportation on a seat fare basis by personnel of their Unit. It is the UAO/M's responsibility to train personnel and advise them of their responsibilities regarding aircraft, flight crew, and weather conditions.

(1) Single Engine Airplanes will not be used for other than day Visual Flight Rules (VFR) flights.

(2) The Aircraft and Pilot must have a current (Aircraft and pilot approval card).

(3) If the passenger is uncomfortable with any aspect of the flight, the passenger will use another source of transportation. The operators that are involved in this type of operation do not rely on FS/DOI passengers to meet their schedule requirements. In this way they are pretty much like a scheduled operator. If you choose to fly on any certain airline, that is your responsibility. Other than the issuing of aircraft and pilot cards, no additional management activity is provided.

(4) The passenger is responsible for letting someone know they are traveling and of their itinerary. Dispatch is not required to track airline activity or seat fare flights.

b. Objectives: Provide travelers an option of air transportation that falls between scheduled airlines and chartering an aircraft. Provide one person the flexibility and convenience of light aircraft transportation.

c. Justification: The use of these vendors will provide the most effective mode of transportation in some situations. Generally where this is applicable, is where a large body of water can be traversed in a few moments and save travelers hours of driving/ferry time required by other modes of land and water travel. Normal travel regulations apply, and there are no aviation imposed special reporting or justification requirements.

d. Participants: Air Transportation may be obtained on a seat fare basis. This transportation service is obtained much like normal airline transportation. However, there are a few differences in some of the requirements.

(1) The aircraft and pilot must meet Federal standards for air worthiness and operating specifications. These aircraft and pilots will meet the requirements of FAR 135 for unscheduled carriers and have a card issued by a Government Inspector certifying this. There is no actual inspection required by the government of aircraft or pilots. Cards may be issued through the mail upon the receipt of a letter from the operator stating the aircraft and pilot meet our requirements. This is consistent with our policy for point-to-point operations.

(2) This operation is conducted entirely under FAR 135, and the operating specifications issued to those operators. Thus the aircraft retains the civil aircraft designation at all times, and the FS/DOI is not responsible for accident reporting, investigation, or tracking of flying time as is required of contract aircraft.

e. Project Dates: Year round

Locations: Lake Chelan and Puget Sound.

Operator/Location	Cost	Approved Aircraft (ME)=Multiengine (SE)=Single
Chelan Airways Lake Chelan, WA (509) 682-5555	$120 Round Trip	C185 N87ST (SE) DHC2 N608080 (SE)
Sky Taxi Salem, OR (503) 365-0200	Per Trip Quote www.skytaxi.com	Cessna-414(ME)

f. Flight Following and Emergency Search and Rescue: These operators comply with FAR 135 for flight following, and when an aircraft is missing or overdue, emergency search and rescue will be coordinated through civil agencies by the operator and local officials. It is important that travelers notify a responsible party of their travel plans as a backup to these air carrier procedures.

g. Aerial Hazard Analysis: These operations are considered low risk. Procedures and operating specifications required for the operator's certificate provide adequate preventive measures to mitigate known aviation hazards.

h. Protective Clothing/Equipment: Employees are encouraged to obtain and use hearing protection when in flight and approaching and departing aircraft operating areas.

l. Load Calculations and Weight and Balance: Load calculations, weight, and balances are the responsibility of the pilot in command. The pilot will supervise the loading and unloading of passengers

H. FACILITY MANAGEMENT: For Forest Service facilities refer to Regional Aviation Group Operations Plan. Appendix M.

1. Operational Bases: BLM operational bases are facilities that are permanent installations used on a continuous or seasonal basis for aviation operations, including heliport, retardant bases, and airport facilities. These include aviation facilities on BLM property and facilities on non-BLM land where BLM has primary responsibility for operations, maintenance and oversight.

a. BLM has permanent Helibases at Prineville, Burns, Vale, and Lakeview airports.

b. BLM SEAT aircraft are initially located at the same airports as above, but the portability of their equipment allows them to be deployed to other landing areas for closer support of incident managers. Where liquid retardant is stored next to SEAT loading areas the local unit will provide containment for concentrate spills. For other spills the contractor is responsible for their containment per the appropriate contract. All SEAT loading areas will be rehabilitated to at least original condition at the completion of the SEAT deployment.

2. Construction and Maintenance: BLM permanent base design criteria will provide for operational safety as well as adequate work/rest environment for aircrew and personnel assigned. Facilities are constructed and maintained according to BLM Manual 9400 and Districts are responsible for purchase/lease, construction, maintenance, and utilities related to aviation facilities.

3. Safety: BLM aviation facilities must comply with safety regulations outlined in Departmental manuals, guides, handbooks, and the Occupational Safety and Health Act (OSHA). Building equipment and landing surfaces are inspected by Unit Aviation Managers annually to identify maintenance or safety deficiencies. Modifications and repairs are made prior to the operational season. The State Aviation Manager inspects aviation facilities at least once every two years.

4. Temporary Bases: BLM temporary bases are sites that are used on a temporary or intermittent basis (i.e., heli-spots, and remote airstrips). Sites not located on BLM land must be pre-approved. Each site should be cataloged as to location, description, local hazards, use procedures, agreements, and contacts. Inspections and maintenance are completed as necessary to meet agency safety standards. Fixed wing landing areas will be listed in the Tri-region Backcountry Airport Guide (Appendix P). Landing areas on BLM land that may be utilized by the public should be listed with the FAA. To accomplish this complete an FAA Form 7480-1 and submit to the local FAA Regional Office in Seattle, WA. If District Land Managers desire to restrict public use of these landing areas, indicate in block B. Purpose: Private Use of Public Lands/Waters, when completing this form. The SAM should also receive a copy of the FAA Form 7480-1 upon completion.

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I. STATE AVIATION PROGRAMS, ASSISTANCE AND COORDINATION

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J. FEDERAL AVIATION MANAGEMENT ACTIVITIES AND COORDINATION

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K. INTERNATIONAL AVIATION ACTIVITIES AND COORDINATION

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L. AVIATION ACCIDENT PREVENTION PROGRAM

The Pacific Northwest Aviation Accident Prevention Plan is a separate document inserted into this section of the Northwest Aviation Management Plan. It is inclusive of both Forest Service and Bureau of Land Management aviation activities. Direction for this program is contained in FSH 5720 and BLM Manual 9400.8. Aviation accidents and incidents are reported according to agency policy contained in these directives. Both agencies have automated reporting systems that are maintained by national offices and are available on the following web site:

http://www.safecom.gov/

OAS handles investigation and follow up of reports for BLM. The RASM handles Forest Service incidents in Region 6. As a courtesy notify the RASM of all BLM reports submitted.

When it is updated and finalized the Forest Service and BLM "Aviation Accident Prevention Plan Pacific Northwest" will be found at the following web site:

http://166.6.4.75/library/Aviation/northwestaviationmanagementplan/AviationAccidentPreventionPlan1997.pdf

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M. PROGRAM AND ACTIVITY MONITORING, REVIEW, AND FOLLOW UP

1. BLM Aviation Program Reviews occur at the district level every 2 years and at the State level every 4 years. Department Reviews are conducted in accordance with OPM 033 on a five-year rotation.

2. District Reviews will follow the applicable portions of the Interagency Fire Preparedness Review Checklist available in the BLM Library on the Internet at this URL: http://web.blm.gov/internal/fire/preprev.htm

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II. APPENDICES

A. AVIATION DIRECTORY
   UNIT AVIATION OFFICER/MANAGER DIRECTORY
   REGIONAL AVIATION GROUP PROGRAM OF WORK
B. AIRSPACE OPERATIONS PLAN
C. ADMINISTRATIVE AIRCRAFT USE PLAN
D. AERIAL PHOTO OPERATIONS PLAN
E. AVIATION CONTRACTING
   END PRODUCT CONTRACTS
F. FOREST INSECT AND DISEASE AVIATION OPERATIONS PLAN
G. LAW ENFORCEMENT AVIATION OPERATIONS PLAN
H. MILITARY OPERATIONS
I. NEWS MEDIA AND FILM COMPANIES
J. NORTHWEST CRASH, SEARCH AND RESCUE GUIDE
K. AVIATION TECHNOLOGY
L. AVIATION LIBRARY LIST.
   Please visit our web site at http://www.fs.fed.us/r6/fire/aviation/nwav_publst.htm for the most up to date list of publications.
M. REGIONAL AVIATION GROUP OPERATIONS PLAN
N. AVIATION DUTIES LIST (Who does what list)
O. POLICY LETTERS
P. TRI-REGION BACK COUNTRY AIRPORT GUIDE
Q. R6 AVIATION SECURITY PLAN

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National and Regional Aviation Leadership

Name	Office	Cellular	Pager	Home
Director Fire and Aviation Management Jerry Williams	202-205-1483			
Asst Director Fire and Aviation Management Tony Kern	202-205-1505			
National Aviation Operations Officer Pat Norbury	208-387-5646			
National Aviation Safety Manager Ron Hanks	208-387-5607			
BLM National Aviation Dave Dash	208-387-5448			
AMD* NW Area Steve Smith	208-334-9310			
BLM National Aviation Safety Vacant	208-387-5160			
AMD* Safety Bob Galloway	208-387-5803			
Regional Forester Linda Goodman	503-808-2201			
State Director Elaine Brong	503-808-6024			
Regional Special Agent in Charge Tom Lyons	360-891-5269			
State Special Agent in Charge Craig McGill	503-808-6469			
Regional Financial Management Dan Nichols	503-808-2944			
State Office Finanical Mgmt Kathy Eaton	503-808-6092			

* AMD = Aviation Management Directorate previously Office of Aircraft Servives (OAS)

SORO
BLM State Office OR-WA
R6 Forest Service

Name	Office (503) 808-	Cellular (503)	Pager (503)	Home
Director Fire and Aviation Management, Karyn Wood	2145			
Branch Chief Fire and Aviation, Leo Sidebotham	6590	702-9773		
Asst. Director Fire and Aviation Management, Ken Snell	2136			
Assistant Director, Aviation, Jon Rollens	2359	708-8399	708-8399	
Regional Aviation Safety Manager, Bill Bulger	2314	819-8706	819-8706	
State Aviation Manager Clay Hillin	6593	784-5577		
Aviation Management Specialist Vacant	2537			
FEPP, Barbara Kennedy	2323			
Fire Training, Mike Spencer	2333	784-7429	271-2213	
Airspace Coordination, Julie Stewart	6728	780-0097	423-0873	
Fire Safety, Dave Summers	2143	703-4334		
Assistant Director, Fire Operations Carl Gossard	6461	971-998-3953		
Fire Operations Jim Furlong	6518	866-9025		
Regional Contracting Officer, Orrin Corak	541-504-7273	819-8715		
Northwest Coordination Center GerryDay Steve Dickenson	 2732 2722	780-6445		
Steve Arasim Gina Papke Kathi May Receptionist FAX	2723 2726 2724 2720 2750		250-9152	

R-6 Forest Aviation Officers	Bert Wasson	Colville	509-684-7213
	Chris Hice	Deschutes	541-416-6793
	Shad Sitz	Fremont	541-947-6187
	John Ring	Gifford Pinchot	360-891-5140
	Miles Hancock	Malheur	541-963-7171
	Richard Warthen	Mt.Baker-Snoqualmie Seattle Lab	360-436-1155
	Reggie Huston	Mt. Hood	503-668-1756
	Chris Hice	Ochoco	541-416-6793
	Steve Baumann	Okanogan	509-826-3280
	John Holcomb	Olympic Olympia Lab	360-765-2221
	Dennis Delack	Rogue River	541-471-6542
	Dennis Delack	Siskiyou	541-471-6542
	Carl West	Siuslaw Corvallis Lab	541-750-7028
	Miles Hancock	Umatilla	541-963-7171
	Dave Lockwood	Umpqua	541-957-3302
	Miles Hancock	Wallowa Whitman	541-963-7171
		Starkey Range and Experiment Station	541-523-1415
	Steve Baumann	Wenatchee Wenatchee Lab	509-826-3280
	Dean Vendrasco	Willamette	541-225-6402
	Shad Sitz	Winema	541-883-6866
	Rod Altig	Columbia Gorge NSA	541-308-1731
	Jon Rollins	PNW Station Portland Lab	503-808-2359
	Keith Sprengel	Forest Insect and Disease	503-668-1476
	Ron Harris	Aerial Photography	503-808-2857
	Ron Pugh	LEI	360-891-5277
R-10 Forest Aviation Officers	Mike Stubbs	Anchorage Lab	907 271-2835
	Vacant	RO RASM-Juneau Lab	907-586-8745
BLM District Aviation Officers	Rick Fritz	Burns	541-573-4301
	Earl Burke	Coos Bay	541-751-4469
	Rob Wells	Eugene	541-683-6421
	Shad Sitz	Lakeview	541-947-6187
	Jim Brown	Medford	541-618-2301
	Chris Hice	Prineville	541-416-6793
	Tom Lonie	Roseburg	541-440-4947
	Clark Tiecke	Salem	503-315-5975
	Scott Boyd	Spokane	509-536-1237
	Brian Bitting	Vale	541-473-6317

Regional Aviation Group - Redmond

Name	Office (541) 504-	Cellular (541)	Pager (541)	Home (541)
Aviation Operations Manager, Kim Reed (Acting)	7259			
Support Services Specialist Paula Bowman	7252			
Helicopter Program Specialist Kim Reed	7264	(503) 807-4926		
Helicopter Operations Specialist, Ken Ross	7265	(503) 807-4925		
Aircraft Maintenance Program Manager Rick Watkins	7250	480-8342		
Aircraft Maintenance and Facililty Inspector Mike Brady	7267	410-9691		
Avionics Progtam Manager, Dennis Morentin	7254	480-2243		
Smokejumper Aircraft Program Manager Ron Barrett	7260	410-6124		
Airplane Pilot Vacant				
Airplane Pilot Don Bell	7251	408-0791		
Airplane Pilot Mike Dark				
Airplane Pilot Hazel Hammond	7257	280-4255		
Airplane Pilot Vacant				
Airplane Pilot Vacant				
AirTanker Program Manager Ron Vail	7256	408-7081		
Airplane Pilot Greg House	7262	408-7082		
Airplane Pilot Craig Irvine	7255	280-4572	385-4862	
Airplane Pilot, Doug Kastner	7271	280-5875		
Airplane Pilot Eric Shilling	7253	280-7351		
Airplane Pilot Vacant				
Airplane Pilot Vacant				
Light Fixed-wing Program Manager Jamie Tackman (Wenatchee)	509 884-8189	(509) 669-4037		

GENERAL INFORMATION

The Northwest Area Airspace Coordination Specialist is an employee of the Bureau of Land Management. The position is located in the FS Regional Office in Portland, Or. Both agencies fund the position.

PURPOSE

The fundamental goal of our aviation safety program is to reduce accident occurrences. The purpose of our program is to preserve human and material resources by identifying and preventing events that cause damage and injury to those resources. THE FOUNDATION OF THE INTERAGENCY AIRSPACE COORDINATION PROGRAM IS MID AIR COLLISION AVOIDANCE. Achievement of this goal is accomplished through coordination and education within our agencies, the FAA and the military.

OUR PRIMARY GOAL IS A PLANNED APPROACH FOR AIRSPACE HAZARD REDUCTION. This goal will be accomplished through the development of a airspace hazard reduction program. This will be accomplished by:

1) Planned geographical visits to user units/cooperating agencies (DOD, FAA) for the purpose of sharing and/or acquiring airspace hazard information.

2) Assistance to units for evaluation of airspace hazards. Utilize user units to participate in the evaluation process.

3) Implementation of Airspace Hazard Reduction Program through education, training and liaison with DOD, FAA and natural resource units.

4) Training/Education within the Natural Resource Agencies on Airspace procedures.

5) Standardization of Airspace Coordination within Natural Resource Agencies.

6) Introduction of new technology and it's application to airspace coordination.

ROLES AND RESPONSIBILITIES

It is essential that all personnel involved in flight planning and aviation operations read, understand and implement the procedures contained in the INTERAGENCY AIRSPACE COORDINATION GUIDE . Understanding and awareness of the procedures in this Guide should improve aviation safety through the coordinated use of the National Airspace System. Roles and Responsibilities are outlined in detail in Chapter II of the Interagency Airspace Coordination Guide. This information is pertinent for pilots, dispatchers, aviation managers and line officers.

REGIONAL AIRSPACE COORDINATOR ROLES AND RESPONSIBILITIES

Evaluates Airspace complexities within Washington/Oregon and identify potential problems.

Initiates and maintains personal contacts within the Department of Defense and the Federal Aviation Administration.

Documents, investigates and resolves all airspace conflicts and initiates follow ups with the FAA and the DOD.

Tracks all Temporary Flight Restrictions and coordinates/brief FAA Regional Headquarters. TFR focal point for resolution of TFR conflicts during multiple fires.

Interprets airspace usage proposals to determine impacts on Public lands for Resource Agency Managers.

Serves as a program lead instructor in airspace for aviation courses. Train dispatch, aviation managers and aviation personnel in airspace policies and procedures.

Coordinates MOU's with military units.

Serve as an information clearing house distributing pertinent airspace issues within our aviation community.

Prepare publication material for Northwest Mobilization Guide, Manuals. etc.

Initiates and maintains contacts with field units through field assists and field visits.

TEMPORARY FLIGHT RESTRICTION COORDINATION

All local dispatch units (BLM and USFS) place their TFR requests with their appropriate ARTCC (Air Route Traffic Control Center). The Center will forward the request to the US NOTAM Office in Washington, DC. The US Notam Office will issue the NOTAM to the appropriate FSS (Flight Service Station) for distribution to pilots.

The ARTCC Military Desk will deconflict any airspace hazards in Special Use Airspace (ie, MOA (Military Operations Area's), etc). They will also deconflict IR MTR's. We are dependent upon the dispatch organization to deconflict VR MTR's, Slow Routes, Local Flying Area's, etc.

The dispatch organization is also responsible for placing a courtesy call to appropriate military units when a TFR is instituted to acquire current known traffic within the TFR on affected MTR's, MOA's, etc. (Note: FAA can not always provide accurate known traffic information, the best source remains to be the military scheduling activity).

Regional Airspace coordinator is responsible for coordination directly with FAA Regional Directors and Air Route Traffic Control Supervisors in developing cooperative efforts toward solving airspace conflict issues, including NOTAM management. Recommends policy changes to these officials in order to improve safety.

Regional Airspace coordinator shall initiate and maintain personal contact with FAA and Military representatives in order to coordinate efforts of user agencies in eliminating airspace conflicts and improving overall airspace management.

Through contacts with the military, the Regional airspace coordinator can acquire "Local Flying Area" information regarding uncharted and unpublished airspace. This might include:

Oregon Army National Guard - Local Flying Area
Ft. Lewis - Local Flying Area

INCIDENT REPORTS/CONFLICT RESOLUTION

Regional Airspace Coordinator will investigate and respond to all Safecoms (BLM and USFS) involving airspace conflicts, intrusions, hazards, etc. When an intrusion is reported it is CRITICAL to coordinate IMMEDIATELY with Seattle or Salt Lake City Center (ARTCC). The Centers often can pinpoint the involved aircraft and communicate with them.

If the incident involved military aircraft, an immediate notification should be placed to the appropriate military representative to the FAA (AFREP, NAVREP or DARR) and to the appropriate military scheduling activity.

Field units will utilize chapter 8 (Airspace conflicts) in the Interagency Airspace Coordination Guide.

NON DISASTER COORDINATION

Regional Airspace Coordinator may be utilized for non disaster type projects. This could include:

Blasting
Eagle/Osprey Nesting sites
Aerial spray projects

Coordination is necessary with both the FAA and the affected military units.

For Non Disaster flying: Present FAA management does not allow land management agencies to acquire a 91.137 (a)3 TFR for our "non disaster" aviation activities. Dispatchers are advised to place "courtesy calls" to all affected military units and negotiate a voluntary deconfliction regarding aviation activity. It is imperative that each negotiation be closed out in a timely manner.

BLASTING

Aviation Unit Managers and Dispatchers have been advised to coordinate blasting activity when it is within proximity of Special Use Airspace or Military Training Routes. This coordination was initiated by the Department of Defense.

TRAINING/EDUCATION

It is crucial that airspace coordination be taught at all levels of aviation training. Regional Airspace Coordinator should be prepared to make presentation at any level of aviation training. Executive briefings will be prepared and presented when requested at management meetings.

Airspace training should be included at:

Basic Aviation Training
CWN Heli Managers
Helicopter Manager Workshops
Air Support Group Supervisor
Air Tactical Group Supervisors
Air Operations Director
All Dispatch training levels and workshops

Training is also accomplished through the publication of the following:

Issue papers
Safety notices (Through the Regional Aviation Safety Manager)
Incident/Accident reports

FIELD VISITS

Field visits may be accomplished through a geographically planned system. It is crucial to maintain field visits to FAA and Military base operations. In addition, airspace education and a continuity in the program can be demonstrated through field visits to local dispatch organizations.

SPECIAL USE AIRSPACE AND MILITARY TRAINING ROUTES

The airspace in Washington and Oregon is varied and complex. Almost all National Forests and BLM Districts are influenced by Special Use Airspace or Military Training Routes (or both!).

Field units should utilize and understand chapter III (Basic Airspace) of the Interagency Airspace Coordination Guide.

"Closures" or deconfliction of designated military airspace is accomplished through local dispatch units.

Dispatchers are advised to place "courtesy calls" to the scheduling activities of any affected Military Training Routes. Through this contact, they can advise the military of the forthcoming TFR and receive current scheduling information regarding activity on the route(s). This information can be relayed to air attack or to the lead plane pilot.

Scheduling Activity Phone numbers are located in the Department of Defense AP/1B (FLIP) publication.

An Airspace Critical Contacts List is forwarded to the Regions Dispatchers once a year.

AIRSPACE BOUNDARY MANAGEMENT PLAN

This is a template that can be used by Units who have border issues.

Participating Agencies/Cooperators:

I. PURPOSE.

Aerial operations on, or adjacent to, agency/cooperator boundaries and areas where a neighboring agency/cooperator provides fire suppression on lands administered by the adjoining agency/cooperator ("mutual aid," "shared" or "exchanged" initial attack areas or zones) require increased management and coordination. The requirement for increased management and coordination is due to the possibility of two or more agencies/cooperators conducting simultaneous, uncoordinated aviation operations within those areas that would unknowingly put the responding aerial resources within close proximity to one another, placing aircraft and crews at risk. The purpose of this plan is to identity such boundaries and initial attack zones and provides means of communication, coordination, and airspace deconfliction within those areas.

II. GUIDELINES & PROCEDURES.

A. An imaginary 10-mile-wide "neutral air" corridor will center on agency/cooperator boundaries. The "neutral air" for mutual or exchanged initial attack areas or zones will encompass the whole zone.

B. Any agency conducting aerial operations within a corridor or zone will immediately notify the adjoining agency/cooperator of such operations. This is accomplished to and from dispatch offices prior to the commencement of operations and when operations cease. Examples of aerial operations include recon, fire suppression missions, special aviation projects, resource management flights, helicopter logging, etc.

C. Agency aircraft will establish contact on the assigned air-to-air frequency. Should contact not be made, the contact air-to-air frequency will be "Air Guard" 168.625 MHz. This frequency will be designated for initial contact and coordination between converging aircraft within corridors and zones only when contact is not otherwise possible. Because this frequency is programmed as the default receive frequency in all agency and contract aircraft FM radios, and is intended for initial contact and emergency purposes only, it is imperative that this frequency not be used for tactical or logistical purposes. If Guard is used to establish initial contact, aircraft are expected to switch to an alternate frequency (e.g., the local or incident air-air frequency, etc.).

D. When aircraft from two or more adjoining agencies/cooperators are being committed to the same general area of a corridor/zone:

1. Considering complexity, dispatch an Air Tactical Group Supervisor (ATGS).

2. Approaching aircraft will establish air-to-air frequency contact prior to entering the area.

3. Aircraft rely upon dispatch centers for current relevant information. Therefore, coordination between dispatch centers must occur prior to dispatch.

E. When an aircraft is dispatched to an incident within a corridor/zone and no other aircraft are known to be present:

1. The approaching aircraft will attempt to establish contact on the assigned frequency. If unsuccessful, Guard frequency 168.625 will be used.

2. Perform a high-level recon prior to low-level.

3. Practice "see and avoid."

4. The dispatch initiating the flight will notify and coordinate with the adjoining agency/cooperator dispatch.

F. Temporary Flight Restrictions (TFRs) within or in close proximity to corridors/zones will be coordinated and information shared between the responsible dispatch offices.

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 will be defined as an area five (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, use 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 THE SINGLE ORDER POINT FOR INCIDENT RESOURCES?
Yes ____ No _____

ARE FLIGHT CREWS AWARE OF ORDER POINT AND FLIGHT FOLLOWING CENTER?
Yes ____ No _____

DO YOU HAVE AN EXISTING TEMPORARY FLIGHT RESTRICTION (TFR) ON YOUR UNIT? HAVE YOU NOTIFIED COOPERATING AGENCIES?
Yes ____ No _____

ARE THERE MILITARY TRAINING ROUTES, (MTR) OR SPECIAL-USE AIRSPACE (SUA) IN THE INCIDENT AREA? HAVE FLIGHT CREWS BEEN INFORMED?
Yes ____ No _____

AIRCRAFT WILL NOT BE DISPATCHED UNTIL CHECKLIST HAS BEEN COMPLETED AND INITIALED BY AIRCRAFT DISPATCHER.

CONTENTS

Supervision. The program manager/specialist for administrative aircraft operations in the Pacific Northwest is ***Greg House 541 504-7262***. The program managers' duties include:

Coordinating the update of the Administrative Aircraft Use Management and Operation Plans annually.

Subject matter expert on administrative aircraft use policy for the USDA Forest Service.

Monitoring the central record file required in FSM 5711.2.3, maintained at the Regional Aviation Group office, to include coordinating an annual audit (November) of the records as described in this plan, and coordinate submission of the Senior Federal Travel Report semiannually in April and October.

Promote the administrative use of aircraft to increase personnel effectiveness in the Pacific Northwest through Unit Liaisons, Unit Aviation Officers and Dispatch Center personnel.

The Portland Area Flight Coordinator is stationed at the Northwest Coordination Center 503 808-2720. The duties for this position include.

Year round scheduling of administrative flights for agencies in the Portland Metropolitan area who participate in the Pacific Northwest Coordinating Group (PNWCG) within Oregon and Washington. This responsibility includes the training and staffing of back-up for this flight scheduling function.

Serve as focal point and provides subject matter expertise for DOI/USFS as requested for coordination and procurement of aircraft services including, contract administration and payments. When assigned by Aviation Management, serves as COAR/COR on aviation contracts.

When requested, provides expertise to field offices in Oregon/Washington in planning and coordinating the use of fixed and rotor wing aircraft supporting administrative travel activities and special use missions as defined by agency manuals. Works directly with on-site Project Inspectors to solve scheduling issues and deal with aircraft procurement problems.

Provides agency leaders with overall administrative support for safe and efficient utilization of fixed and rotor wing aircraft available in the northwest. This includes assisting with analysis of user needs, providing flights and supporting documentation for SES flights and exploring opportunities for efficiency in the interagency environment.

Coordinates aircraft schedule/needs with personnel with responsibility for scheduling aircraft, pilots and support personnel, i.e. Redmond Air Center, cooperating dispatch centers.

Establishes and maintains tracking of aircraft costs by function and agency. Takes the lead in compiling and submitting annual/periodic reports etc. required by GSA, OAS, etc. Maintains flight documents, records and files per agency regulations.

Maintains communication with PNWCG Aviation Working Team on program issues, opportunities and accomplishments for member agencies.

Serves on committees and task groups when assigned to provide subject matter expertise for flight operations/dispatching/administration, etc.

Objectives: Administrative Air Transportation.

Provide air transportation for Federal Employees in CWN*/ARA* and Force Account Aircraft.

Provide flight and schedule coordination Monday thru Friday. Emergency requests will be coordinated through the Northwest Interagency Coordination Center (NWC) Duty officer, available for 24-hour notice at 503 808-2720, during non-duty periods.

Coordinate CWN*/ARA* aircraft providing 7 days a week coverage through out the year.

Provide at least 2 Force account aircraft and flight crews available on a 7-day a week basis from October 15 through June 1.

Process normal flight requests within 4 hours during normal business hours (October 15 - June 1).

Process special flight requests (Senior, Non-federal, etc.) with in 4 working days.
Provide contingency planning for administrative flights to minimize human factor incidents due to communication and coordination factors.

Justification. Justify and document this travel in accordance with OMB A-126. For ***BLM policy*** refer to OAS Operational Procedures Memorandum – 7. **National Forests and Pacific Northwest Field Units** are encouraged to issue annual blanket letters of justification and cost comparison to streamline administrative procedures for situations that are common to specific locations. Example A is a sample blanket justification at the end of this plan. The following checklist should be used to ensure that all documentation is complete and properly filed.

Individual	Responsibility	Completed
Chief of Party/Flt. Mgr.	Notify Dispatch of flight request	
Initiating Dispatch	Ensures Chief of Party/Flt. Mgr. Training completed in the previous three years.	
Initiating Dispatch	Provide forms and cost estimates to Chief of Party/Flt. Mgr.	
Initiating Dispatch	Completes Cost Comparison FS 5700-11 (if required) *OAS-110*	
Chief of Party/Flt. Mgr.	Completes and signs Justification FS 5700-10	
Initiating Dispatch	Coordinates special authorization for non-federal and senior federal travelers, and completes SFT Report (GSA 3641)	
Dispatch	Schedules flight. Ensures that scheduled aircraft and pilot are properly carded for mission through R6/OAS Data Base(s).	
Initiating Dispatch	Provides copies of manifests and itineraries to Chief of Party/Flt. Mgr. and Vendor/pilot.	
Dispatch	Provides after hour phone numbers to scheduled pilot and Chief of Party/Flt. Mgr. and discusses contingency plan.	
Chief of Party/Flt. Mgr.	Perform Chief of Party/Flt. Mgr. responsibilities. Refer to; Interagency Aviation User Pocket Guide	
Initiating Dispatch	Compiles documentation for flight	
Initiating Dispatch	Provides an additional copy of Forest Service documentation to centralized file at Regional Aviation Group.	

Note: More than one dispatch/scheduler may be involved in setting up and following though on any given flight. It is the responsibility of the dispatch or scheduler initiating the flight who will compile a complete documentation package for the flight. WCF pilot will supply the Initiating dispatcher with a copy of the FS-6500-122(s) as soon as practical after the flights conclusion.

Travelers guidance for making requests. For each trip using Forest Service-operated or CWN/ARA (Charter) aircraft to carry federal passengers and/or cargo for administrative purposes in lieu of common carrier proceed as follows:

Step 1: Chief of Party/Flt. Mgr. or individual traveling: Contact dispatch or designee to initiate the documentation for each trip. The traveler will need to provide the following information:

a. Itinerary;

Destinations	Time needed to arrive	Time to depart

b. Passenger Information;

Name **Chief of Party/Flt. Mgr.***	Status? S/N/D/E	AD 202 No	Management Code	Weight	Baggage	Pay Grade

? S=Senior Fed Official; N=Non-federal; D=Dependent; E=Senior Ex Branch; **C** Contractor.

c. Trip Purpose:___T___ (M=Mission R=Required Use T=Other Official)

d. Purpose of Travel_____ (Code) _____ (Narrative)

Code in accordance with GSAForm 3641 as follows;

1st Character = Category of Travel			
1 = Mission Requirement	2 = Required Use Business	3 = Other Official	4 = Required Use us./Pers
5 = Required Use Pers/Pol.	6 = Other Official Bus./Pers.	7 = Space Available	

2nd and 3rd Character Purpose of Travel				
A = Administrative		E = Emergency	T = Training	O = Operational
A = Special Mission C = Conference I = Site Inspections M = Meeting O = Orientation	R = Relocation S = Speech or Presentation T = Training V = Site Visit Z = Other	D = Disaster Relief E = Evacuation J = After-the Fact Jst M = Medevac	C = Currency I = Indoctrination L = Line Check T = Transition Z = Other	A = Aircrew T = Direct Spt Z = Other

Aircraft Passenger List and Itinerary

Dispatch Flight No: 27-016 AD 202# 5BM1106275200

	Passenger Names (*Chief of Party)	Status/Remarks Other AD 202#s	Fund Unit	Mgmt Code	Weight	Bag Wt	GS ES*100
1	Pat Kelly		0627	123456	190	20	14
2	*John Lowe	5BM1106276100	0627	123456K	220	20	400
3	Sam State	5BM1106276100	0627	123456K	180	20	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
	Totals:	2 Total Weight:			590	60	650

********** Itinerary **********

Airport	Arrive	Depart	Date	Pax #'s	Leg Wt.
Portland Intnl		06:00 AM	02/15	1-3	650
Redmond	06:42 AM	02:00 PM	02/15	2,3	440
Portland Intnl	02:42 PM				

****

Pilot	Aircraft	"N" Number and color
Clay Hillin	FS Baron	N164Z White/Orange/Black

********** Senior Federal Travel Report ***** Cost *******

Name	Department	Status	Govt	Comm
*John Lowe		S	$346	$420
Sam State	ODF	N		

Remarks:
Passengers should meet at Flightcraft 30 minutes prior to departure.

R6-FS-5700-11 (8/95)

FLIGHT REQUEST/JUSTIFICATION FOR ADMINISTRATIVE USE OF AIRCRAFT
(FSM 5710; FSH 5709.11, Ch. 10)

User:R6-RF Dates of Use: 2-15-95

Agency/Unit

Purpose: T/3AM: ADMINISTRATIVE MEETING

Request: FS BARON TO TRANSPORT 3 PASSENGERS PDX-RDM AND RETURN.

Planned travel requires the use of air transportation, and Forest Service-operated or charter aircraft will be used because (check a, b, or c. If c is checked, attach a cost comparison):

[ ] (a) The aircraft is scheduled to perform a bona fid e mission, training, or proficiency activity compatible with secondary use of the flight for transportation, and the minimum mission, training, or proficiency requirements have not been exceeded.

[ ] (b) No airline service is reasonably available to effectively fulfill the transportation requirement, that is, within the same calendar day as required. Explanation:

[X] (c) The actual cost* of using this aircraft is not more than other suitable and available air transportation. (Use FS-5700-11, Cost Comparison Travel Worksheet.)

* This cost should be the total cost to the Government; calculations should include per diem, overtime, and lost work time as well as actual transportation costs. Summarize analysis:

FS Baron compared to CWN Cessna 340 for trip PDX-RDM-PDX.

	Common Carrier (Airline)	Common Carrier (Rail)	Government Owned Aircraft	Commercial Aircraft (Contract)	Other (Drive)	Other
1. Flight costs:	$328		$375	$472	N/A	
2. Per diem/ overnight:					$264	
3. Lost work time:	$512		$316	$338	$817	
. Ground transport:					$90	
5.4 Overtime/ standby:				$84		
6. Other:						
Total:	$840		$691	$894	$1,171	

/S/Pat Kelly /R6 RAO
Signature/title

Step 2; Regional Aviation Group Pilots, Dispatchers and Travel Coordinators: Assist travelers in cost comparison and forms completions.

The R6-FS-5700-11 form on the previous page is a combined Manifest and Justification form printed landscaped in condensed pitch to provide the required documentation in one page. This form contains the same information required in FS 5700-10 and FS 5700-11, but is in a condensed format. The form is available on the R6 intranet at http://fsweb.r6.fs.fed.us/irm/forms/index.html.

PC software available from Fire and Aviation Management R6 may be used to aid in completing and producing the Justification, Cost Comparison and Manifest forms. The Spreadsheet software instructions begin on page 13. Reference FSH 5709.11 for details regarding the completion of these forms. The following guidelines are established for Region 6.

a. When two or more forms of air transportation (Government, Charter {CWN/ARA}, or Airlines) are reasonably available, conduct a cost comparison. Reasonably available is defined in Region 6 as being within 2 hours of one way driving time to the nearest airline terminal.

(1) When comparing travel costs, if the mode of travel will cause travel outside of normal work hours, donated work time shall not be considered. The time required to conduct travel during work hours is what is to be compared. If a mode would require the traveler(s) to lay over, compare the cost that would be incurred.

(2) Lost work time shall include all travel time required to travel to and return from the destination, which will also include any intermediate driving time, and shall include the following round trip allowance for each mode of transportation listed:

Driving	1/2 hour
Commercial Transport	3 hours
Government and CWN/*ARA* Aircraft	1 1/2 hours

These times are required to include pre- and post-departure requirements for such things as ticketing, baggage handling, briefings, etc.

(3) Lost work time cost shall be calculated at the cost to the government rate. As a standard, use Step 5 of the GS grade.

Step 3; Return the signed Justification and Cost Comparison completed by the user/Chief of Party/Flt. Mgr. to dispatch or designee for inclusion with the flight documentation.

Step 4; Scheduling dispatch office, or designee: Ensure the documentation is completed prior to departure and prepare a flight manifest showing name, affiliation, and unit/sponsor for each passenger. Job codes and the funding unit shown on the manifest are sufficient for unit designators. For non-federal travelers show the unit sponsoring them. When a GSA Form 3641 Senior Federal Travel Form is required, the dispatch office or designee will prepare the form and include it in the flight documentation.

Step 5; Pilot-in-command of WCF aircraft:

- Complete as much of the FS-6500-122 as possible prior to departure.
- Attach the manifest and other forms provided by the Chief of Party/Flt. Mgr. or dispatch to the 6500-122 for distribution.
- At the completion of the trip, the pilot will complete the FS 6500-122 and forward the completed form(s) to the Dispatch Office or designee initiating the scheduling of the flight where the remainder of the documentation will be compiled, copied and forwarded to the Regional Aviation Group without undue delay.

Step 6; Scheduling dispatch office, or designee: Forward copies of trip records and documentation of administrative flights to the Regional Aviation Group Office in Redmond, Oregon.

a. A central file is maintained by the Administrative Use Program Manager and the Support Specialist at the Regional Aviation Group Office for documentation of administrative flights. Each dispatch section or designee will prepare a record package for each administrative flight and send these to the Regional Aviation Group at least semiannually. This is also a good time to review and ensure that GSA 3641, Senior Federal Travel Reports, have been submitted for Senior Federal and Non-federal travelers. The report periods and due dates are:

October 1 - March 31	Due April 15
April 1 - September 30	Due October 15

b. These records will be maintained for a period of two years (IAW A-126). The file will include:

(1) **A copy of the Flight Use Report**(s) FS-6500-122/other approved form, i.e., OAS-23, etc. Form will include (a) aircraft registration number, (b) date(s), (c) crew member names, (d) itinerary, and (e) total cost.

(2) The **dispatch flight manifest** showing name, affiliation, and unit/sponsoring unit for each passenger.

(3) Copies of or reference to the **travelers AD 202** and/or **day trip authorizations**. Follow up verbal authorizations with written authorization as required from the authorizing official.

(4) **Signed justification and cost comparison** completed by the user/Chief of Party/Flt. Mgr..

(5) Completed **GSA Form 3641** Senior Federal Travel Form, if applicable.

The program manager will coordinate an annual audit of the central documentation file for administrative aircraft use. This audit will be completed normally in November each year depending on personnel availability. The audit should be performed by one or more Regional Aviation Group pilots, members of dispatch centers, etc. to foster their knowledge of the policy and procedures of this program

Administrative Aircraft Use Annual Audit Checklist

Item	OK	Not	Comments
Check for two years of records retained in file			
Each year retained has report of mission code 18 flights from AMIS			
Each flight coded 18 Personnel Transport, Administrative on the AMIS report has the following documentation;			
Each flight record has FS form 6500-122/OAS23*			
Each flight record has Dispatch Manifest*			
Each flight record has Authorization for each passenger*			
Each flight record has signed justification*			
Each flight record has cost comparison if required*			
Each flight record has a completed GSA 3641 if required*			

* Reference FSM 5711.2, FSH 5709.16 13 and this plan Step 6 page C-6 for requirements.

Senior Federal Traveler Information for the USDI. For cost analysis and traveler approval procedures, Bureau of Land Management Offices and personnel need to reference Office of Aircraft Services Operational Procedures Memorandum OPM) - 7. For additional information or answers to specific procedural questions, contact Steve Arasim at (503) 808-2723 or *Clay Hillin* at (503) 808-6593.

Senior Federal Traveler Information for the USDA Forest Service. Senior Federal Travelers are divided into two groups.

Senior Executive Branch		USDA Secretary, etc.
	and,	
Senior Executive Service		USFS Chief, Regional Forester, etc.

The approvals for flights with these individuals on board vary according to who is traveling.

Senior Executive Branch travelers, such as the Under Secretary of agriculture, etc., require approval in writing on a trip by trip basis from the Office General Council (OGC) in Washington, D.C. If the trip is initiated by the USDA Secretaries office, they are to contact the Duty Coordinator at NICC to obtain the most suitable aircraft, as well as assist in meeting OMB reporting requirements.

- The Coordinator will determine options available and assist in the completion of forms FS-5700-10 and FS-5700-11 as needed.
- Upon completion, these forms will be submitted along with a cover letter which includes the purpose of the trip, proposed itinerary, and complete name and official affiliation of all of the passengers to the Associate General Council, James M. Kelly, OGC for approval.

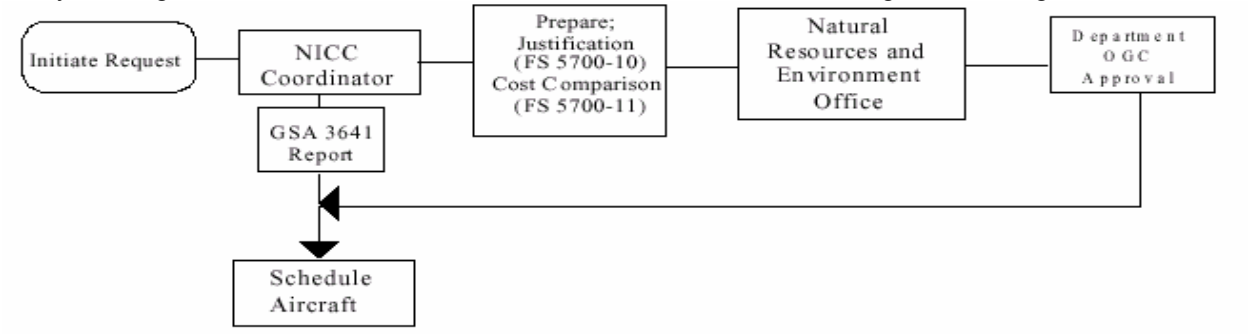
  OGC should have two full working days for review and approval, however the emergency provisions of OMB A-126 apply to flights that pop up and do not allow sufficient time for this process. In those cases the documentation and approval proceed when time allows.

For travel initiated by a Forest/Region that Forest/Region will be responsible for completion of the necessary forms. However, submission to OGC is still the responsibility of the Secretary's Office. The contact at the Natural Resources and Environment Office (Secretary of Agriculture) is Margaret (202) 720-7173.

The contact number and address for OGC are;

James M. Kelly
2033 South Building
1400 Independence Avenue SW
Washington, D.C. 20250-1400
(202) 720-7219

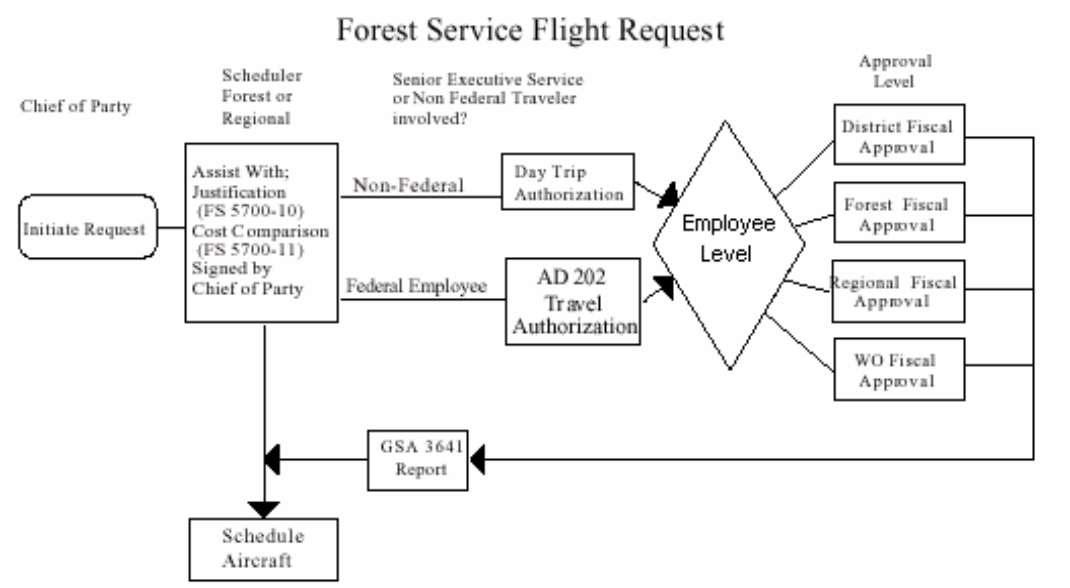
Notify the Regional Aviation Officer and Public Affairs Officer when these flights are being scheduled.



Senior Executive Service (SES) Travelers, such as the Chief, etc., require approval in writing (AD 202) signed by the WO Chief Financial Officer.

* The Chief is the only individual covered by a blanket AD 202 for all flights.
* All other SES from the WO requires a trip specific AD 202.
* Regional Office SES require trip specific approval (AD 202) from the RO Director Financial Management. At the Regional level, contact the NWC Logistic Coordinator, Steve Arasim 503 808-2720, for assistance with the appropriate documentation.
* Non-Federal Travelers, (for the Forest Service includes Congressional members), may be approved at the Unit level sponsoring the flight by the Fiscal Officer or the Regional Forester.

The following flow chart shows the process and documentation requirements.



All of these activities need to be reported on a GSA 3641 semiannually to GSA. The unit supplying the aircraft initiates this form. The Administrative Aircraft Use Program Manager submits a regional consolidation of these forms to the Washington Office.

Congressional Flights and Nonfederal Passengers: Reference FSM 1515 regarding Forest Service Congressional flight requests. Forest Service views Congressional Members as Non-federal passengers while BLM considers them Federal Employees. The difference in the way these two categories are handled follows.

Forest Service: Nonfederal passenger transportation is covered in FSM 5716 and FSH 6509.33. These passengers include; congressional members, family members, volunteers, contractors, cooperators, local and state government officials, etc.

- Travel for these persons must be approved by a line officer on a Day Trip Authorization or an AD-202.
- In the case of family members, only the Washington Office has approval authority.
- All other nonfederal travelers may be approved at the level of the unit sponsoring the flight by a Line Officer.
- For travel that consists of out and back on the same day, document approval on FS Form 5700-12, Day Trip Authorization.

- For travel that exceeds this time frame a travel authorization AD 202 must be issued by the Unit's Fiscal Department.

- For Congressional flights notify the Regional Aviation Officer and Legislative Affairs (LA), personnel in the Regional Office. LA personnel will advise the Regional Forester of the flight.

- If the flight is for political/campaign purpose, the Congressional Member will be responsible for flight costs. Otherwise the benefiting Forest/Area will assume the responsibility for payment.

BLM: As stated earlier these members are considered Federal employees. The only difference in the flight is how flight costs are recovered.

- For flights that are for political/campaign purposes, BLM considers these outside of government business and has no participation in the flight. The congressional member coordinates these flights and takes care of payments to vendors.

- Flights that benefit BLM units are paid for out of BLM Unit funds.

Project Dates. Year around for CWN/ARA aircraft. Force account aircraft and pilots are available only on a limited basis June 1 through October 15 due to field season impacts.

Locations. Oregon, Washington and adjoining states.

Projected Cost of Aviation Resources.

Day VFR Cessna 206	Five seats cruises 140 NMPH	$.93 per mile/$.18 per seat mile
D/N IFR Mitsubishi MU-2	Nine seats cruise at 280 NMPH	$2.48 per mile/$.27 per seat mile

Typical round trip flight from Portland to John day for two persons will cost $420 for a VFR flight in a Cessna 206, $655.60 for an IFR flight in a FS Baron, and $1131.86 for an IFR flight in a CWN/ARA Mitsubishi MU-2.

Aircraft. Aircraft are inspected and carded annually prior to June 1. CWN/ARA aircraft are listed in Region 6 Aircraft Data Base available at *http://www.fs.fed.us/r6/fire/aviation* , and the OAS source list available hard copy or electronically at *http://www.oas.gov* Force Account Aircraft are;

N171Z Aero Commander 500B	Redmond, Oregon	Three passenger unpressurized and non-icing IFR.	$264 PFH no Standby cost

Pilot. Pilots are carded annually and a list of qualified pilots is contained in the Pilot Data Base available through the Intranet and the OAS Source list. Forest Service Pilots are listed below:

Pilot	Aircraft	Office	After Hours
Doug Kastner	AC 500	541-504-7271	
Eric Shilling	AC 500	541-504-7253	
Hazel Hammond	AC 500	541-504-7257	
Donald Bell	AC 500	541-504-7251	

Participants. All Government employees. A Chief of Party/Flt. Mgr. will be assigned for each flight by the dispatcher setting up the flight. Chief of Party/Flt. Mgr. training is required every three years. Refer

to *http://fsweb.r6.fs.fed.us/fam/aviation/AvTraining/avtrain.htm* for updates and resources for this requirement.

Flight Following and Emergency Search and Rescue. All flights will be documented on a Forest Service Flight Plan (Form 9400-1a) or a resource order (FSM 5716.5) for the purpose of resource tracking. Pilots will utilize the most effective flight following tools available to ensure the best possible response for flight locating and search and rescue if needed. For point-to-point flights, an FAA flight plan in conjunction with ATC RADAR will be utilized to the maximum extent possible to provide for traffic separation and flight monitoring. When time allows, pilots will contact dispatch on intermediate stops and at the final destination to update schedule deviations of more than 30 minutes, and obtain any new instructions. Enroute, as communication traffic allows, pilots will monitor flight following frequency (168.650), and Air Guard (168.625 tone 110.9) for possible enroute updates. Dispatchers may obtain flight locating information when not in contact with these aircraft though the use of commercial software (Flight Explored for example) or by calling ATC directly. Dispatch may also contact pilots when they are on the ground via their cell phone/pager.

Protective Clothing/Equipment. Special Equipment and clothing is not required. During the winter months passengers will be briefed on survival equipment availability on the aircraft.

Load Calculations and Weight and Balance. Dispatch will provide pilots with passenger and baggage weights. The pilot will adjust passenger and fuel loads to comply with limitations and operating rules. Generally, during times of poor weather, one passenger seat will be unavailable in order to provide sufficient fuel reserve for instrument operations. Refer to FSH 5709.16 for load manifest requirements on force account aircraft. CWN/*ARA* Operators will comply with their operating specifications.

EXAMPLE A; SAMPLE LETTER

United States Department of Agriculture **Forest Service** **Wallowa-Whitman National Forest**

Reply to:5700 Date: July 10, 1995

Subject: Authorization to use aircraft for administrative travel

To: Forest Leadership Team

This letter authorizes administrative use of aircraft, when available, to the following locations when two or more passengers, GS Grade 11 and above, need to travel to these locations. A cost comparison has been made for a number of samples of these types of trips and are contained in attachment 1 to this letter.;

All Washington and Oregon airports, considering aircraft performance and safety standards, beyond 75 statute miles from the SO.

Joseph, OR John Day, OR

The justification for the issuance of this authorization is due to the lack of commercial air transportation to or from the SO or from a location conveniently accessible by ground transportation. The closest commercial air transportation is Boise, Idaho. The average driving time to this airport is 2 hours with dry roads from Baker City.

The driving time combined with a one hour check-in time prior to each flight, equates to six of the eight hours of a working day to be lost. CWN/ARA and WCF aircraft reduce this lost work time to one hour (30 minutes each trip). I consider it essential to mission accomplishment that the personnel of this forest be afforded this option for the accomplishment of their jobs.

When available WCF aircraft offer the most reliable and cost effective mode of air transportation. Attachment 2 contains a cost comparison between WCF and CWN/ARA aircraft available.

For the administrative use of aircraft other than listed above, authorization and justification shall be conducted on a trip by trip basis following the policy and procedures in FSH 5709.11. This letter shall remain in effect for one year from its date of issuance.

FORIS T. SUPPE
Forest Supervisor

Enclosures;
Attachment 1
Attachment 2

Cost Comparison and Justification Spreadsheet Instructions:

The program used for this is a compiled spreadsheet developed to aid in determination of aircraft cost effectiveness and analysis of travel costs. It contains most of the information you will need to complete cost comparison and documentation requirements. These instructions are designed for those not familiar with spreadsheets and how to enter data. Those familiar with spreadsheets will find most of the Lotus features available in this spreadsheet. For help with advanced spreadsheet commands consult a Lotus 123 manual. To setup the spreadsheet to run for the first time consult the paragraph entitled "Getting Setup" at the end of this section.

Here is basic information about some constants and defaults contained in the program:

1. Lost work time is calculated from GS/ES grade information you will supply at a step 4 rate and 30% is added to come up with the cost to the government. A GS 4 would be entered as **4** and an ES 4 would be entered as **400** on the proper line in order to calculate the difference between these pay grades.

2. The lost work time includes additional time for each of the modes of transportation based on a round trip. _ hour is added for driving, 3 hours for the airlines, and 1 _ hours is added for both CWN/ARA and Government aircraft. These are calculated in automatically each time.

3. The spreadsheet is set up for a simple multi-leg round trip. If a more complex use of various modes and multiple passenger mixes is planned, it will be best to group passengers and legs into several cost comparisons.

4. Although OMB A-126 does not require it, some managers require that air travel be compared with the cost of driving. There is an area provided for this purpose. The graph feature of this program will help you see and compare all travel costs.

5. Flight time is calculated by dividing trip mileage by the cruise airspeed found in the performance charts for the airplane and adding 0.2 hours for each leg. The flight time is rounded off to the nearest tenth of an hour.

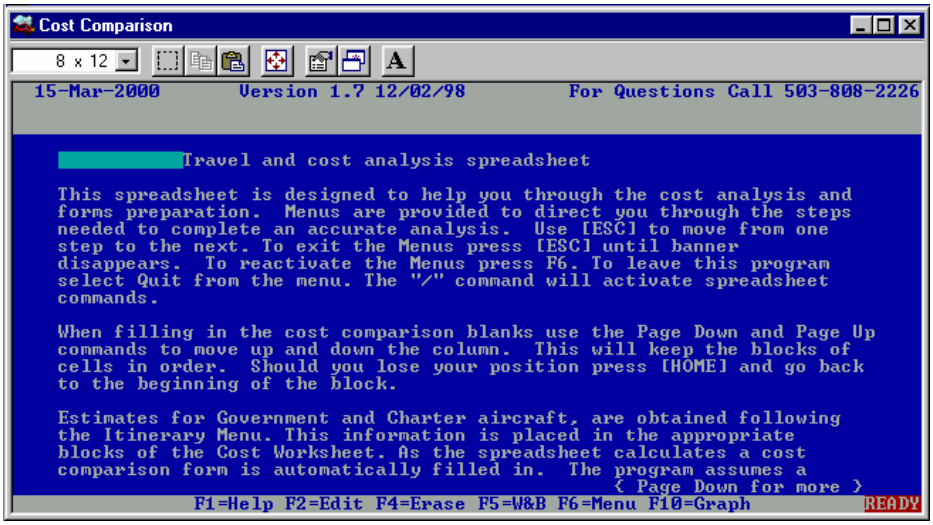
6. Should a mode cause you travel outside your normal work hours, you should not figure donated time for travel. Travel regulations require you to conduct your travel during work hours, and that is what you want to compare. If a mode would require you to layover show that even though you might not actually choose that option. Most of the time airline, driving and aircraft per diem and lodging totals will be different from each other.

7. Overtime in the spreadsheet is calculated at Title V employees. For other employees the calculation will need to be adjusted for those grades above GS 10.

8. The spreadsheet is laid out so that you work in only one section at a time. To move to different parts in each section use the arrow keys to move the cursor from one cell to another. Use page up/down to move full screens. When inputting numbers that will be used as a label such as management codes, times, dates, airport identifiers, or passenger loading for each leg, precede each entry with an ' to tell the spreadsheet that number is to be treated as a label. If this is not done you will get a beep when the spreadsheet attempts to calculate or an unexpected entry in the cell. If you want to center a label in a cell so that it looks better use the ^ to format that label.

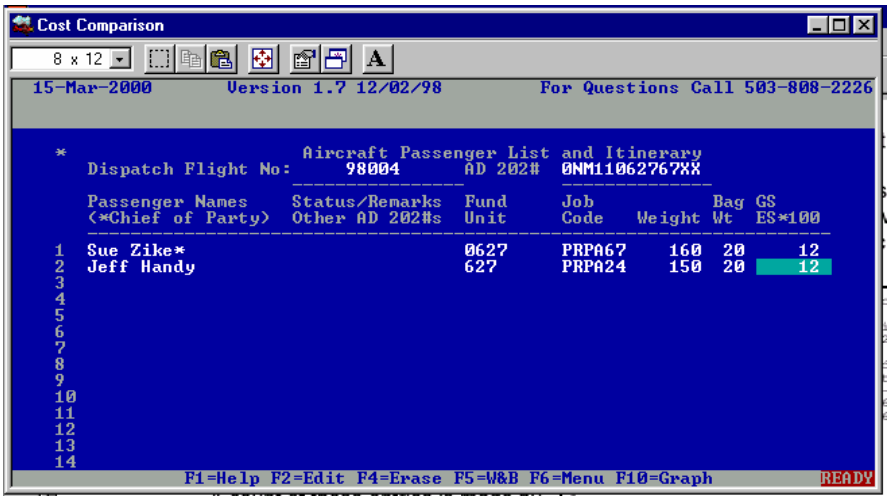
The spreadsheet will begin from a couple of informational screens each time the program is started. These explain some of the commands and features of the spreadsheet. Take the time to familiarize yourself with this information.

Notice the top and bottom of the screen have some helpful information concerning the version you are working with, a phone number if you have questions, and a list of function keys programmed into the spreadsheet.



Press F6 to bring up the main menu. The menu items are arranged left to right in the order most likely to be used in preparing the documentation for a trip. Data may be supplied to all of the blanks at one time or in a series of times through the menu items as your trip begins to take shape. It is your choice. Highlight the menu items by using the arrow keys then pressing [enter] or by simply typing the red letter in the appropriate menu name to go to the specific task. When you have completed each section press [ESC] or F6 to bring the menu back up. Next we will discuss the features of the spreadsheet as you would accomplish a cost comparison.

PASSENGERS In this area you will input information about passengers. Space is provided for information on up to 20 passengers. To conduct a cost comparison for feasibility it will only be necessary to supply the GS/ES grades to the far right column for those passengers that will be charged for the flight.

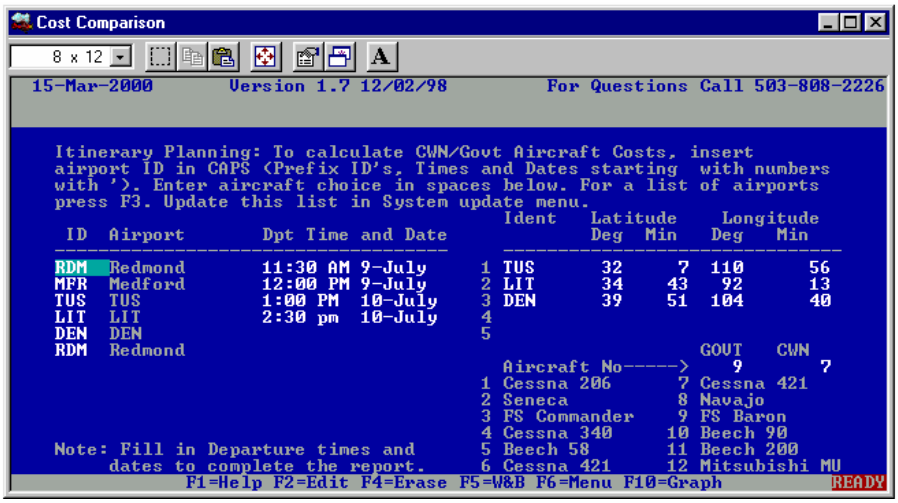


For flights in government owned aircraft, non-federal passengers may not be charged for any cost due to Federal Aviation Regulation restrictions. However, there is no such restriction for CWN aircraft. Put 12 in for a GS 12, 400 for and ES 4 in the last column of this screen. A count of these entries is made by the spreadsheet. It is shown at the bottom of the passenger list, and is used for calculations where the number of passengers effects the cost such as airline fares, nights of lodging, per diem etc. Check the total to make sure that the count agrees with the number of entries you have in this column. To correct these differences, use the F4 function key to highlight and erase the blanks in this far right column so that the spreadsheet will be able to provide an accurate comparison.

Additional information such as names, management codes etc. are not needed until you are ready to print or save the spreadsheet. After you have determined the trip is feasible be sure to return to this menu item to finish filling in all of the pertinent information in the first screen. Page down to succeeding screens to 1) designate the passengers for specific legs, 2) fill in pilot and aircraft information and 3) any remarks such as meeting places and times, alternate plans and phone contacts.

The spreadsheet will total passenger and baggage weight based on the numbers (which are formatted as labels) corresponding to the passengers on those legs. The first five passengers listed may designated by almost any combination (Example; '1,2,4,5 or 1-3,3 etc). The remainder will have to be grouped in larger numbers such as '5-10 or 1-20, etc. Press F6 to bring up the menu.

ITINERARY Notice the information at the top of the screen. Entries for the Airport Identifiers are text sensitive so you should have your Caps Lock set ON. Also note that when entering identifiers that begin with numbers you must start the entry with an '. If you don't the spreadsheet will not accept it and a beep will be heard when you try to enter it. The spreadsheet then automatically goes into the edit mode for that cell allowing you to use the arrow keys to move to the beginning of the entry to place the '. By the way, the ' will place your label on the left side of the cell, the ^ will center it, and the " will place it to the right side of the cell.



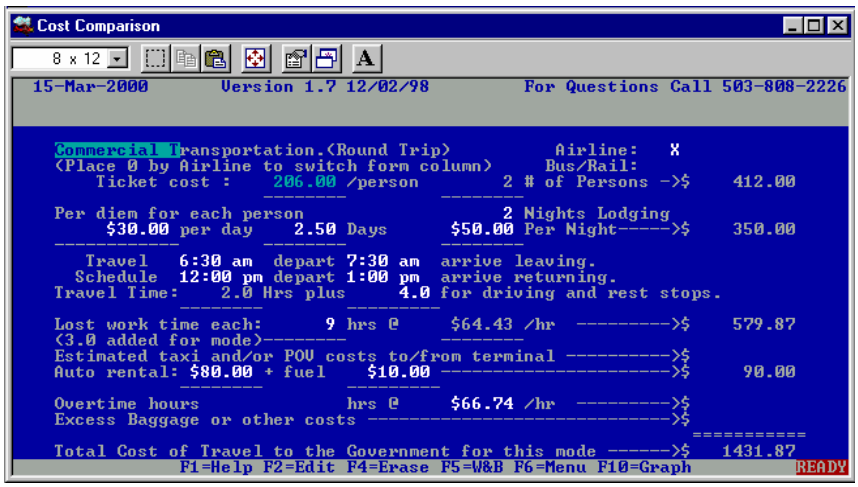
For a complete list of the airports in the spreadsheet data table press F3. Use page up/down to look at the complete list. Once you know the required information from this list, press escape to return to the Itinerary planning screen. Most of the airports in Oregon and Washington are already entered in the spreadsheet, but you may wish to use an airport or Latitude/Longitude location that is not in the spreadsheet data table. An area to the right in the itinerary planning screen is provided for temporary entries of this information. Simply use the same identifier that you assign in this temporary area in your planning legs.

You may accidentally assign an identifier of one of the airports already in the data table in this temporary section and get an erroneous calculation. To prevent this from happening just use a lower case name for the identifier for these temporary entries. To add airports to the data table for permanent reference, use the System update menu in the spreadsheet. This will ensure that the list is sorted properly and the changes to the spreadsheet are saved.

Aircraft are displayed at the lower right of the planning screen, and are selected by placing the number associated with the aircraft under the Govt or CWN labels above this list. It is not necessary to precede these numbers with an '. When you have aircraft, legs, times and dates defined you may scroll down through several screens of information concerning you trip. Immediately below the planning screen is a summary of information about aircraft and airports.

Below that is some detailed information about cost of the trip, flight times for legs and distances for Government and Chartered aircraft. Use the home key to move back to the planning screen if adjustments in departure times are necessary.

Once satisfied with your planning press [ESC] to bring up the Menu and obtain a recap of your flight planning information. This screen will show the aircraft and costs that are being used for the cost comparison.



COST Several screens are provided which contain blanks that you will fill in to obtain your cost comparison. We'll begin with the Commercial Transportation screen. Notice to the top right is an "X" depicting airline as the mode being considered. Since there is only one screen for commercial transportation this feature is provided to move the information in the columns in the cost comparison form. Remove the X from the airline square by placing a 0 in the cell. An "X" will automatically appear next to Bus/Rail, and the information will appear in the correct columns on the form. The blank containing ticket cost is a different color than the rest. This and another cell in the Driving screen are cells which have two functions. 1) To put the known cost of the round trip ticket into as is the case here, and 2) to obtain other information that is contained in the spreadsheet by placing the cursor on this cell and pressing [Enter]. A table showing airline costs, and per diem rates that are routinely used appears. You may update the information in this screen as changes occur, and use the spreadsheet /File Save feature to retain your changes. Get the information you need and press [ESC] to return to the commercial cost screen.

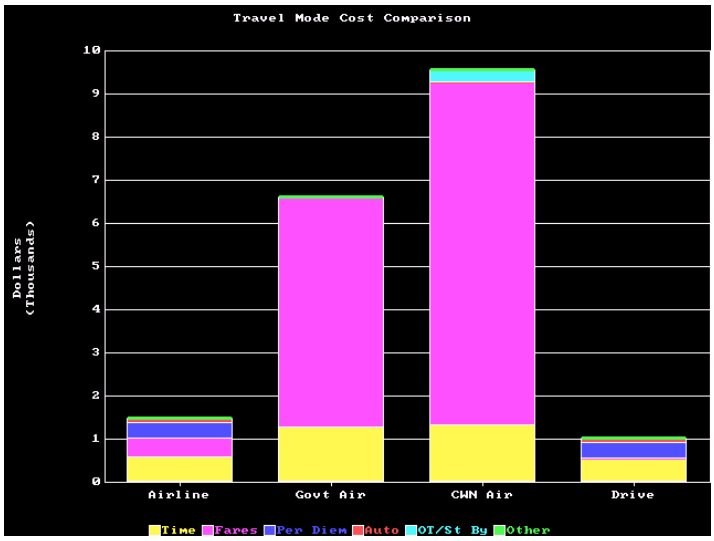
Fill in the remainder of the blanks provided. The lost work time is calculated from the information entered in the travel schedule. Remember to precede these numbers by an ' so the spreadsheet will accept them. Each mode of transportation has a certain amount of lost work time associated with it. The spreadsheet automatically adds these for each mode into the calculation and is based on a round trip. If a more complex trip is planned, use the spreadsheet to calculate some of the information for each portion. Consolidate all of the information on a blank form instead of trying to have it generated by this spreadsheet. Be sure to elaborate on your comparison if done this way.

Overtime calculations are for Title V employees. For those employees entitled to time and a half for all pay grades, adjust the spreadsheet in the following way. With the cursor on the cell depicting the overtime rate for each mode, type in a formula noting the hourly straight time rate from above in each screen and multiply by using the "*" by 1.5. The formula should look something like this "127.34*1.5". Don't worry about messing up formulas in the spreadsheet. Starting the program again will bring any of the formulas you may have adjusted back to the original state.

Should commercial airline not be available and you wish it not to show any information in your final report, put zeros in any cells where a number is shown in the column to the right. If you get a message that says the cell is protected press [ESC], and use the /Range Unprotect feature so that you may enter the data you wish. Once you have filled in the appropriate blocks in this screen, use the Page Down feature to move a complete screen down.

You will next find blanks that will need to be filled in for Government aircraft mode of transportation and the screen below this will be for Charter aircraft. The information from your previous planning is already in the correct cells. In these screens the passenger lost work time may need to be adjusted if the aircraft is being ferried without passengers on some of the legs. To make this adjustment note the amount of time from the itinerary recap that the passengers will not be on the aircraft. Subtract those amounts of time from that shown in the lost work time blank as it is normally calculated. As an example, let's say the spreadsheet is displaying 6.3 hours of lost work time, but we know that this includes .6 hours of ferry time when the passengers are not on the aircraft. Type the formula 6.3-.6 [enter] in the lost work time cell and the calculation will be corrected. After you have changed a formula once you will need to quit the program in order to refresh these formulas.

The last screen in this series will be for calculating the cost of driving as a mode of transportation. Place the cursor on the mileage cell and press [enter] to bring up a one-way driving mileage chart. When you have the information you need press [ESC] to return. Since you are probably doing a round trip comparison you will need to double the mileage shown in that chart. To easily accomplish this enter the mileage in a formula format such as; 150*2. You next specify an average driving speed for your trip and the time required for non-stop driving will be shown. A blank is provided to show time involved in rest stops etc. depending on the length of the trip.

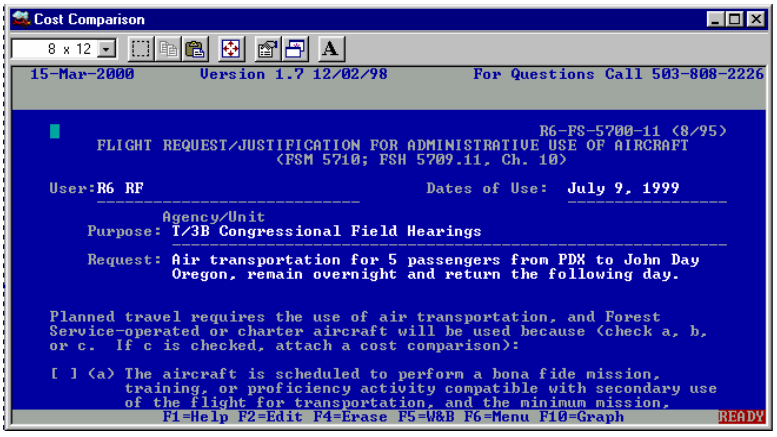


Per diem rates, lodging and the factors by which these will be multiplied will vary from one mode to the next. It is important to consider each mode on its own and fill in the amounts of these where appropriate.

The graph feature F10 will instantly display for you how all of these modes compare. The taller the bar for each mode the more the total cost to government. You can see how lost work time, (Cost from your total budget which does not necessarily show up in your travel budget), can make airlines and driving not very efficient modes of transportation.
Viewing the information in graphic form should also be a way of checking your comparison for completeness. Press any key to return to the spreadsheet. Make any adjustments necessary, and do a final review of the graph and numeric entries.

FORMS The FS 5700-10 and FS 5700-11 have been compressed and consolidated into a one page format with only one signature block at the bottom. Start at the top of the form and use the arrow keys to position the cursor in the best cell for the text entry.

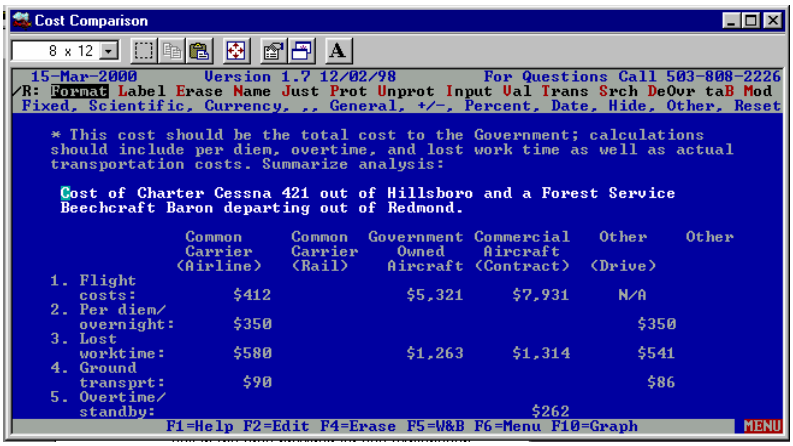
The same rule applies for numbers/dates being entered. Use the ' at the beginning to make these entries. The explanation of the unavailability of airline service and cost comparison require somewhat lengthy text entries. In a spreadsheet all of the text goes into one cell and will be displayed until it runs into a cell that is not blank. Sufficient room should be available to meet most needs. The F2 key is used to put the spreadsheet into edit mode for the current cell so that the entire text does not need to be retyped. Press [enter] when you are finished with the edit.



Notice at the bottom of the form cost information is complied and placed for easy review. There is also a place just above the cost figures for a summary of the cost comparison.

The spreadsheet has a justification feature that will adjust the text in the column of cells to the left to fit into a range of cell specified

This summary of the cost comparison is a good place to demonstrate it. Start in the upper left most cell in the area provided for you explanation. Type all of the information you wish in this one cell and press [enter] when you are finished. If your comments extend beyond the last cell to the right they will not be printed. Use the justification feature by pressing /Range Justify. The spread sheet will ask which range. Use the arrow keys to highlight all of the blank are in which to fit the text, and press [enter]. The text is wrapped to fit in the allotted space. To edit any of these new lines of text, place the cursor on the first cell to the left and press F2. You will see and be able to type revisions in this line of text. Use [HOME] and [END] keys to move to the beginning/end of the line of text quickly. Press [enter] when you've completed your editing. Review all of the cost information for accuracy before you proceed.



HARDCOPY When satisfied all the information is correct and accurate, you may send various print commands directly to your printer to obtain hard copies of the justification form, and itinerary. Forest Service Baron pilots may obtain a printed weight and balance by selecting that option.

Aircraft Passenger List and Itinerary

Dispatch Flight No: 27-016 AD 202# 5BM1106275200

	Passenger Names (*Chief of Party)	Status/Remarks Other AD 202#s	Fund Unit	Mgmt Code	Weight	Bag Wt	GS *100
1	Pat Kelly		0627	123456	190	20	14
2	*John Lowe	5BM1106276100	0627	123456K	220	20	400
3	Sam State	5BM1106276100	0627	123456K	180	20	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
	Totals:		2 Total Weight:		590	60	650

Itinerary

Airport	Arrive	Depart	Date	Pax #'s	Leg Wt.
Portland Intnl		06:00 AM	02/15	1-3	650
Redmond	06:42 AM	02:00 PM	02/15	2,3	440
Portland Intnl	02:42 PM				

Pilot: Clay Hillin Aircraft: FS Baron "N" Number and color: N164Z White/Orange/Black

Senior Federal Travel Report ***** Cost *******

Name	Department	Status	Govt	Comm
*John Lowe		S	$346	$420
Sam State	ODF	N		

Remarks:
Passengers should meet at Flightcraft 30 minutes prior to departure.

R6-FS-5700-11 (8/95)

FLIGHT REQUEST/JUSTIFICATION FOR ADMINISTRATIVE USE OF AIRCRAFT
(FSM 5710; FSH 5709.11, Ch. 10)

User:R6-RF Dates of Use: 2-15-95
Agency/Unit
Purpose: T/3AM: ADMINISTRATIVE MEETING

Request: FS BARON TO TRANSPORT 3 PASSENGERS PDX-RDM AND RETURN.

Planned travel requires the use of air transportation, and Forest Service-operated or charter aircraft will be used because (check a, b, or c. If c is checked, attach a cost comparison):

[ ] (a) The aircraft is scheduled to perform a bona fide mission, training, or proficiency activity compatible with secondary use of the flight for transportation, and the minimum mission, training, or proficiency requirements have not been exceeded.

[ ] (b) No airline service is reasonably available to effectively fulfill the transportation requirement, that is, within the same calendar day as required. Explanation:

[X] (c) The actual cost* of using this aircraft is not more than other suitable and available air transportation. (Use FS-5700-11, Cost Comparison Travel Worksheet.)

* This cost should be the total cost to the Government; calculations should include per diem, overtime, and lost work time as well as actual transportation costs. Summarize analysis:

FS Baron compared to CWN Cessna 340 for trip PDX-RDM-PDX.

	Common Carrier (Airline)	Common Carrier (Rail)	Government Owned Aircraft	Commercial Aircraft (Contract)	Other (Drive)	Other
1. Flight costs:	$328.00		$375.20	$472.00	N/A	
2. Per diem/ overnight:					$264.00	
3. Lost work time:	$511.83		$315.81	$337.59	$816.75	
4. Ground transport:					$90.00	
5. Overtime/ standby:				$84.00		
6. Other:						
Total:	$840.84		$691.01	$893.59	$1,170.75	

/S/Pat Kelly /R6 RAO
Signature/title

DISC Forms may also be copied to the disk drive and directory this program occupies for electronic transmission. A file named Both.prn may also be prepared and may be printed landscape orientation and condensed pitch to provide a manifest, itinerary, and justification all in one page. As of this writing you will need to use a word processor to send the proper commands to the printer to get this print format. Most printers will accept print commands embedded in documents. Consult your printer manual for instructions concerning this.

QUIT This will stop the program and return you to windows or your DOS prompt depending on how you have your computer setup.

SYSTEM UPDATE Airport, Aircraft and Wage information may be updated using these menus. Select the appropriate item, input your new data, and press [ESC] when done. The spreadsheet will then sort the data if required and save this new information.

Other Calculations and Using Formulas This program is a full featured spreadsheet, and as such capable of many more features than this publication will allow explanation of. For a complete listing and explanation of spreadsheet commands, consult a Lotus 123 manual. A few of the more common and helpful uses will be explained below.

Formulas: To use a formula to shortcut some of your calculating steps you must remember that the mathematical order of division and multiplication / * are done first then additions and subtraction. Parenthesis may be required to separate and group calculation order. As an example suppose you wish to figure what the per diem rate average would be for one day at a $30 rate and two days at the $38 rate. Instead of pulling out a calculator, type a formula into the per diem cell in the spreadsheet like this "(30+38*2)/3". When you press enter the number 45.33 will be shown in the cell. Notice that the math order is apparent since the answer 45.33 came up instead of 55.33 which would have resulted had it calculated as the information was typed in without parenthesis.

Helpful spreadsheet commands: To activate the spreadsheet menu press /. You may then use either the cursor and [enter] to designate the activity you wish or by typing the capitol letter that is highlighted in each word in the menu to go to each set of menus. Commands discussed in these instructions will show the slash and words to use to obtain the desired result such as "/Range Justify". In this example all you would need to type would be "/RJ" and the spreadsheet would understand what you wanted to do.

Save: When you have entered data into the spreadsheet that you wish to save until a later time. Type "/File Save [enter] Replace". Your data will then be available the next time that you call up the spreadsheet.

Copy: Repeated entries may be copied quickly and easily. For example a date in the itinerary planning can be duplicated by placing the cursor on the cell you want copied then type "/Copy [enter] then move the cursor to the beginning of the area where you want this information, press the period to designate the starting cell, move the cursor to highlight the rest of the cells for this data and press [enter].

Justify: This feature will help you fit text into areas without too much editing. Start in the upper left most cell in the area of text. Type all of the information you wish in this one cell and press [enter] when you are finished. If your comments extend beyond the last cell to the right they will not be printed. Use the justification feature by pressing "/Range Justify" the spread sheet will ask which range. Use the arrow keys to highlight all of the blank in which to fit the text, and press [enter]. The text is wrapped to fit in the allotted space. You may edit any of these new lines of text by placing the cursor on the first cell to the left and pressing F2. You will see and be able to type revisions in this line of text. Use [HOME] and [END] keys to move to the beginning/end of the line of text quickly. Press [enter] when you've completed your editing. Use the justify feature as many times as you need to get the text to fit right.

Edit: The F2 function key will allow you to access the contents of a cell and make changes without having to completely retype it. Place the cursor on the cell and press F2. The information you are editing will appear at the top of the screen. Use [HOME] and [END] keys to move to the beginning/end of the line of text quickly. The INS key will allow you to switch between an insert (default) or overwrite mode for typing corrections. Press [enter] when you've completed your editing.

GETTING SETUP: The program will come as a self extracting file which has been compressed to save space. The following steps will get most users setup. Should these directions not match the response you get from your PC, get your MS personnel to assist in getting your computer properly set up.

Make a directory on your hard drive. In DOS make sure you are in the root directory by typing "CD\ [enter]. From this prompt (C>) type "MD COST [enter]. This will create a directory for the files to go into.

Copy file to this directory. Place the disk in the floppy drive, type the drive letter followed by a : and [enter] to get to this drive. Type DIR [enter] to see the files on the disc. The file named COST.EXE should be shown. Type COPY COST.EXE C:\COST [enter]. The file will be copied into the directory you just made. When this is complete the screen will show "1 file copied".

Extract the file. After the file is copied, type c: [enter] to go to the C drive. Make sure that you are in the COST directory. You may see a prompt similar to this "C:COST>". If not type CD\Cost [enter]. Type DIR [enter] to display the files in the directory. At this point there should only be COST.EXE in the directory. To extract the file type COST [enter]. The files will be inflated and ready to run. Unless you are pressed for space, retain the COST.EXE file as a backup should something happen to your other files.

Run the Spreadsheet. From the C> type COSTC [enter]. The program will load and you will be ready to begin. You may wish to setup either a batch file or an appropriate ICON in Windows to access this program rapidly.

Windows and Windows 95 users: This spread sheet runs in DOS and the Mouse is not supported by the program at this time. You may set up an Icon for quick access from these environments. For IBM 615 users, the program may be run on a PC and the text files linked to a word processing software for printing. Consult your software documentation on accomplishing this.

Supervision. The Aerial Photography Unit Supervisor will provide overview for Aerial Photography in Region 6. This will include contract and force account aircraft use. The Regional Aviation Group will provide aviation technical and pilot service to the aerial photography unit.

Project Name and Objectives. Aerial photography. Region Six, Information Resources, Geospaitial and Information Technology is responsible for acquiring aerial photography for land and resource managers. The most cost effective and timely methods of acquisition are actively sought. They include cooperatives with other agencies, contracting, and in-house operations.

Justification. Agency resources have been determined to be the most cost efficient and timely means of acquiring imagery for large-scale projects. The use of contract services is appropriate for scales of 1:12000 and smaller, and areas greater than 100 square miles. Justification for Force Account operations, see Aerial Photography A-76 September 1996 on file with R6 Procurement and Property Management.

Project Dates. May 1 thru October 1 depending on snow levels and sun angles at the project areas which may be on any Forest in the region.

Location. Aerial Photography may be required for any location on the National Forests and adjacent lands. The Project Navigator will check the weather and determine if it is suitable for photo operations. Due to the nature of this mission the pilot will need to check weather and NOTAM (including FDC NOTAMs) for all planned and diversionary areas in the region. DUAT is an excellent source of comprehensive. If computer access is not available, preflight telephone briefings followed up by in-flight briefing as the mission changes occur are essential for safe flight. The Pilot will contact Forest Dispatch for planned project areas to ensure that flight following and airspace issues are resolved prior to departure. The GPS is the most expedient and reliable source of navigation information. It may contain up to 250 user-programmed waypoints. The Photo staff does most programming. The pilot will need to back this up with sectionals, forest maps, radar, VOR/DME, and ADF as appropriate. Direct flight paths are used unless weather or ATC restrictions apply.

Aircraft. An Aero Commander 500B is used for force account work. The contract fleet will vary from single-engine propeller airplanes to multi-engine jets depending on the most cost effective resource. Aircraft used on Aerial Photography contracts do not require special inspection or carding. These contracts are awarded to reputable operators that comply with the contracting requirements of the USDA.

Pilot. Contractors will provide their pilots who will meet the requirements of FAR 91 and 61 for Aerial Photography. Aerial Photography contractors do not require aircraft and pilot inspection or carding. The force account airplane will be flown by agency pilots who are responsible for the day-to-day operational management of the photo aircraft to include scheduling of maintenance, selection of tie-down and/or hangar facilities, servicing, flight planning, preflight, in-flight and post flight duties.

Agency Pilot Qualifications: Shall have a thorough knowledge of FSM 5700 and USFS studies and publications concerning aircraft safety and use. A thorough knowledge of CFR parts 1, 61, 91, and 119. At least a commercial pilot license with instrument and multi-engine ratings. Total Time: 1500 hours, PIC:

1200, Multi-engine: 500, preceding 12 months: 100. Flight and Ground Training: Pilots will meet the requirements of FSH 5709.16 and receive the training and orientation as outlined in the Regional Aviation Group New Pilot Orientation prior to starting aerial photography missions

Duties: Analyzes aircraft needs. Coordinates with the Aerial Photo personnel for aircraft use on a daily basis through the photo season (May 1 - Oct 1). Coordinates with Forest Dispatchers for on forest flight following. Seeks advice of, and keeps the Regional Aviation Group informed on aviation operations and projects. Keeps the Regional Aviation Officer, WCF Aircraft Manager and Maintenance Inspector informed of daily activities aircraft location, and projected schedule. .

Program Specialist Duties: Oversees all Photo Aircraft operations. Prepares and monitors the Photo Aircraft Plan. Serves as laison between aviation and the Aerial Photo Unit. Provides information and technical direction for planned and continuing Photo aviation operations, including advice on utilization and suitability of aircraft needed for aviation projects.

Aerial photography unit personnel The navigator provides flight planning of projects, camera operation, flight line navigation, and contract coordination and inspection of all project work undertaken by the unit. He is assisted by a camera operator in these duties.

Project Navigator: A Project Navigator/Director will be designated for all aerial activities. This position will be part of the Aerial Photo Section and present during the planning of air projects. The role of this position on the project is giving overall supervision and direction on the job. Project Navigator will have a working knowledge of the capabilities and limitations of the photo aircraft, and knowledge and skill in aerial photo accomplishment.

Duties: Assumes overall responsibility for scheduling project work and checking weather. Oversees the preparation of all film rolls and photo documentation.. Programs GPS with project locations and selects the appropriate photo waypoints in flight. Plans departure times to arrive over the first project at the earliest time allowed by the sun angle. Assists the Pilot in traffic avoidance by clearing when time allows. Directs and supervises camera operator actions for all phases of operation. Coordinates with the pilot so that flight lines and altitudes are maintained within parameters. When high altitude flight (above 12,000 feet) is required, adjust the oxygen supply for the crew. Removes and installs camera, drift scope, intervolometer, and associated equipment in the aircraft as required by the photo season. During the off-season this equipment is stored in the RO.

Training: The Navigator will receive OJT as time and experience allow. Normally the Navigator starts out as the Camera operator.

Camera Operator: A camera operator will be used on all flights requiring stereo photography. The camera operator is desirable on all flights, but not mandatory on those flights requiring only spot shots.

Duties: The camera operator will assist the Navigator in the preparation of the camera, film, and other equipment necessary for the mission. The camera operator will monitor the camera, adjust the intervolometer, and start and stop the camera as directed. The camera operator will maintain the project log while in flight.

Training: The camera operator will be shown and briefed by the navigator in all aspects of the position. The pilot will instruct the camera operator on the operation of normal and emergency

exits, fire extinguishers, fresh air and heating vents, oxygen equipment, and duties during emergency procedures. The camera operator will also participate in the preseason safety training.

Flight Following and Search and Rescue. The agency pilot will receive a list of proposed projects from the Aerial Photography Unit, so that the appropriate forest dispatch sections may be alerted to the need for flight following. Aerial Photo project work is solely dependent upon the weather, and can only be evaluated each day as the weather reports become available. As soon as the daily project plan is determined, the pilot will telephone the applicable dispatch units to coordinate for local flight following. A Forest Service Flight Plan (Form-9400-1a) will be filed to provide resource tracking, the location of project work, and persons on board. Landing/takeoff locations and times will be provided to the nearest forests and relayed to Central Oregon Dispatch for resource tracking throughout the day.

When utilizing an FAA flight plan and flight following for Crash Search and Rescue the name and phone number of the dispatch unit coordinating the flight will be provided in the remarks section of the flight plan. IFR flight plans will be utilized to the maximum extent possible to provide positive tracking and collision avoidance protection. File IFR flight plans with FSS over the telephone if possible due to the complex format necessary to indicate enroute delays for photo work. Delays must be indicated in the route section immediately following each fix where one is planned. Prepare ATC for clearance needs when project work overlaps ARTCC sector boundaries to avoid numerous frequency changes and reporting requirements. When using a VFR flight plan, radar advisories and flight following will be requested as much as practical to provide the best collision prevention and flight locating ability. On VFR flight plans the FSS maintains a file on each call that is received from the aircraft. Update position with FSS at least every hour, and when departing or arriving at a point identified it the flight plan. Note: DUAT does not transmit route information to the FSS facility. The FSS must request this information if needed. Air Guard 168.625 and the National Flight Following 168.650 frequencies will be monitored when utilizing FAA flight following to allow dispatch to contact the photo aircraft and for emergency transmissions to the Forest for assistance.

When Forest Service flight following for Crash Search and Rescue, initial call up will be made as soon as practicable after departure to the closest forest along the planned route of. Check in will be made every 15 minutes of flight, and location will be provided. As the aircraft approaches the boundary of a new forest, the pilot will switch over by advising the forest of their intentions. The pilot will request the forest advise the new forest of the handoff. The FM 9600 will be used for communication with forests. Ensure that the proper Tone guard is used with those forests having them. The pilot will inform the Regional Aviation Group of daily activity and remain over night (RON) locations. If there is no on forest flight following available, due to early season personnel requirements, a neighboring forest or FAA flight plan may be used.

Contractors are responsible for flight following in accordance with the terms of their contract. Contracted Aerial photography is purchased as a product and is therefore not required to conform to the requirements of end product contracts.

Pre-Season Training Prior to starting photo work the Photo Crew will receive training required by Aviation Training 2000 and the following:

Aircraft Familiarization.
Flight Ramp and Hazards.
- Prop and Rotor hazards
- Noise and Hearing Protection

Proper lifting and carrying of photo equipment.
Vehicle movements
Pre-flight procedures to include refueling, grounding, etc.
Camera safety and cabin movements
RASTM name and phone numbers
Region 6 safety program Investigations and reporting

Aerial Hazard Analysis.

Phase	Hazard/Risk ID	Risk Assessment	Control Options	Residual Risk
Takeoff and Landing	Mid-Air Collision	High	Sterile cockpit procedures will be utilized while within 5 miles of the airport and until clear of the runway after landing.	Medium
Takeoff and Landing	Insufficient Runway	High	Due to the poor hot weather performance and maximum gross weight takeoff requirements the minimum runway length for maximum gross weight takeoffs is 4000 feet for airports 3000 MSL and less. Elevations higher require a runway length at least equal to the airport elevation	Medium
During Project Work	Mid-Air Collision	Medium	Collision avoidance is paramount. Through planning of our projects at a higher altitude we have been avoiding confrontation with low altitude military aircraft for the most part. However, we spend many hours within the confines of MOA's and MTR's. It is imperative that the crew maintains situational awareness, and not become so engrossed with the mission that safety is sacrificed. It is proven that collisions are decreased when pilots are at least aware that other aircraft are in the vicinity. When checking in with the forest dispatcher query the activity of MTR'S and brief the crew where the aircraft will be and what their responsibilities are. Make sure aircraft TCAD is utilized. Coordinate with ATC for traffic advisories when ever practical.	Low
Fuel Planning	Insufficient Fuel	High	A planned mission length will be briefed early in the flight, estimating minimum fuel quantity and time to terminate photo operations. This will be sufficient to land at the refueling airport with not less than a one half-hour (15 gallons) supply of fuel on board. Endurance and Refueling. For planning purposes use the following estimates of fuel consumption, assuming leaning and power settings are in accordance with this plan, for the typical missions; * Cruise and long ferry times between projects 30 gph. * Short distance between sites and little ferry time 26 gph. Due to the limit of available "window" for photo opportunities, flights will be planned for the maximum amount of time over the project area within the "window". The Aero Commanders loading schedule follows, and shows that 117 gallons of fuel is the maximum fuel load allowable in the normal configuration. A visible check of this level can be made by insuring fuel is standing just below the bottom of the strainer. Fuel Management. A planned mission length will be briefed early in the flight, estimating minimum fuel quantity and time to terminate photo operations. This will be sufficient to land at the refueling airport with not less than a one half-hour (15 gallons) supply of fuel on board.	Medium

Protective Clothing/Equipment Special protective clothing is not required.

Load Calculations and Weight-and-Balance Pilots will ensure that aircraft loading does not exceed aircraft limitations. For the force account aircraft the following weight and balance calculation is applicable;

Based on weighing of		BEW =	5173
4/16/2002 and revised		Arm =	171.12
3/18/2003		Moment =	885559

Photo Configuration

	Weight	Arm	Mmt
A/C Empty	5173	171.12	8855.59
Removed seats	-59	128	-75.52
Removed seat rails	-14	128	-17.92
Pilot	170	94	159.8
Baggage	50	200	100
Camera	96	130	124.8
Mount	41	130	53.3
Magazine	59	130	76.7
Intervolometer	38	145	55.1
Drift Scope	36	94	33.84
Subtotal:	**5590**	**167.54365**	9365.69
Scope Operator (front seat)	170	94	159.8
Camera Operator (back seat)	170	168	285.6
Baggage	100	128	128
Subtotal:	**440**		573.4
Zero Fuel	**6030**	164.82736	9939.09
Fuel	**720**		1350
Takeoff	**6750**	**167.24578**	11289.09

Note: fuel 120 gallons

Note: magazine removed after each flight

Note: fuel arm (thus moment) changes slightly based on weight - check chart!

Pounds allowed for passenger hauling:

nm	w/ cam	w/o cam	gal	hr
150	860	1080	60	1
300	680	900	90	2
450	500	720	120	3
600	320	540	150	4

Note: allows 1 hr reserve fuel

EVERYDAY OPERATIONS:

Work Hours: Normal work hours during photo season are 7:30 a.m. to 5 p.m., Monday thru Saturday, with no breaks for lunch. Normally report for work at the Redmond Air Center. Ensure that the aircraft is fueled and ready to go. Call Ron Harris at 503-2857 to find out the plan for the day.

Aircraft: Each morning, the aircraft should be given a thorough preflight to include oil and fuel levels (fuel can be drained and stolen when unattended during the night), fuel sumps drained, tire wear, etc. Review the aircraft maintenance and log books for any write-ups, and compare the flight time entries with the aircraft Hobbs meter and the FS-6500-122 form. This will preclude any problems later with missing entries. The pilot will sign the Maintenance Log prior to the days flight signifying that the preflight is complete and that all discrepancies have been identified.

DISPATCH PROCEDURES:

The Aerial Photo Section has the responsibility of checking the weather for photo opportunities. The pilot's responsibilities are for the rest of the information concerning the flight, and coordinating with forest dispatch flight following for the day. DUAT, if available, will provide a briefing of Regional Collectives which are especially helpful in obtaining the NOTAM, FDC NOTAM, and other weather products for Oregon and Washington. The Project Navigator will coordinate with the Pilot for a departure time which, considering ATC delays, aircraft performance, weather, distance and altitude requirements, will position the aircraft for the start of the photo project at the opening of the photo window. The pilot will inform dispatch of the planned operation and coordinate for information concerning other aircraft activity in the project area, i.e. recon aircraft, military training routes, etc., as soon as practicable.

FUELING PROCEDURES:

Normally, refuel the aircraft after each flight, bringing the total to 117 gallons if no overnight bags are carried. As the photo window is the limiting aspect to each day's work, minimize ground time as much as you can. Normally there will be no time for a lunch break. You may have to refuel the aircraft yourself. The photo crew will assist the pilot in monitoring the refueling process, but this must be briefed prior to the pilot leaving the aircraft. Visually check the fuel level and cap security after servicing. Because of the Aero Commander's fuel cell design, ensure that sufficient time (at least 5 minutes) is allowed for the fuel level to settle and equalize prior to checking. Drain the main sump after each refueling to ensure that no contamination occurs. The normal time required to refuel, take care of the bill and get airborne again is 20 - 30 minutes.

MAINTENANCE PROCEDURES:

The aircraft will be maintained IAW FSH 5709.16. All AD and mandatory service bulletins will be complied with. Other maintenance will be accomplished after review with the WO and Maintenance Inspector. The Maintenance Inspector will be kept informed on a daily basis of hours flown, discrepancies, next inspection due dates/times, and forecast flight times. Maintenance can be secured at various locations in the region by contacting Rick Watkins and/or Mike Brady. Aero Air, Leading Edge, and Butler Aircraft are the folks most familiar with the Aero Commander.

When photo operations are terminated for the day, the following will be accomplished;

1. Remove all film from the aircraft and store it in a cool dry place that will be secure.

2. Post flight the aircraft and discuss any maintenance discrepancies with the photo crew and the aircraft safety and maintenance inspector

3. Refuel, replenish the Oxygen, if required, and secure the aircraft. Ensure that the door handle lock engages, as it is possible to go through the motions and the door still not lock. Notify the FBO and dispatch where the pilot will be staying for the night.

TRAVEL AND CAR ARRANGEMENTS:

The Photo Navigator usually takes care of lodging and transportation requirements for the crew. Usually, a government car is available at most locations. RON is usually planned at an airport where the film can be secured for the night away from the late afternoon heat.

AERIAL PHOTOGRAPHY FLIGHT TECHNIQUE:

A minimum of five miles from the project begin to configure the aircraft for mission requirements. There are two standard photo configurations, which may be adapted as the situation requires.

Low Altitude (7000 MSL and below), Airspeed approximately 105 KIAS Flaps 1/4 to 1/2, Props 2300 RPM, Manifold Pressure 17-20"Hg., Mixture lean to 75 degrees rich of peak to peak EGT. Fuel Flow will be around 11 gph/engine.

High Altitude (Above 7000 MSL). Airspeed 120 to 140 KIAS, Flaps UP to 1/4, Props and power setting identical. Rajay may be needed to maintain manifold pressure.

The airspeed that you use will be dependent on proximity to the ground, and the amount of overlap required. The above speeds should cover every thing we do, but the camera operator or navigator will advise the pilot if a speed adjustment is required. The actual speed that is maintained is not as critical as the attitude of the aircraft. The camera and driftscope are leveled with the aircraft in its configuration and attitude. Sustained changes in either of these will require releveling. A rapid crosscheck of altitude is necessary so that small corrections can be initiated rapidly and smoothly. Advise the navigator anytime the altitude varies more than 50 feet from planned. When aircraft performance is limited, energy can be maintained better if bank angles used in initial line up maneuvering are restricted to 30 degrees maximum. Higher bank angles and G loading rob the aircraft of energy, requiring power and pitch attitude manipulation to recover. The little extra time involved will have little affect on total production, and will decrease overall stress and fatigue on the crew.

Heading adjustments, once on line, will be directed by the navigator. For five degrees or greater use a bank angle equal to the size of the correction. For smaller corrections, maintain wings level and push rudder to skid the aircraft to the desired heading. Hold the pressure until the aircraft accepts the new heading, then ease back to coordinated flight. Anticipate heading adjustments between shutter openings. Heading adjustments are executed so that they <u>are not</u> made at the same time the shutter activates. This is to avoid image smear of the photo. As the camera operator calls "now" (indicating shutter activation) pick up the interval timing of the shutter and anticipate it.

While in photo configuration, changes in thrust are more effective if the propeller RPM is increased and decreased and the manifold pressure is left constant. As an example if you need to climb 50 feet and you see that your limited amount of pitch is not enough, increase prop RPM to 2500 if required to get the climb going. Once you start correcting, ease back slightly to stabilize your rate, and then return to 2400 RPM as you reach the desired altitude.

Both pitch and heading adjustments are more precisely controlled when reference is made with the horizon and distance points. Grease marks placed on the pilots' windscreen at five-degree increments are a real advantage for this. They also keep your eyes out of the cockpit and clearing for other traffic.

A. General:

Note: ***This is the same plan that was in place in 2003. We have been expecting the revision to the Forest Service 5700 Manual which will bring Forest Service End Product Contracts in line with the DOI. When that document is published, this appendix will be revised.***

The intent of this appendix is to clarify agency actions necessary when the Forest Service or BLM is the aircraft "operator" on end product contracts (re: Public Law 103-411and 14 CFR 1.1). Between Agencies the approach for end product contracts is different. From a procurement standpoint, Forest Service policy supports a decentralized organization while the policy of the BLM is supportive of a centralized organization.

1. BLM usually takes a "hands off" approach to end product contracts, while the Forest Service maintains some form of aviation management on each project. The purpose of this appendix is to clarify the differences and provide details applicable to agency policy.

2. For Interagency projects, due to the differences in policy for End Product Contracts, each agency's policy should be applied to that portion of the overall project. Determining which agency policy applies is accomplished by answering the following questions;

Who is ordering the aircraft?
Who is paying for the aircraft?
Who is directing the aircraft?
Who is benefiting from the use of the aircraft?

3. The answer to the last question is often the key. Due to the differences in End Product Contracts, these will have to be split with each agency policy applying to their project. If there is no clear answer to all these questions, perform the project using Call-When-Needed (CWN) or Aircraft Rental Agreement (ARA) aircraft with agency personnel. The mission is too complex for any other method of contracting.

B. Forest Service End Product Contracts:

The following direction is provided to supplement the Washington Office letter of July 21, 2000.

1. Unit Aviation Officers need to be involved in the advanced acquisition planning process and identify any aviation related proposed end product contract on the Unit's Acquisition Plan.

2. Require a Project Aviation Safety Plan (PASP) for all end product contracts where the use of aircraft is anticipated or there is the possibility that aircraft may be used and the contracts are administered through Forest Service aviation management oversight at a level to be determined by local line officers. Submit PASP's requiring Regional review as provided in direction in the Pacific Northwest Aviation Management Plan. The PASP should follow the process identified in the Interagency Helicopter Operations Guide (IHOG), Chapter 3, and specifically address:

a. The physical sites involved in the project
b. A hazard analysis
c. Pilot briefings
d. On site aviation management

When delegated authority by the Regional Aviation Officer, UAO's may approve PASP's, otherwise submit PASP's to the Aviation Management Specialist at SORO in Portland, OR who will coordinate the review and approval.

Unit Contracting Officers will initiate solicitation for the end product contract after they are provided an approved Project Aviation Safety Plan.

3. All Aviation End Product Contract specifications, and other contract specifications where there is the possibility aircraft may be used, shall include the following requirements:

CERTIFICATION REGARDING REQUIRED LICENSES, CERTIFICATIONS, AND AUTHORIZATIONS:

The Bidder/Offeror certifies that:

(1) Contractors and pilots are currently certified and licensed under Federal Aviation Administration (CFR 14), as applicable, to perform the proposed work:
Part 133 for external load operations.
Part 135 for transport of personnel.
Part 137 for agriculture operations.

(2) Contractors and Pilots will perform in accordance with Part 91, "for hire" standards (FAR 91.409), for work that does not require specific FAA certificates or authorizations.

(3) Contractor has applied for and received required state certificates for application operations involving fertilizer and pesticides**,** Forest Service and FAA approval of an operations plan for dispensing any hazardous materials (ex: helitorch operations).

(4) Pilots, maintenance, and support personnel meet experience, training, and currency standards applicable to exclusive use or call when needed contracts issued by the Forest Service or DOI Office of Aircraft Services. For other experience, training, and currency reference USDA Forest Service Pacific Northwest Region Operations and Safety Information for Pilots and Operators.

(5) All work performed will be accomplished in accordance with the above referenced certificates or standards. If no standard is applicable, then the work will be accomplished in accordance with the best industry operating practices.

SCOPE OF CONTRACT (or other appropriate standard contract format section, determined by Solicitation format).

(1) Contractors using aircraft in the performance of this contract must comply with the provisions of a Project Aviation Safety Plan provided by the Government.

(2) Contractors will report any condition, observance, maintenance problem, act or circumstance which has the potential to cause an aviation-related mishap by filing a SAFECOM (Aviation Safety Communiqué, Form FS 5700-14 (08/97).

(3) Contractor's flight crews and aviation related ground personnel shall wear personal protective equipment as specified in the PASP.

(4) For all contracts paid on a basis other than flight hours, i.e., acres (End Product Contract), but which are not recorded or paid on form FS-6500-122, to comply with FSM 5717.22, the following provisions are applicable:

Upon completion of the project, the Contractor shall submit the following information to the Contracting Officer:

Contractor name, aircraft type, aircraft make, aircraft model, total number of flight hours used, and total cost of aircraft use per aircraft.

4. To comply with regulations and maintain control of aircraft wreckage, the following contract language is also required:

ACCIDENTS AND INCIDENTS

(1) Accidents shall mean destruction or substantial damage to the aircraft, aircraft components and any injury to personnel, as defined by National Transportation Safety Board (NTSB)(49 CFR Part 830).

(2) Following an "Aircraft Accident" or when requested by the NTSB following the notification of a reportable "Incident", the Contractor will provide the agency with information necessary to complete a NTSB Form 6120.1/2.

(3) Incident with Potential. An incident that narrowly misses being an accident and in which the circumstances indicate significant potential for substantial damage or serious injury, or a deviation from standard procedures. Classification of an incident as an "Incident with Potential" is determined by the Agency.

(4) The Contractor shall not permit removal or alternation of the aircraft, aircraft equipment or records following an Aircraft Accident or Incident with Potential. Exceptions are when threat to life or property exists, the aircraft is blocking an airport runway, etc. The Contracting Officer shall be immediately notified when such actions take place. All wreckage equipment and records which might be involved in an accident related to this contract shall be under the control of the Contracting Officer or other persons or Agencies designated by the Contracting Officer until released. The NTSB's release of the wreckage does not constitute a release by the Contracting Officer.

(5) Aircraft or pilots involved in accident or incident with potential are suspended from further use until released by the Contracting Officer.

(6) The Contractor agrees to fully cooperate in any investigation and to provide and needed records, statements or parts in the investigation of any accident or serious incident.

(7) If the Government deems it necessary to disassemble any of the aircraft or its components to determine probable cause of the accident or incident, the Government will be responsible for any costs for disassembling. The Contractor will be responsible for any costs involved in reassembly and approval for return-to-service and transportation of any item(s) disassembled by the Government.

5. Personnel who provide on site aviation management will be identified by the Line Officer and will be designated as a Project Inspector by the Contracting Officer.

6. Prohibit flights by Government employees in non-Forest Service approved aircraft except as authorized by FSM 5713.5.

7. Units are required to report end product contract flight hours in the Aviation Management Information System (AMIS).

Forest Service End Product Minimum Standards:
* Excluding Aerial Ignition.

Mission Profiles	(1) Landing Areas	(2) Communications	(3) Flight Crew PPE	(4) Operational Period	(5) Flight Planning	(6) Management Oversight	(7) FAR Requirements
*** Aerial Application**	X	X	X	X	X		137
Personnel Transport: Fixed-wing Helicopter					X		
	X	X		X	X		135
	X	X	X	X	X	X	135
High Level Mission Profile: >500'		X		X	X		91
Low Level Mission Profile: < 500"	X	X	X	X	X	X	91
External Loads	X	X	X	X	X	X	133

Landing locations identified.
Communications/flight following established.
Personal protective equipment required.
Specific hours for flight operations identified.
Flight planning/hazard identification.
Identify if a helicopter manager is necessary on the site and their responsibilities.
Minimum Federal Aviation Regulations (FAR) to be followed.

C. BLM End Product Contracts (353 DM 1.2 A.(3): These are transactions to acquire an end product or service where the management for the project resides within the bureau, aircraft or crew specifications or approvals are not identified in the procurement, BLM does not have operational control of the aircraft, no DOI personnel will be aboard the aircraft, and the aircraft is operated entirely as a civil aircraft (14 CFR 1.1). The Bureau is in operational control by dispatching the aircraft and/or by specifying aircraft and pilot requirements. Dispatching does not include providing the contractor with windows of opportunity.

1. **Timber Sale and Aerial Ignition contracts**. In order for these contracts (timber sale contract form Nos. 5450-3 and 5450-4) to qualify as an end product contract, the Aerial Ignition of units for the purpose of reduction of fuels or logging residue shall require the contractor to provide the burn plan (or at the least the ignition map portion of the burn plan), and all personnel necessary to perform the required preparation and control. The District will approve the burn plan, and coordinate with smoke management and others, for the contractor, in order to provide information on windows of opportunity. The project inspector's purpose is to see that the contract requirements are met, and not to supervise the burning operation.

a. Should the ignition of the unit require closer supervision than above, such as providing the burn boss or other personnel, or aerial reconnaissance of units by an agency employee for inspection or designation of areas of concern, then the agency is in operational control and a flight service contract is required instead of an end product contract.

b. Specification that the aircraft be approved by an agency other than the FAA establishes operational control by the bureau. If an aircraft approved by FS/OAS is necessary, such as a contingency resource, then it should be hired and operationally controlled outside of the purchase agreement by the agency.

2. **Wild Horse and Burro contracts**. OAS maintains contracts for this activity. The contract stipulates numbers and how animals are to be handled. Contact the Helicopter Contracting Officer at OAS for the current contract.

3. **Aerial Seeding, Spraying, and Fertilization contracts.** The Oregon State Office has a suitable contract that has been reviewed and conforms to the new standard for these projects.

4. **Contract Specifications.** Office of Fire and Aviation Management IM 2001-001 provides Acceptable Contract language for BLM End *Product* Contracts. Any contract that requires specifying any more than is provided in the IM is to be reviewed by the State Aviation Manager. Generally, when the project requires more detailed specifications than these it needs to be accomplished as a flight service contract with the aircraft procured through OAS and agency personnel managing the aircraft.

a. **Aircraft and Pilot Specifications**: Language should not mention any aircraft or pilot capabilities, standards or requirements. The area of work should be described in terms of general topography, elevation, slope, vegetation, accessibility by roads or off-road vehicles, etc. Suggested landing areas are acceptable, but not designation of an assigned landing spot.

b. **Aviation Regulations**: *Suggest: "*The Contractor shall comply with all applicable Federal, State and Local regulations."

c. **Aircraft Equipment**: Delete all reference to aircraft/equipment. Suggest: "...Contractor is required to demonstrate to the government that the application equipment can be calibrated and will evenly distribute the designated seed at rates specified in the Project Area Narratives."

d. **Radio Communications**: *Suggest: "*Contractor shall provide a communication system so that contractor personnel engaged in the project at different locations can communicate at all times with each other, and so that government Project Inspectors may communicate with the contractor at any time to discuss performance matters". (The government VHF-FM radio system may have to be described.)

e. **Application Marking/GPS Truthing**: Application equipment will be capable of physically marking or electronically mapping application routes to ensure that seed/fertilizer is applied evenly and completely and at the specified rates. The contract may specify that if electronic mapping is used, that the contractor provide this data in a form that can by reviewed by the government.

f. **Transporting Passengers and Equipment**: *Suggest: "*Only approved contractor personnel, contractor equipment and government-provided equipment required for *performance … will be transported by* contractor vehicles, trailers, animals or equipment." If a reconnaissance flight is required to point out areas of exclusion or special treatment a flight service contract is required.

g. **Safety Hazards**: Any ground or aerial hazards that would pose a danger to Contractor's personnel or operating equipment must be identified and mitigated by the Contractor prior to commencing operations.

h. **Aircraft Use Reporting**: Do not mention or require flight hour/aircraft usage reporting. These flying activities are not reportable as agency flying time.

D. BLM Flight Service Contracts (353 DM 1.2 A.): These are aircraft operations where the bureau has operational control of the aircraft by specifying operational constraints, or by requiring the aircraft or crew meet agency specifications in order to accomplish contracted task. DOI personnel may be aboard the aircraft, and the aircraft is operated as a public or civil aircraft (14 CFR 1.1). Examples of these constraints are shown in the table below,

Operational Control	Not Operational Control
Directing the use of a specific landing spot	Providing several locations that may be used
Depart at a specific time	Arrive not later than a specific time
Aircraft landing at a specific time	Work completed within a window of opportunity
Aircraft or Pilot approved by OAS/FS	Aircraft approved by FAA
Designating a route of flight *or Government preparation of an the ignition map component of a burn plan*	Designation of avoidance areas/distances
Aircraft carries a specific load on each trip	Application rate per unit area (pounds/acre)
Specific *"brand name"* equipment for tracking aircraft	Data collection for measurement of application
Directing the aircraft to deliver more product to a specific area	Contracting Officer making an adjustment for not meeting contract specification

Aircraft operated under Flight Service Contracts are procured through OAS, and managed in accordance with all applicable Department and Bureau policy.

E. Operations and Safety Procedures Guide For Helicopter Pilots:

USDA FOREST SERVICE
OPERATIONS AND SAFETY PROCEDURES GUIDE
FOR
HELICOPTER PILOTS

INTRODUCTION

The U.S. Forest Service (USFS) uses rotor wing aircraft extensively in transportation and fire protection roles on the National Forest Systems. This guide was prepared to help Exclusive Use (EU) and Call When Needed (CWN) contract pilots understand the operation of the USFS Aviation Fire Protection and Transportation System and familiarize them with the USFS Aviation and Safety Regulations. Additionally this guide is designed to emphasize the pilot's responsibility and authority and the important role they have in USFS Air Operations. We fly in a hostile natural environment, and safety demands competent personnel, adequate equipment, and adhering to necessary operational requirements.

POLICY

In compliance with Department of Agriculture and Forest Service policies, sexual harassment is unacceptable and will not be tolerated. Sexual harassment is detrimental to morale, performance and the conduct of government business. Certain forms of sexual harassment constitute sex discrimination prohibited by Section 703 of Title VII of the Civil Rights Act of 1964, as amended.

A) PILOT AUTHORITY AND RESPONSIBILITY

1) The pilot is responsible for the safety of the aircraft, its occupants and cargo. The pilot will comply with government directions, except when, in the pilot's judgment, such compliance will be a violation of applicable Federal or State regulations or contracting provisions. The pilot will refuse any flight or situation, which he/she considers hazardous.

2) The pilot will approve all missions. On occasions you may be asked to perform a mission that, in your judgment, is not safe. It is your responsibility to recognize and refuse all such missions. Your word is final as to whether the flight is feasible and can be conducted in a safe and efficient manner. If at any time your passengers and/or helicopter manager feel that the flight or operation should be terminated for safety reasons, it is your responsibility to honor such requests in a safe, efficient and a professional manner.

3) Before departure the pilot will understand the mission request, have on board the applicable maps and charts, and be aware of weather forecasts, winds, hazards and other pertinent information.

B) HELICOPTER MANAGEMENT

1) Personnel

a) Aircraft Dispatch - Agency Level

i) Role: The dispatcher coordinates with the Forest Aviation Officer and is responsible for managing the movement of personnel and freight.

ii) A qualified aircraft dispatcher must be on duty during all official Forest Service flights unless prior arrangements for another approved means of flight following has been made.

b) Helicopter Manager

i) Role: The Helicopter Manager manages the helicopter program for the area or forest under the direction of the Forest Aviation Officer.

ii) The Helicopter Manager acts as the primary liaison, and point of contact between the Pilot and the Forest Service.

iii) The use of a Helicopter Manager is required on all projects.

c) Aircraft Dispatcher - National Interagency Coordination Center (NICC)

i) Role: The NICC Aircraft Dispatcher is responsible for the mobilization and flight following of Type I and II helicopters until they arrive at the incident.

ii) All questions concerning the mobilization of Type I and II helicopters should be referred to the Aviation Desk at the NICC. The phone number is (888) 994 6312.

C) REGULATIONS

1) All Forest Service flights will be conducted in accordance with the requirements of Forest Service Manual 5700, Federal Aviation Regulations (FAR), Parts 91, 133, 135 and the contractors ATCO Operations, and external load manuals.

(rule of thumb; use whichever is most restrictive).

There will be no deviation from these regulations and Specifications unless an emergency dictates such deviation.

D) BRIEFING OF PASSENGERS BEFORE FLIGHT: FAR 135.117

1) Before each takeoff, the pilot in command will ensure that all passengers have been orally briefed on, at a minimum;

a) Smoking.

b) Use of seat belts.

c) Location of and means for opening the passengers' entry door and emergency exits.

d) Location and use of survival equipment, including the ELT.

e) Location and operation of fire extinguishers.

f) Main and tail rotor avoidance.

g) Location and operation of fuel and electrical shutoffs.

h) When a flight involves over water operations, ditching procedures and the use of required floatation equipment.

E) OPERATING LIMITATIONS AND WEATHER REQUIREMENTS

1) Any flight mission conducted at or above 500' AGL, with no descent at any time below 500' AGL, is a ***general use*** flight. A flight mission where any portion of the mission is conducted below 500' AGL is a ***special use*** flight. During a *planned general use* flight the mission type will not change to an *unplanned special use* flight environment unless the following conditions have been met:

   a) Required personal protective equipment is being worn by both Pilot and all passengers. (See Interagency Helicopter Operations Guide (IHOG), Chapter 9, Chart 9-1, for specific requirements.)

   b) Line Manager approval is obtained prior to the change in type of flight activity.

   c) Pilot and aircraft are carded for the special use activity, as verified by either the Dispatcher or Helicopter Manager.

   d) The Dispatcher or other point of contact reviews the unit aerial hazard map and other relevant information regarding the area of operations and this information is relayed to the Pilot or Helicopter Manager.

   e) The Pilot performs a high level reconnaissance above 500' AGL of the area to identify hazards prior to descending to low-level flight.

2) Single engine helicopters will be limited to flight during daylight hours and only under VFR conditions (minimum of one-half mile visibility).

3) Wind restrictions are defined in the IHOG, Chart 6-2.

   FLIGHTS ABOVE 500' AGL:

   Flights at or above 500' AGL in steady state winds up to 50 knots is allowed for all types of helicopters.

   FLIGHTS BELOW 500' AGL:

   TYPE I (Heavy) and TYPE II (Medium) Helicopters; Flights below 500' AGL are allowed with steady state winds not to exceed 40 knots or a maximum gust spread of 15 knots.

   TYPE III & IV (Light) Helicopters; Flights below 500' AGL are allowed with steady state winds not to exceed 30 knots or a maximum gust spread of 15 knots.

4) No helicopter may operate with less than a 20-minute fuel reserve.

5) No helicopter may operate without the required operable communication equipment.

6) One skid or toe-in landings are prohibited.

7) Air crew members on board during external load operations will only be allowed when the appropriate conditions are met (See IHOG, Chapter 10, Section IV, for further information).

8) The pilot will not permit anyone else to manipulate the aircraft controls, unless that person is a U.S. Forest Service pilot qualified in that aircraft.

F) FILING AND MAINTAINING FLIGHT PLANS

1) All tactical or mission flights (reconnaissance, helitack, etc.) will maintain radio communication with the forest dispatcher on the forest radio system. The aircraft position will be reported to the forest dispatcher every 15 minutes. If radio contact cannot be maintained as prescribed, the aircraft will terminate the flight at the nearest accessible helibase or camp and reestablish contact with dispatch before proceeding. Alternate provisions will be made in the event of radio system failure.

2) Non tactical or mission flights (ferry, preposition, point-to-point, etc.) require either an agency or FAA flight plan. Regardless of which type of flight plan is used, pilots should call the Forest Service dispatch office on departure, at all intermediate stops, and upon arrival of the final destination.

G) CONTROL AND TRACKING OF FLIGHTS

1) When current status and location is reported by an aircraft, the dispatcher will record the aircraft number, location, destination, route of travel, weather status, and any other pertinent information. At the termination of the flight, contact will be made with a dispatcher to close the flight plan. Failure to maintain contact may result in activation of the forest emergency action procedures.

H) FLIGHT PLANS AND FLIGHT FOLLOWING FOR TYPE I AND II HELICOPTERS

1) The pilot will file an FAA flight plan for all airport-to-airport trips. In addition, the pilot will contact NICC prior to departing for the incident and upon arrival at each airport. The incident will be responsible for reporting the aircrafts arrival at the incident through normal dispatch channels.

2) When it is necessary to RON prior to reaching the incident, the pilot will furnish NICC with phone numbers where he/she is staying.

3) The service truck driver will advise NICC as to his/her status and trip plans at every fuel stop and RON location or as otherwise directed. This applies to trips of four or more hours in duration. Any delays in arriving at the incident must be reported to NICC.

4) Pilots and service truck drivers will follow the same process when released from an incident. NICC must be notified upon arrival at a final destination.

I) OVERDUE AIRCRAFT

If an aircraft fails to complete a position report after the required 30 minutes, the dispatcher will initiate the Forest Emergency Action Checklist procedures for overdue aircraft.

J) ACCIDENTS AND INCIDENT

1) Pilots involved in any incident or accident where FAR's or Federal policies have been violated will be suspended from further use under this contract until returned to service by the Regional Aviation Officer or his/her representative.

2) Aircraft involved in any accident or major component change are suspended from further use under this contract or agreement until released by the Regional Aviation Officer or his/her representative.

3) Safe-Comms are used by the agency to disseminate lessons learned from conditions and/or circumstances that have the potential to cause, or have contributed to, accidents and incidents. Contract pilots are urged to participate in this valuable program.

K) WEIGHT AND BALANCE

1) Pilots are responsible for weight and balance control. The Standard Load Calculation Form (FS 5700-17) will be used for this purpose when passengers and cargo are being transported.

2) A helicopter load calculation will be computed prior to the first flight of the day. However, when conditions change (i.e., altitude, temperature or weight), a new load calculation will be filled out as prescribed in the IHOG.

L) CARGO (INTERNAL LOAD)

1) The pilot shall ensure that all cargo is properly loaded and secured, no loose items are to be carried in the cargo or cabin areas.

The contractor will supply adequate cargo nets, straps, etc., for cargo security.

2) Hazardous materials must be in approved containers.

M) CARGO (EXTERNAL LOAD)

1) The pilot will ensure that all external load operations are conducted in accordance with FAR, Part 133, and the company's rotorcraft external load operations manual. (Ref. 133.47)

2) The pilot will not allow a passenger or non-essential crewmember to be carried on board during external load operations unless specifically approved by the Regional or National Director of Fire and Aviation. Exceptions are addressed in the IHOG, Chapter 10, Section IV.

3) The pilot shall not allow class C or D, rotorcraft load combination operations to be conducted, unless specifically approved by the Regional or National Director of Fire and Aviation.

N) FUELING

1) The aircraft shall not be refueled while the engine is running unless properly equipped or authorized by the Regional Aviation Officer. See IHOG, Chapter 13, Section C.

2) Fuel shall pass through a filtering system as outlined in the contract.

3) During fueling operations, the aircraft and fueling equipment will be bonded to prevent static discharge.

O) POWER TREND CHECK

1) Power trend checks will be conducted every 10 hours. The results of these checks will be recorded, and made available to the Helicopter Manager.

P) MAINTENANCE

1) The contractor will immediately notify the Contracting Officer of any change of an engine, power train, control, or major airframe component and circumstances inducing the change.

2) A test flight shall be performed following overhaul, repair, or replacement of any engine, rotor, or major airframe or engine component, before the aircraft resumes services under this agreement.

Q) PERSONAL PROTECTIVE EQUIPMENT

1) Pilots shall wear an aviator's protective helmet, equivalent to or exceeding SPH-4 type standards, with chinstrap fastened whenever the helicopter is in flight.

2) Pilots shall wear long sleeved flight clothing made of fire resistant polyamide or aramide material, leather boots, and leather or polyamide, or aramide gloves. The shirt, trousers and boots shall overlap by two inches when the pilot is at the controls.

3) A personal flotation device will be worn by each individual on board the helicopter when conducting operations beyond power-off gliding distance to shore and all hovering flight operations conducted over water sources such as ponds, streams, lakes and coastal waters. This equipment will be maintained in serviceable condition as appropriate to manufacturers directions.

R) FLIGHT AND DUTY LIMITATIONS

1) All pilots will be limited to the following tours of duty and flight hours. All revenue producing flying time, such as charter, air commerce, aerial work activities, flight instruction, etc., whether under this contract or not, will count toward the limitations.

2) Flight time will not exceed a total of eight (8) hours per day.

3) Flight time will not exceed a total of 42 hours in any six consecutive days.

4) Pilots accumulating 36 to 42 hours of flying any six (6) consecutive days will be off the following full calendar day. This includes any additional commercial flying done on a non-availability weekend.

5) Within any 24-hour period, pilots shall have a minimum of ten (10) consecutive hours off duty immediately prior to the beginning of any duty day. Travel, not local in nature, may be counted as duty time.

6) Duty includes flight time, ground duty of any kind, and standby or alert status at any location.

7) During any 14 consecutive days, pilots shall be off duty for two (2) full calendar days. Days off duty need not be consecutive.

8) Pilots flying Forest Service charter for personnel or cargo transport missions will comply with FAR, Part 135 flight time limits.

9) Pilots may be removed from duty by personnel authorized by the Contracting Officer for fatigue or other causes before reaching flight duty time limitations.

S) SUMMARY

1) Remember! Your word is final as to whether or not the flight is feasible and as to the conditions under which the flight can be made. You know your limitations better than anyone else, please operate within these limitations and build in a margin of safety at all times. Do not allow yourself to be persuaded to attempt anything against your better judgment!

WHEN IN DOUBT, DONT!

2) A copy of this Operations and Safety Procedures Guide shall be kept in the aircraft.

3) It is the intent to furnish the pilot with information useful in the operation of aircraft involved in Forest Service missions. For additional information, please consult your copy of the contract or refer any questions or suggestions to the Forest Service Aviation Management Team.

T) REGIONAL PROCEDURES

Reserved

U) INSPECTOR PILOT OR BRIEFER EMERGENCY PROCEDURE OVERVIEW

It is important that the agency Helicopter Pilot Inspectors review, with the applicant, the emphasis areas listed below. Accident and incident rates have shown that these areas warrant special attention. In review, accent should be placed on the cause and effect, as well as, appropriate corrective actions for the emergencies. When the inspector is satisfied that the applicant exhibits a clear understanding of both the phenomena and the proper corrective procedure, the applicant and the inspector will then initial each item.

Unanticipated Right Yaw (LTE): Four aircraft characteristics during low speed flight have been identified as contributing factors in unanticipated right yaw.

a) Weather cock stability (120 to 240 degrees)

b) Tail rotor vortex ring state (210 to 330 degrees)

c) Main rotor disc vortex interference (285 to 315 degrees)

d) Loss of translational lift (all azimuths)

Helicopter Dynamic Rollover: An increasing percentage of helicopter accidents are being attributed to dynamic rollover, a phenomenon that will, without immediate corrective action, result in destruction of the helicopter and possible serious injury. Critical conditions that help attribute to this condition are:

a) High gross weight

b) Right lateral center of gravity

c) Crosswind from the left

d) Hovering with only the right skid or wheel in contact with the surface and with thrust (lift) approximately equal to the weight.

Settling With Power: Many of our special mission tasks that are associated with natural resource flying places us in the flight envelope that can result in settling with power. A thorough understanding of how this condition occurs and how to effect proper emergency procedures are a must. Basically for a helicopter to enter Vortex Ring State (settling with power), the following three conditions must be present simultaneously:

a) The airspeed is less than 17 knots.

b) At least 20% power is applied.

c) The rate of descent is 500-1500 fpm.

Aircraft Operators Manual Review: Continual review of the aircraft operator's manual is essential for all professional pilots. Knowledge of aircraft equipment, limitations and emergency procedures are mandatory for the beginning of a safe operation. Importance should be given to the value of continual review of the aircraft operator's manual.

Cockpit Procedures and Check List: Cockpit procedures should strictly adhere to the manufacture's recommendations for make and model. Careful attention must be given that procedures are not transferred from another model, or from habits learned in the past that are not appropriate for the aircraft being flown.

Fire Shelter: Individuals involved in wildland fire activities are continuing to suffer serious injuries and fatalities, which could have been prevented if proper actions had been taken. Contract pilots often do not have the chance to enroll in and take “Standards For Survival” A publication of the National Wildfire Coordinating Group, “Your Fire Shelter, Beyond the Basics”. The 1996 Edition is available through the system – NFES 2179. It is recommended that all pilots have the chance to review the contents of this publication.

PILOT CERTIFICATION

I certify that I have read and have been briefed on Forest Service operating and safety procedures and that I understand and will comply with these procedures. I also understand that failure to comply with these procedures, violations of the Federal Aviation Regulations, or other unsafe actions will most likely result in withdrawal of my approval to perform flights for the Forest Service.

_____ ___/___/___
Pilot Signature Date

_____ ___/___/___
Helicopter Inspector Pilot Signature Date

PILOTS COPY

PILOT CERTIFICATION

I certify that I have read and have been briefed on Forest Service operating and safety procedures and that I understand and will comply with these procedures. I also understand that failure to comply with these procedures, violations of the Federal Aviation Regulations, or other unsafe actions will most likely result in withdrawal of my approval to perform flights for the Forest Service.

_____ ___/___/___
Pilot Signature Date

_____ ___/___/___
Helicopter Inspector Pilot Signature Date

INSPECTORS COPY

F. Operations and Safety Information for fixed-wing Pilots:

USDA FOREST SERVICE
PACIFIC NORTHWEST REGION - 2002
OPERATIONS AND SAFETY INFORMATION
FOR PILOTS

INTRODUCTION

The Forest Service uses aircraft extensively in transportation, reconnaissance, fire protection, and fire suppression missions. This guide was prepared to help Contract Pilots understand their role in working with the Forest Service and It's cooperating agencies. A good understanding of Forest Service rules, regulations and procedures will aid pilots in accomplishing assigned work in a safe and efficient manner.

POLICY

The following standards will apply to all aerial operations conducted for the FOREST SERVICE within the PACIFIC NORTHWEST REGION (R-6) unless modified by individual contract specifications.

A. PILOT AUTHORITY AND RESPONSIBILITIES

1. The pilot is responsible for the safety of the aircraft, it's occupants and cargo. The pilot shall comply with the directions of the Government, except when in the pilots judgement such compliance will be a violation of applicable Federal or State regulations or contracting provision. The pilot shall refuse any flight or situation which the pilot considers hazardous or unsafe.

2. The pilot shall approve all missions: You may on occasion be requested to perform a mission that, in your better judgement is not a safe operation. It is your responsibility to be able to recognize and refuse all such missions, your word is final as to whether or not the flight is feasible and can be conducted safely. However; your passengers not only have the right, but the obligation to request termination of a flight, whenever they are concerned for their safety. Such a request will be honored as soon as practical!

3. The pilot should fully understand the mission. Have applicable maps and charts for the area. Keep oriented and be aware of forecast weather, winds, hazards and other information pertinent to the mission.

B. AIRCRAFT CERTIFICATION AND REQUIREMENTS

1. Operators providing personnel transportation must possess either a FAR 121 Air Carrier or Supplemental Air Carrier Certificate or FAR 135 Air Taxi Commercial Operators Certificate. Aircraft offered by 135 Operators must be identified in their FAR 135 operations file. Aircraft to be approved for other than point-to-point operations must be available at time of Inspection.

2. Aircraft used for personnel transportation must be certificated in Transport or Normal Category.

3. Aircraft to be approved for reconnaissance/surveillance missions must have a GPS navigation system (portable or panel mounted) capable of displaying, in the cockpit, the present position in latitude/longitude. At least one external FM (150-174 Mhz) antenna (Comant CI-I 77 or equal) with RG-58A/U coax pigtail terminating in the cockpit area, with a BNC connector, is also required.

a. Aircraft must also have a multi-channel programmable FM radio (which can be an Air Attack Portable or panel mounted). If Air Attack Portable is to be used the pilot's mic jack (PJ068) must have PTT capability. Air Attack Portable may be provided by Government.

Note: Air Attack Portable shall be connected to pilot's mic/receive jacks (PJ068/PJ055) respectively and auxillary power connector. The pilot and observer shall plug in their headsets into the Air Attack Portable.

b. A Voice Actuated (VOX) Intercom shall be provided for the pilot and observer. The intercom controls shall be located convenient to both the pilot and observer. The VOX intercom shall provide VOX generated sidetone for the pilot and observer while either is transmitting on any of the radios.

NOTE: A switch to automatically disable VOX sidetone during radio transmissions, for convenience of the pilot and the observer, may be installed.

c. Auxiliary Power Connector. A power connector (MS3112E-12-3S) protected by a 10 amp circuit breaker connected to the avionics or aircraft power buss. The connector shall be permanently mounted in a location convenient to the copilot/observer. Pin A shall be +28 VDC in 28 volt aircraft, Pin B shall be aircraft ground and Pin C shall be +14 VDC in 14VDC aircraft.

4. In addition to the equipment specified in 3a above, aircraft to be approved for aerial attack will require an additional antenna, external FM (150-174Mhz), (Comant CI-177 or equal) with a RG-58A/U coax pigtail terminating with a BNC connector.

C. PILOT CERTIFICATION REQUIREMENTS

1. Pilots must possess a current and valid FAA unrestricted commercial pilot certificate with appropriate aircraft ratings and must be instrument rated. When it is required by the operations being performed, the pilot's must possess an ATP Certificate with a valid first class medical certificate.

2. Pilots offered for Forest Service use must have records in operator's file as required by FAR 135.63. When co-pilots are required, they must have, as a minimum a commercial pilot certificate with multi-engine and instrument ratings. They must also be listed on the operator's 135 Certificate.

3. Pilots must substantiate with logbooks, total flight time, recency time, and time in type, for which approval is sought.

Pilots must have accumulated, as *Pilot-in-Command,* the following flight time minimums:

		AIRPLANES	
a.	Total Time (In airplanes)	1500*	
	Pilot-in-command:	1200	
b.	In each category and class to be flown	200	
c.	During preceding 12 months	100	
d.	Preceding 60 days make and class	10	
e.	Make and Model to be flown	25	
f.	Make and model preceding 12 months	10	
g.	Cross country	500	
h.	Typical terrain (low level mountainous, etc.)	200	1/
i.	Night flying	100	2/
j.	Instrument (Actual/Simulated)	75	
	In Flight (Al/Hood)	50	

k.	Multi-engine (over 12,500 lbs.)	250
l.	In type within past 5 yrs (unrestricted FAA rating for applicable airplane over 12,500 lbs.	25

* 300 Hours can be other than Pilot-in-Command

1/ Typical terrain: Pilot in Command time flown on flights originating or terminating at airports with normal summertime density altitudes of at least 7,000 feet and/or Pilot in Command time flown on pipeline/powerline patrol, game counting etc.

2/ Instrument: Fifty hours must have been acquired in aircraft. One hundred total hours required for pilots to be approved for IFR operations.

4. Pilots must hold a current FAR 135 Certificate of Competency (FAA Form 8410-3) showing the type of aircraft approved in and the flying they are qualified to perform for the FAR 135 Certificate holder.

5. Pilots will be approved only for those aircraft they have current FAA approval in regardless of ratings held.

6. For other than point-to-point approval, pilots may be given check rides at the time of inspection or at any other time deemed necessary by the Forest Service or by the OAS.

7. For other than point-to-point approval, pilots must have, as a minimum, the following documents in their possession at the time of inspection: Appropriate FAA Form 8410-3, current medical and aeronautical certificates and log books.

8. Approval is required for aircraft and pilots for each Contract or Rental Agreement.

9. Approval certificates must be surrendered upon request to any Forest Service Officer. Aircraft and pilots without Approval certificates will not be used.

10. Aircraft and pilots that hold valid Office of Aircraft Services approval Form OAS-36A (airplane), OAS-30A (Pilot) may be used to transport Forest Service personnel or cargo as approved by the OAS. (OAS Low Level approval will not be used by the Forest Service)

D. CREW REST REQUIREMENTS

1. All pilots flying Forest Service missions shall be limited to the following tours of duty. All revenue producing flying time will count toward the limitations.

   a. Flight time shall not exceed a total of eight hours per day.

   b. Flight time shall not exceed a total of 42 hours in any six consecutive days.

   c. Pilots accumulating 36 to 42 hours of flying in any six consecutive days shall be off duty the follow- ing full calendar day.

   d. Within any 24 hour period, pilots shall have a minimum of 10 hours off duty immediately prior to the beginning of any duty day. Travel, not local in nature, is counted as duty time.

   e. Duty includes flight time, ground duty of any kind, and standby or alert status at any location.

f. During any 14 consecutive days, pilots must be off duty for two full calendar days. Days off duty need not be consecutive.

2. Two-pilot crews flying point-to-point (airport to airport) shall be limited to ten hours per day.

3. Pilots flying missions covered in Item 2, who are also flying other Forest Service missions, will be limited to the duty and flight hour limitations in 1.

Pilots functioning as Mechanics

Pilots who are A&P licensed mechanics will be permitted to perform maintenance on provided aircraft, within the following limits;

a. The pilot duty limitations will apply to the pilot while functioning as a mechanic.

b. During unavailability, mechanic duties in excess of two hours will apply as flight time on a one-to-one basis toward flight hour limitations.

E. AIRCRAFT MAINTENANCE

1. All maintenance must be performed, as specified by the operator's FAA Certified 135 Operations Manual.

2. Unless an FAA approved progressive maintenance schedule or other plan acceptable to the Forest Service is in effect, all aircraft must, as a minimum, be maintained in accordance with the manufacturer's recommended 100-hour inspection procedure for the aircraft. Other manufacturer recommended inspections within the I00-hour interval will also be complied with.

3. On exclusive use contracts an additional, fully qualified A&P licensed mechanic shall be used to perform scheduled inspections such as the 50 and 100-hour inspections.

4. For other than point-to-point airplanes, a list of all items installed on the aircraft which are required to be overhauled or replaced on a specified time basis shall be provided. The list shall include the component names, serial numbers, service life, total time since major overhaul or inspection, and hours remaining before replacement, overhaul, or inspection.

5. Aircraft operated with components and accessories on approved TBO extension programs are acceptable, provided the Contractor who provides the aircraft is the holder of the approved extension authorization (not the owner if the aircraft is leased), and shall operate in accordance with the extension.

6. **New or newly overhauled engines** must accumulate 3 hours of operating time, including 2 hours of flight, prior to Forest Service use.

F. OPERATIONS, AND SAFETY PROCEDURES

1. Aircraft and pilots approved for use by the Forest Service shall have an approval card issued at time of inspection/acceptance. These cards shall be displayed to the Chief of Party prior to departure.

2. If it becomes necessary to substitute aircraft or pilot after the flight has been accepted, contact the ordering Dispatcher or Forest Service Official authorized to order flights prior to substitution.

3. All front seat occupants shall wear shoulder harnesses.

4. **Transportation of passengers at night is prohibited in single engine airplanes**. Flight in IFR conditions with single engine airplanes is highly discouraged and should be considered an emergency procedure.

5. Night departures and arrivals may be conducted only at airports with FAA approved lighting systems which include runway boundary and threshold lights.

6. All flight operations carrying passengers or cargo shall be conducted in accordance with FAR 135.

7. Fight into known or forecast icing conditions shall be conducted in accordance with FAR 135.227. (Icing Conditions: Operating Limitations)

8. No person may operate an aircraft with less fuel than the minimum required by FAR 135.209.

9. All aircraft operations shall be conducted in accordance with applicable city, county, state, and federal regulations.

10. Except for takeoff and landing, **no airplane shall be flown below 500 feet AGL** except for para cargo drops in multi-engine airplanes, and aerial application operations.

11. All personnel participating in special mission operations below 500 feet AGL shall wear personal protective equipment as follows: Long sleeve flight suit or long sleeve shirt and trousers made of fire resistant polyamide or aramid material, leather boots, and polyamide/aramid or leather gloves. The gloves, boots and flight suit shall overlap by 2 inches while at the flight station.

12. All flight operations shall be conducted within the airplane's weight and balance limitations as established in the FAA approved airplane flight manual. Weight and balance shall be calculated prior to each takeoff as required by FAR 135.63 (c).

13. All pilots flying Forest Service flights must file a FAA flight plan or use Forest Service flight following procedures. When departure or arrival times will not be met, within 30 minutes, pilots are expected to notify the appropriate Forest Service dispatcher of the delay at the earliest opportunity. On-Forest flights shall flight follow with the appropriate Forest Service/Interagency dispatcher with 15 minute check in. Contact with the originating dispatcher is requested immediately prior to and after the flight; this contact may be made by the Chief of Party.

14. With the exception of Smokejumper airplanes, all engines will be shut down when loading or unloading passengers or cargo. Smokejumpers may be loaded or unloaded in accordance with the Forest Service Fixed Wing Operations Handbook. (FSH 5709.11)

15. No pilot may leave the cockpit of an airplane unattended while the engine(s) are running.

16. Pilots shall brief passengers as required by FAR 135.117 prior to each flight.

17. Pilots are requested to practice sterile cockpit procedures while in the airport traffic area. No communications either with Forest Service or company dispatcher should take place during takeoff, landing, or while in the airport traffic area. Pilots should use complete standard traffic patterns at uncontrolled airports. Straight in and base leg entries are discouraged for Forest Service flights.

18. When aircraft are operated for the sole use of the Government, only personnel authorized by the government will be transported.

19. The contract pilot will be the sole manipulator of the controls, except when a Forest Service Pilot Inspector is aboard. The Inspector may request to fly the aircraft during a check ride or flight.

F ACCIDENTS AND INCIDENTS

1. Pilots and/or aircraft involved in an accident or incident with potential will be suspended from use by the Forest Service until released by the appropriate Forest Service official.

2. Report accidents/incidents to the appropriate dispatcher. The dispatcher will notify the appropriate authorities.

3. The pilot is expected to notify the Contractor of any accidents or incidents.

4. Pilots will be briefed on the use of FSM 5700-14 SAFECOM, or ``AVIATION SAFETY COMMUNIQUE" Form. SAFECOM's are intended for use by anyone, concerning issues of safety!

G. INSPECTION

1. Aircraft and Pilots used by the Forest Service, whether by Contract or Rental Agreement, must be approved each year. Ending date on all aircraft and pilot cards will always be May 31st.

   NOTE: Vendors requesting inspection after May 31st (of each season) may be required to bring their aircraft and pilots to be carded, and all required documentation, to a site of the agency inspectors choosing, for inspection.

2. For other than point-to-point approvals, operators must have the required certificates, pilots, and pilot records, aircraft and associated records available on the date set for initial inspection. Subsequent inspection may require the Operator to take the above referenced items to the Inspector.

3. Certificates and documents that must be in the aircraft at time of inspection are as follows: Airworthiness and registration certificates; Operator's manual or flight manual (whichever is required); and Weight and Balance record. Operators must also have in their possession, at time of inspection, the airframe, engine(s), and propeller(s) logbooks, time change component records, and airworthiness directive summary.

4. Operators seeking point-to-point only operations will not be subjected to the above referenced inspection procedure. Approval of these aircraft and pilots will be as follows:

   a. The contractor reviews the agency furnished procurement document, to determine that FAA issued Operations Specifications, and all proposed pilots and aircraft meet or exceed minimum requirements.

   b. The contractor will complete a list of the proposed pilots by name and certificate number, operations, and types of aircraft approved for, and aircraft by type and N-Number, and FAA Part 135 certificate number. These lists must be certified and signed by the Director of Operations.

   c. Each pilot listed on the certification letter must review this Operations and Safety packet, and then complete the statement (attached) acknowledging receipt of and intent to

comply with USFS policies and procedures. These forms must also be returned to the forest service (or OAS) inspector, with original signatures on them.

d. Pilot and aircraft inspectors will review the letter of certification, FAA Operation Specification, and coordinate with Federal Aviation as required.

e. The inspector(s) will then issue either standard pilot and aircraft approval cards for specific missions, or point-to-point pilot and aircraft approval cards for transport of passengers and cargo under day/night, VFR/IFR conditions as appropriate.

   Aircraft meeting Forest Service requirements and approval will be issued Form 5700-21 (OAS36A). This certificate must be kept in the aircraft. Approved Pilots will be issued a Form 5700-20 (OAS30A). Pilots must carry this certificate with them.

5. Forest Aviation Officers (FAO's) will determine their Forest's needs for aircraft and pilots. They will make these needs known to the Regional Aviation Group (RAG). RAG will schedule inspections and flight checks with the Operator and inform the Forest Aviation Officer of these arrangements. Operators must work directly with FAO to arrange any additional inspections. (See Note above)

H. ADDITIONAL ASSISTANCE

Additional assistance may be obtained by contacting any of these offices.

REGIONAL AVIATION GROUP
1738 SE Ochoco Way
Redmond, OR 97756
Phone: (541) 504-7252

REGIONAL AVIATION SAFETY
Attn.: Bill Bulger
PO Box 3623
Portland, OR 97208
Phone: (503) 808-2314, or Cell: (503) 819-8706

REGIONAL AVIATION OFFICER
Attn.: Jon Rollens
PO Box 3623
Portland, OR 97208
Phone: (503) 808-2359

STATE AVIATION MANAGER
Attn.: Clay Hillin
333 SW 1st Ave
Portland, OR 97204
Phone: (503) 808-2359

REGIONAL FIXED WING PROGRAM MANAGER
Attn.: Jamie Tackman
3840 Airportway
East Wenatchee, WN 98802
Phone: (509) 669-4037

PILOT AGREEMENT

2003 Season

I, the undersigned, have been provided a copy of the USFS, Region 6, Operations and Safety Information Packet, outlining USFS policy and procedures and have read, and understand them. I agree to abide by USFS policy while exercising the privileges granted on Form 5700-20/5700-20A, Pilot Qualification.

Date:

Printed Name:

Signature:

Company:

Title:

NOTE: This form must be returned to the USFS inspector for the pilot carding process to be complete.

TABLE OF CONTENTS

CHAPTER V - SAFETY

A. Evaluations
B. Protective Clothing/Equipment
C. Load Calculation
D. Aerial Hazard Maps
E. Aircraft Emergency Response Plan
F. Incident/Hazard/Maintenance Deficiency Reporting
G. Training

Exhibits
F-1Tussock Moth Spray Project Project Safety Aviation Plan
F-2 Manual Exemption letter

CHAPTER I - INTRODUCTION.

A. Objectives The objective of the Forest Health Protection (FHP) Aviation Operations Plan in the Pacific Northwest Region is to provide safe, efficient, and economic use of aircraft in conjunction with land and resource management activities. Safety is paramount in any aviation activity undertaken.

All planning and operations will incorporate the applicable elements of the Region 6 Aviation Accident Prevention Plan.

This plan is designed to accompany and supplement the Forest Service Northwest Aviation Management Plan.

B. Scope The major aircraft uses of FHP will involve insect detection surveys, insect suppression and eradication, and administrative travel. Only aircraft and pilots inspected and/or approved by the Office of Aircraft Services (OAS), the Regional Aviation Officer or his authorized staff will be used to transport government personnel.

Regional Aerial Sketchmap Survey: Aerial sketchmap surveys are flown over approximately 47 million acres of forested land in Oregon and Washington each year. Types of aircraft used will be predominantly fixed-wing, although helicopters may be used in some circumstances. Aircraft used will be acquired through cooperative agreement, contracting or call when needed. Aircraft carrying government employees will be flight followed as outlined in Chapter 4 of this document.

Special Projects (ex. Insect Suppression or Eradication Project Work: Aircraft may be used for insect suppression activities. Types of aircraft used will be fixed wing and helicopters. All suppression aircraft will be ordered through the contracting process. Flight following will be required for all aircraft. All aviation projects will have a specific aviation operations plan and will be reviewed by the appropriate Aviation Officer of the benefiting area for compliance with health and safety codes, Federal Aviation Administration (FAA) regulations and Forest Service or OAS policy. Questions regarding which agency policies apply will be referred to the Regional Aviation Officer (RAO). For an example, see Exhibit 1 "Tussock Moth Spray Project" at the end of this document.

Administrative Flights: Survey aircraft may be used to transport personnel to meetings, administrative activities, or training sessions, when it is the most cost effective mode of transportation and does not interfere with the primary mission. These flights will be requested through the Forest Health Protection Unit Aviation Officer (FHPAO) and documented in accordance with regional policy (see Appendix C, Administrative Aircraft Use Plan). Other administrative flights not utilizing survey aircraft will request call when needed aircraft through the appropriate dispatcher or travel coordinator.

C. Review and Revision Aviation plans are reviewed and updated annually as required. The Regional Aviation Group (RAG) and Regional Aviation Safety Manager (RASM) will be used to provide technical and safety reviews and to assist in hazard analysis.

D. Authority Aviation activities shall be conducted in compliance with Forest Service 5700 Manual requirements

E. General Information

1. **Location.** Aerial sketchmap surveys are flown over all forested land in Oregon and Washington each year. The aircraft will move from one area to the next as dictated by weather and insect/disease/host biology.

2. **Period of Operation.** Generally, aerial sketchmap surveys are flown between April 1 and October 31 of each year. Unusual conditions may necessitate survey missions outside of these times.

CHAPTER II - ORGANIZATION AND RESPONSIBILITIES

A. Agency Responsibilities

1. **State.** Each year cooperative agreements are arranged between the USDA Forest Service and the Oregon Department of Forestry and the USDA Forest Service and the Washington Department of Natural Resources detailing the responsibilities and contributions of each agency (current copies are available upon request). Suppression, eradication and other special projects will be dealt with on a case by case basis. State observers using Forest Service funded aircraft without a federal observer on board will have met the following requirements: 1) Interagency Aviation training standards for fixed-wing manager, special use currently met by the Aerial Survey, Aviation Safety and Management course sponsored by Forest Health Protection (AS2M); 2) One observer has been through Aviation Contracting Officer's Representative (COR) training and is a designated contract inspector; 3) Has fully informed Forest Service COR, Contracting Officer (CO), or lead inspector of all mission plans. The recurrency training is recommended at 16 hours every two years.

2. **USDA Forest Service.** The Director of Aviation and Fire Management is responsible for all Forest Service aviation activities in Region 6. The Director has delegated the authority to the Regional Aviation Officer to supervise, monitor, inspect, and train users of aircraft.

B. Personnel

1. General

a. ***Regional Aviation Officer (RAO):*** As designated by the Director of Aviation and Fire Management is responsible for all aviation activities in Region 6. Aviation management within the Region, whether fire or administrative, will be coordinated through the Regional Aviation Officer, Jon Rollens, or his representative. The RAO will enforce aircraft operations policy and standards in all situations and will initiate action for aircraft accident/incident reports and investigations. The RAO will monitor all aerial activities for compliance with Forest Service Manual (FSM), Health & Safety Code, and FAA regulations. The Regional Aviation Officer has the delegation and authority necessary to accomplish this job.

b. Regional Aviation Safety Manager (RASM): Functions as the Regional Staff Specialist for aviation accident prevention. The qualifications and duties of the RASM can be found in FSM 5720.47d.

c. Forest Health Protection Aviation Officer (FHPAO): As designated by the Regional Aviation Officer, is responsible for general supervision and guidance of the aviation program in Forest Health Protection. Aviation management will be coordinated through Dave Bridgwater, or his designated representative.

The FHPAO will enforce aircraft operations policy and standards. The FHPAO will monitor all aerial activities for compliance with FSM, Health & Safety Code, and FAA regulations.

The FHPAO has the delegation and authority necessary to accomplish this job.

(1) Qualifications: The FHPAO should have a thorough knowledge of FSM 5700 and publications concerning aircraft safety and use. Background should include a high level of experience in management and supervision of aircraft operations.

(2) Duties:

(a) Oversees all FHPAO aviation operations.
(b) Prepares and monitors the FHP Aviation Plan.
(1) Analyzes FHP aircraft needs.
(2) Coordinates administrative aircraft use.
(c) Establishes priorities for FHP aircraft use.
(d) Seeks advice and keeps the Regional Aviation Group informed on local aviation operations and projects.
(e) Keeps the Group Leader of FHP and Staff fully informed.

(f) Provides information and technical direction for all planned and continuing aviation operations, including advice on utilization and suitability of aircraft needed for aviation projects.
(g) Reviews for RAO approval FHP Aviation Project Plans.
(h) Stays up to date on aviation facilities and operations on or adjacent to areas of operation.

(3) Training

(a) Coordinates aviation operations training needed by personnel in FHP. Sees that correct training is acquired.
(b) Stays up to date on training available to maintain proficiency and that of all others involved in the program.
(c) Establishes and maintains a training and reference library.

***d. Contracting Officers Representative*:** The COR is responsible for the everyday contract administration pertaining to the aircraft contracts assigned. The COR functions within the authorities and limitations prescribed by the Contracting Officer's Letter of Designation.

1. Qualifications: The COR will have a working knowledge of the capabilities and limitations of the aircraft for which they are COR, and should have formal training in aircraft operations, aerial survey, and contract administration.

2. Duties: To perform adequately, the COR must be thoroughly familiar with all contract requirements, administrative, as well as technical. This knowledge will help the COR make decisions promptly, anticipate potential problems and seek solutions before trouble develops. Any technical areas in question should be coordinated with the Regional Aviation Group.

Advise the contracting officer when conditions are appropriate to issue a notice to proceed.

Designate inspectors and provide copies of the designations to the contractor and the contracting officer.

Make decisions or recommend actions necessary for the daily administration of the contract.

Inform the contracting officer of contract work progress and recommend administrative actions to the contracting officer.

Initiate payments and keep current records of progress of partial payments and maintain flight invoices (FS-6500-122 or OAS-23). Provide copies to the contractor and the contracting officer.

Issue orders to suspend or resume work and notify the contracting officer.

Provide instructions relating to compliance with contract specifications, plans, and provisions to the contractors or their designated representatives.

Maintain a daily diary (FS-6300-20) on the entire project. Copies will be provided to the contracting officer weekly or sooner.

Maintain a file of all documents incidental to administration of the contract.

Keeps the Aerial Survey Program Manager advised of weekly activities, flight, and contract progress schedules.

2. Survey Personnel: Duties and Responsibilities

a. Aerial Survey Program Manager: An Aerial Survey Program Manager will be designated to oversee all aerial survey activities associated with the mission of Forest Health Protection. The role of this position will be to provide overall supervision and direction to the survey program.

(1) Qualifications: Program Manager will be familiar with the insects, diseases and forest vegetation of the Pacific Northwest. The Program Manager will also have a working knowledge of the Aerial Survey Program and the capabilities/limitations of the aircraft used in the Annual Aerial Detection Survey.

(2) Duties: Ensures that all aerial activities within assigned area of responsibility are operated in accordance with Forest Service Manual and Forest Service Handbook (FSH) direction, Health & Safety Code, Federal Aviation Regulations and the contents of this Plan.

Immediately reports aircraft accident/incidents to the Regional Aviation Safety Officer.

If so designated, performs the duties of COR.

***b. Aerial Observer/Sketchmapper*:** Sketch maps insect defoliation, tree mortality, disease affects, weather damage, etc. by degree of intensity, extent of mortality and/or tree species. Will estimate area size, numbers of trees, host types and identifies most probable cause.

Develop insect occurrence maps based on aerial and ground information obtained from sketch maps, aerial photographs, and ground survey samples.

Functions as an inspector on the Aerial Survey contract adhering to all the authorities, responsibilities, and limitations so described in the Letter of Designation.

c. Pilot.

Oregon: Letters approving Oregon Department of Forestry pilots and aircraft to transport Forest Service employees for the purpose of reconnaissance and point to point flights are written each year. These authorization letters come from the Regional Aviation Officer. No card is issued to ODF pilots or aircraft.

Washington: Aircraft and pilots for survey work in Washington are procured by either contract or from approved "call when needed" FAR 135 operators. In Washington State, all aircraft and pilots for reconnaissance mountain flying, and point to point flights are authorized under the normal carding system in accordance with FAR 121, FAR 135 or Forest Service Manual direction. Redmond Air Group or other authorized personnel will inspect all aircraft and give pilots check rides to inspect pilots' ability to perform during typical reconnaissance survey flights.

3. Aircraft.

1. Experience has shown that survey aircraft require the following features: 1) excellent forward and lateral visibility, 2) good performance in mountainous, high altitude flying, 3) ample cabin space for crew of three or four, survey equipment and maps, and 4) a cruising range of not less than four hours. Aircraft performance for typical aerial survey missions include: 1) ability to safely fly at slow speeds (80 to 100 knots) at altitudes of 500 feet to 10,000 feet, 2) ability to climb and descend rapidly while flying at survey speeds in mountainous terrain, 3) a cruising speed of over 120 knots to fly point to point efficiently within the Region, and 4) be fuel efficient. Acceptable aircraft recently used in the Region include; single engine Cessnas 182,182RG, 185, 206 and 210, and twin engine Partenavia P68C and Partenavia P68 Observer. Past survey experience has shown the Partenavia P68 Observer to be the ideal aerial survey aircraft because it offers survey teams performance, safety, fast cruising speed, fuel efficiency, visibility and cabin space. Aircraft selected for FHP mission work must meet the requirements under FSH 5709.16 part 36 unless a waivier is granted by the Regional Aviation Officer (see Exhibit 2 for waivier to FSH 5709.16 part 36 manual). The State of Oregon Attorney General has determined that the use of the Oregon Department of Forestry's Partenavia as part of our data acquisition and reporting as outlined in the Cooperative Agreement

between the USDA Forest Service FHP group and the Oregon Department of Forestry is in compliance with PL 103-411. Copies of the Attorney General's determination are available upon request.

2. Rotary wing aircraft, primarily Bell 206B III Jet Ranger, are used occasionally for very low level surveys, but do not suit regular surveys because of costs and cruising range. When required, helicopter operations will comply with the Interagency Helicopter Operations Guide (IHOG), and be managed by a qualified helicopter manager. All aircraft will meet criteria specified as a minimum as per FSM 5703 Policy. No aircraft will be used, unless expressly authorized, without an FS 5700-21 Airplane Data Record, or FS 5700-21A Helicopter Data Record signed by a designated aircraft inspector or letter of authorization by the Regional Aviation Officer. Inspections on aircraft will be coordinated by the UAO, Contracting Officer and Aircraft inspector annually. Any other inspections will be on a case by case basis involving the same personnel. The aircraft used under the participating agreement with the Oregon Department of Forestry will be approved by the Regional Aviation Officer. The letter of authorization will be carried in the aircraft.

3. Additional equipment and avionics will be specified in the Forest Service contract for aircraft services

D. *Directory

Name	Title	Work	Home
Doug Daoust	Forest Health Protection group leader (USFS) (Agency Administrator)	503-808-2913	
Jim Mair	Forestry Assistance Operations Manager (ODF) (Agency Administrator)	503-945-7398	
Karen Ripley	Aerial Sketchmapper, Forest Health Protection Program Manager (WDNR) (Agency Administrator)	360-902-1691	
Dave Bridgwater	FHPAO/Aerial survey program manager (USFS) (Unit Aviation Manager, Fixed-wing manager, special use, project inspector)	503-808-2666	
Keith Sprengel	Aerial Surv. Coordinator, Sketchmapper, COR (USFS) (Fixed-wing manager –special use, COR)	503-668-1476 C 503-807-4939	
Mike McWilliams	Aerial Sketchmapper, Forest Health Monitoring Sprecialist (ODF) (Fixed-wing manager-special use)	503-945-7395	
Jeff Moore	Aerial Sketchmapper (WDNR) (Fixed-wing manager-special use, project inspector)	360-902-1320	
Oregon Observer		C 503-708-9064	
Washington Observer		C 503-803-9188	

Jack Prukop	Pilot (ODF)	503-378-4054 P 503-361-5584	
Dave Overhulser	Aerial Sketchmapper, Entomologist (ODF) (Fixed-wing manager-special use)	503-945-7396	
Jim Baronek	Chief Pilot (ODF)	503-378-4054 P 503-361-5739	
Robert Schroeter	Aerial Sketchmapper (USFS) (Fixed-wing manager trainee -special use)	541-858-6123 C 541-840-2311	
Ben Smith	Aerial Sketchmapper (USFS) (Fixed-wing manager trainee -special use, project inspector)	503-668-1761 C 503-803-9188	
Melanie Kallas	Aerial sketchmapper trainee (WDNR) (Fixed-wing manager trainee – special use)	360-902-1395	

*** Interagency Aviation Training equivalent positions are listed parenthetically following individual's working title.**

CHAPTER III - FORMS, REPORTS AND ADMINISTRATIVE PROCEDURES

A. Management Forms and Reports

1. Timekeeping Procedures. The aerial sketchmapper, inspector, or COR will be responsible for logging start and stop times for each flight where FS 6500-122's or OAS-23's (Flight Invoice) are used on detection flights. The flight manager for each flight will be responsible for ensuring that the Flight Invoice is complete and accurate before signing (flight manager will always be the Forest Service representative, or Forest Service designated representative). An invoice for the use of the Oregon Department of Forestry aircraft will be submitted at the end of the survey season. Copies of the Washington contract aircraft flight invoice will be submitted to the Central Oregon Interagency Dispatch Center for reporting every 30 days.

2. Payment Procedures. Payments will be made by B&F upon receipt of the invoices or as stated in the participating agreement. Contracts will follow the payment procedure specified in the Prompt Payment Act or as negotiated by the contractor.

3. Contract/Rental Agreements. All aircraft contracts will be cleared through Regional Contracting and all aircraft rental rates will be negotiated by the Contracting Officer. Aircraft specifications, rates, inspections, etc., will be handled by the Contracting Officer, Regional Aviation Officer, and Aircraft Inspector.

B. Helicopter Contract Administration. Helicopters may be used on a limited basis for close inspections of sites not accessible to fixed wing aircraft. Regional Call-When-Needed (CWN) contracted aircraft will be utilized for this purpose and operated in accordance with the terms of that contract. Eradication projects will be planned and conducted in accordance with the Interagency Helicopter Operations Guide (IHOG). A qualified helicopter manager (HEMG) meeting IHOG standards will be assigned to each helicopter. This applies to helicopters used on Forest Service missions as well as federally procured helicopters.

1. Contract Administration Structure. Flights will be scheduled through the helicopter COR's. A qualified HEMG will be assigned to each flight

2. Timekeeping Responsibility. The HEMG will perform or delegate timekeeping duties.

3. Flight Payment Documents. The HEMG will review Flight Use Reports and submit them in a timely manner to proper fiscal office for payment.

4. Availability and Stand-by Requirements will be in accordance with the applicable contract.

CHAPTER IV - BASE FACILITIES, COMMUNICATIONS, OPERATIONS, AND DISPATCH

A. Facilities. Survey air crews utilize Fixed Base Operator Facilities for these missions.

B. Communications Reserved. See Flight Following

1. Ground To Ground Communications

2. Communications With Dispatch Center

3. Airport Advisories.

4. Air-To-Air Air Tactical Communications
a. VHF-AM Air-To-Air
b. VHF-AM Air-To-Ground

C. Operations

1. Environmental Considerations. Flight Surveys will be planned to minimize noise impacts on wilderness and other sensitive areas.

2. Fueling Operations. All personnel will disembark prior to and during aircraft fueling. Pilot shall remain at the aircraft during refueling to minimize the possibility of mis-fueling and to assist ground crew as required to obtain the proper amount of fuel.

D. Dispatch Procedures

1. Briefings and Orientation. The National Forest or appropriate administrative area will be notified prior to the actual survey flight. This is usually done through the area dispatcher or assistant. An initial notification or reminder is done formally by way of letter to the Forest Supervisor before the annual aerial survey begins. The responsible Forest Service observer will call the Forest Dispatcher a day or two prior to the planned starting date on the particular Forest. Daily morning notification to the area dispatcher will be required. During this notification, the observer will be provided with air space management information. The observer will provide the dispatcher with planned area of flight, approximate times and possible alternate areas depending on weather. The survey crew will perform a daily briefing covering anticipated areas of survey, hazard mitigation, and flight following procedures. The Survey Pilot will maintain, at a minimum, the following charts and maps:
a. Klamath Falls and Seattle Sectionals
b. Airport and Facility Directory. (Flight Guide, NOAA, etc.)
c. IFR charts appropriate to the area being surveyed

2. Procedures. The majority of aerial survey flight time in Region Six is the grid pattern method. Using this survey technique the aircraft flies cardinal directions usually following section lines on the map or lines of lattitude and longitude. Flight lines can be as short as four miles and as long as 80 to 100 miles. The observer in the front seat is responsible for detection directly in front and approximately two miles out from the right side of the flight line, while the rear seat observer is responsible for two miles out from the left side of the flight line. Each observer's duty is to detect, locate on the ground, locate on the sketch map, draw the polygon on the map, label the polygon with tree species, damaging agents, number of trees and/or intensity and continue to orient themselves. At an airspeed of 120 miles per hour, this means the observer views and records four square miles every minute. This procedure requires concentration and communication by observers and the pilot.

The other type of flight pattern is contour flying. This pattern is flown in areas of relatively steep, well-defined topography. The aircraft is flown in a left hand pattern generally parallel to the drainage patterns rather than across them. In steep, wide canyons, the canyon is entered somewhere between the ridge on the left of the aircraft and the drainage on the right; escape routes in this scenario are to drainage right. With

safety as the number one priority, the aircraft will fly along ridges whenever practical to accomplish mission objectives

3. Communications. Two way communications with ATC facilities will be in accordance with FAR, AIM, etc. The following Forest Service communications will apply during business hours: Ground and air frequencies for particular geographical areas of Northwest will be consulted in the Aircraft Communication Plan and Frequency User's Guide.

4. Flight Following. The aerial observer will make necessary weather checks and determine feasibility of survey operations. Host forest dispatchers will be notified of flight routing. Because of the subtleties of color changes caused by forest insects to tree foliage, adequate sunlight is important to detection. Maximum flexibility in choosing flight areas is necessary to mission success. The pilot will also check weather conditions and NOTAM for all planned and alternative areas in the Region. In addition, posted hazard maps, location of control zones, ground navigational stations, MOA's, MTR's, TFR's and other known confliction will be noted. Point to point flights will have a flight plan or flight following by the appropriate land management agency.

Survey aircraft will check in with the appropriate dispatch office prior to flights. Flight following will consist of initial radio check-ins with latitude/longitude coordinates or by landmarks. Positive flight following will be by radio communication with dispatch or through an automated position relay to a central base station and shall be updated at 15 minute intervals, minimally. All transitions between flight following units shall be acknowledged by both units and the aircraft. Landing/takeoff locations and times will be reported to the nearest dispatch center or the designated location monitoring the automated flight following system. Notification of State and Federal land management agencies affected by mission flights will be coordinated through the flight manager. Information relayed will include: tail number, call sign, persons on board, name of flight following center, flight following frequency, and flight plan or specifics on whom to contact for the aforementioned information. Aircraft will procede directly to an approved landing field to make land line conatct with dispatch if unable to maintain 15 minute checkins during flight following.

Automated flight following is currently conducted by Windstream Flight Systems and monitored by a base station coordianted by the flight manager. All units with internet capability will be able to follow the progress of the Oregon and Washington survey flights by logging onto http://odf.windstream.com/ and selecting aircraft N9000V(Oregon flights) or N3832Q (Washington flights). Notifications will be made as outlined above, and back-up flight following frequencies will be monitored.

5. Airspace Coordination: Airspace coordination is accomplished for project work in accordance with the Airspace Coordination Guide. Airspace deconfliction is not appropriate for survey flights in that the aircraft covers vast areas of many different Forests. Time and resource utilization prohibits attempting all but very localized conflicts.

CHAPTER V - SAFETY

A. Evaluations. Alternate methods that would accomplish mission objectives more safely and effectively will be of primary consideration. Concurrent hazard analysis will be everyone's responsibility throughout the project. The aerial hazard map depicts what has been surveyed at the site(s) and pilots will reconnoiter the area prior to descending to lower altitudes. Aerial observers will cancel or terminate operations when conditions are not within acceptable safety standards, or when a question exists regarding the safety of equipment or its' application. The following risks remain for both fixed wing and rotory wing operations and are mitigated as indicated;

Phase	Hazard/ Risk ID	Risk Assessment	Control Options	Residual Risk
All	Improper Aircraft Maintenance	Very High	Aircraft maintenance inspections and repairs shall be made in accordance with appropriate Federal Aviation Regulations, Directives of the Administrator of FAA, and the recommendations of the manufacturer. Appropriate aircraft maintenance records shall be kept for the aircraft and shall be open to the inspection of the Contracting Officer upon request. Windows shall be kept clean at all times. Cracked and/or excessively crazed windows shall be replaced. Additional maintenance shall be performed as outlined in the pertaining Forest Service Contract for Aircraft Services.	Low
All	Severe weather	High	Check with local weather offices daily, fly only in clear weather when possible; file flight plans and/or maintain flight following. Maintain VFR minimums. Observers will be vigilant to changing weather conditions and will modify plans accordingly.	Moderate
All	Inexperienced Observers	High	Conduct annual program reviews and safety sessions to fully familiarize personnel with standard policies and regulations. Pair inexperienced observers with qualified observers for at least 4 weeks. All passengers on aerial surveys will meet Interagency Aviation Training qualifications.	Low
All	Unsecured equipment in cockpit	Moderate	All equipment, including the digital sketchmapping system will be secured in accordance with FAR 135.87	Low
All	Sub-standard Aircraft performance capability	High	Check pilot and aircraft qualification cards, maintain open communication with personnel at Redmond Air Group and the Regional Aviation Group especially when ordering different or unfamiliar aircraft.	Low
All	Aircraft egress & ingress	Moderate	Do not approach aircraft without pilots knowledge and visual contact. Follow directions for entering and exiting aircraft on pilots' OK.	Low
All	Inadequate flight following	Moderate	Contact dispatch offices, verify flight following frequencies and back-up frequencies. Verify proper operation of automated flight following system with radio checks.	Low
All	Mountainous flying	High	Hold daily pre-flight briefing sessions to discuss intended flight route and potential hazards. Maintain at least 500' AGL at all times. No up-canyon flying. Check daily weather reports.	Moderate
All	Mid-Air Collision	High	Sterile Cockpit procedure will be followed within 5 miles of airports and until clear of the runway. CTAF will be monitored within 10 miles of airports unless ATC requires otherwise. Air crew members will assist the pilot in visual acquisition of traffic conflicts. Situational awareness will be maintained for MTR and SUA's. The pilot will brief the crew when in the vicinity of this airspace and where possible traffic conflicts may be anticipated. Anti-collision and Landing lights will be displayed in flight to enhance aircraft visibility by others. Temporary Flight Restrictions will be reviewed as part of pre-flight procedures.	Moderate

B. Protective Clothing/Equipment. Headsets will be worn by crew members on fixed wing flights. Helicopter operations require PPE in accordance with IHOG.

When special projects involving hazardous chemicals are planned, a list of poison control centers, local physicians, local emergency medical treatment facilities should be included. These local medical facilities should also be alerted as to the spray project.

C. Load Calculations and Weight and Balance. Load calculations and weight and balance limits will be confirmed during the pre-project briefing. The pilot is responsible for overseeing the proper loading of the aircraft.

D. Aerial Hazard Maps. Current Aviation Sectionals will be maintained and reviewed for flight hazards. Pilots should alert the flight crew when in the vicinity of Military Training Routes and of the direction they may expect to see conflicting traffic.

E. Aircraft Emergency Response Plan. National Forest and State agencies maintain Aircraft Crash, Search and Rescue plans. Agencies providing flight following will be responsible for activating the appropriate agency resources. In the event of an injury or fatality, the FHPAO, Aerial Survey Coordinator, or appropriate project manager listed in the enclosed FHP directory will notify family members. The person providing flight following will be responsible for having a copy of this aviation plan and notifying the appropriate individuals listed above.

F. Incident/Hazard/Maintenance Deficiency Reporting will be in accordance with the R6 Aviation Accident Prevention Plan and FSM 5720. Aviation incidents, specifically, shall be filed on Forest Service SAFECOM form 5700-14 within 24 hours of the incident. If a serious potential for an aircraft accident was involved, an immediate telephone report should be made to the RASM, or the appropriate program officer (helicopter or fixed wing) at the Regional Aviation Group.

G. Training will, as a minimum, be in accordance with those outlined in applicable Forest Service Manual and Handbooks. Specifically, employees who participate in special use flight activities or function as flight crew members shall receive annually the following:

1. Prior year's Accident Analysis developed by the Regional Aviation Safety and Training Manager.

2. Prior year's Mishap/Incident information developed by the Regional Aviation Safety andTraining Manager.

3. Review Aviation Plan

4. View Winds, Wires, and Weights video (helicopter only).

5. Review Risk Assessment and Standard Aviation orders.

6. Receive Flight manager training

7. View Helosafe video (helicopter only).

In addition to the above requirements, at least one member of the air crew will have received training equivalent to that listed for fixed-wing manager listed in Interagency Aviation Training (IAT) (for current qualified position, see paranthetical remarks in directory). Other participants on mission flight shall have completed the training listed for Air Crewmembers in IAT. Currently, the Forest Health Protection sponsored Aerial Survey Aviation Safety and Management course satisfies these requirements. Currency on this training is recommended at every three years. The FHPAO shall keep track of qualified observers training accomplishments and requirements and will meet the training requirements listed in IAT for Unit Aviation Manager. The FHP group leader shall meet the training requirement listed for Agency Administrator.

Agreements between Cooperators and the Forest Service are reviewed annually prior to June first. All aerial observers have met the requirements to function as fixed-wing managers through the 2004 field season. Cooperating agencies will ensure that their employees meet these minimum aviation safety-training requirements.

When operating CWN aircraft or exclusive use contract aircraft at least one air crewmember will have had the necessary training to function as Contracting Officer's Representative or Project Inspector.

To function as a sketchmapper, individuals must also meet the following minimum qualification criteria:

- A desire to participate in aerial survey activities.
- An interest in aviation
- Good eyesight with normal color vision and depth perception
- Ability to endure riding in an aircraft for 3 to 6 hours a day without experiencing the debilitating effects of motion sickness.
- Completed the task book for "Fixed-Wing Manager - Special Use Forest Health Protection Aerial Observer" (Copy available upon request). Observers employed prior to 2002 are exempt from the task book requirement.

At the discretion of the senior obsever, the apprentice will be evaluated on the above criteria. Satisfactory performance will be evaluated/determined by both State and Federal Program managers, and when in agreement as to the proficiency of the apprentice, a certification issued.

In addition to Aviation Safety currency requirements, sketchmappers will attend at a minimum, biannually, the annual Calibration and Conformity session which will focus on current safety issues and sketchmapping warm-up exercises.

EXHIBIT F-1

TUSSOCK MOTH SPRAY PROJECT
PROJECT SAFETY AVIATION PLAN

Okanogan-Wenatchee National Forests

Project Plan Prepared by:	Jim Trowbridge	AFMO, Cle Elum Ranger District

Project Plan Reviewed by:	Art Anderson	Spray Project Operations Chief

Project Plan Reveiwed by: _____ Aviation Officer, Okanogan-Wenatchee NF's

Reviewed Date: _____

Project Plan Reviewed by: _____ Regional Aviation Group Staff

Reviewed Date: _____

Project Plan Reviewed by: _____ Regional Aviation Safety Officer

Reviewed Date: _____

Project Plan Approved by: _____ Regional Aviation Officer

Approved Date: _____

TUSSOCK MOTH SPRAY PROJECT
PROJECT SAFETY AVIATION PLAN

Okanogan-Wenatchee National Forests

Project Name: Tussock Moth Spray Project

Anticipated Project Date: June and July 2001

Supervision: **Art Anderson, Tussock Moth Spray Project Operations Chief**

Project Description:

The project is the aerial application of tm biocontrol to control Douglas-fir tussock moth on the Methow District of the Okanogan-Wenatchee National Forests. An End Product Contract will be used to complete this project. Helicopters will apply the pesticide and observe the area being treated. At this time it is anticipated that three (3) type II and one (1) type III helicopters will be needed to complete the project. It is estimated 25,000 to 27,000 acres will be sprayed.

The spray blocks will be pre-identfied using GPS coordinates and will be entered into a mapping program installed into the spray aircraft as per the contract. No aerial marking will be required as the application aircraft shall be equipped with a GPS guided Satlock swathing system. The application aircraft will fly in formation at altitudes below 500 ft. AGL (actual height will depend on timber canopy and topography)to dispense pesticide, no government employees will be onboard. The observation aircraft with government employees onboard, will follow behind the application aircraft to ensure that the spray is falling properly in to the canopy, and that the spray deposition is effective and properly applied. Additional duties of the observation aircraft will include flight following information for all of the aircraft involved and overall supervision of the actual application process.

All helispots and emergency landing sites will be identified prior to operations. The Helibase Manager, along with the Contractor, will be responsible for approving all helispots prior to use.

Justification:

Due to access , aerial application is the most effective way to accomplish the project. Limited road access and steepness of terrain prevents application by alternative ground methods.

Due to the nature of spraying, low level flights are necessary to get the spray to hit the target areas (crowns and foliage of trees). Spray aircraft must consistently operate at altitudes below 500' AGL.

Location:

The project is located on the Okanogan-Wenatchee National Forests, Methow Valley Ranger District. The analysis areas to be included in the project are Early Winters, Eight Mile, and Wolf Creek. (see attached map)

Projected Cost of Aviation Resources:

Source selection of potential contractors has not been completed at this time. Project Aviation Safety Plan will be updated once source selection is completed to include the projected aircraft and associated costs.

Aircraft:

At this time it is anticipated that three (3) type II and one (1) type III helicopters will be needed to complete the project Project Aviation Safety Plan will be updated once source selection is completed and aircraft are known.

Application aircraft will be required to meet industry and O.S.H.A. standards. The contractor will be requireed to be in compliance with Part 137, State AG/Application requirements and licenses. Application aircraft will be carded as per the "Restricted" category guidelines in the USDA-Forest Service Call-When-Needed (CWN) contract.

All "Standard Use" helicopter requirements as per the USDA-Forest Service Call-When-Needed (CWN) contract and IHOG will be adhered to for the observation aircraft, pilots, fuel trucks and drivers.

Application aircraft fueling operations will be adhered to as per IHOG chapter 13.

Hot fueling will be alowed if one of the following regulations are met.

1. Page 12-13, c. 1., Closed circuit refueling system is present and approved on the aircraft, aircraft may be refueled with engines running or;
2. Page 12-13, c. 2., Open Port (rapid refueling); If requested by the government and the contractor has been approved, this type of refueling cand be allowed in accordance with NFP 407 3-27, see agency policy. Not with standing NFPA 407 3-21.2 (b).

Pilots:

Application pilots will be required to meet industry and OSHA standards. The contractor will be required to be in compliance with part 137, State AG/Application requirements and licenses. Agency carded pilots will not be required for the application aircraft. Pilots for the observation aircraft will be carded as per IHOG.

Project Aviation Safety Plan will be updated once source selection is completed and pilots and aircraft type are known.

Participants:

Project aviation safety plan will be updated prior to project commencing with all personnel, including qualifications and individual's project responsibilities..

A CWN Helicopter Manager will be required for each helicopter (as stated in the IHOG page 2-4) per counsel from the Regional Helicopter Operations Specialist. However, application aircraft management will require no payment documentation (FS-6500-122), no personnel loading, no external or internal cargo loading, and no longline operations.

The helibase will be managed by the appropriate level (Type 1 or 2) Manager (as stated in the IHOG page 2-6). The helibase manager will be responsible for daily briefing and debriefing (using the checklist in IHOG Appendix B) and for development and approval of a Project Crash Rescue Plan. The helibase manager will also be responsible to ensure a ***SAFECOM*** will be filed to report any condition, act, maintenance problem, or circumstances which has the potential to cause an aviation related accident for all incidents/occurences and deviations. Copies will be filed with the local Forest Aviation Officer and placed in the project files.

Flight Following and Emergency Search and Rescue:

Daily flight follow during the project will be handled through the project dispatcher. When the observation aircraft is obseving aerial application, the aerial observer will be responsible for flight follow information, relaying it to the project dispatcher.

Prior to installation of the project communication system or flights outside the project area flight following of aircraft is required and will be through Okanogan dispatch Center on the Okanogan-Wenatchee Forests or Central Washington Interagency Communication Center (CWICC) in Wenatchee. Specific flight following frequencies will be determined and distributed to all operations personnel at project operations briefings and dispatch centers.prior to spray operations. Pacific Northwest Region Search and Crash Rescue Guide will be used as a template for missing or downed aircraft. Project Incident Commander, Aviation Project Manager, Project Dispatcher, and Okanogan Dispatch Center will all be responsible for the follow through of this plan if needed.

Aerial Hazard Analysis:

Aerial hazard map will be generated prior to starting of any spray operations. Initial aerial hazard map will be obtained from the Okanogan Dispatch Center. Verifications and updates will be coordinated with the Okanogan Dispatch Center and Methow Valley Ranger District prior to spray operations.

A copy of the hazard map will be provided to contractor, all pilots and posted at the helibase (or location of morning briefings). All necessary coordination with Federal Aviation Administration and military authorities will be coordinated through the Okanogan Dispatch Center prior to project start.

Known Military Training Routes (MTR) within the proposed project area are:

IR-348
Okanogan B MOA

Protective Clothing/Equipment:

Personnal protective equipment will be required for all pilots (both "Restricted" and Standard Use" helicopters) and passengers according to Chapter 9, IHOG. This includes flight helmets, nomex clothing (either nomex flight suits or nomex shirt and pants), and nomex or leather gloves.

Load Calculations and Weight-and Balance:

Load calculations will be completed to ensure that the helicopter does not exceed its capabilities. The pilot is responsible for accurate completion of load calulations. The helicopter manager and helibase manager will be responsible that load calculations are completed properly and posted daily.

TUSSOCK MOTH SPRAY PROJECT
OKANOGAN-WENATCHEE NATIONAL FORESTS
FY2001

RISK ANALYSIS

METHOD	Yes or No
1. Is there an alternative method which would accomplish the mission more safely and/or efficiently (including accomplishment by ground methods)?	**NO**
2. Is the method selected approved and do detailed instructions for safe accomplishment exist?	**YES**
3. Have adequate flight following and communications methods been established?	**YES**
MEDIUM	
1. Can factors of terrain, altitude, temperature, or weather which could adversely affect the mission's success be mitigated?	**YES**
2. Will the mission be conducted at low (below 500' AGL) altitudes – can the same objective be Achieved by lying at a higher altitude AGL?s	**YES**
3. If low-level flights, have all known arial hazards been identified during the planning process And are they known to all participants?	**YES**
4. If there is a potential for an airspace conflict (military, media, or sightseeing aircraft), have mitgating measures been taken?	**YES**
5. Have adequate landing areas been identified and/or approved to minimum requirements?	**YES**
MAN (GENERIC)	
1. Is the pilot properly carded for the mission?	**YES**
2. Will the flight be conducted within the Pilot flight time/duty requirements and limitations?	**YES**
3. Have the minimum number of personnel necessary to accomplish the mission safely been Assigned, and do they meet personnel qualifications and experience requirements?	**YES**
4. Will adequate personnel (flight and ground crew) and Pilot briefings be conducted prior to the flight?	**YES**
5. Are users aware that the Pilot-in-command has the final authority over any operations Conducted involving the aircraft or its occupants?	**YES**
MACHINE	
1. Is the aircraft capable of performing the mission in the environment (altitude, temperature, Terrain, weather) where the operation will be conducted?	**YES**
2. Is the aircraft properly carded for the intended mission?	**YES**

TUSSOCK MOTH SPRAY PROJECT

OKANOGAN-WENATCHEE NATIONAL FORESTS
FY2002
JOB HAZARD ANALYSIS

HAZARD	MITIGATING MEASURE
MTR'S/MOA'S	Check routes in advance. Coordinate with Okanogan Dispatch for risk mangement.
Private Aircraft	See and Avoid. Post signs at local Airports of operation plans.
Airport Traffic	Monitor UNICOM. See and Avoid.
Weather	Obtain daily weather forecasts, be aware of weather advisories.
Terrain	Do not place aircraft in performance related situations. Make sure Pilots are familiar with spray blocks and terrain.
Low Level Obstacles	Perform a high level reconnaissance before descending below 500' AGL prior to spray operations to identify any previously unidentified obstacles from hazard maps. No unnecessary low level flights.
Unimproved Landing Sites	Recon landing sites prior to operations, identify as many potential emergency landing sites and place on operation maps.
Flight Operations With Doors Off	Use approved harness/straps. Remove loose items in cabin. Secure anything that cannot be removed.
Pilot Not Familiar With Area	Perform a high level reconnaissance before descending below 500' AGL Provide project and hazard maps to each Pilot.
Noise, Rotor Wash	Wear ear and eye protection (IHOG Chapter 9).
Internal and External Loads.	Have qualified and trained personnel assigned to those missions.
Unplanned Aircraft Events	All personnel equipped with proper PPE and trained in crash rescue procedures. Crash rescue plans given to and reviewed by all personnel and posted at helibase (or other appropriate briefing location).
Hazardous Materials	Material Safety Data Sheets provided and reviewed by all personnel. Only trained personnel will handle hazardous materials spill. Contractor is responsible for clean-up of all spills.
Non-Aviation Personnel	Thorough briefings provided to all personnel (IHOG Chapter 10).
Communications	Daily radio checks prior to departing helibase. Develop alternatives in case designated frequencies become inoperable. Cease operations any time communications fail.

EXHIBIT F-2

File Code: 5700 **Date:** April 9, 2004
Route To:

Subject: Waiver For Aircraft Use

To: Forest Health Protection, Unit Aviation Officer

The purpose of this letter is to grant approval, in accordance with the provisions of FSH 5709.16.36.1 c, for Forest Health Protection to use normally aspirated Partnavia aircraft in execution of Forest Health Protection missions. This includes both the State of Oregon and the exclusive-use Partnavia contracted by the Forest Service for Forest Health Protection in the state of Washington.

The grant of approval is granted based on two rationale. First, there is a considerable and successful precedent of use of Partnavia aircraft for forest health protection missions in Region 6 of the Forest Service. Documented grants of approval are on file and date back well into the 1990's. Second, the airplane is typically flown with the single-engine ceiling, 6900ft, in mind when planning daily flight routing. The highest terrain is flown in the morning and in such a manner to allow safe single-engine flight to a suitable landing area or to an altitude 1000ft below the manufacturer's published single-engine service ceiling. Survey flights over mountainous terrain are planned at 6 to 10 percent below the aircraft maximum gross weight. The Partenavia has a glide ratio, with both engines failed, comparable to most USFS approved single engine aircraft under similar circumstances.

Eg: Wing Loading: C-210 21.7 lbs./sf
Partenavia 21.6 lbs/sf
Power Loading C-210 13.3 lbs/hp
Partenavia 10.8 lbs/hp

The Partenavia has a VMC lower than it's stall speed, making it a very safe and maneuverable aircraft on one engine.

This grant of approval is valid with the understanding that missions will be conducted in parameters similar to the ones listed in the preceeding pargraph; and is vaild until superceded or cancelled.

/s/ *Jonathan M. Rollens*
JONATHAN ROLLENS

Jon Rollens
Regional Aviation Officer
Pacific Northwest Region

Cc: Scott Fisher
Jamie Tackman
Bill Bulger
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In past releases of this plan the Pacific Northwest Crash, Search, and Rescue Guide was issued as a separate document inserted into this section of the Northwest Aviation Management Plan. The Interagency Aviation Mishap Response Guide and Checklist has replaced this document and is inclusive of both Forest Service and Bureau of Land Management aviation activities. Direction for this program is contained in FSH 5720 and BLM Manual 9400.8. Aviation accidents and incidents are reported according to agency policy contained in these directives

OAS handles investigation and follow up of reports for BLM. The RASM handles *all Forest Service* incidents in Region 6. As a courtesy notify the RASM of all *BLM* reports submitted.

The Interagency Aviation Mishap Response Guide and Checklist can be found at the following web site:

http://www.oas.gov/oassafty/library/iamrp.html

Thoughts to consider in any aviation operation:

*You are now in charge of a **sacred trust, the safety of human lives.***

*You **must not let undue pressure (expressed or implied) influence your judgment** during the performance of this sacred trust.*

*You must be able to **"develop a team"** in which members must participate and contribute to the safety of the operation.*

*You must **delete "false pride, calculated risk, real world, and good enough for Government work"** from your professional vocabulary.*

*You **must not let your actions instill the attitude of competition between pilots or team members**. This attitude may hinder their performance and may compromise the safety of the mission*

You will not be criticized or stigmatized for any decision you make which will ensure added safety to an operation.

PLAN*ACT*INFORM*COORDINATE*LOCATE*RECOVER*SECURE*RECORD

****Someone's Life May Depend on Your Actions****

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Aviation Publications

This technical library list is suggested for every level of aviation activity. Additions to this list will be incorporated as they are published. Send Updates to the Webmaster .

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Forest Service Aviation Activities | OMB Publications | BLM Aviation Operations
DOI/OAS Policy Publications | Misc. Operations and Contracts | Interagency Guides
FAA Publications

Forest Service Aviation Activities

Publication	Effective Date	Where to Obtain
FSM 5700 Aviation Management Zero Code	12/2/99	Forest Service WWW Zero Code Page
5710 Administration Interim Directive	12/2/99	Forest Service WWW 5710 Page
5720 Aviation Safety	9/12/97	Forest Service WWW 5720 Page
FSH 5709.11 Fixedwing Handbook	Superceded	Superceded by FSH 5709.16
FSH 5709.14 Smokejumper Operations Handbook	10/88	Forest Service WWW 5709.14 Page
FSH 5709.16 Flight Operations Handbook Entire handbook in Adobe pdf format .(320kb) Interim Directive	12/99	Forest Service WWW 5709.16 Page
FSM 1500 Zero Code	8/6/96	Forest Service WW 1500 Page
1510 Legislative Affairs (Congressional flights)	6/1/90	Forest Service WW 1500 Page
1590 Emergency Operations	6/1/90	Forest Service WW 1500 Page
FSH 6309.11 Contract Administration Handbook	1/31/91	Forest Service WWW 6309.11 Page
FSH 6509.11f Working Capital Fund Aircraft	9/8/99	Forest Service WWW 6509.11f Page
FSH 6709.11 Health and Safety Code Handbook	12/1/99	Forest Service WWW 6709.11 Page
FSH 5109.32a Fireline Handbook and Fire Behavior Supplement	1998 and 1993	NFES 0065 and 2165
AMIS Users Guide	6/17/99	AMIS Web Site

Top

OMB Publications

OMB A126 Improving the Management and use of Government Aircraft	5/22/92	http://www.whitehouse.gov/omb/circulars/a126/a126.html
OMB A-76 (Revised) Performance of Commercial Activities	6/14/99	http://www.whitehouse.gov/omb/circulars/a076/a076fedr.html
OMB A-123 Internal Control Systems	6/21/95	http://www.whitehouse.gov/omb/circulars/a123/a123.html
41 CFR 101-37 Government Aviation Administration and Coordination		Aircraft Management Policy Division (MTA) Regulations

Top

BLM Aviation Operations

BLM MS-9400	4/6/99	http://www.blm.gov/nhp/efoia/wo/manual/9400.pdf
BLM National Aviation Management Plan	2003	http://www.fire.blm.gov/textdocuments/03NAP.pdf
BLM Opreational Publications (Red Book)	1/04	http://www.blm.gov/fna/Standards/redbook.htm
BLM Instruction Memorandums		http://web.blm.gov/internal/fire/drctv.htm#Memorandum
BLM Information Bulletins		http://web.blm.gov/internal/fire/drctv.htm#Bulletins
OR/WA Instruction Memorandums		http://web.or.blm.gov/records/im/2003/2003imlist.htm
OR/WA Information Bulletins		http://web.or.blm.gov/records/ib/2003/2003iblist.htm
National Fire Leadership Team Meeting and Conference Call Notes		http://web.blm.gov/internal/fire/FLT/FLTMeetings.htm

Misc. Operations and Contracts

Helicopter Accessories Source List	April 1989	TE01 P12 San Dimas x-113
NFPA 407 Aircraft Fuel Servicing Manual	Unknown	800-344-3555 Item # PY-407-96 www.nfpa.org/
National Long Term Fire Retardant Requirements (Pink Book) NIFC Solicitations and Contracts Web Page	May 18, 2001	NIFC 208-387-5665 Adobe Acrobat .pdf
National Air Tanker Services Contract NIFC Solicitations and Contracts Web Page	1999	NIFC 208-387-5665 Adobe Acrobat File
CWN Helicopter Service Contracts NIFC Solicitations and Contracts Web Page	1999,2000,2001	NFES 2168 Adobe Acrobat .pdf
R6 CWN Helicopter Contract	2002 thru 2004	Region 6 Fire Contracting

CWN Fixed-Wing Services	Updated Annually	R-6 Contracting 503-808-2378
CWN Single Engine Airtanker Contract	Updated Annually	Adobe Acrobat file
R-6 Crash Search and Rescue Guide	1998	Bill Bulger 505 808-2314 R-6 Crash Rescue Guide Interagency Aviation Mishap Response Plan
Military FLIP Planning AP/1B	56 day update cycle	NIMA 800-455-0899 NOAA 800-638-8972 x-129
National Aviation Management Plan	1995	FAM RO 503-808-6593
Northwest Aviation Management Plan	Updated Annually	Intranet Managment Plan Files
Unit Aviation Plan	Annually update if Required.	http://fsweb1.r6.fs.fed.us/library/aviation_/unitplansandinf_/default.htm
OAS Pilot and Aircraft Source List	Updated Monthly	www.oas.gov
R-6 Pilot and Aircraft Source List	Updated Weekly	Northwest Aviation Home Page
Five Steps to a Safe Flight Wallet Card OAS-103/FS-5700-16	April 1997	NFES 1399
Helicopter Passenger Briefing Card		OAS-84
SDTDC Publications Search		http://fsweb.sdtdc.wo.fs.fed.us/pubs/search_all.shtml
MTDC Publications		Findings from the wildland firefighters human factors workshop ; 12-16 June 1995; Missoula, MT. Tech. Rep. 9551-2855-MTDC. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. 76 electronic p.

Top

Interagency Guides

Interagency Helicopter Operations Guide (IHOG)	2002	NFES 1885 Forms Pack: 1878
Interagency Retardant Base Planning Guide FW/RW	1995	NFES 1259
Interagency Helicopter Training Guide	1993	S-217 NFES 1261, 1539,2390
Interagency Helicopter Rappel Guide	1998	Glen Johnson 208-387-5634

Interagency Smokejumper Operations Guide	May 1998	Gordon Harris 208-387-5637
Interagency SEAT Operations Guide (ISOG)	2001	NFES 1844 NFES 1413 Forms
Interagency Aviation User Pocket Guide	1998	NFES 1373 also pdf file
Professional Helicopter Pilot Guide	1996	SDTDC 9657 1201 San Dimas 909-599-1267 x-113 HTML Guide
Military Use Handbook	April 11, 2001	NFES 2175
Interagency Aerial Ignition Guide	1998	NFES 1080
Aviation Transport of Hazardous Materials FAA Exemption Interim Change to the Guide OPM 37	January 1999	NFES 1068 Aviation Library pdf file
Interagency Airspace Coordination Guide Draft available on the Internet	6/1/91 Under Revision	Julie Stewart 503 808-6728
MAFFs Operating Plan	Updated Annually	WO Airtanker Program Manager 208 387-5625
Interagency Leadplane Operations Guide (ILOG)	1997-98	Dave Nelson 208-387-5299
Interagency Air Tanker Base Operations Guide (IATBOG)	2003	NFES 2271 Aviation Library Zip file
National Air Tanker Base Directory	Updated Annually	NFES 2537
Personnel Directory, Pacific Northwest	Updated Annually	Internet Directory FS E-mail Directory
Interagency Technical Assistance Directory	Updated Annually	NFES 2512 Internet Directory
NWCG Publications Management System National Fire Equipment System Catalog Part 2 Publications	Updated Annually	NFES 3362 Internet Catalog
USDA/USDI Aircraft Radio Communications and Frequency Guide	Updated Annually	NFES 2969
Western Firefighters Interagency Frequency Guide	1998	NIFC 208-387-5485
National Interagency Mobilization Guide	Updated Annually	NFES2091 or 2
NEW! Northwest Interagency Mobilization Guide	Updated Annually	Chapter 10 Chapter 20 Chapter 30 Chapter 40 Chapter 50

		Chapter 60 Chapter 70 Chapter 80
Interagency Air Tanker, Helicopter, Large Transport, Smokejumper Information (Yellow Book)	Updated Annually	NFES 2277
Aircraft Identification Guide	1994	NFES 2393

Top

FAA Publications

Guide to Federal Aviation Publications	Web Page	http://faa.gov/publications/index.htm
Advisory Circulars	8/15/97	Internet link to the Advisory Circulars
Government Aircraft Operations AC 00.1.1	4/19/95	http://www.faa.gov/avr/afs/acs/00-11.pdf
General Aviation Alerts	Updated Monthly	http://av-info.faa.gov/
Aeronautical Information Manual	Updated @ 112 days	ASA http://www.faa.gov/ATPubs/AIM/
Airport/Facility Directory	56 Day Revision Cycle	NOAA Subscription Airport Search AirNav.com Database
14 CFR Federal Aviation Regulations (FAR)	Constantly updated	http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?&c=ecfr&tpl=/ecfrbrowse/Title14/14tab_02.tpl
Notices to Airmen	28 Day Revision Cycle	http://www.faa.gov/NTAP/index.htm
Airworthiness Directives	As required	http://av-info.faa.gov/ad/AD.htm
FAA Regulatory Support Division, AFS-600	As required	http://afs600.faa.gov/
FAA Air Traffic Publications	As required	http://www1.faa.gov/ATpubs/index.htm
FEDWorld Information Network	As required	http://www.fedworld.gov/
National Transportation Safety Board Information	As required	NTSB Part 830 Accident Notification
49 CFR Parts 100 - 185	As required	Part 175 Carraige by Aircraft
Office of Hazardous Materials Safety	As required	DOT Hazardous materials Regulations

REGIONAL AVIATION GROUP
AVIATION MANAGEMENT
PROGRAM OF WORK
FY2003

Jon Rollens, Regional Aviation Officer
- Leadership and Management of Region 6 Aviation Program
- Member of SORO Director's and Assistant Director's group
- Member of Regional Aviation Leadership Team (ALT)
- Member of PNWCG Aviation Working Team
- Member of FS Regional Aviation Officer Council

Clay Hillin, State Aviation Manager
- Leadership and Management of Oregon/Washington BLM Aviation Program
- Represents Combined Aviation Program in coordination with other Interior Agencies
- Member of SORO Director's and Assistant Director's group
- Member of Regional Aviation Leadership Team (ALT)
- Member of PNWCG Aviation Working Team
- Aviation Safety contact for BLM in Washington and Oregon
- Supervise and mentor developmental State Aviation Manager

Bill Bulger, Aviation Safety and Manager
- Manages Region 6 Aviation Safety, Training and Accident Prevention Program
- Provides aviation liaison with R6 and SO Safety & Health program managers
- Provides liaison with NTSB
- Provides aviation safety expertise to FS & BLM units in the Northwest
- Member of Regional Aviation Leadership Team (ALT)
- Member of PNWCG Aviation Working Team
- Member of FS Regional Aviation Safety Officer Council
- Member of the Nation RASM Council

***Vacant*, Aviation Management Specialist**
- Coordinate and Update Northwest Aviation Management Plan
- Maintain Web Pages
- Coordinate and Review Unit Aviation Plans and Project Aviation Safety Plans
- Liaison for PNW Station and Portland Lab
- Administrative duties as assigned
- Regional AMIS Program Manager

***Vacant*, Developmental Aviation Manager**
- Developmental activities as assigned by the SAM and RAO to develop communication, analytical, and interpersonal skills coordinated through COFMS UAO (Supervisor).
- This position is shared with Central Oregon Fire Management System (COFMS) and staffs the Regional ATGS aircraft in Central Oregon as well as developmental duties.

Julie Stewart, Airspace Coordinator
- Coordinates natural resource airspace programs
- Provides staff support to the RASTM position
- National Airspace coordinator/program manager for USFS WO

Kim Reed, (Acting) Aviation Operations Manager for Regional Aviation Group
- Manages Regional Aviation Unit
- Provides management and supervision of RAG pilots and program managers
- Member of Regional Aviation Leadership Team (ALT)
- Chair of the Regional Aviation Group Management Team (RMT)

Rick Watkins, Aviation Maintenance Program Manager

- Manages R6 Maintenance and avionics program
- WO Support for National Maintenance Program
- Member of Regional Aviation Leadership Team (ALT)
- Member of the Regional Aviation Group Management Team (RMT)
- Aircraft and helicopter inspector
- Airtanker maintenance inspector
- *Maintenance Records Coordinator*
- *Carding Airtankers Assistant*

Mike Brady, Aircraft and Maintenance Facility Inspector

- CWN and contract helicopter inspections
- Fixed-wing inspections
- Baron maintenance and inspections
- Sherpa maintenance and inspections
- Assist with WO and National Tanker Inspections
- R6 contract maintenance issues
- Type 1,2, and 3 helicopter inspections
- Coordinates with local FBO's on inspections and maintenance on R-6 aircraft
- Research Airworthiness Directives and service bulletins
- Update 58P, Sherpa and Commander 500 maintenance records
- Update complete aviation microfiche library.
- *Maintenance Records Assistant*

Dennis Morentin, Avionics Specialist

- Avionics program Manager for R6
- Avionics aircraft Inspector National/Regional
- Provide Forest Service avionics expertise to field, management and contractors on a regional and national level
- Designs specialized avionics equipment for Forest Service requirements
- Performs duties for WO support National Avionics Program
- Designated Avionics Inspector for WO on all Baron Avionics Program and 1000 hour phases
- Oversees 58P Baron and Sherpa Avionics Program for the WO
- RAG Accountable Property Officer
- Provides technical service to RDM Fire Cache (Helmets and test harnesses)
- Provide technical services to Regions and National Office for contract specs and modifictions

Jamie Tackman, Light Fixed Wing Program Manager

- Manages R6 light fixed wing program
- Leadplane instructor pilot
- Member of the Regional Aviation Group Management Team (RMT)
- Forest liaison to Washington Forest (except GP)
- Smokejumper Pilot
- *Carding/*Inspector for light fixed-wing pilots and aircraft.
- *Liaison to Washington Forests*

Ron Barrett, Smokejumper Aircraft Program Manager

- Manages R6 smokejumper aircraft program and pilots
- Smokejumper captain and check airman
- Captain and co-pilot standardization
- Liaison to Western Oregon Forests
- Liaison to Redmond Air Center Council
- Member of the Regional Aviation Group Management Team (RMT)
- Lead plane pilot
- Member of National Sherpa Steering Group.
- *Lead Plane/Smokejumper Scheduling Assistant*
- *RAC Council Representitive and Facilities Coordinator*

Ron Vail, Airtanker, Aerial Supervision Program Manager

- Manages Airtanker and Lead Plane Program and pilots
- Member of the Regional Aviation Group Management Team (RMT)
- Liaison to Northeastern Oregon forests
- Inspector for light fixed-wing pilots and aircraft
- Airtanker pilot inspector
- Smokejumper captain
- Lead plane instructor
- NAFA unit leader
- *Carding Airtankers Coordinator*
- *Lead Plane/Smokejumper pilot scheduling Coordinator*
- *Barron standards Assistant*
- *Hanger Facilities Coordinator*

Kim Reed, Helicopter Program Specialist

- Manages R6 Helicopter Program
- Manages Federal excess property helicopter program
- Performs duties for WO to support Type I and II helicopter program
- Inspects helicopter pilots
- Support to Rappel Academy
- Member of the Regional Aviation Group Management Team (RMT)
- *RAC Council Representitive and Facilities Assistant*

Ken Ross, Helicopter Operations Specialist

- Provides technical helicopter operations support to SORO field units
- RAG aviation equipment specialist
- Member of National Interagency Helicopter Rappel Working Group
- Support to Rappel Academy

Paula Bowman, Support Services Specialist for Regional Aviation Group

- Manages all RAG business management
- Manages RAG Budget
- Oversees administrative and office management functions
- Invoices aircraft flight use for WCF aircraft
- Manages billing/record documentation for WCF aircraft
- Member of SORO Aviation Leadership Team
- Develop F.O.R and use rates for R6 Barons and Aero Commander
- *RAC Admin Support Liaison*

Craig Irvine, Airplane Pilot

- Lead plane instructor pilot
- Smokejumper captain
- *RAG Safety Liason Assistant*
- Liaison to *South Western Oregon* and Central Oregon forests

Greg House, Airplane Pilot
- Administrative Aircraft Use Program Specialist
- NAFA section leader
- Member National Baron Steering Croup
- Lead plane instructor pilot
- Airtanker pilot inspector
- Smokejumper captain
- Liaison for Southwestern and Central Oregon forests
- MAFFS training co-coordinator
- *Baron Standards Coordinator*
- *Administrative Flight Records and Scheduling Coordinator*

Hazel Hammond, Airplane Pilot
- Smokejumper co-pilot and captain trainee
- Photo mission pilot and instructor
- Photo mission liaison to Regional Office
- Liaison to Western Oregon forests
- *Flight Publications Assistant*
- *Pilot Training Records Assistant*

Doug Kastner, Airplane Pilot
- Smokejumper co-pilot
- Photo mission pilot
- Radio frequency liaison *assistant*
- ATGS (regional) liaison
- Hangar facilities assistant
- *Library/Subscriptions Coordinator*
- *Liason to Washington Forests*

Mike Dark, Airplane Pilot
- Smokejumper co-pilot
- *Simulator Assistant*
- *Library/Subscriptions Assistant*

Don Bell, Airplane Pilot
- Smokejumper co-pilot
- Photo mission pilot *trainee*
- Flight publications coordinator
- Lead plane pilot trainee
- Liaison to Northeastern Oregon forests
- *Pilot Training Records Coordinator*

***Eric Shilling*, Airplane pilot**
- Smokejumper captain trainee
- Photo *Mission Pilot trainee*
- Forest Liaison
- *RAG* Safety Liaison *Coordinator*
- *Simulator Coordinator*

Janine Smith, Developmental Aviation Manager (SCEP)
- Aviation Safety Liaison for RAG.

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