



USDA Forest Service Rocky Mountain Region Fire and Aviation Management Briefing Paper



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Topic: Revision/Update of Rocky Mountain Region Aviation Management and Safety Plan

Issue: Changes from the 2009 version of our Regional Aviation Management and Safety Plan

Updates/Changes for 2010:

- Pg 9 – added additional responsibilities for Forest Aviation Manager.
- Pg 10 – Added Aviation Safety Technical Assistance Team and responsibilities.
- Pg 11 – Aviation organization chart changed due to recent FAM organization changes.
- Pg 12 – Added helicopter operation plan requirements, and pilot briefing to include hazard map.
- Pg 13 – helicopter Base reviews process.
- Pg 13 – Clarification of training requirements for any employee who assists with external load operations.
- Pg 14 – Aquatic Invasive Species statement.
- Pg 15 – Clarification of Air to Ground and Air to Air communications.
- Pg 19 – Reference to new appendix added to plan “Aviation Emergency Resources.”
- Pg 19 – Radio requirements for military and cooperator aircraft.
- Pg 22 – LE&I added requirement prior to flying in DHS aircraft.
- Pg 26 – LE&I notification requirement for aircraft accident and investigation.
- Pg 78 – Added Appendix “Aviation Emergency Resource List.”

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**2010
AVIATION MANAGEMENT
AND
SAFETY PLAN**

ROCKY MOUNTAIN REGION

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I - INTRODUCTION

This Plan addresses activities, management expectations, and procedures which will be used to manage the aviation program as it pertains to supporting Forest Service and Rocky Mountain Region mission goals. This plan focuses on proper use of aircraft in a safe and cost effective manner. It must be understood this plan is not a program in itself, but a tool to be used by knowledgeable and disciplined aviation managers to help them accomplish aviation missions safely.

Each Forest will have their own plan as a supplement to the Regional plan to better clarify specific details of aviation activities conducted on their Forests.

Goal

The goal of aviation management in the Rocky Mountain Region is to ensure flight operations are conducted in a safe, cost effective manner, employing the **right** aircraft for the mission. Adherence to these three basic principles; safe, right, and cost effective, is the ultimate goal and driving force behind a successful program. Aviation Operations that may be unsafe, inefficient or not effective are aircraft operations with reduced capabilities due to high temperatures and/or high operational elevations that decrease the aircraft capabilities making the operation inefficient and reduce cost effectiveness; ineffective retardant or water operations due to high winds or fires that are burning too intense, hot, or moving too fast. The regional Office will support decisions to terminate aviation operations when determined the safety of the operation is at risk, compromised, or mission is determined to be ineffective due to existing conditions.

This plan will provide all employees with a comprehensive guide for aviation operations in this Region. Aviation management objectives will be reached by following Forest Service Manual, Handbooks, Guides, operating plans, contracts, and applicable Federal Aviation Regulations. This does not replace the need for good judgment and independent decisions where life or property is threatened.

Objectives

The objectives of this plan are:

1. To give clear understanding to all aviation managers and users, regarding procedures that will be utilized by this Region including planning and conducting flight operations in support of the Forest Service mission.
2. To identify the roles, responsibilities, and training plan for individuals attached to the aviation mission.
3. To ensure aviation operations are conducted to the national standard by identification of those standards.
4. To minimize human exposure to hazards through identification of effective safety systems analysis and risk management techniques.
5. To minimize the likelihood of injury, death, or property loss from aviation accidents.
6. To implement the National Aviation Management and Safety Plan and Aviation Doctrinal approach into regional operations.
7. Ensure the right resources are utilized for our missions. Using the right resource will help us attain our goals of safe and cost effective aviation operations.

II - MANAGEMENT PHILOSOPHY

Aviation Management

Rocky Mountain Region Aviation Operations will be conducted to the standards set forth in national policy. Many of the policies we use today have evolved from lessons learned at great expense in terms of dollars and human lives. Our own success will depend on technical competence, communication, and teamwork. It is the responsibility of every person who has a stake in aviation to understand what is required of them, and to have the ability to meet those demands. Training will continue to be priority. Aviation managers and supervisors assume great responsibility and must be willing to take control of their projects with confidence and an understanding they will make decisions which affect the safety of their fellow employees.

Policy

All aviation operations performed within the Region shall comply with National standards, published directives, aviation contracts, and applicable Federal Aviation Regulations. It is the policy of the Rocky Mountain Region Aviation Unit to follow all applicable rules and regulations pertaining to aviation. These rules and regulations are found in Forest Service Manual 5700, Forest Service Handbooks (FSH 5709.16, Flight Operations Handbook, FSH 6709.11 Health and Safety Code Handbook), and Interagency Guides such as; Interagency Helicopter Operations Guide, interagency Aerial Supervision Guide, Interagency Aerial Ignition Guide, Interagency Airtanker Base Operations Guide, and Interagency Single Engine Airtanker Operations Guide.

Each Forest shall supplement this plan with Forest level Aviation Plans containing more specific details relating to aviation operations conducted on or for the Forest. The Forest Aviation Plan, and the Forest Aircraft Incident/Accident Response Guide, shall be reviewed and updated annually.

All Forest Service aviation operations must be addressed in a written plan. Those operations not covered in FSM or FSH, the National, Regional, or Forest Aviation Plans must be addressed in a Project Aviation Management Plan. The Elements of a Project Aviation Plan are addressed in Appendix 7.

Forest Aviation Plans must be approved (signed) by the Forest Supervisor. Prior to approval, Forest Aviation Plans must be prepared/reviewed by the Forest Aviation Officer (FAO), and reviewed by the Regional Aviation Officer, and/or the Regional Aviation Safety Manager. The Elements of Forest Aviation Plan are addressed in Appendix 6.

Safety Management Systems (SMS)

The interagency aviation community is moving towards SMS which is a proactive accident prevention tool currently used by the Federal Aviation Administration and soon to be a mandated requirement for many of our vendors.

The objectives of Aviation Risk Management and Training Systems are in keeping with the most modern approaches to the safe management of complex systems. The Forest Service incorporates Safety Management Systems (SMS) in its aviation program. Safety Management Systems achieve high standards of efficiency and effectiveness within the four primary components which include:

- **Policy** is management commitment, and includes responsibility and accountability for the program and the appointment of key safety personnel. Forest Service manuals are being revised using principle centered management for guidance of aviation operations.
- **Risk Management** identifies hazards and applies risk assessment and mitigation processes.
- **Assurance** is the process of monitoring controls that also includes aviation accident prevention, review and analysis of historical data, accident investigation, error analysis, and corrective action plans.
- **Promotion** includes training for pilots, crews, managers, support personnel and end-users. Other communications, awards and lessons learned help to maintain safety awareness.

Foundational Doctrine

The Rocky Mountain Region has adopted and incorporates the National Fire Management Foundational Doctrine in the Aviation and Fire Management Program. The fundamental responsibility of Forest Service aviation is to support the agency's land management operations in a timely, cost-effective, and efficient manner. The mission of the Rocky Mountain Region aviation program is to provide safe, efficient and coordinated aerial support for agency operations, to support partnership agreements, and to meet current and future needs through innovation and technology.

Information regarding the current status of the Forest Service Foundational Doctrine can be found on the following internet site: <http://www.fs.fed.us/fire/doctrine/index.html>

Components of Doctrine

An Aviation Foundational Doctrine has been developed and is composed of eight components which include Mission, Operations, Leadership and Accountability, Aviation Safety and Risk Management, Training, Qualifications, & Education, Relationships and partnerships, and Security. The Aviation Doctrine may be combined with the Foundational Doctrine. When determined whether it will be a separate doctrine or combined, once approved the doctrine will be included as an Appendix to this document.

III - AVIATION PROGRAM

Program Overview

The Rocky Mountain Region utilizes aircraft for support of wildfire suppression, remote sensing, insect and disease survey and control, aerial photos, law enforcement, special projects, and administrative transportation. This Region works cooperatively with our interagency partners, State Cooperators, BLM, BIA, FWS, and NPS to provide a supportive role in aviation management oversight.

To support these operations, resources available to the Region include contract airtankers, contracted Type I, II and III helicopters (exclusive use and call-when-needed), a Cessna 206 and a leased King Air C90GT, a national leadplane resource. The fixedwing, if not on assignment, are available for administrative flights. Additionally a number of aircraft are provided by private vendors through Call-When-Needed (CWN) contracts, cooperator and interagency partners. These resources are obtained through requests via the local dispatch center or Rocky Mountain Area Coordination Center (RMACC).

National Aviation resources include leadplanes and national Type I and II helicopters which are hosted by regions, large airtankers, smokejumper, infrared detection and mapping and large transport aircraft.

Fire suppression accounts for the highest use of our aviation assets. Peak use in the Rocky Mountain Region occurs between April 15 and September 15.

One of the primary roles of the Regional Aviation Group is to provide support and guidance to the Forest through the FAO. This partnership is the cornerstone of the Regional aviation program.

The major elements of the Aviation Program include:

- Aviation Safety - Ensuring aviation operations are conducted at a level of acceptable risk commensurate with the needs of the mission through training, communicating, and providing technical assistance to Forests.
- Incident Support Coordination – Rocky Mountain Area Coordination Center (RMACC) provides assistance and leadership in flight planning, flight following, and airspace coordination.
- Program Management - Providing guidance, direction, and coordination of safe and efficient aviation operations on the Forests within the Region. Ensures implementation of aviation policy in the principles of the aviation management triangle.

Roles and Responsibilities

Director, Fire and Aviation Management (FAM) – responsible to the Regional Forester

The primary role of the Director of FAM is to provide leadership, strategic planning, and oversight, to the Regional and Forest aviation and fire organizations. This position is the focal point for setting the tone with each Forest Supervisor for the expected level of aviation operational standards which are consistent with the Regional Forester's established safety expectations.

Deputy Director, SFAM – responsible to Director, FAM

Oversees all operations within SFAM Staff group. Supervises Branch Chiefs for Operations, Coordination Center, Aviation Management, Info Systems, Co-op Fire Protection, and Fuels.

Regional Aviation Officer – responsible to the Deputy Director, SFAM (FSM 5720.48)

The primary role of the Regional Aviation Officer (RAO) provides aviation program management and oversight for the region and its associated units. This position sets the standard for the level of safety expected within the

aviation function and executes a safe WCF flight operation. The RAO and Aviation Team communicate institutional values and level of acceptable risk to those executing and managing contract and internal aviation operations. The activities of the RAO are meant to unify the efforts of Regional aviation experts/professionals and develop a team approach in achieving safety goals and objectives while providing aviation support to the Forests and cooperators. RAO responsibilities include:

- Monitor Forest, District, and project aviation planning as well as qualifications of Forest Service employees involved in aviation operations.
- Assist Forest Aviation Officers in the development of aviation-related plans and recommend/approve changes to these Forest plans and aviation operations.
- Ensure specialized aviation training is provided to field units and employees.
- Provide technical input to Contracting Officers for development of standard contract specifications.
- Provide aircraft and pilot inspections and approvals as required by Forest Service direction, cooperative agreements, and contract specifications. Issue cooperator letters of approval.
- Conduct evaluations of field aviation operations.
- Monitor contract and employee pilot performance.
- Support decisions to terminate aviation operations when determined the safety of the operation is at risk, compromised, or mission is determined to be ineffective due to existing conditions.

Lead Pilot – Responsible to RAO

The primary role of this position is a lead plane pilot. Additionally this position supervises regional pilots, manages the regional pilot inspection program, responsible for JeffCo Security Plan, provide leadership, coordination, guidance and direction to the Regional Lead Plane Program and fire management. Assists the RAO in program management and oversight. Lead Pilot responsibilities include:

- Manage Aircraft pilot inspection program
- Supervise pilot staff
- Train and evaluate agency pilots
- Provides advice, counsel and support to improve regional and national aviation programs.
- Update Aviation Security Plan annually.

Regional Pilots – Responsible to Lead Pilot (FSM 5704)

- Responsible for safe and efficient aircraft operations
- Assists in pilot inspection program
- Provided input to Regional Aviation Program

Regional Aviation Safety and Training Manager – responsible to the Director, SFAM (FSM 5720.48)

The Regional Aviation Safety and Training Manager (RASM) serves as the principal technical advisor to the Team Leader on all aviation safety matters and is a critical member of the Region's Aviation Management Team. This position is the focal point for the Region's efforts in promoting safety awareness and developing safe attitudes in

those people directly and indirectly involved in aviation operations. The RASM provides the concepts, principles, and procedures required for interfacing aviation safety practices into operational activities. Evaluations and appraisals are conducted to determine the level of compliance and effectiveness of existing aviation safety activities. The RASM recommends actions necessary to enhance the Forest Service aviation safety program. RASM responsibilities include:

- Conducts Forest aviation safety reviews/evaluations.
- Review aviation planning, training, contract specifications, and recommend changes to the Director.
- Participate on selected safety evaluations with other aviation staff members to review the ground operation monitoring programs and recommend changes to the Director and the RAO.
- Monitor and follow-up actions recommended from safety evaluations, formal reviews, and Board of Review.
- Review contract and employee pilot training and monitor activities to ensure compliance with Forest Service direction and make recommendations for changes to the Director and the RAO.
- Ensure aviation accidents and incidents are investigated and corrective actions are taken to prevent any recurrences.
- Provide trend monitoring of accidents and incidents from Safecom reports, to help the RAO and Team Leader prioritize efforts in the areas presenting higher risk for mishap.
- Assists in helibase and airtanker base inspections.
- Conduct and/or provide aviation training to Regional and Supervisor's Office employees.

Helicopter Operations Specialist (HOS) – responsible to the RAO

The Helicopter Operations Specialist is responsible for leadership, coordination, and direction of the helicopter program. The HOS leads and coordinates development of recommended policies, standards, and operational procedures. The HOS coordinates and provides expertise and training for helicopter support personnel including aerial ignition, rappel, management, and survey. HOS responsibilities include:

- Provide technical assistance in helicopter operations to the Forests.
- Assist Forests in development of helicopter programs and operating plans.
- Conduct helibase inspections.
- Provide and arrange for instruction for helicopter crew and support personnel.
- May serve as Contracting Officers Representative on helicopter contracts.
- Represent the Region at National level helicopter operations meetings and steering committees.
- Support national fire fighting needs as member of STAT teams or technical specialist.
- Provide National Guard briefings for fire and Reconnaissance and Interdiction Detachment (RAID) missions.

Aviation Specialist – responsible to the HOS

Aviation Specialist is a developmental aviation management position. Responsibilities include:

- Provide overall management of type I national helicopter.

- Assist HOS with Regional helicopter program management
- Assist RAO and RASM in program management.

Aviation Maintenance Inspector – responsible to the RAO

The Aviation Maintenance Inspector is responsible for coordinating and conducting aircraft inspections, approves contract aircraft for return to service, and inputs approved a/c data in national data base. Aviation Maintenance Inspector responsibilities include:

- Provides efficient and effective management of the airworthiness and inspection program for Regional WCF, cooperator, and contract aircraft.
- Provides technical support to the National maintenance program, briefs pilots and other appropriate personnel on maintenance and avionics issues affecting safety and equipment, and assists on national aviation contract inspections.
- Maintains proficiency in their field in accordance with applicable Federal Aviation Regulations, interagency guides (FSM 5706), and Forest Service Manuals and Handbooks.
- Provides technical assistance in aircraft mishap investigation.
- Represents the Region in national meetings.
- Assists with Forest/Regional aviation reviews, inspections and participates as a member of a STAT team.
- Works with RASM to complete Regional maintenance related Safecomms.

Forest Aviation Officer – responsible to Fire Staff or Forester Supervisor

The Forest Aviation Officer (FAO) is the primary authority for aviation activities that occur at the Forest level. The FAO implements the Aviation Triangle (safe, cost effective, and correct aircraft), from planning through operations in support of the Forest Service mission. This position provides liaison between the Regional Aviation Staff, Forest management, and persons conducting aviation activities on the Forest. The FAO plans and organizes aviation projects by coordinating with aircraft operators and ensuring compliance with policies and regulations governing air operations. The FAO is designated the COR on all Forest aviation contracts. The FAO develops, annually updates, and submits the Forest Aviation Plan and Aviation Security Plan to the Line Supervisor for approval. The FAO implements the Forest Aviation Plan, identifies aviation training needs on the unit, and ensures completion of aviation billing systems (ABS), completes unit SAFECOMS and submits to RASM.

Aircraft Dispatcher

The Aircraft Dispatcher is responsible for the procurement of rental aircraft for administrative, fire, and resource flights and ensures that flight following and documentation requirements are met. Dispatch initiates Emergency Search and Rescue procedures when necessary. The Aircraft Dispatcher is responsible for providing a proactive communication channel with users to gather and provide information necessary for the proper planning and procurement of aviation resources.

Flight Manager

Charter flights or missions involving one or more employees requires a qualified Flight Manager be assigned. Their primary role is to manage the flight to ensure passengers are transported safely and within prescribed procedures. The designated Flight Manager will ensure all passengers are briefed, manifested, and assembled for boarding in a timely manner. The Flight Manager keeps track of flight progress and notifies dispatch centers if there is any

undue delay. Pilots and aircraft will be checked prior to flight for interagency cards that are correct and current for the mission flown. The Flight Manager ensures the accounting form (FS 6500-122, Flight Use Report) is completed and signed. Flight Manager training requirements are identified in the Interagency Aviation Training (IAT) program (<http://iat.nifc.gov/>) in the "Position Descriptions and Required Modules" section. For additional information on qualifications and responsibilities, refer to chapter 60 in the National Mobilization Guide section 67.

Aircrew Member

An Aircrew Member is a person working in and around aircraft and is essential to ensure the safety and successful outcome of the mission. Aircrew members are required to either be on board or attend to the loading and unloading of passengers and cargo at all landings and takeoffs, and to ensure that passengers have received a safety briefing prior to all non point-to-point missions. All participants in special use flights must be aircrew member certified through IAT.

Helicopter Manager

Any time a flight or mission using a helicopter involving Forest Service employees, a qualified Helicopter Manager shall be designated. The primary role is to manage the mission to ensure operations are within prescribed procedures listed within the Interagency Helicopter Operations Guide (IHOG), NFES 1885. The Helicopter Manager will ensure all passengers are briefed, manifested, and assembled for boarding in a timely manner. The Helicopter Manager will also keep track of flight progress and notify dispatch centers if there is any undue delay. Pilots and aircraft will be checked prior to flight for current interagency cards that are correct for the planned mission. The Helicopter Manager will ensure the accounting form (FS 6500-122, Flight Use Report) is completed and signed. For additional information on qualifications and responsibilities of Helicopter Manager, refer to the IHOG for operational guidance and Interagency Aviation Training for specific courses and training required.

Helicopter Crewmember

A Helicopter Crewmember is a person working in and around a helicopter and is essential to ensure the safety and successful outcome of the mission. Helicopter crewmembers are required to either be on board or attend to the loading and unloading of passengers and cargo at all landings and takeoffs, and to ensure that passengers have received a safety briefing prior to all non point-to-point missions. All participants in special use flights must be crewmember certified. . For additional information on qualifications and responsibilities of Helicopter Crewmember, refer to the IHOG for operational guidance and Interagency Aviation Training for specific courses and training required.

Aviation User (Passenger)

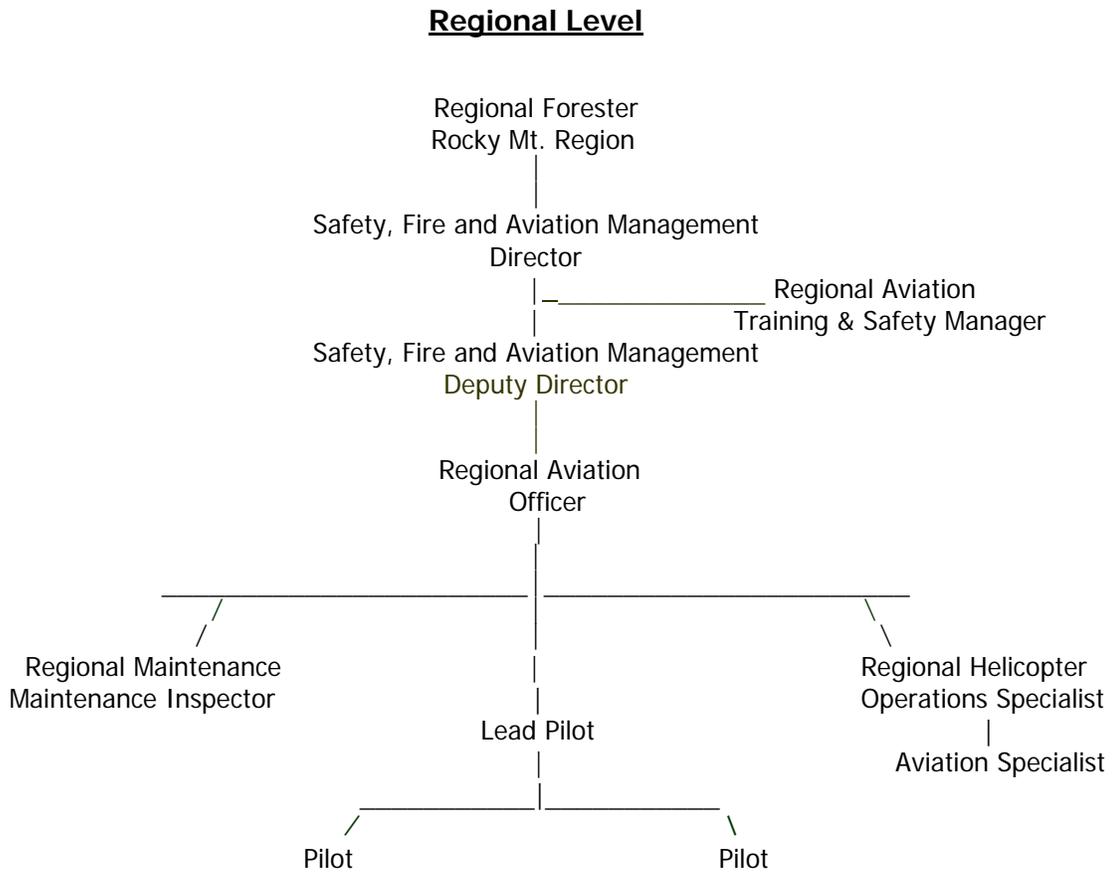
All employees who find a need to use, contract, or fly in any aircraft are considered aviation users. Aviation users are responsible for ensuring their involvement in the flight is conducted within policy and safe operating procedures consistent with the core values of the Forest Service. All users will participate in the pre-flight briefing to ensure they are aware of the safety features of their aircraft. They are further responsible for reporting unsafe acts or conditions, through use of the safecom system, or verbal report to the Forest Aviation Officer or Regional Aviation Staff. All persons expecting to use aviation resources are strongly encouraged to receive as a minimum A-101, Aviation Safety, available at the Interagency Aviation Training website (<http://iat.nifc.gov/>).

Aviation Safety and Technical Assistance Team (ASTAT)

The purpose of ASTAT is to expand the oversight and influence of the RASM across multiple incidents/project locations. Operationally, they work to enhance safety, operational efficiency and effectiveness and provide on-site technical assistance. The RASM has responsibility to order and configure ASTAT but these teams work directly for the Director of SFAM.

Regional Aviation Organization And Staffing

US Forest Service—FS ROCKY MOUNTAIN REGION – R2



Aviation coordinator located at RMACC is supervised by RMACC Center Manager

IV - OPERATIONS

Flight Operations

There is considerable risk involved with flying aircraft in the Forest Service, due to the typical mission profile (e.g., low altitude, mountainous terrain, poor visibility, turbulence, and traffic congestion in confined airspace). This environment is more demanding of pilot skills, reduces the allowable margin of pilot error, and limits the options and time to make good decisions for a safe outcome. While quality and operational limitations of aircraft are significant in risk management, statistics indicate the human element is the leading factor in aviation accidents. It is, therefore, imperative to have a means to develop and promote safe attitudes for those involved in flight operations. In addition, contract and management controls must be in place to ensure pilots are qualified, proficient, and current for the mission assigned.

Policy:

- An FAA flight plan or Forest flight plan shall be on file for all flights except training or test flights conducted locally (within 25 NM of departure airport). Automated Flight Following (AFF) is required for Rocky Mountain Region exclusive use and call-when-needed contracts (see flight following, pg 15).
- Each flight will be planned and executed such that safety considerations will take precedence over costs or mission accomplishment.
- Each Forest will have an aviation plan, project aviation safety plans and risk assessment, **helicopter operations plan if project helicopter operations are conducted on the unit, and Helibase Operations Plan if applicable. Pilots will be briefed prior to each mission. Briefing will include review of annually updated Hazard Map.**
- Aviation safety objectives will be accomplished by adherence to regulatory documents referred to in this plan.
- Air crew proficiency, currency, training, and standardization will receive high priority in an effort to prevent pilot error accidents.
- Ground crew assigned to support aviation, either directly or indirectly, will be properly trained for the specific assignment.

Aircraft Procurement:

Each Forest will ensure Point-to-Point aviation services are approved for emergency mobilization.

All vendors providing point-to-point and special mission flight support will be identified to the Regional Aviation Officer by Feb 15 for use that calendar year. Once the vendors are identified, approved pilot and maintenance inspectors will be scheduled to approve all operators for use by Forest Service employees.

Training

Training is the key method to ensure aviation technical staff and employees are knowledgeable of current procedures and techniques thus enhancing a safe operation. It is essential that pilots, aviation users, supervisors, and managers be familiar with the inherent hazards of aviation operations. Forest Service management is dedicated to providing for professional and technical training of employees or contract personnel in all levels of the organization that use or influence use of aviation resources. Training requirements and modules are established on a National Interagency Aviation Training website <http://iat.nifc.gov/position.asp>. This site provides web based training and maintains documentation of completed training in an established database. Advanced training is conducted at the Aviation Conference and Education (ACE) workshop held 2-3 times a year in Boise. Additional ACE courses may be scheduled regionally.

Point-To-Point Flights

Any flight operations for the purpose of transporting individuals directly from one airport to another are considered a Point-to-Point flight. All Point-to-Point flights will utilize WCF or contract aircraft that are approved and carded. Point-to-Point flights for regional employees will be arranged through RMACC, Forests will arrange Point-to-Point flights through local dispatch centers. Point-to-Point aircraft and pilots are not required to be physically inspected or given flight evaluations. Maintenance and pilot records are reviewed prior to issuing cards. Procedures for scheduling point-to-point flights may be found in Appendix 2.

Over Water Flights

Some missions may require overwater operations. Contact Aviation management personnel in the Region you are working to find out what the regional policy is for fixedwing overwater operations.

Special Use Missions

Any flight that is not point-to-point (direct airport-to-airport) is considered special mission. Pilots and aircraft must be carded to perform that particular special mission that is planned. Special missions include aerial reconnaissance, spraying, fertilizing, dropping fire retardant, low level surveys, passenger transport to unimproved runways or helispots, float plane operations, aerial photography, remote sensing, etc.

Flight Below 500 Feet

Except for takeoff and landings and missions identified in FSM 5716.3, fixed wing flight operations below 500 feet are prohibited.

Helicopter Operations

Helicopters are used for initial attack, personnel transport, cargo transport, reconnaissance surveys, water drops, and as a platform for infrared photography missions and fall into one of four categories or types.

TYPE	1	2	3	4
Allowable Payload (lbs) @ 59 Degrees F @ Sea Level	5000	2500	1200	<1200
Passenger Seats	15 or more	9 - 14	4 - 8	<4
Retardant or Water Carrying Capability (Gallons)	700	300	100	<100
Maximm Gross Takeoff/Landing Weight (lbs)	12,501 or more	6,000 – 12,500	Up to 6,000	

All helicopter operations are conducted under the supervision of a qualified Helicopter Manager and will operate in accordance with IHOG (NFES 1885).

Helicopter Base Reviews

Annual base reviews will be conducted in accordance with IHOG. Reviews may be delegated to the Forests. All findings will be reported to the managing line Officer, RASM and Regional Fire Director.

External Load Operations

Any employee who conducts or assists with external load operations shall have completed S-271 Helicopter Crew Member Training or A-219-Interagency Transport of External Cargo Loads training and be proficient in external loads. Employees are required to take either course triennially OR conduct external load operations within a three

year period to remain proficient and qualified.

Helicopter Bucket Operations

Bucket operations will be in accordance with the bucket manufacturers operating guide. All water bucket hookups to helicopters will be either by direct attachment to the belly hook, or with a minimum 50 foot longline. A significant hazard exists when attaching the water bucket to a lead line shorter than 50 feet. Continuous communication capability is required between the helicopter and the flight following unit or another aircraft while operating at a dip site. When practical, a ground observer able to communicate with the helicopter at the dip site may be used for this purpose.

Rappel/Cargo Letdown

Helicopter operations involving rappel/cargo letdown operations shall be conducted in accordance with the Interagency Helicopter Rappel Guide (IHRG). The Regional Helicopter Operations Specialist (HOS) is responsible for approving operating plans for those units conducting helicopter rappel and cargo letdown operations.

Over Water Flights

Helicopter operations and PPE shall comply with IHOG, chapter 9 requirements.

Aquatic Invasive Species

Prior to utilizing any water source for fire application insure Forest Staffs have been contacted to determine if Aquatic Invasive Species occupy the water source and what process is in place (sterilizing bucket, etc.) to prevent spreading the species to other water sources.

Airtanker Operations

If permanent or temporary airtanker facilities are utilized the Forest shall have an operation plan for the type of facility utilized (including SEATs). If temporary operations for loading, fueling, and/or overnighting heavy airtankers at other than designated permanent airtanker bases, Forests shall assign a manager. The temporary airtanker operations plan will include current agreements for operations such as landing and/or overnight accommodations for airtankers at airports, fueling, containment for spills, loading, etc.

Airtankers are restricted use aircraft and classified as either multi-engine airtankers or single engine airtankers (SEAT) and fall into one of four categories or types.

- Type I – 3000 gallons or more
- Type II – 1800 to 2999 gallons
- Type III – 800 to 1799 gallons
- Type IV – up to 799 gallons (SEATs)

Multi-Engine Airtankers

Multi-Engine Airtankers are a National resource. Geographic areas administering these aircraft will make them available for initial attack or project fires on a priority basis. All airtanker services are obtained through the contracting process except MAFFS which are Military Aviation Assets and used to supplement the contract fleet when needed. The Interagency Airtanker Board (IATB) consisting of Forest Service, DOI, and States is responsible for approving the contract airtanker fleet. Large airtankers are procured under a National interagency contract. The management of these resources is governed by the Department Manual, BLM Manual 9400, and Interagency Airtanker Base Operations Guide. Airtankers are operated by commercial vendors in accordance with FAR Part 137. The Forest Service operates under FSM 5703 and Grant of Exemption 392 as referenced in FSM 5714.

Single Engine Airtankers

Single engine airtankers (SEATs) can be effective as an initial attack resource. SEATs may be positioned at

designated airtanker bases or at an airport in close proximity to a fire provided appropriate aircraft management is present. In order to be effective, these aircraft need to be an integral part of the overall initial attack strategy. There are many logistical and tactical advantages in the proper uses of SEATs. Guidelines for SEAT operations are in the Interagency Single Engine Air Tanker Operations Guide (NFES 1844) published annually.

Modular Airborne Fire Fighting System (MAFFS)

MAFFS provide an emergency capability to supplement commercial airtanker support on wildland fires. MAFFS are used as a reinforcement measure when suitable contract airtankers are not readily available within the contiguous 48 states. MAFFS will be made available to assist foreign governments when requested through the Department of State or other diplomatic memorandums of understanding.

For detailed information regarding MAFFS refer to the annual MAFFS Operating Plan that is provided by the office of the National MAFFS Liaison Officer, Forest Service Director, NIFC. There are normally 8 MAFFS units available.

Reconnaissance and Survey Minimum Horsepower Rating

Per FSH 5709.16 section 36.21, single engine aircraft used for special missions (including reconnaissance) are required to have a power loading of not more than 13.5 pounds per horse power: and multi-engine airplanes shall be capable of at least 200 horsepower per engine (Any engine developing less than 240 horsepower shall be turbo/supercharged).

Air to Ground/Air to Air Communications

In every case where an aircraft is over a fire, unless ground contact has been established and maintained either directly or through an aerial supervisor, prior to low level operations, an unsafe situation exists.

Where it is ultimately the pilot's responsibility to ensure the safe operation of the aircraft endangering ground personnel and other aviation resources, employees are responsible for taking immediate action that will alleviate the hazard(s), and report to their supervisor, aviation officer or line officer any agency aviation operation they believe is being conducted in a manner which is hazardous or which does not adhere to applicable agency policy or Federal Aviation Regulations.

Flight Following

All Forest Service flights will be flight followed in accordance with FSM 5700 and Interagency Helicopter Operations Guide (IHOG). When flights cannot be tracked by a dispatcher, prior approval and plans for flight following must be approved by the FAO. For non-fire administrative point-to-point flights, flight following may be accomplished through an IFR flight plan. The pilot will contact the dispatching office to report departure, and arrival at the final destination, delays, and enroute stops. Law Enforcement operations may elect to flight follow sensitive operations with on-scene aviation project managers (see Law Enforcement following page.) The national flight following FM radio frequency is 168.650. The national emergency (guard) frequency is 168.625. All Forests must maintain this radio capability to enable them to flight follow aircraft at any time. Radio calls intervals for flight following is 15 minutes. In the event of a missed radio call, dispatchers will attempt to locate the aircraft by radio. If unable to regain radio contact, the dispatcher will initiate the emergency action plan.

Automated Flight Following (AFF)

Automated Flight Following is a satellite/web based system that allows dispatchers to track an aircraft using a computer. AFF is required in Rocky Mountain Region exclusive use and call-when-needed aviation contracts. When aircraft are equipped with this system, flight following will be established by an initial radio call to confirm reception of the aircraft's signal. If the signal is lost anywhere but within close proximity to an airport the symbol will turn red. If the aircraft is not a helicopter landing at an approved helispot or a sea plane landing on a lake missing aircraft procedures should be implemented. If aircraft are making an off airport landing and shutdown, this needs to be communicated to the Dispatch Unit per established flight following procedures. To request user ID and additional AFF information visit www.aff.gov.

A National policy for AFF has been approved and is located in the National Interagency Mobilization Guide (24.3). Rocky Mountain Region will follow this policy. If Forests choose a more restrictive policy and require 15 minute radio check-ins in addition to AFF, Forests will be responsible for ensuring operators are aware of the Forest flight following procedures **PRIOR** to **ANY** flight operations.

Load Calculations

Accurate weights of passengers and gear/cargo shall be computed for each flight. Helicopter Managers will review the pilot calculations for rotary wing missions and the dispatcher will monitor it for fixed wing flights. The Pilot in Command has the ultimate responsibility to ensure the aircraft is within weight and balance limits.

Personal Protective Equipment

Due to the likelihood of an unplanned landing, malfunction, or mishap, employees must wear appropriate personal protective equipment (PPE) for the type of flight they are participating in. PPE requirements have been developed from past experience and are intended to enhance survival in the event of an unplanned occurrence. Required PPE for helicopter flights are SPH 4 or SPH 5 flight helmet, Nomex or leather gloves, flight suit (made of Nomex or other fire retardant material), and leather boots that provide suitable ankle support and protection. Nomex shall be long enough to overlap the gloves and boots while in a sitting position. Firefighters transported from point-to-point by helicopter who are not part of the flight crew may substitute hard hats with chin straps for the flight helmet.

PPE for fixed wing flights below 500 feet AGL (FSM 5716.3) include helmet, gloves, and fire retardant flight suit. For all flights, passengers are encouraged to carry survival packs suitable for the environment they will be operating in. Natural fiber clothing should be worn since most synthetic fibers melt if exposed to fire.

Hazardous Materials

Transportation of hazardous materials is addressed in the Code of Federal Regulations (CFR), the "Interagency Aviation Transport of Hazardous Material Guide", and in FSM 2161.44. The Forest Service and Department of Interior agencies presently operate under an exemption (DOT-E 9198) to the Department of Transportation (DOT) Hazardous Materials Rule (HMR) at 49 CFR Part 171 - 180. This exemption permits some deviation from the regulations on Forest Service mission and field aircraft only. If your hazardous material is not listed in the exemption or the Interagency Guide, it must be shipped in accordance with the HMR. Transport of any hazardous material on commercial flights, fall under the HMR requirements. When planning flights involving hazardous materials, indicate your intentions to the dispatcher when ordering the flight. Although exempt from the HMR, the FS has developed a policy (FSH 6709.11, Chapter 9-4) that all containers of hazardous materials must be properly packaged, labeled and placarded in accordance with 49 CFR 100 - 199. Depending upon the quantity of hazardous materials, shipping papers may also be required (see 49 CFR 172.504). A copy of the Interagency Grant of Exemption for the Transport of Hazardous Materials (DOT-E 9198) and the Interagency Aviation Transport of Hazardous Materials Guide (NFES 1068) can be viewed at: http://www.fs.fed.us/fire/aviation/av_library/index.html in the Interagency Guides/Publications (Misc) section.

All hazardous waste shipping falls under 40 CFR Part 262. These regulations outline hazardous waste shipping requirements including packaging, labeling and manifesting.

Transportation of irritants on aircraft (mace or pepper spray) may be conducted provided the pilot is informed and the material is stored in a leak proof and airtight container that has been approved for shipping these products.

Project Planning

All aviation projects will have a project plan reviewed by the FAO and RAO/RASM and approved by the local line officer prior to procurement action.

When employees are first aware of a need for aviation support, the Forest Aviation Officer (FAO) must be notified. This will give aviation managers adequate time to assist in the preparation of a project plan and hazard analysis, avoiding project delay. In the event cooperators are involved, a memorandum of understanding (MOU) or letter of agreement (LOA) will be necessary. A guide for creating a Project Aviation Safety Plan is provided in Appendix 7

for assistance in plan development. If an Aviation End Product contract is needed, the contracting officer will be involved to ensure requirements are met by Federal Acquisition Regulation.

Approved Aircraft and Pilots

All flights involving Forest Service employees will be limited to aircraft and pilots who have been approved for by the USFS or AMD aviation inspectors. Proof of approval (either interagency card or letter of authorization) must be carried by the pilot and in the case of aircraft, posted with the airworthiness certificate, and be available for inspection by any Forest Service employee. This restriction does not apply to regularly scheduled airlines (Delta, Northwest, etc.). If there is a question about any aircraft, ask the local dispatcher or FAO. Special mission flights require aircraft and pilot inspections annually. Point to Point operations approvals are issued for two years.

The Forest Aviation Officer (FAO) will establish aviation resource needs for the Forests. Once established, FAOs will identify vendors and cooperators necessary to support the unit and contact Regional Aviation staff with available dates/times for vendor inspections. Units must have an MOU or agreement in place for cooperators, such as states, prior to RO approval. Costs associated with the initial inspection will be covered by the Regional Office. Costs associated with additional inspections will be paid by the vendor.

Aircraft and Pilot Inspections

The Regional Aviation Officer will be responsible to ensure adequate staff (maintenance and pilot Inspector) are available to inspect pilots and aircraft for supporting aviation contracts and agreements on the units.

Once the request for technical support is received, the inspectors will work directly with the FAO to schedule an inspection. Aircraft maintenance inspections shall only be performed by interagency approved maintenance inspectors that are rated Aircraft and Powerplant mechanics by the FAA. Pilot inspections will be conducted by interagency designated pilot inspectors only.

A new database for verifying vendor data is still in the trial period. Inspectors will enter the aircraft and pilot information. Once the database is completed the operator and contract information will be available to all units as an aviation support resource. Current the National data base is not accessible. Regional Maintenance and Pilot inspectors will provide RMACC an updated list until the system is back up.

Pilot inspections

- The successful pilot inspection will result in the issuance of an inter-agency pilot card and will be valid for not more than one year for special missions, and two years for airplane point to point pilot cards.
- The pilot applicant will fill out an FS-5700-20, Airplane Pilot Qualifications and Approval Record or an NIFC-FS-5700-20a, Helicopter Pilot Qualifications and Approval Record. This form will contain the pilot qualifications and will serve as the form for a check ride if a check ride is necessary. Check rides for point to point missions are not required.
- A pilot flight check ride will be required for initial carding (except for point-to-point missions). Additional check rides will be administered if required by the contract, or at a minimum, every three years for special missions. Pilot records will be reviewed prior to issuing pilot cards on point-to-point missions.

Aircraft Inspections

- A successful aircraft inspection will result in the issuance of an approval card for the mission to be performed and as required by the MOU, agreement, or Contract. The aircraft card will be valid for the one year, (2 years for point-to-point cards).
- Data required for the inspection will be documented on the FS-5700-21 for airplanes and FS-5700-21a for Helicopters. The information documented on the appropriate forms will come from the aircraft logbooks and or official aircraft records.

- Discrepancies affecting the contract will be documented and corrected by the vendor prior to issuing the approval card. Discrepancies affecting safety of flight require documentation and correction, including log book entry and re-inspection prior to issuing an approval card.

Return to Contract Availability

When it is necessary to suspend flight operations for a maintenance discrepancy, or when an aircraft has unscheduled maintenance performed while attached to a Forest Service contract or agreement, that aircraft will not be used until it has been authorized for "return to contract availability" by an approved interagency maintenance inspector.

End Product and Flight Services Contracts

End Product Contracts

An end-product contract (FSM 5710.5) is intended to efficiently and effectively accomplish certain projects with no internal operational controls from the Forest Service. Certain aviation operations, such as aerial application of herbicides and insecticides, seed, fertilizer, prescribed burn projects, and some Burned Area Emergency Rehabilitation (BAER) projects may be administered in a more efficient and less expensive manner if contracted on an end-product basis, instead of through a Forest Service flight services contract. Participation by Forest Service employees in end-product contracts is limited to quality assurance of the end product goals only. Forest Service Grants of Exemption (FSM 5710.5 and 5714) from the Department of Transportation, Federal Aviation Administration (FAA) regulations, do not apply to end-product contracts. The contractor is required to comply with all State and Federal regulations for the type of work being performed. If departures from the applicable regulations are necessary, the contractor is responsible for obtaining them. The decision to use an end-product contract removes the Forest Service from having operational control, thereby placing accountability for any aircraft accident with the operator/contractor.

Flight Services Contracts

Aerial operations, such as seeding and mulching, and animal herding, gathering, and inventory that require the Forest Service to maintain operational control, require a flight services contract.

Operational control involves situations in which:

1. A contractor is required to use personal protective equipment, or
2. Forest Service personnel are actively involved in the project.

Use FSM 5711.2, Exhibit 01 to identify whether a project requires a Flight Services Contract or and End Product Contract.

Aviation Security

Security is an important factor when planning and implementing a project, particularly one utilizing aircraft resources and project personnel. Since September 11, 2001, the planning of project and aircraft security has taken on greater significance.

The Department of Homeland Security has developed and implemented the Homeland Security Advisory System. This system rates risk of terrorist attack into 5 color coded levels which will change as risk to terrorist attack is perceived to increase. These are (in order of low risk to increased risk) Green, Blue, Yellow, Orange, and Red. Each Forest that operates aircraft either permanently or temporarily must have a plan to address airfield and aircraft security as these threat levels changes. The Regional Aviation Security plan can be found in Appendix 8.

Search And Rescue

Search and rescue is not the mission of the Forest Service nor generally the responsibility of this agency. Any search and rescue missions shall be coordinated thru agency or local law enforcement. Forests must have an approved Aviation Search and Rescue policy (separate or included in the Forest Aviation Plan) prior to utilizing agency aviation resources (contract, leased, or WCF) for search and rescue missions. The Aviation Search and Rescue policy should include the following:

- If leased or contracted aircraft, the aircraft will be released from the lease/contract for the mission. (If released Agency has no other involvement and is not responsible for flight costs. Include CO if contract release is being considered.)
- Requirements for off-shore missions (meet IHOG requirements)
- Who has control of the mission
- Who is responsible for costs related to search and rescue
- Forest Service employees authorized on mission.
- Who's authorized to approve mission? Are Missions approved on cases by case basis or open ended?
- Define what is an emergency for the mission (body recovery is NOT an emergency).
- Are the appropriate agreements in place
- Forest Aviation Officer notified and working with law enforcement when aviation resources involved.
- For non agency search and rescue missions - 16 United States Code (USC) 575 states that we have authority to expend agency funds to conduct search and rescue missions on-Forest but not off-Forest. If search and rescue operations are off-Forest, there must be an agreement in place with local law enforcement to cover off forest situations. An MOU may not be appropriate as there are no provisions in an MOU for the transfer of money between agencies.

SEE appendix 16 Aviation Emergency Resources for fixed-wing and helicopter ambulance, Military hoist capable helicopters, NPS short haul capable helicopters and NPS search and rescue helicopter services for your area.

Military And Cooperator Aircraft Use

Military aircraft are authorized for use in support of Forest Service missions when properly approved. All projects involving military aircraft shall require a project aviation plan and letter of agreement or Memorandum of Understanding to be submitted to the RAO for review and issuance of a letter of approval. Pilot requirements may differ from the national contract standards, and all pilots eligible for use shall be identified in the letter of agreement. Aircraft will be suitable to project needs and be capable of operating to Forest Service standard. Proposed aircraft will also be identified in the letter of agreement.

Forest Service employees using military aircraft will wear PPE prescribed by FSM and IHOG. Flight following will be accomplished and identified through the project plan and letter of agreement.

Military and Cooperator aircraft must be installed with a radio system capable of communicating with the helibase, fire line personnel and air-to-air prior to arrival at the fire. The air-to-air- capability must be a separate frequency from the air-to-ground frequency and the pilot must have the ability to monitor both frequencies simultaneously. The pilot in command must have the ability to receive and transmit through the aircraft system.

Aerial Delivery of Retardant or Foam Near Waterways

Definition: WATERWAY - Any body of water including lakes, rivers, streams, and ponds whether or not they contain aquatic life.

Guidelines: Avoid aerial application of retardant or foam within 300 feet of waterways.

These guidelines do not require the helicopter or airtanker pilot-in-command to fly in such a way as to endanger his or her aircraft, other aircraft, or structures or compromise ground personnel safety.

Guidance for pilots: To meet the 300-foot buffer zone guideline, implement the following:

- Medium/Heavy Airtankers: When approaching a waterway visible to the pilot, the pilot shall terminate the application of retardant approximately 300 feet before reaching the waterway. When flying over a waterway, pilots shall wait one second after crossing the far bank or shore of a waterway before applying retardant. Pilots shall make adjustments for airspeed and ambient conditions such as wind to avoid the application of retardant within the 300-foot buffer zone.
- Single Engine Airtankers: When approaching a waterway visible to the pilot, the pilot shall terminate application of retardant or foam approximately 300 feet before reaching the waterway. When flying over a waterway, the pilot shall not begin application of foam or retardant until 300 feet after crossing the far bank or shore. The pilot shall make adjustments for airspeed and ambient conditions such as wind to avoid the application of retardant within the 300-foot buffer zone.
- Helicopters: When approaching a waterway visible to the pilot, the pilot shall terminate the application of retardant or foams 300 feet before reaching the waterway. When flying over a waterway, pilots shall wait five seconds after crossing the far bank or shore before applying the retardant or foam. Pilots shall make adjustments for airspeed and ambient conditions such as wind to avoid the application of retardant or foam within the 300-foot buffer zone.

Exceptions:

- When alternative line construction tactics are not available due to terrain constraints, congested area, life and property concerns or lack of ground personnel, it is acceptable to anchor the foam or retardant application to the waterway. When anchoring a retardant or foam line to a waterway, use the most accurate method of delivery in order to minimize placement of retardant or foam in the waterway (e.g., a helicopter rather than a heavy airtanker).
- Deviations from these guidelines are acceptable when life or property is threatened and the use of retardant or foam can be reasonably expected to alleviate the threat.
- When potential damage to natural resources outweighs possible loss of aquatic life, the unit administrator may approve a deviation from these guidelines.

Threatened and Endangered (T&E) Species

The following provisions are guidance for complying with the emergency section 7 consultation procedures of the ESA with respect to aquatic species. These provisions do not alter or diminish an action agency's responsibilities under the ESA.

Where aquatic T&E species or their habitats are potentially affected by aerial application of retardant or foam, the following additional procedures apply:

1. As soon as practicable after the aerial application of retardant or foam near waterways, determine whether the aerial application has caused any adverse effects to a T&E species or their habitat. This can be accomplished by the following:
 - a. Aerial application of retardant or foam outside 300 feet of a waterway is presumed to avoid adverse effects to aquatic species and no further consultation for aquatic species is necessary.
 - b. Aerial application of retardant or foam within 300 feet of a waterway requires that the unit administrator determine whether there have been any adverse effects to T&E species within the waterway.
 - c. These procedures shall be documented in the initial or subsequent fire reports.

2. If there were no adverse effects to aquatic T&E species or their habitats, there is no additional requirement to consult on aquatic species with Fish and Wildlife Service (FWS) or National Marine Fisheries Service (NMFS).
3. If the action agency determines that there were adverse effects on T&E species or their habitats then the action agency must consult with FWS and NMFS, as required by 50 CFR 402.05 (Emergencies). Procedures for emergency consultation are described in the Interagency Consultation Handbook, Chapter 8 (March, 1998). In the case of a long duration incident, emergency consultation should be initiated as soon as practical during the event. Otherwise, post-event consultation is appropriate. The initiation of the consultation is the responsibility of the unit administrator. Each agency will be responsible for insuring that the appropriate guides and training manuals reflect these guidelines.

Law Enforcement Aviation Operations

Law enforcement aviation operations on occasion have special needs. Many are performed in a covert manner, meaning that these missions are being conducted for the purpose of establishing probable cause that a crime is or has been committed. Covert missions shall always be conducted on a need to know basis. On these missions, releasing information to the wrong person/s could jeopardize the safety of the personnel involved. At a minimum, it could result in the loss of evidence, and loss of suspects.

On the other hand, some law enforcement missions can be performed overtly, meaning that the mission can be performed as any other Forest Service work related mission.

Though there are Agency specific policies, or circumstances as referenced in FSH 5309.11 and the Interagency Helicopter Operations Guide (IHOG) Chapter 16 that may exempt law enforcement from some standard aviation operating procedures, it must be emphasized that an exemption in one area does not automatically exempt law enforcement users from following other standard operating practices and procedures.

When planning covert law enforcement aviation missions, the appropriate LE&I Flight Manager, Special Agent in Charge, Assistant Special Agent in Charge or Regional Patrol Commander shall be consulted to ensure compliance with guidelines and procedures as outlined in FSH 5309.11 Chapter 52 and IHOG chapter 16-3.

For Overt missions, the same notifications shall be made. In addition, notifications and consultations shall be made to the Forest Aviation Officer (FAO), and or Regional Aviation Officer (RAO).

Personnel

As stated in FSH 5309.11 Chapter 52.11a and the IHOG chapter 2-31, ensure all law enforcement aviation operations are conducted under the guidance of either a qualified Project Helicopter Manager or by a Project Flight Manager, depending on mission type and complexity. If the aircraft is provided by another government agency or the military and they are also providing the helibase management services, such as flight following, loading and unloading of personnel and cargo, or external load operations, then other qualified personnel may be utilized based on a pre-approved operations plan authorized by the Regional Aviation Officer, Regional or National approval letter, and or the Special Agent in Charge.

Aircraft

The majority of missions that are to be accomplished by Law Enforcement and Investigations will be covert missions. These missions will predominantly use State National Guard RAID aircraft, which have been approved by a Letter of Agreement (LOA).

Overt aviation missions may be accomplished utilizing agency-owned, contracted, rented, other-government agency, or military aircraft that are carded and approved by a Letter Of Agreement (LOA), or a Memorandum Of Understanding (MOU) (IHOG chapter 5-3, 16-3).

Pilot Qualifications

Per FSH 5309.11 Chapter 52.13, all aircraft used to fly Forest Service law enforcement personnel must be flown by pilots who meet agency standards and possess a current form FS-5700-20 (Airplane) or FS-5700-20a (Helicopter), Pilot Qualifications and Approval Record (FSM 5700), or the equivalent interagency card issued by the Department of the Interior, Office of Aircraft Services (OAS), except for aircraft operated by Homeland Security where Forest Service employees working to fulfill the LEI mission are hereby exempt from the requirements to only use Forest Service approved aircraft and pilots when using aircraft and pilots meeting DHS requirements (WO letter dated May 20, 2008). **The Special Agent in Charge or designate will be notified prior to any LEI missions being flown in DHS aircraft.** Use of another law enforcement agency, aircraft requires acceptance of that agency's pilot qualifications if operating under a current Letter of Agreement (LOA) or Memorandum of Understanding (MOU). For any pilot and/or aircraft not meeting these guidelines, the supervisory special agent or supervisory law enforcement officer shall request, through the regional aviation officer, to have the pilot and/or aircraft approved. Law enforcement personnel shall make every attempt to give adequate lead time to the regional aviation officer when requesting certification for a pilot and/or aircraft.

Uncarded/Unapproved Aircraft and Pilots

In certain emergency situations FSM 5713.52/FSM5713.53 allows for personnel to ride in unapproved aircraft/or with unapproved pilots (special investigations, hot pursuit, or undercover operations). In these situations, flights may be authorized by a qualified Flight Manager (FSM 5713.52 or the Regional Aviation Officer (FSM 5713.34)) The Flight Manager will inform FAO as soon as reasonably possible (officer safety or mission will not be compromised). **A written justification shall be prepared and attached to an agency Safety Communication Report (FS-5700-14) and submitted to the Forest Aviation Officer within 24 hours of the completion of the mission.**

CO-OP Aviation Operations

Co-op agencies conducting LE operations on National Forest System Lands are not required to notify the Forest Service of the flight activity. However, Law Enforcement and Investigations will encourage cooperative agencies conducting law enforcement operations on or over National Forest System lands to notify the Special Agent in Charge or supervisory law enforcement officer prior to the mission(s) taking place. FSH 5309.11 Chapter 50 (52.16).

Flight Following

Adhere to the flight following check-in procedures (FSH 5709.16, sec. 33) except when conducting covert operations where the need for secure communications is essential. In these situations, utilize the following procedures:

1. Grid map reference check-ins. The flight plan must be inserted into a sealed envelope and must be opened by the dispatcher only in the event of an aircraft emergency or failure to check-in with normal specified timeframes. Flight check-inspections are performed utilizing coded grid references rather than geographical location descriptors.
2. Flight following through another agency. Flight following may be performed by another agency (for example, Department of Defense, National Guard facility or Sheriff's office).
3. Satellite flight following. Flight following via an automated reporting satellite system is highly recommended, since no voice communication is necessary.

Personal Protective Equipment

Refer to FSH 5309.11 Chapter 52.12 and IHOG Chapter 9 for specific mission requirements for personal protective

equipment (PPE). Exemptions from agency aviation PPE requirements are listed in FSH 5309.11 Chapter 52.12 and IHOG Chapter 16-4.

Normal Operations

When conducting overt operations, the Forest Aviation Officer or assistant shall be notified of Forest Service law enforcement aviation missions that will be conducted on National Forest. Law Enforcement personnel will provide approximate locations, planned dates and times, when Forest Service personnel are involved in flights in carded aircraft. This notification is the responsibility of the Special Agent in Charge or designate.

Emergency And Covert Operations

Refer to FSH 5309.11 Chapter 50 (52.15) or paragraph entitled **Uncarded Aircraft and Pilots** in this plan, and IHOG 16-3(B).

Search and Rescue Operations

See page 17 of this plan.

Load Calculations and Manifests

When utilizing aircraft other than military, load calculations and manifests are required and will be reviewed by qualified helicopter crew members. When utilizing military aircraft, use of standard military methods such as a Performance Planning Card (PPC) is acceptable along with a manifest (IHOG Chapter 7).

Operational Briefing Requirements

Use the following checklist to brief personnel at the start of the operational period. Address all major operational areas. All items must be checked and initialed.

ORGANIZATION AND PERSONNEL

- ___ * Personnel safety overview (ground and aircraft) and PPE.
- ___ * Personnel responsibilities and authorities.
- ___ * Pilot and aircraft agency approval met (refer sec. 61.5)
- ___ * Flight and duty limitations met.
- ___ * Aviation or Flight Manager has an Operations Plan and personnel have reviewed.

COMMUNICATIONS

- ___ * Communications Plan in effect and reviewed with personnel.
- ___ * Flight following procedures in effect and discussed.
- ___ * Radios/batteries checked.

LANDING AREAS

- ___ * Landing zones have prior approval by authorized personnel (Wilderness requires Forest Supervisor/Regional Forester exclusive approval(s)).

SAFETY

- ___ * Operational area hazards reviewed.
- ___ * General flight routes discussed.
- ___ * Fire safety briefing and expectations discussed.
- ___ * Military training routes and special operating areas discussed (wildlife, wilderness, etc).
- ___ * Pilot/passenger safety briefing completed.
- ___ * Emergency rescue procedures discussed (aircraft and medivac).
- ___ * Firearms safety procedures discussed.

- ___ * Prisoner Transport Procedures
- ___ * K-9 Transport

OPERATIONS

- ___ * Load calculations/manifests completed.
- ___ * Lead agency identified in notification procedures.
- ___ * Weather forecast and adverse conditions discussed.
- ___ * External load operations discussed.
- ___ * HAZ MAT materials procedures discussed.
- ___ * EOD procedures discussed.

V - ACCIDENT PREVENTION PLAN

The National Aviation Safety and Mishap Prevention Plan can be found at:
http://www.fs.fed.us/fire/av_safety/index.html

Management Philosophy

Since the safety and health of Forest Service employees is the first and foremost goal of the Forest Service, "no mission is so important that a life must be endangered to complete it". No method of transportation is totally risk free. However, basic risk management involves taking all possible actions to minimize the likelihood of a mishap, and if such an unlikely event should happen, all steps will have been taken to reduce the amount of damage or injury. Since human failure is, by far, the leading contributor to aviation accidents, we use three basic axioms; knowledge, communication, and discipline to address this issue and prevent mishap. Through training and experience we gain knowledge to recognize and mitigate dangerous situations. Through communication we extend to others the benefit of our learning and experience, as well as information sharing of known hazards. Through discipline, we learn to say no even when we really want to take the risk. History is known to repeat itself, and there are no new accidents. The Rules Policy and Guidelines instituted by the Forest Service are largely based on lessons learned from numerous costly mishaps. Our goal is to achieve safe operations on every mission every time by following the requirements set forth in:

- Forest Service Manual 5700
- Interagency Helicopter Operations Guide (IHOG)
- Forest Service Handbook 5709.16, 6709.11
- Pertinent Federal Aviation Regulations
- State and local laws

Human Factors

Human error is the single area, that if possible to eliminate or reduce, would pay the greatest dividend in accident prevention since it touches every operation. Human behavior is so complex that it is unrealistic to think human error can be eliminated. Realistic training and experience are the most effective methods of minimizing human error accidents. When a person reacts to a rapid emergency situation, they almost always rely on trained (reflex) reactions or past experiences and do not have time to isolate individual corrective actions or analyze risks.

Human factors such as desire to accomplish the mission, insecurity, distraction, fatigue, management pressure, peer pressure and others contribute to poor judgment and clouded reasoning ability that lead to accidents.

Management or supervisory errors that directly or indirectly exert pressure on individuals to act against their judgment, stretch or ignore policy and standard operating procedures, or complete the mission regardless of risk is another form of human error which contribute to accidents.

Reactive Accident Prevention

Reporting accidents

The following National Transportation Safety Board definitions apply to Forest Service operated, owned, contract, leased, and borrowed aircraft.

1. Aircraft Incident. An occurrence other than an accident associated with the operation of an aircraft, which affects or could affect, the safety of operations.
2. Serious injury. Any injury which:
 - a. Requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received.

- b. Results in a fracture of any bone (except simple fractures of fingers, toes, or nose).
 - c. Causes severe hemorrhages, nerve, muscle, or tendon damage.
 - d. Involves any internal organ.
 - e. Involves second or third degree burns, or any burns affecting more than 5 percent of the body surface.
3. Substantial Damage. Damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. Examples of failures which would not be considered "substantial damage" are: engine failure, damage limited to an engine, bent fairings or cowlings, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips.
 4. Aircraft Accident. An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

All reports of aircraft accidents and incidents with potential shall be forwarded to the National Aviation Safety Manager immediately, and followed up by telephone notification by calling 1-888-4MISHAP

Investigation of accidents

The primary purpose of aircraft accident and incident investigations is the prevention of repeat occurrences. Investigations are conducted to identify and determine cause factors. Reactive hazard detection is accomplished through the identification of the cause(s) of accidents and then taking corrective action to prevent repetition. Factors that could have a system-wide adverse effect on the safety of personnel, whether or not they contributed to the accident, are included in the investigation.

Forest Service investigations are to be conducted by professional aviation investigators to the greatest extent possible. Experience has shown that investigations performed by experienced professional investigators reveal more about what is causing accidents. In addition to determining cause factors, investigators are to coordinate efforts with management professionals to disclose concerns and determine management contributors related to the occurrence.

LE&I are required to conduct accident investigations and must be notified when any aircraft accident occurs.

Hazard Correction

The causes of most accidents reveal failures to observe controls already established through previous risk management efforts and accident experiences. In addition, some accident cause factors reveal hazards not previously addressed adequately. It is imperative that these hazards or hazardous practices be corrected or they are sure to be repeated.

Proactive Accident Prevention

Hazard Detection and Incident Reporting

An aviation hazard/incident is any event or situation associated with the operation of an aircraft that, if not corrected, could result in an accident. The most efficient and direct detection of hazards/incidents is accomplished by the individual or organization with first-hand knowledge of the circumstances pertinent to the hazard/incident.

Each individual and each unit has an obligation to others in aviation to share hazard, mishap, and cause information. Each unit's aviation plan contains provisions for encouraging the reporting of such information by individuals. The information is documented and processed for region-wide and system-wide distribution on the Safecom Form (5700-14) located in Appendix 1.

1. Reporting Hazards

The individual involved or with first-hand knowledge of a hazard/incident should fill out the SAFECOM form (5700-14) and submit it to the Forest Aviation Officer for upward reporting. This can be done at the national aviation safety website at http://www.fs.fed.us/fire/av_safety/safecom/index.html.

This report is forwarded to the Regional Aviation Safety Manager via the Safecom Reporting Database.

The RASM coordinates any follow-up action to the report.

The RASM forwards the report to:

- Each individual in the Regional aviation unit
- All Forest Aviation Officers
- National Aviation Safety Officer
- Other units which may be affected

The Forest Aviation Officer will forward a copy to the dispatch and helicopter management employees on the Forest/Area.

Each aviation base will post the reports in an accessible location for all interested persons to see.

Additionally, the Forests should periodically instruct their employees in the procedures to submit and review Safecom on the National Aviation Safety Website.

2. Corrective Action

Actions to correct hazards/incidents are essentially the same, whether identified and reported before or after an accident. The normal accomplishment of remedial action is a function of management personnel. Aviation safety programs should contain provisions for recommending specific remedial action to be taken by the organization and its employees to correct hazards/incidents.

3. Monitoring Corrective Action

The persistent monitoring of corrective actions has proven necessary to ensure that hazards are not left uncorrected and threaten future aviation activities with damage and/or injury. Regional and Forest Aviation Staffs are responsible for monitoring corrective action.

4. Trend Monitoring

The identification of prevailing events serves to indicate areas of risk so that appropriate action may be taken. Trends develop when singular events re-occur at a rate where a general direction or tendency is detected. Trends that develop are more apparent when frequency is high and events are recent; however, events that occur sporadically also develop trends that, if corrected, can reduce operational risk. Since most aspects of Forest Service aviation are generally similar, system-wide events that occur locally should be monitored for local trend development and also forwarded on Form 5700-14 for inclusion in the national database. Attention to hazards and cause factors that compromise flight safety can reduce our aviation risk significantly. The use of the 5700-14 information for trend monitoring is a key component in successful accident prevention.

5. Safety Alerts

When a significant hazard is identified, with potential to affect multiple units or operational areas, a Safety Alert is issued which identified the hazard, and makes recommendation for corrective action to mitigate the hazard. Current safety alerts can be found at the aviation safety website

http://www.fs.fed.us/fire/av_safety/safety_alerts/index.html. Forest Aviation Officers and operational airbase managers should review this site regularly and post pertinent safety alerts in a prominent area, reviewing them with employees and vendors as necessary.

Operating Plans

It is imperative that all aviation operations be planned with consideration for safety goals that meet or exceed aviation safety standards established by the Forest Service. Forethought must be given to effective risk management. Each operating plan is used to set procedures and state how aviation resources are to be utilized. Many factors are involved and each location has different needs. Plans must be continually reviewed and updated, as aviation operations are dynamic and evolve through operational experience. Each operating plan is approved by the next higher level in the organization. Both ground and air operations personnel must review the approved operating plan prior to beginning the planned mission.

Standard Contract Specifications

The majority of Forest Service aviation services are provided by contractors. Therefore, national standard contract specifications have been developed for the technical aspects of administering contractor-furnished aviation services. The standard contract specifications are minimum safety and performance requirements for mission-specific equipment and operations. The Contracting Officer (CO) is the legal authority for administration of the contract. Every employee using or managing contractor-furnished aviation services is required to immediately notify the CO, or designated COR when a contractor or a contractor's employee engages in unsafe acts or violates a requirement of the contract; the Regional Aviation Staff should also be notified and the occurrence reported on Form 5700-14.

Inspections and Approvals

The Forest Service has adopted requirements and developed inspection procedures for Forest Service aviation inspectors to verify and evaluate contractors and cooperator-provided flight crews, aircraft, and certain required equipment. The requirements, which are the foundation of the approval system, have evolved through operational experience and are the minimally acceptable criterion for providing an adequate standard of safety while conducting Forest Service missions. The inspection procedures are intended to provide the pilot inspectors with a means of determining the flight crew's qualifications, level of proficiency, and application of accident prevention measures. In addition, the procedures also provide equipment inspectors with a means of determining the condition of the aircraft, required equipment, and the level of compliance with an approved maintenance program. Each employee that uses or causes the use of contractors and cooperator-furnished aircraft is required to determine that the pilots and aircraft have been approved for the specific Forest Service mission.

Safety Evaluations

Safety evaluations are a means of determining compliance with safety standards and to detect unsafe conditions prior to experiencing an incident, accident, loss of life, personal injury, or property damage.

Formal evaluations are accomplished using a team of Forest Service, interagency, and/or industry aviation and management officials to conduct surveys, audits, and reviews. The evaluation team is responsible for providing the operating unit and its managing organization with a written report of its findings and recommendations.

The managing organization of the operating unit is then responsible for developing and implementing an action plan that addresses the findings and recommendations contained in the report.

Informal evaluations are conducted on a more frequent basis and are performed by aviation specialists during field assistance visits to Forests and projects. In all cases, follow-up is in order to see that corrective actions are taken.

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Appendix 1

Rocky Mountain Region SFAM DIRECTORY

Regional Fax: 303-275-5754

RMACC 24 hour contact: 303-445-4300

RMACC Fax: 303-445-4319

Title/Name	Office#	Cell #	Home #
Director, SFAM March Boche	303-275-5736	303-570-8971	
Deputy Director, SFAM Bill Ott	303-275-5749	303-482-6580	
Fire & Emergency Ops Kelly Kane	303-275-5791	720-236-2799	
Assistant Fire & Emergency Ops Scott Sugg	303-275-5115	303-941-2779	
Budget Analyst Katherine Plym	303-275-5245	303-763-0721	
Fire Planning Brian Bischof	303-275-5758	720-201-4154	
Fuel Prgm Mgr Paul Langowski	303-275-5307	720-272-6663	
Rx Fire, Fuels Specialist Angie Gee	303-275-5154		
Ground Safety & Training Specialist VACANT	303-275-5336	720-560-9705	
IT Specialist Flint Cheney	303-236-0646	303-886-2179	
IT Assistant Doug Wagner	303-275-5104	303-506-1317	
Fire Business Mgmt Denise Tomlin	303-275-5316	303-378-0785	
Admin Mgr Cindy Finley	303-275-5131		
Regional Aviation Officer Sandra LaFarr	303-275-5740	303-886-2124	
Aviation Safety & Training Manager Kent Hamilton	303-275-5711		
Lead Pilot VACANT	303-439-2308	303-501-6075	
Pilot VACANT	303-439-0337	720-480-0493	
Pilot Gracie Moore	303-439-0336	303-442-4219	
Helicopter Operations Specialist Jim Lawson	303-439-2351	719-338-3918	

Aviation Specialist Tracy Elliott	303-439-0375	303-910-7619	
Aircraft Maintenance Inspector Tim McClintock	303-439-0339	303-241-5230	
Forest Health Aviation Officer Brian Howell	303-236-8001		
RMACC Manager Jim Fletcher	303-445-4302	303-478-2410	
Assist RMACC Mgr Glenn Bartter	303-445-4301	303-883-0080	
RMACC Aircraft Desk Debbie Bozarth	303-445-4300	303-478-2643	
Occupational Health and Safety VACANT			

Current as of 05/03/2010

Appendix 2

Guidelines for Scheduling Charter Flight Service for Rocky Mountain RO Employees

When you have a need for charter flight service, follow the steps below:

1. Designate a Flight Manager* (see Flight Manager requirements on following page)
2. The Flight Manager completes the **Aircraft Service Request form (page 35)**. The form provides the necessary information for the aircraft coordinator to schedule the flight. **Any questions, call the Aircraft Desk at the Rocky Mountain Area Coordination Center (RMACC), 303-445-4300 (office hours 0730 – 1630), or e-mail: cormc@dms.wcq.gov.**
3. Flight Manager Faxes (or emails) the Flight Request form to: 303-445-4319, **Attn: Aircraft Desk**, cc: an electronic copy to the Regional Aviation Safety Manager (RASM) or Regional Aviation Officer (RAO), in Subject line of message type: **Flight Request, Month/Day**. In body of message type, Attn: Aircraft Desk (Flight Coordinator).
4. If passengers include Senior Federal Official(s), Flight Manager completes the **Senior Federal Travel Form GSA Form 3641**. **Fax a copy to: 303-445-4319, Attn: Aircraft Desk.**
*Examples of Senior Federal Officials include: Chief, Deputy Chiefs, Associate Deputy Chiefs, Washington Office Staff Directors, Regional Forester, family members of listed or **ANY** non-Federal persons. Document members of Congress as a non-Federal person. (Note: Non government passengers traveling on a one day trip does not require a Flight Use Justification form (5700-10) but does require a Day Trip Authorization ([FS-5700-12](#)) be completed.*
5. Flight Manager Completes the **Cost Comparison Travel Worksheet (CCTW), [FS-5700-11](#)**. The Flight Manager will compare the charter estimate (information on the flight services request form) with commercial airline fare (information on the CCTW) to determine most cost effective travel.
6. If the charter is more expensive than the commercial airline fare, Flight Manager and the authorizing personnel (RF, Director, Team Leader) will be asked to make a decision regarding taking the more expensive charter.
 - o If the commercial airline schedule creates unreasonable delays in your trip (additional overnights, inability to attend other scheduled appointments), you can still utilize the more expensive charter.
 - o Fill out the attached **Flight Use Justification form, [FS-5700-10](#)** and **check the box for paragraph b**, including a brief explanation, and turn that in to the RMACC aircraft desk. ***This form must be signed by a person authorized to expend funds.***

Charter Forms Check List:

- Aircraft Flight Request form
- Senior Federal Travel Form GSA Form 3641 (If needed)
- Cost Comparison Travel Worksheet (CCTW), [FS-5700-11](#)
- Flight Use Justification form, [5700-10](#) (If needed)

The Aircraft Coordinator will ensure the Pilot in Command (PIC), and aircraft, are approved for ROCKY MOUNTAIN REGION use. **It is the responsibility of the Flight Manager to visually verify carding before boarding the aircraft.** Once the charter flight is confirmed, the scheduler will send a copy of a completed Aircraft Flight/Schedule Plan to the Flight Manager. The flight plan contains the following charter information: Make/Model of aircraft, Pilot, aircraft tail number, charter office phone number, management code for payment, names of passengers, and flight itinerary (dates, times of departure/arrivals, airports).

As indicated on the flight plan, the Flight Manager must contact the appropriate dispatch

office prior to takeoff and upon arrival at destination. If you need to cancel your trip:

Immediately notify RMACC 303-445-4300. The vender may apply a cancellation fee if the cancellation is last minute and not weather related.

***Each charter flight must have one person identified as "Flight Manager." The Flight Manager must have received training prior to the flight. Online training is offered at: <https://www.iat.gov/> Contact the Regional Aviation Safety Officer (303-275-5711) for assistance.**

Flight Manager Training Requirements

The Flight Manager is responsible for the operational mission of the aircraft and will work jointly with the pilot-in-command (PIC) to ensure safe, efficient flight management. Flight Managers are assigned for all FS flights to provide management oversight. This position does not include special-use operations.

Required Training

- A-101 (3) Aviation Safety
- A-105 (3) Aviation Life Support Equipment
- A-106 (3) Aviation Mishap Reporting
- A-108 (3) Preflight Checklist and Briefing/Debriefing
- A-110 (3) Aviation Transportation of Hazardous Materials
(if involved in transport of hazardous materials)
- A-111 (3) Flight Payment Document
- A-112 (3) Mission Planning and Flight Request Process
- A-113 (3) Crash Survival
- A-114 Introduction to Human Factors *(Required only if available online thru IAT)*
- A-116 Aviation Security
- A-200 (1) Annual Mishap Review

Additional requirements when specified by individual FS policy:

- A-104 Overview of Aircraft Capabilities and Limitations
- A-107 Aviation Policy and Regulations I
- A-115 Automated Flight Following
- A-204 Aircraft Capabilities and Limitations
- A-205 Risk Awareness

(3) = course taken every 3 year
(1) = course taken on an annual basis

Flight Manager Duties

1. The Flight Manager is responsible for the operational mission of the aircraft and will work jointly with the PIC to ensure safe, efficient flight management. Flight Managers are assigned on all FS flights to provide management oversight.
2. The Flight Manager is the sole point of contact for the aircraft coordinator in the organization of a flight.
3. The Flight Manager is responsible for the passengers of the flight, ensure they show up on time, and comply with Forest Service policies regarding aircraft use.
4. Check pilot card and aircraft data card for currency and qualifications.
5. The Flight Manager is the liaison between the passengers and flight crew.
6. To explain to all personnel at the beginning of travel, transportation arrangements, type equipment, route of travel, stopping points, ETA, etc.
7. To ensure proper flight following procedures are met. **During office hours (0800 – 1630), the Rocky Mountain Area Coordination Center (RMACC) Aircraft Desk phone number is 303-445-4300.**
8. To call RMACC when delays of more than 30 minutes occur, unexpected stops or any deviation from the flight plan to give information as to why and how long the delay will be.
9. Have all personnel within the weight limitations, assembled, and ready to board transportation at scheduled time.
10. Provide for safety and welfare of each person in party.
11. Flight Manager has responsibility for ensuring that all passengers arrive at their destination.
12. Flight Manager will be responsible for signing the **Daily Flight Report Invoices (Form 6500-122)** for all flights. Make sure that the flight rate and all additional charges (overnight costs, landing fees, etc.) are recorded on the 122 before signing. If the charter flight is scheduled for more than 1 day, an invoice (Form 6500-122) must be filled out for each day. ***Take the pink copy(ies) for the RO aviation files (see below item 13).***
13. The Flight Manager is responsible upon completion of flight service to ensure all forms (Daily Flight Report Invoice (Form 6500-122, pink copy), Aircraft Services Request, Cost Comparison Travel Worksheet and Flight Request/Justification for Administrative Use of Aircraft) are completed and submitted to RO Aviation & Fire Management.

AIRCRAFT SERVICES REQUEST

All columns must be filled in prior to submission

Date of Request: _____ Submitted by: _____ Contact phone: _____

<i>Passenger Name (*Flight Manager)</i>	Weight	Baggage Wt.	Grade Level	<u>Management Code</u>	Contact phone number (Cell phone/home phone)

Name of Senior Federal Officials (SES or above): _____

Include copy of completed **GSA Form 3641** - Senior Federal Travel Form with this Aircraft Services Request. Fax completed form to: **303-445-4319** (attn: aircraft desk)

Purpose of Flight: _____

FLIGHT ITINERARY Date of proposed flight: _____

<i>Departure Airport with number of PAX</i>	Date and Time of Departure	Destination Airport	Drop off/Pick up number of PAX

Fax a copy of this request to RMACC Aircraft Desk at (303) 445-4319, phone notification (303) 445-4300.

Upon completion of the charter flight, ATTACH THIS COMPLETED DOCUMENT TO THE RO COPY OF THE FLIGHT USE REPORT FS-122 (pink copy) and turn into Rocky Mountain Region RO Aviation Staff.

USDA Forest Service

FS-5700-11 (09/93)

COST COMPARISON TRAVEL WORKSHEET
 FSM 5710; FSH 5709.11, Ch. 10)

ITEMS TO BE COMPARED: GOVERNMENT OPERATED AIRCRAFT, AIRLINE, COMMERCIAL AIRCRAFT UNDER CONTRACT AND ANY OTHERS.

STEP 1: ANALYZE TRAVEL NEED

Consider number of travelers, weight and nature of baggage or cargo, and all known constraints. Typical constraints could be time away from home station, working time needed at destination(s), specific dollar limits, and vulnerability to weather delays. Do not include a method of transport that is obviously unsuitable. Normally, the decision to travel by air will have been made before using this form, but columns for other means are provided for use when appropriate. Summarize analysis: (example) Government-operated and charter aircraft both capable of performing requested service. Airline service did not meet time constraints for conference, nor did any form of ground transport.

STEP 2: COST COMPARISON

	Common Carrier (Airline)	Common Carrier (Rail)	Government Owned Aircraft	Commercial Aircraft (Contract)	Other	Other
1. Fares/Flight costs						
2. Per diem/overnight charges						
3. Lost worktime						
4. Local transportation						
5. Overtime/standby						
6. Other						
7. Total cost						

Name of Preparer

Unit

USDA Forest Service

FS-5700-10 (9/93)

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

User *(Agency/Unit)*:

Date(s) Of Use:

Purpose Of Trip:

Service Requested:

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 reasonable to effectively fulfill the transportation requirement, that is within the same calendar day as required.

Explanation:

- (c) The actual cost¹ of using this aircraft is not more than other suitable and available air transportation. *(Use FS-5700-11, Cost Comparison Travel Worksheet.)*

Signature

Title

¹ 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.

FS-5700-12 (9/93)
DAY TRIP AUTHORIZATION
 (FSM 5710: FSH 5709.11, Ch. 10)

Date: _____

Make/Model of Aircraft: _____ Registration No: _____

Operator: _____

<u>Purpose of trip:</u>
<u>Route of flight:</u>

Passenger Name	Affiliation

Forest Service sponsoring unit:

I certify that the person(s) listed above has an official purpose for being on this flight and any associated surface transport. I recognize that the Government may incur increased liability exposure under the Federal Tort Claims Act, 28 U.S.C. 2671-2680, and that ownership of the conveyance(s) in question does not alter the Government's liability (Comptroller General Decision B-231814, January 19, 1989). I have determined that the benefits justify the operation.

 Signature and title of sponsoring unit representative (FSM 5716.4)

Appendix 3

FIRE AND AVIATION MANAGEMENT

ROCKY MOUNTAIN REGION

FOREST SERVICE

February 2009

AIRCRAFT CRASH, SEARCH, AND RESCUE GUIDE

Local Review

By:

Date:

____ *Sandra J. DeFarr* ____

____ 05/03/2010 ____

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

AVIATION INCIDENTS

Aviation incidents include hazards, maintenance deficiencies, airspace conflicts or any act, event, or circumstance which affects or could affect safety of aircraft operations.

Anyone may (and should) report aviation incidents. This includes pilots, passengers, dispatchers, aircraft managers, ground personnel, etc. The reporting and wide dissemination of aviation incidents is a good accident prevention tool. It identifies safety concerns and increases safety awareness, may indicate trends, may prevent similar situations from re-occurring, and promotes aviation involvement and team building.

Aviation Incidents are reported on the **SAFECOM form (OAS-34/FS 5700-14)** at http://www.fs.fed.us/fire/av_safety/safecoms/index.html. Anyone may fill out this form but dispatchers or aviation personnel should process them. They may be submitted anonymously. If an individual is not comfortable or able to complete the written report, they should least report the incident verbally to Dispatch or Aviation staff.

REPORTING PROCEDURES:

1. Fill out form completely and legibly. The narrative should be concise, factual, and objective.
2. Submit to local/Incident Dispatch or Aviation Staff as soon as possible.
3. Dissemination: one copy to each person under respective column (electronically/Fax/mail).

Unit Aviation Officer:	
Regional Aviation Safety Manager: <u> Kent Hamilton </u> Phone: 303- 275-5711 FAX 303-275-5754	
USFS	AMD
National Aviation Safety Manager: Ron Hanks 208-387-5607 (FAX 5398)	AMD Aviation Safety Manager: Bob Galloway 208-387-5803 (FAX:5730)
Retain copy in local files	Retain copy in local files

4. Action. Local Aviation manager may take corrective action, if possible. National, State or Regional levels may provide follow-up, feedback or action. **Airspace incidents should be reported through the SAFECOM reporting system.**

OVERDUE AIRCRAFT

An aircraft normally will be considered "overdue" when it has not completed a required check-in by radio or telephone within the time frame specified in the flight request, flight plan, or resource order. This time frame may be an elapsed time period (15 minutes) for agency flight following or may be Estimated Time of Arrival in a point to point itinerary/FAA flight plan. Dispatchers or other personnel tasked with flight following are responsible for initiating actions, making appropriate contacts and documenting their efforts as specified below. When the status of overdue aircraft changes (especially locating the aircraft) all contacts must be re-notified and updated.

*****DO NOT ANNOUNCE NAMES OF INDIVIDUALS INVOLVED OVER THE RADIO*****

TIME	ACTION	CONTACT & PHONE	TIME LOG
Immediately at overdue time	Attempt to contact by radio or phone. If equipped with Automatic Flight Following (AFF), access the website and determine last location and status of aircraft by color of symbol (yellow – broadcasting, Red – lost contact) Contact destination agency airbase or airport. Complete Overdue aircraft Info Sheet (below)		
15 minutes past due	Contact originating or enroute agency dispatch. Contact originating or enroute agency air base Contact originating or enroute airports		
30 minutes past due	Contact vendor home base for possible information Contact FAA Flight Service Station (FSS): -give known flight information (below) - request commo, ramp, *ELT check	1-800-992-7433	
Fuel duration exceeded	Declare as "Missing Aircraft" Inform local Aviation Manager		

* 406 MHz ELTs are tracked on satellite. The ELTs on 121.5 are no longer tracked on satellite and the frequency must be dialed in order to track them.

OVERDUE AIRCRAFT INFO SHEET (Complete as information becomes known)

1. Type of aircraft:	2. FAA REG #:	3. Color:
4. Type of mission:	5. FAA or Agency flight Plan:	
6. Name of pilot(s):		
7. Number and names of passengers:		
8. Departure point/time:		
9. ETA at destination:		
10. Last known location, time, latitude, and longitude.		
11. Amount of fuel on board or maximum flight time for aircraft.		
12. Other Information:		

MISSING AIRCRAFT

An aircraft is officially missing when its fuel duration has been exceeded and aircraft's location is not known. The Missing Aircraft designation requires that all the items on the Overdue Aircraft check list are completed and available for reference (previous section). The unit Aviation Manager should be involved as described below; if unavailable, Dispatch must complete all items.

ACTION	CONTACT & PHONE	TIME LOG
DISPATCH: Rocky Mountain Area Coordination Center (RMAACC)	RMAACC - 303-445-4300 Fort Collins – 970-295-6800	
Continue radio and phone search		
Alert county Sheriff of possible SAR		
Assist/Coordinate agency SAR effort		
Continue documenting actions and information		
LOCAL AVIATION MGR:		
Request SAR with FAA Flight Service Station (FSS)	National FSS 1-800-WX-BRIEF (1-800-992-7433)	
Inform Regional Aviation Officer	Sandra LaFarr 303-275-5740 / (C) 303-886-2124	
Notify Regional Aviation Safety Manager	Kent Hamilton 303-275-5711	
Inform Local agency Unit Line Manager	Mark Boche 303-275-5736 c-303-570-8971 Tony Dixon (DRF) 303-275-5452	
Inform Local Agency Public Information Officer		
Inform local agency Law Enforcement Officer	Laura Mark 303-275-5253 c-303-242-1097	
Complete SAFECOM (5700-14/ OAS-34)		

**AIRCRAFT ACCIDENT
Emergency Reporting Number
1-888-4MISHAP**

Aircraft accidents may be reported by individuals involved in the accident, witnesses, search aircraft, general aviation and others. The agency Dispatch/office receiving the report becomes responsible for action, rescue, notification, coordination, and documentation. The following required actions are listed by priority:

ACCIDENT INFORMATION (Document as much information as possible)

Name of person reporting accident:	Phone# and/or Radio Frequency:	
Date & Time reported:	Date & Time of Accident:	
Location of accident: Geographic:		
Lat/Long:		
VOR: _____	Degrees _____	NM
VOR: _____	Degress _____	NM
Access to crash site: Road?	Helispot?	
Number and type of injuries:	****Do not announce names over radio***	
Number of fatalities:	****Do not announce names over radio***	
Type of aircraft:	FAA Reg#:	Color:
Owner/Vendor:	Pilot(s) name:	
Departure point & time:	Destination & ETA:	
Type of mission:		
Other information:		

COMMUNICATIONS PROCEDURE CHECKLIST

ACTION	CONTACT & PHONE	TIME LOG
Maintain communication with Crash site or person reporting		
Activate local airbase Crash Rescue Plan (if applicable)		
Activate Ground Ambulance (if applicable)		
Dispatch Helitack with EMT (if applicable)		
Activate Air Ambulance (if applicable)	See Helicopter Ambulance Section of this guide.	
Activate Military Rescue (if applicable)		
Inform County sheriff		
Inform County Coroner (if applicable)		
Inform FAA Flight Service Station (FSS)	1-800-992-7433	
Notify Hospital		
Request a Temporary Flight Restriction (TFR) through the FAA Air Route Traffic Control Center (ARTCC) (if applicable)		
Ensure security at crash site	See Preparing for Investigation Section of this guide.	
Make Agency notifications		

NOTIFICATION CHECKLIST (SEE PHONE CONTACT LIST FOR AFTER HOUR NUMBERS)

NOTIFICATION	CONTACT & PHONE/CELL/HOME	TIME LOG
Dispatch Notifies: Local Aviation Manager		
RMACC	303-445-4300	
Local Aviation Manager Notifies: Regional Aviation Safety Officer	Kent Hamilton 303-275-5711	
Regional Aviation Manager	Sandra LaFarr 303-275-5740 (C) 303-886-2124	
Local Public Affairs Officer (PAO)		
Regional Aviation Safety Manager Notifies:	Ron Hanks 208-387-5607	
Regional Fire & Aviation Team Leader	Mark Boche 303-275-5736 C-303-570-8971	
Local PAO Notifies: Local unit Agency Line Manager		
Local Agency Law Enforcement Officer (LEO)		
Local Agency Personnel Officer		
Regional PAO	VACANT 303-275-5427 C-303-517-2170	
Regional PAO Notifies:		
Regional Forester	Rick Cables 303-275-5450	
Regional Deputy Forester	Tony Dixon 303-275-5452	
Regional Deputy Forester	Maribeth Gustafson 303-275-5449	
Regional Law Enforcement Special Agent	Laura Mark 303-275-5253 c-303-242- 1097	
Regional Safety Officer	Vacant 303-275-5197	
Regional Personnel Officer	Vacant 303-275-5076	
National Public Information Officer		

LOCAL CONTACT REFERENCE GUIDE

LOCAL UNIT:	NAME	OFFICE/CELL/PAGER	HOME
Aviation Manager/FMO			
Public Information Officer			
Law Enforcement Officer			
Personnel Officer			
Line Manager			
LOCAL EMERGENCY CONTACTS:			
County Sheriff			
City Police			
State Police			
Ground Ambulance			
Air Ambulance			
Military Rescue			
Hospital			
Burn Center			
Crash Rescue at Local Airport			

CONTACT/PHONE LIST

	NAME	OFFICE/CELL/PAGER	HOME
Local Airport Tower			
Local FAA Flight Service Station			
FOREST/DISTRICT			
Dispatch			
RMACC	Jim Fletcher	303-445-4300	
Aviation officer			
Fire Management Officer			
Public Affairs Officer			
Law Enforcement			
Personnel Officer			
Administrative Officer			
Manager/Supervisor			
USFS REGION 9:			
Regional Aviation Officer	Sandra LaFarr	303-275-5740	(C) 303-886-2124
Regional Aviation Safety Officer	Kent Hamilton	303-275-5711	(C)
Regional Safety Officer	Vacant	303-275-5197	

Rocky Mt Region	NAME	OFFICE/CELL/PAGER	HOME
Regional PAO	VACANT	303-275-5427 C-303-517-2170	
Special Agent in Charge	Laura Mark	303-275-5253 C- 303-242-1097	
Regional Procurement Officer	Dan McCusker	303-275-5284	
Regional Forester	Rick Cables	303-275-5450	
Dep. Regional Forester	Tony Dixon	303-275-5452	
Dep. Regional Forester	Maribeth Gustafson	303-275-5449	
NATIONAL OFFICE			
USFS Director Fire and Aviation WO	Tom Harbour	202-205-1483 (C) 202-302-2756	
USFS Aviation Operations Officer NIFC	Pat Norbury	208-387-5646 (C) 208-863-2482	
USFS Aviation Safety NIFC	Ron Hanks	208-387-5607 (C)208-850-5357	

CONTACT/PHONE LIST

	NAME	OFFICE/CELL/PAGER	HOME
AMD			
Aviation Safety Manager	Bob Galloway	208 387-5803 (C) 208 867-7875	1-888-4mishap
Air Safety Investigator	Steve Rauch	208 387-5805 (C) 208 867-4973	1-888-4mishap
Contracting Officer			
National Transportation Safety Board	Dave Bolling	303-361-0607	
FAA			
Air Route Traffic Control Centers			
Flight Services Stations			
Flight standard District Offices			
Airport Towers			

CONTACT/PHONE LIST

	NAME	OFFICE/CELL/PAGER	HOME
Airport Towers			
Air Ambulance			

CONTACT/PHONE LIST

	NAME	OFFICE/CELL/PAGER	HOME
Burn Centers			
Poison Center			
Emergency Service			

MILITARY TRAINING ROUTES (MTR)

Contact	Phone	Routes	Routes

HELICOPTER AMBULANCE REQUEST INFORMATION

A. Injury Information

1. Total personnel involved in mishap _____
2. Time of mishap _____ .
3. Type or extent of injuries (vitals, other medical personnel on scene):

B. Mishap Site Information

1. Unit/Agency _____
2. Contact telephone number _____
3. Radio frequency to contact unit/agency: VHF - AM _____ VHF-FM _____
4. Location of mishap:
 - a. Township _____ Range _____ Section _____ 1/4 Section _____
 - b. Latitude _____ Longitude _____
 - c. _____ Nautical miles at _____ Degrees from _____ VOR
 - d. Prominent landmark: Distance _____ Direction _____
5. Site Contact: _____
 Radio frequency at mishap site: Primary: VHF-AM _____, VHF-FM _____
 Secondary: VHF-AM _____, VHF-FM _____
6. Other known aircraft in the area (call signs) _____
 Air-to-Air Frequency Primary: VHF-AM _____, VHF-FM _____
 Secondary: VHF-AM _____, VHF-FM _____
7. Special information, flight hazards, MOAs, MTRs, etc. _____

8. Landing site(s) and conditions (is it completed or when will be completed)

9. Proximity of landing site to mishap site _____

10. Nearest available AV Gas/Jet A fuel _____
11. Conditions at the mishap site: Wind direction _____, Wind velocity _____,
 Ceiling and visibility _____, Obstructions to visibility _____,
 Obstructions to visibility _____, Temperature _____,
 Degrees (F or C) _____, Elevation _____, Sunrise _____, Sunset _____,
 Description of
 Terrain _____

Note: EMS helicopters do not usually carry extrication equipment nor are the EMS personnel always trained in these procedures: Ensure that if this capability is needed, it is immediately ordered from a locally known source. (The local sheriff is a logical contact point).

HELICOPTER AMBULANCE/HELICOPTER LIFEFLIGHT IN & ADJACENT TO REGION 9

Base	Aircraft Make and Model	Contractor	Telephone No	Comments

AIRCRAFT COMMUNICATION PLAN AND FREQUENCY USER'S GUIDE

TRANSPORTING INJURED PERSONNEL BY HELICOPTER

USING "HEAR"* SYSTEM

When transporting injured personnel by helicopter under Forest Service Contract, the Forest Dispatcher will telephone the appropriate hospital and request they monitor their "HEAR" system radio. The aircraft pilot or foreman will tune in the "HEAR" Frequency (normally 155.340 as primary) on the aircraft multi-channel radio and establish direct communication with the hospital staff. Helicopter will verify frequency through Forest Dispatcher.

Local police will be requested to secure landing area when needed.

The following information was obtained from hospitals in Region 6. It is not a complete listing. Individual Forest Aviation plans may list others and helicopters could be instructed to use those.

This procedure is to be used only for emergencies that warrant immediate hospital services.

*** Hospital Emergency Administrative Radio**

* Excerpt from Region 6 Guide, Reference this guide for further clarification

PREPARING FOR THE ARRIVAL OF THE INVESTIGATION TEAM

An aircraft accident can be a serious and traumatic event. This is a checklist of some tasks, which both the Line Manager and Aviation Manager can use to take charge of the accident scene and prepare for the arrival of a trained aircraft accident investigator and/or the aircraft accident investigation team. Some items may not be applicable and others may need to be added, depending on the circumstances of the accident. This list was developed with the objective of providing a place to start during upsetting times. Utilize the Agency Administrator Guide to Critical Incident Management.

- A. General. The local Line Manager should establish an Officer-in-Charge of Search/Rescue. The first agency employee to arrive at the scene of the accident will be responsible for crash site protection until relieved by Agency Officer-in-Charge or by the appointed accident investigation team. Accident scene protection by the Line Manager can last from a few hours to several days, depending upon location, accessibility, etc. The time will depend on which level of the organization will take jurisdiction, what intermediate actions are taken and how long it will take the investigation team to travel to the site, assemble, organize, and take charge.
- B. Off-Scene Responsibilities. The Agency Officer-in-Charge will ensure the following off-scene tasks are accomplished:
1. Procedures in this Aircraft Crash, Search, and Rescue Guide are followed; emergency notifications made promptly.
 2. Determine accident scene land ownership. If the accident site is determined to be on Private or State Lands, ensure that notification is made to the appropriate parties.
 3. Inform receptionists and others who may answer the telephone to pay particular attention to anyone calling in who may have witness information. The investigation team will want to contact those persons, so they will need names and telephone numbers for later contact.
 4. Prepare a list of names, telephone numbers, addresses, etc., of all known witnesses at or near the accident scene.
 5. Obtain all available weather data for the area. Order additional weather information to be taken at weather stations in the area, and be prepared to do it again 24 hours later. The information may be needed to compare with weather readings at the accident scene to estimate the weather at the time and place of the accident.
 6. Determine when and where the aircraft was last fueled, and request the supplier to take fuel samples for the agency to pick up later. It is best if the Agency Officer-in-Charge can do the fuel sample at the last fueling site; but it is recognized that this is not always possible.
 7. Secure the following names and telephone numbers:
 - a. The sheriff or other local law enforcement officer having jurisdiction.
 - b. The coroner or other person having jurisdiction over the removal of the remains.
 - c. The attending medical doctor for those injured in the accident.
 - d. The landowner if the accident occurred off federally owned lands.
 - e. The names and telephone numbers of any reporters who have requested information for media dissemination. The lead investigator or Agency PAO will be in touch with them, when information becomes available.
 8. Arrange transportation for the use of the investigation team. Two vehicles will probably be needed and one person who is familiar with the area-hospital, sheriff's office, witness addresses, etc. A helicopter and/or airplane may be needed for transportation of the team to remote sites.

9. Arrange lodging for the team at a city/town nearest the accident site.
 10. Prepare for a brief entrance conference with the lead investigator upon his/her arrival. The local Line Manager should make available all personnel involved in the flight (Aviation Manager, Dispatcher, etc.).
 11. Secure five topographic and agency maps of the area. Aerial photographs, if available, plus any other maps the unit believes will be helpful to the investigation team, should be included.
 12. If the aircraft was under contract to the agency, secure a copy of the contract for the investigation team.
 13. Secure agency radio logs, tapes, flight request/schedule, weather observations and forecasts, etc., that may contain information (no information can also be evidence) relating to the accident.
 14. Take custody of pertinent records and documents. Aircraft maintenance logbooks, Pilot records, Dispatch flight following and scheduling documents, Job hazard analysis, Weather Report
 15. Determine who the Line Manager wants to designate as the unit's primary contact with the lead investigator.
 16. Establish a work area with desk, telephone, and computer station for use by the lead investigator.
 17. Assign adequate personnel to provide 24-hour security of the site.
- C. On-Scene Responsibilities. The Agency Officer-in-Charge will ensure the following on-scene tasks are accomplished:
1. Deactivate (disable) the emergency location transmitter (ELT). (Most positive method is battery removal).
 2. Prevent unauthorized people from conducting activities that will destroy important information. Ground impact points should be preserved; that is, people should not be walking around to satisfy their curiosity. They may damage evidence.
 3. Ensure that personnel involved in the search and rescue do not broadcast the names of aircraft occupants or state the extent of injuries over the radio system.
 4. Personnel should be advised that the wreckage is hazardous. Fuel can burn; tires can explode; gases and metals can be ingested by the body; bacteria can be present; corrosive liquids may be exposed; liquid and solid poisons may be present; chemical reactions may have occurred, especially if there has been a fire; personal baggage and equipment contain unknown items; etc. The Officer-in-Charge should stay away from the wreckage and keep others away from it until a trained aircraft accident investigator arrives. The untrained person is subject to personal injury. Personal risk should only be taken to assist evacuation of the injured. The removal of bodies falls within the Coroner's (local/State/county) authority. No effort, other than a warning concerning hazards posed by the wreckage, should be exerted to prevent these people from doing their jobs. No smoking should be permitted near the wreckage.
 5. Prepare written notes on all activities at the accident scene. Each recording should include the date and time of the activity and observation. Ensure an accurate recording will be made by someone until the wreckage is removed. Examples include:
 - a. The time the agency Officer-in-Charge arrived at the scene.
 - b. Other personnel who were or may have been at the accident location (date/time/location relative to the crash site) before the arrival of the Officer-in-Charge.
 - c. Weather observations and any odors (such as fuel) noticed upon arrival.
 - d. Any wreckage moved or removed and by whom.
 - e. First aid and medical assistance rendered to the injured.

- f. Removal of fatally injured persons necessitates the recording of:
 - (1) Which body came from which seat, or where it was found.
 - (2) Seat belt usage (or lack thereof).
 - (3) A description of type and color of clothing.
 - (4) A witnessed statement (inventory of personal effects removed, such as counting cash in wallet, listing all identification cards, match books, loose pocket change, keys, pocket notebooks, pens, personal protective equipment worn or found).
 - (5) Names of all persons visiting the accident scene after arrival of the Officer-in-Charge.
 - (6) Any other information that might help the investigation team.
- 6. Take photographs, if possible, before removing remains or disturbing wreckage. This should be foregone if there are injured that need to be evacuated. In that case a written recording and/or photographs taken after the fact will suffice. Preserving life is the number one priority.
- 7. Flag or rope off the accident scene to prevent unauthorized access. Colored flagging is preferred, to allow for later pictures taken from the air by the investigation team.
- 8. Accept all written narrative witness statements, place them in an envelope, and transmit them to a central point for collection by the investigation team or by the first trained investigator that arrives. To the extent possible, do not allow anyone to verbally question the witness. Questions by an untrained person can contaminate (modify and/or change) the information the witness will provide. Encourage written statements made by each person; attempt to separate all witnesses.
- 9. Take all other prudent actions to:
 - a. Preserve life
 - b. Protect people at the scene
 - c. Protect and preserve information

Summary

These initial steps are a recommended guideline to help start a good investigation. Once the aviation operations and safety personnel are notified, they will follow their own checklists. This should not prevent initial responders from using their own judgment in deviating from this list.

Appendix 4

On-Site Fatality Protocol

PURPOSE: The intent of this guide is to list the steps that must be taken in response to fatalities, to list the people with whom coordination must be maintained, where information is found, and responsibilities for the modified Incident Management Team members.

RESPONSIBILITY: Until delegated, responsibility for response lies with the unit where the event took place.

1. DO NOT MOVE THE DECEASED. PROTECT THE REMAINS FROM PUBLIC VIEW.
2. Notify the State Police, who will notify the Coroner's Staff.
3. Protect the site for investigation.
4. DO NOT USE THE NAMES OF THOSE INVOLVED ON THE RADIO.

CONTINUING FIRST PRIORITY: The first priority in response to a fatality is the swift delivery of accurate information to home units/families before news media spread information.

ORGANIZATION:

1. Establish a modified Incident Management Team for the fatality situation, with formal delegation of authority to the RF. Minimum positions are: Incident Commander, Finance Section Chief (with Procurement Unit Leader and Compensation for Injury Unit Leader) Logistics Section Chief, and Incident Information Officer. Other positions will be filled as needed by the IC, depending on the situation. DOCUMENTATION IS CRITICAL. Incident Information Officer can coordinate/facilitate communication with home units and family liaisons.
2. Consider establishing unified command with State Police, the jurisdictional agency, and possibly the Coroner's Office.

NOTIFICATION ABOUT INCIDENT:

1. Notify Regional Safety and Health Officer, who will coordinate further distribution of information.
2. Notify Special Agent in Charge, who will coordinate with the Director Fire and Aviation Management and/or the Regional Safety and Health Officer and notify the Director, LEI as appropriate.
3. Establish a process to make sure coordination is achieved and information is managed.
4. Notify director of Personnel for coordination of family assistance.

FATALITIES:

1. Identification (Dead, Missing, Injured, Survivors):
 - Work with local jurisdiction on identification procedures and needs to facilitate that process. This may require additional data for forensic identification. If necessary, transport the data by courier.
3. Notification:
 - Coordinate notification procedures with local jurisdiction and affected home units.
 - The home unit may identify liaison personnel to coordinate all communication to and with the families.
3. Transportation:
 - Coordination Team works with incident mortuary for transportation (Agency, Commercial, Contract).
 - Government pays (through OWCP) preparation, transportation and delivery to the receiving mortuary.
 - Check with OWCP specialist (assigned once claim is filed into SHIPS program) for coverage of funeral expenses.
 - Identify one escort for transportation and delivery of the remains.
 - Coordinate with Home Unit for delivery of remains.
 - RESOURCES -- Finance Section Chief, Procurement Unit Leader, Compensation or Injury Specialist, OWCP SPECIALIST (assigned once claim is filed), Albuquerque Service Center (ASC), and Regional Incident Business Management Coordinator.

CO-WORKER SURVIVORS:

1. Arrange for medical care, if needed.
 - RESOURCES -- Finance Section Chief, Comp/Claims Unit Leader, OWCP SPECIALIST.
2. Consider need to pull from field duties. Consider the need for Critical Incident Stress De-Briefing.

FAMILY SURVIVORS:

1. Notification:
 - Speedy, accurate information on status of relative is imperative.
 - Usually handled, by person in uniform, or arranged by home unit.
 - Inform family who will be agency contact person (liaison) for details. This person explains benefits, determines family wishes, helps family as needed, and acts as focal point for all communication with family.
2. Coordination: Forest Supervisor, Personnel Officer, Public Affairs Officer coordinate information release to protect notification process.

MISCELLANEOUS TRAVEL ISSUES: Questions may arise on family travel or escorts for remains. Contact

Regional Safety Manager and/or HCM in Albuquerque.

BENEFITS:

1. Person managing the fatality situation works with incident mortuary to initiate requests for Death Certificates.
2. Contact OWCP specialist assigned to case. They have current benefits information and initiate paperwork. They will be contact for other agencies such as Dept. of Justice for Public Safety Officers' Benefit Act.
3. Supervisor submits accident/injury claim into SHIPS program which initiates action for benefits.

Appendix 5

Aircraft Incident Reporting (SAFECOM)

The safecom reporting system is an internet based data base including all Forest Service and State Safecom reports that are reported. If you do not have access to the internet, Safecom reports can still be reported via telephone or standard form, mailed to the Forest Aviation Officer or Aviation Safety Manager.

For Internet reporting follow these procedures:

1. Access the Forest Service Aviation Safety Homepage via the Internet at <http://www.safecom.gov/>
2. When the homepage main menu appears, select and left-click on "Submit Safecom."
3. Complete as much of the form as possible, using pull down menus available. Complete the narrative and corrective action sections, if appropriate. If you wish to keep a hard copy of the report, click on the print icon on your browser at this point, you will not be able to print once the form has been submitted.
4. The final step will be to select the pull down menu for "Region" at the bottom of the page. Select the Region where the incident occurred. This will ensure the Regional Safety Manager is informed and sent a copy of the report. If you wish to start over, select "clear Form" and this will wipe out the existing information. If you are ready to submit the form, click on the "Submit" button.

REVIEWING SAFECOMS

If it is desired to review Safecom reports, access to the Data Base is available to anyone. You may research by many categories: Region, year, aircraft type, incident type, etc.

To review Safecom reports follow these procedures:

1. Access the Forest Service Aviation Safety Homepage via internet address indicated in step one for reporting.
2. Select and click the "Search Safecom" option.
3. Select and click on "Public Access Area."
4. Identify the category you desire to search.
5. Select and click on the "Submit" icon.

Appendix 6

Elements of a Forest Aviation Management Plan

Approval Signature Page and Title

- Prepared by Forest Aviation Officer
- Reviewed by Fire Management Officer, Regional Aviation Officer and/or Regional Aviation Safety Manager
- Approved by Forest Supervisor

Table of Contents:

Organization and Responsibilities: (Narrative)

- Forest Aviation Officer
- Fire Management Officer
- Air Tanker Base Manager
- Helicopter Program Manager
- Forest Dispatcher
- Flight Manager
- Passenger
- Other Forest Service Employees
- Non Government Passengers (FSM 5716.4)

Planned Aircraft Use: (Narrative)

- Administrative Flights
- Fire Detection and Suppression
- Aerial Ignition and Prescribed Burns
- Emergency Search and Rescue
- Law Enforcement and Low Level Surveillance
- Forest Health Flights
- Photo Flights
- Helicopter Operations
- Flights on Restricted Category and Non-Certified Aircraft (policy)
- Other flights that occur on the Forest

Operations: (Narrative)

- Flight Request Procedure
- Business Management
- Flight Plans
- Flight Following
- Communication
- Project Aviation Safety Plans (process/requirement, complex/non-complex)
- Temporary Flight Restrictions
- Hazard Maps
- Airspace Coordination with Military
- Air Tanker Use
- Low Level Fixed Wing Operations (FSM 5716.3)
- Helicopter Operations (IHOG)

- Equipment Requirements
- Briefings for Pilot and Passenger (policy)
- Transportation of Hazardous Materials
- Closed Circuit and Hot Splash Refueling
- Airport/Airstrip Directory
- Helispot Directory
- Aviation Personnel Directory
- Employees who Pilot Aircraft
- Return to Contract Availability After Maintenance (policy/process)
- Night Flight Operations (policy)

Aviation Safety/Accident Prevention: (Narrative)

- Personal Protective Equipment (policy)
- Risk Management (process)
- Aviation Mishap Response Plan (process)
- Accident and Incident Reporting (process)
- Base Crash Rescue Plan (IHOG)
- Request for Medical Air Evacuation (process)
- Search and Rescue Plan (process)
- Forest Aviation Accident Prevention Program (describe)
- Hazardous Materials

Appendix:

- Unit Aviation Operating Plans
- Forest Travel Request
- Day Trip Authorization
- ROCKY MOUNTAIN REGION Mobilization and Demobilization Points
- Forest Accident/Incident Response Guide
- On Site Fatality Protocol
- Forest-specific Direction (policy and approval letters, FSM/FSHG Forest direction, etc.)
- Checklist for Implementing a Temporary Flight Restriction
- Security Plan
- Forest Helicopter Operations Plan (projects)

Appendix 7

Elements of a Project Aviation Safety Plan

1. Supervision: Identify the qualified Project Aviation Manager.
2. Project Name and Objectives: Provide a brief description of the project and its objectives.
3. Justification: Indicate why the Project will require the use of aircraft in special use flight conditions/environments and list the most practical alternatives for completion of the project.
4. Project Dates: State the date(s) the project will begin and end. These may be approximate since exact dates of flights may not be known.
5. Location: Enter the descriptive location and indicate a map clearly showing the area where flights will be made. Aerial hazards must be clearly indicated.
6. Projected Cost of Aviation Resources: enter cost coding, projected flight hours and cost, projected miscellaneous expenses (overnight charges, service truck mileage, hangar fee, etc.) and total cost of the project.
7. Aircraft: If known, identify vendors that own the aircraft to be used, registration number, aircraft type, aircraft data card expiration date, and missions for which the aircraft is approved.
8. Pilots: If known, identify pilots, type of aircraft qualified in, type of missions qualified for, and pilot card expiration date.
9. Participants: List individuals involved in flights, their aviation related qualifications and currency, and their Project responsibilities.
10. Flight Following and Emergency Search and Rescue: Identify the procedures to be used.
11. Aerial Hazard Analysis: Provide an aerial hazard analysis for each flight with an attached map
 - Require a prior ground and/or aerial hazards survey for flights.
 - Provide a copy of the hazard map to the pilot prior to any Project flights.
 - Accomplish necessary planning concerning temporary flight restrictions (TFR) and coordination with Federal Aviation Administration and military authorities prior to project flights
12. Protective Clothing and Equipment: Identify the protective equipment and clothing necessary for the particular operation and any survival equipment (extra water, flotation devices, cold weather gear, etc.) beyond the normal Personal Protective Equipment (PPE) complement that may be required

13. Load Calculations and Weight and Balance:

- Include the Load calculations provided by the pilot. The pilot is responsible for the accurate completion of load calculations.
- Ensure that trained aviation personnel have determined that the mission requirements do not exceed the safe capabilities of the scheduled aircraft.
- Ensure that manifests and load calculations and weight and balance calculations are completed and noted properly by the Flight or Helicopter Manager.

14. Risk/Hazard Assessment: Complete a Risk/Hazard Assessment that identifies hazards associated with the operation and the mitigations and controls put in place to reduce or eliminate them. The process for completing this assessment is found in the Interagency Helicopter Operations Guide (NFES 1885) and in Chapter 17 of the Interagency Standards for Fire and Aviation Operations (NFES 2724).

15. Job Hazard Analysis: A Job Hazard Analysis is required to accompany all Project Aviation Safety Plans

Appendix 8

1. General:

The US Forest Service has set forth policies and procedures for Aviation Security, with the basic objective being to safeguard Forest Service-owned or controlled aircraft against theft and associated misuse by terrorists or individuals engaging in other criminal activity. A copy of the JeffCo Aviation Security Plan in its entirety is on file at the facility.

SECURITY LEVEL GREEN (Low)
<ul style="list-style-type: none"> • Forest Service aircraft are hangared, and the hangar is secured/locked during non-operational periods
SECURITY LEVEL BLUE (Guarded)
<ul style="list-style-type: none"> • All items at level GREEN apply. •
SECURITY LEVEL YELLOW (Elevated)
<ul style="list-style-type: none"> • All items at levels GREEN and BLUE apply. • Increase awareness for unfamiliar personnel or personnel without ID • Develop and activate employee communication and tracking system for employees in travel status.
SECURITY LEVEL ORANGE (High)
<ul style="list-style-type: none"> • Items at level YELLOW apply in addition to the following: • ID badges required for entry on/into the Aviation facilities and Hanger. • Aviation Security Officer (ASO) assigned daily at JeffCo facility to inspect the hanger, aircraft in the hangar, and access to the ramp, at the end of each shift and beginning of next business day. • Forest Service aircraft are hangared, and the hangar is secured/locked 24 hours except to move aircraft in and out for flight activity. • All aircraft doors in hangar are locked while unattended. • Report unfamiliar personnel or personnel without ID. • Notify GACC of aircraft status and locations.
SECURITY LEVEL RED (Severe)
<ul style="list-style-type: none"> • Items at level ORANGE apply in addition to the following: • Activate employee communication plan, notify employees in travel status of security level, establish regular check-ins with employees in travel status. • Restrict building access to employees ONLY. • Assign available pilot(s) to each aircraft. • If advised of immediate threat, relocate or disable all aircraft. • Evaluate the need for 24 hour surveillance/security at JeffCo offices and hangar. • Evaluate the need to restrict/cancel flight operations.

Appendix 9

Airfield and Aircraft Security Circular

Federal Aviation Administration

AIRPORTS

Airfield and Aircraft Security in the Wake of the Terrorist Attacks

Following the September 11, 2001, multiple terrorist attacks against U.S. civil air carriers, involving the World Trade Center and the Pentagon, the FAA is advising of the potential for follow-on terrorist attacks.

As we have done on several occasions in the past, the FAA is seeking your cooperation in helping to safeguard the air transportation system. We are raising the security posture at all Part 107 airports throughout the United States. We believe that it is prudent to inform airport and airfield operators of our concern. Accordingly, to help keep public and private airfields safe and secure during the foreseeable future, we need your help.

IF YOU ARE THE OWNER OR OPERATOR OF AN AIRFIELD PLEASE:

1. Distribute this circular to all organizations, which have a regular presence on the airfield.
2. Contact your local law enforcement agency and verify the procedures you would use to report any suspicious activity at your airfield.
3. Promptly report information indicating possible criminal activity to your local law enforcement agency.

PERSONS INVOLVED IN OPERATING, SERVICING OR RENTING SMALL AIRCRAFT SHOULD BE ON THE LOOK-OUT FOR:

- Aircraft with unusual or unauthorized modifications;
- Persons loitering for extended periods in the vicinity of parked aircraft or in air operations areas;
- Pilots who appear to be under the control of other persons;
- Persons wishing to obtain aircraft without presenting proper credentials or persons who present apparently valid credentials but do not have a corresponding level of aviation knowledge; or
- Anything that doesn't look right! (I.e. events or circumstances, which do not fit the pattern of lawful normal activity at your airport.)

REMEMBER: If you see something highly dangerous, such as weapons or explosives, being loaded on an aircraft; or if you have other reason to believe that a serious crime or some sort of attack is about to occur, immediately call local law enforcement authorities!

CALL YOUR NEAREST FBI OFFICE

Appendix 10**Security Considerations for Agricultural Aircraft Operators****Prepared by the National Agricultural Aviation Association**

- Considering the September 11, 2001 terrorist attacks on the United States, and the resulting federal government and national news media focus on our industry, the National Agricultural Aviation Association (NAAA) reminds all agricultural aircraft operators to maintain, and where necessary, improve aircraft and operations security. Having endured multiple ground stops over the last few weeks it is obvious that our ability to work and protect American agriculture is in a precarious state. We must address security concerns expressed by federal and state law enforcement agencies to insure that our aircraft, crop protection chemicals, and operations are maintained in a secure state.
- NAAA recommends that, where possible, aircraft and crop protection products are stored in locked hangars with electronic security systems when not in use. Loader trucks, forklifts, or other equipment may also be parked and temporarily disabled in such a manner as to block movement of the aircraft. In cases where hangar space is not available and aircraft must be left outdoors, propeller chains, locking high strength tie down chains, or blocking equipment are practical alternatives. Outdoor security lighting is also recommended.
- Operators are also encouraged to explore the possibility of installing hidden security switches to insure no unauthorized aircraft starting. This, however, must be accomplished in compliance with FAA regulations governing aircraft modification.
- In the case of operators who live on the premises, or have employees living on airport grounds, enhanced security lighting, alarms, and dogs are effective deterrents against criminal activity.
- NAAA recommends that operators establish contact with federal and local law enforcement agencies to coordinate responses to security breaches at Ag aviation facilities. Appropriate law enforcement agency telephone numbers should be posted in a prominent place and employees should be instructed to maintain enhanced security awareness. These telephone numbers should be registered with any private security company that monitors the electronic security system of an agricultural aviation operation.
- We also recommend you securely store and monitor all of your chemicals. Recommendations include storage in a building with steel doors, use of an electronic security system, and tampering tape. The protection of crop protection chemicals is essential to maintaining a safe operation.

October 26, 2001

Appendix 11

FBI Offices Within the Rocky Mountain Region

FBI Denver

1961 Stout Street, Suite 1823
Denver, CO 80294
<http://denver.fbi.gov>
(303) 629-7171

FBI Boulder

1050 Walnut, Suite 219
Boulder, CO 80302
(303) 443-4900

FBI Colorado Springs

111 South Tejon St. Suite 600
Colorado Springs, CO 80903
(719) 633-3852

FBI Durango

103 Sheppard Drive, Suite 206
Durango, CO 81301
(970) 259-6189

FBI Fort Collins

301 S. Howes St., Suite 321
Fort Collins, CO 80521
(970) 482-3422

FBI Glenwood Springs

2700 Gilstrap Court, 200
Glenwood Springs, CO 81601
(970) 945-0144

FBI Grand Junction

402 Rood Avenue, Suite
225 Grand Junction, CO
81501 (970) 242-8360

FBI Pueblo

720 North Main St., Suite 330
Pueblo, CO 81003
(719) 543-3330

FBI Omaha

10755 Burt Street
Omaha, Nebraska 68114-2000
omaha.fbi.gov
(402) 493-8688

Appendix 12

Aviation Internet Links

Aviation websites provide an abundance of information that can help personnel who are seeking specific or particular information regarding aeronautical science, regulations, policies, restrictions, etc. Users of this Aviation Management Plan may add websites for obtaining further information.

Safecom www.safecom.gov

National Transportation Safety Board (NTSB) www.nts.gov

Office of Aircraft Services (OAS) www.nbc.gov/amd

AirNav Airport Directory www.airnav.com

Rocky Mountain Region (ROCKY MOUNTAIN REGION) <http://fsweb.r2.fs.fed.us/>

Rocky Mountain Region (ROCKY MOUNTAIN REGION) fire and aviation

<http://fsweb.r2.fs.fed.us/spf/index.html>

National Fire and Aviation Management www.fs.fed.us/fire/aviation

Interagency Airspace coordination www.fs.fed.us/r6/fire/aviation/airspace/

Federal Aviation Administration www.faa.gov

Interagency Aviation Training <https://www.iat.gov/>

Automated Flight-Following www.aff.gov

Forest Health Aviation Safety www.fs.fed.us/foresthealth/aviation

Aircraft Owners & Pilots Association (AOPA) www.aopa.com

Transportation Safety Administration (TSA) www.tsa.gov

National Aeronautical Charting Office (ANCO) <http://www.naco.faa.gov/>

Appendix 13

TFR Implementation Checklist

1. Receive request for Temporary Flight Restriction (TFR)
2. Plot Incident on Project Hazard map. If Special Use Airspace or Military Training Routes are involved, complete step five prior to steps 3 & 4.
3. Complete Resource order with Interagency Request for TFR and documentation of source requesting deconfliction of airspace
4. Contact appropriate FAA ARTCC (see Area specific addendum) with request for TFR; Request call back with confirmation.
5. Inform FAA FSS (see Area specific addendum) of request made to ARTCC. Request advisory NOTAM be issued.
6. If Special Use Airspace (MOA, RA, MTR) is involved, contact Military Scheduling Agency (see Area specific addendum) and request deconfliction of airspace until TFR is granted by FAA.
7. Fax copy of TFR request to EACC (612-713-7317)
8. Notify Incident Command (if applicable) and all aircraft of TFR status. Relay information of activity in Special Use Airspace as applicable.
9. Order appropriate aviation resources.
10. Document call-back confirmation of TFR placement from FAA.
11. Document contacts for deconfliction of Military Special Use Airspace.

Tricks and Traps in coping with TFRs

DO:

- Research and assess TFRs and other flight restrictions methodically and habitually.
- Make a last-minute call to FSS before takeoff to see if any TFRs have popped up.
- Check and print graphical NOTAMS from AOPA, DUATS, FAA or BLM web sites.
- Use flight following when possible.
- Print the results of your research and have them with you in the airplane.

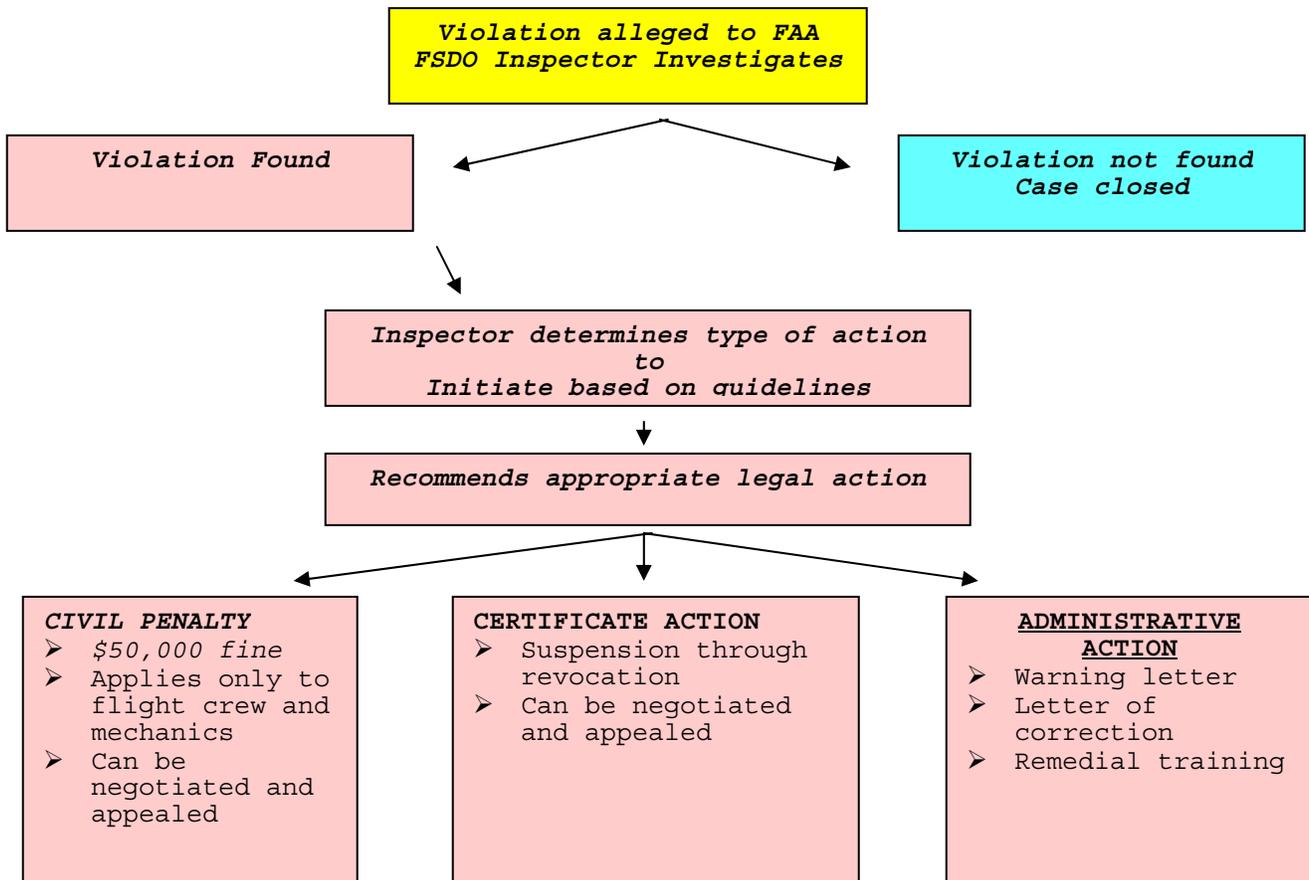
DON'T:

- Count on ATC to keep you out of trouble
- Skip a briefing, even for local flights
- Get lost in the garbage presented on DUATS.

If cited for a TFR violation

If cited for a TFR violation; file a NASA ASRS form immediately. Forms are available at <http://asrs.arc.nasa.gov/>

TFR ENFORCEMENT PROCESS



Appendix 14

Policy and Approval Letters

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Appendix 15

National Aviation Management
And
Safety Plan

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Appendix 16

Aviation Emergency Resource List

HELICOPTER AMBULANCE SERVICE

Location	Facility	Phone Number	Call Sign	Type A/C	Lat Long
COLORADO					
Grand Junction	St. Mary's Care Flight	1-800-332-4923	Care Flight	Bell 412	39 05.4 108 33.6
Denver North	St. Anthony's	1-800-332-3123	Flight for Life	AS 350 B3	39 44.58 105 02.46
Montrose	Montrose Memorial	1-800-800-0900	Tri-State Care Flight	AS 350-B3	38 28.81 107 52.10
Durango	Mercy Medical Center	1-800-800-0900	Tri-State Care Flight	Agusta westland AW 119	37 09.1 107 45.2
Summit County	Frisco	1-800-332-3123	Flight for Life	AS 350 B3	39 34.24 106 04.79
Fredrick	Fredrick-Firestone Fire Station #2 3991 Rowe Street Firestone, CO 80504	1-877-2 GET AIRLIFE (1-877-243-8247)	Airlife	Bell 407	40 07.18 104 58.52
Aurora	Columbia Aurora North Hospital	1-877-2 GET AIRLIFE (1-877-243-8247)	Airlife	Bell 407	39 43.39 104 49.36
Greeley	Northern Colorado Medical center	Flight Dispatch 1-800-247-5433	Airlife-Greeley	(2) Bell 407	40 24.49 104 42.28
CO Springs	Memorial Hospital	1-800-763-4373	Memorial Star	Bell 407	38 50.21 104 47.59
SOUTH DAKOTA					
Rapid City	Rapid City Regional Airport	1-800-232-2452		Bell 222	44 02.7 125 8.5
Sioux falls	McKenna Hospital	605-322-2600		Bell 222	43.0 118 3.0
Sioux Falls	Sioux Valley Hospital	1-800-952-2229		Bell 230	43.0 118 3.0
NEBRASKA					
Scotts Bluff	Regional West Medical Center	1-800-252-2215		Bell 407	41 52.4 123.0
WYOMING					
Casper	Wyoming Medical Center	1-800-442-2222		Eurocopter EC 135	42 54.50 106 27.80
MONTANA					
Billings	St. Vincent's hospital	1-800-538-4357		Eurocopter	45 48.5 108 32.0
UTAH					
Salt Lake City	University Hospital & Burn Center	1-800453-0120	Air Med 2,3,4,14	2 Bell 407 Bell 206 Bell 430	40 49.50 111 50.6

Helicopter ambulance services listed above have night vision capabilities

Cheyenne, WY Warren AFB					
	Make & Model			Perform @ 7000'/90° F.	Cruise Speed
	Blackhawk (UH-60)			Yes	150 mph
	VFR	IFR	FM Radio Programmable	Night Vision Goggles (NVG)	Order Response Time
	Yes	Yes	Yes	Yes	1 Hour/Weekdays 4 Hours/Weekends
Hoist Type:	Goodrich (Rated 600 lbs./250' cable)				
Fuel Cycle:	350 miles				
Refueling:	Can refuel @ FBOs (Jet-A)				
Medical Personnel:	No medical personnel aboard during the 2009 fire season due to overseas deployment. Likely in subsequent years.				
Paid Extended Staffing:	No				
Paid Relocation:	No				
Notes:					
Ordering Procedure:	GACC				
Denver, CO Colorado NG					
	Make & Model			Perform @ 7000'/90° F.	Cruise Speed
	Blackhawk (UH-60)			Yes	150 mph
	VFR	IFR	FM Radio Programmable	Night Vision Goggles (NVG)	Order Response Time
	Y	Y	Y	Y	1hr-1.5hr
Hoist Type:	Goodrich (Rated 600 lbs./250' cable)				
Fuel Cycle:	350				
Refueling:	Any FBO (JetA)				
Medical Personnel:	Yes				
Paid Extended Staffing:	NO				
Paid Relocation:	NO				
Notes:	Also they have a Heli-Basket Medic may be on board do to Staffing				
Ordering Procedure:	GACC				
Cheyenne, WY Wyoming NG					
	Make & Model			Perform @ 7000'/90° F.	Cruise Speed
	Blackhawk (UH-60)				
	VFR	IFR	FM Radio Programmable	Night Vision Goggles (NVG)	Order Response Time
	Y	Y			
Hoist Type:	Goodrich (Rated 600 lbs./250' cable)				
Fuel Cycle:	350				
Refueling:	Any FBO (JetA)				
Medical Personnel:	Yes				
Paid Extended Staffing:	NO				
Paid Relocation:	NO				
Notes:	Medic may be on board do to Staffing				
Ordering Procedure:	GACC				

All Military helicopters listed have Night Vision capability

Hoist: A cable winching device permanently mounted to the helicopter that is capable of lowering/raising personnel attached to the cable

FIXED WING AMBULANCE SERVICE

COLORADO					
Denver North	St. Anthony's	1-800-332-3123		Fixed-wing	39 44.58 105 02.46
Frisco	Summit Medical	1-800-332-3123		Fixed-wing	
Centennial	Mayo Aviation (Flight for Life)	1-800-332-3123		Fixed-wing	
Centennial	International Jet (Airlife)	1-877-2 GET AIRLIFE (1-877-243-8247)		Fixed-wing	
SOUTH DAKOTA					
Rapid City	Rapid City Regional Airport	1-800-232-2452		Fixed-wing	
NEBRASKA					
Scotts Bluff	Regional West Medical Center	1-800-252-2215		Fixed-wing	
WYOMING					
Casper	Wyoming Medical Center	1-800-822-7201		Fixed-wing	42 54.50 106 27.80
Rapid City	Rapid City Regional Airport	1-800-232-2452		Fixed-wing	
MONTANA					
Billings	St. Vincent's hospital	1-800-538-4357		Fixed-wing	45 48.5 108 32.0
UTAH					
Salt Lake City	University Hospital & Burn Center	1-800-321-1911		Fixed wing available for burn patients	

All Air Ambulance services listed above have night flying ability

National Park Service Short Haul and Search and Rescue

National Park Service Yellowstone					
	Make & Model			Perform @ 7000'/90° F.	Cruise Speed
	Lama (SA-315B)			Yes	104 mph
	VFR	IFR	FM Radio Programmable	Night Vision Goggles (NVG)	Order Response Time
	Yes	No	Yes	No	30 Minutes
Hoist Type:	None/Short-haul				
Fuel Cycle:	2 Hours (200 Miles)				
Refueling:	Can refuel @ FBOs (Jet-A). Also have fuel truck.				
Medical Personnel:	EMT (Can also provide Helitack support personnel)				
Paid Extended Staffing:	Determined by flight request.				
Paid Relocation:	Yes. Case-by case basis.				
Notes:	This is a national fire resource helicopter. Available for long term assignment for national/regional incidents. Procurement can be initiated by MOU or incident "P" number.				
Ordering Procedure:	Contact: Bozeman Interagency Dispatch Center (BZC), 406-587-6719, or Yellowstone Dispatch, Laura Dooley, 307-344-2181.				
Jackson, WY - Teton County SAR					
	Make & Model			Perform @ 7000'/90° F.	Cruise Speed
	Bell 407			Yes	126 mph
	VFR	IFR	FM Radio Programmable	Night Vision Goggles (NVG)	Order Response Time
	Yes	No	Yes	No	45 Minutes
Hoist Type:					
Fuel Cycle:	2 hours (250 miles)				
Refueling:	Can refuel @ FBO's (Jet A). Have fuel trucks/trailer for each unit.				
Medical Personnel:	Paramedic/Physicians				
Paid Extended Staffing:	No				
Paid Relocation:	No				
Notes:	Inter-state response				
Ordering Procedure:	Contact Doug Meyer, 307-413-0445 for availability.				

NPS does not have night flying capability

Teton NP, WY - National Park Service					
	Make & Model			Perform @ 7000'/90° F.	Cruise Speed
	Astar (AS350 B3)			Yes	138 mph
	VFR	IFR	FM Radio Programmable	Night Vision Goggles (NVG)	Order Response Time
	Yes	No	Programmable	No	1 Hour
Hoist Type:	None/Short-haul				
Fuel Cycle:	2 Hours (276 Miles)				
Refueling:	Can refuel @ FBOs (Jet-A). Also have fuel truck.				
Medical Personnel:	EMT/Paramedic (includes Helitack support personnel)				
Paid Extended Staffing:	Yes				
Paid Relocation:	Determined by flight request.				
Notes:	This is a national fire resource helicopter. May be available for long term assignment for national/regional incidents. Procurement can be initiated by MOU or incident "P" number. Check availability, may already be assigned to incident or limited to local area				
Ordering Procedure:	Contact: Eastern Great Basin Dispatch Center, 801-531-5320, or Teton National Park, 307-739-3333 to check availability.				

NPS does NOT have night flying capability

Short-haul: To transport one or more persons suspended on a fixed line beneath a helicopter.

