

National Aviation Safety and Management Plan



2011

2011

National Aviation Management Plan

Signatures and Approval

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2011 Regional Aviation Management Plan

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2011

Forest Aviation Management Plan

Signatures and Approval

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1.0 Aviation Management Plan

1.1 Purpose

The purpose of the Forest Service National Aviation Management Plan is to describe National Fire and Aviation Management (FAM) leaders' intent, authority, roles and responsibilities, programs, activities and to provide strategic and operational direction and operational guidance to each organizational level. Individual Regions and Units may supplement this plan when needed. This plan is supplemental to policy and does not replace the Forest Service [Manual 5700](#) and [Handbook 5709.16](#).

The Forest Service must endeavor to place the safety of employees above all else and ensure our workplaces are free of recognized hazards. The Forest Service goal is to develop a culture that achieves and maintains a zero accident rate. Prior to conducting any work projects, all risks should be mitigated to the lowest acceptable level possible. Incorporating [Safety Management Systems \(SMS\)](#) with a strong Quality Assurance (QA) component will improve the business model for safety, efficiency, and effectiveness.

Regional Supplement:

Forest Supplement:

1.2 Mission Statement

Aviation Management in FAM supports agency resource management programs through a proactive and professional aviation program that:

- Develops and coordinates efficient aviation policy and management processes.
- Provides guidance for aviation programmatic and operational risk management.
- Leads aviation safety assurance and promotion programs.
- Provides support for aircraft acquisition as specified by Forest Service management objectives.
- Develops and promotes a skilled aviation management workforce.
- Supports a systems-wide approach to safety and management considering all functional areas and scales regarding fleet, service provider and cooperative aircraft, program and personnel.

Regional Supplement:

Forest Supplement:

1.3 Leaders' Intent

The Forest Service's aviation program goal is to provide the aviation tools that safely and efficiently accomplish missions related to the task of managing national forests. Aircraft are high impact tools that are expensive and unforgiving without operational oversight and active management. The proper utilization of aircraft in support of resource management and protection programs serve as a force multiplier when dealing with issues of time, remoteness, terrain, large areas and distances. Aviation management is about balancing mission goals with the environment, budget and safety of the involved personnel.

Safety

- Safety must be a core value of our culture, ingrained in the character of every employee.
- Provide a safe and healthful environment for all our employees, volunteers, and partners.
- Risk management as part of SMS will be inherent in all aviation missions.
- All aviation personnel are empowered and expected to manage the risks of aviation operations and make reasonable and prudent decisions to accomplish the mission. Take every opportunity to plan your missions thoroughly, err on the side of conservatism and respect your aircraft and the environment in which you operate.
- Individuals will be held accountable for their decisions, which should be based on policy, principles, risk management, training, experience, and the given situation.
- Employees are empowered to report hazards, safety issues and concerns, as well as near misses, incidents and accidents without fear of reprisal.
- The agency is committed to ensuring our workplaces are free of recognized hazards and, prior to conducting any work project, all risks are mitigated to the lowest acceptable level possible.

Professionalism

- Personnel performing aviation functions must meet all qualification requirements of the Forest Service Manuals, Handbooks, and Guides.

Performance

- Personnel perform aviation functions in a safe manner, adhering to policy and procedures, avoiding shortcuts and reporting potential hazards, safety issues, near misses, incidents and accidents.

Diversity

- Individual development, employee wellness, and workforce diversity will be emphasized at all levels of the Forest Service aviation program.

Innovation

- With a commitment to aviation safety and efficiency, managers at all levels are responsible for enhancing the aviation program.

Regional Supplement:

Forest Supplement:

1.4 Aviation Doctrine

Change management process starts with a clear value-based doctrine for what the agency should be. These doctrinal principles form the business model and drive the QA program implementation. Reference Quality Assurance Program Plan for Aviation Management, October 2010.

- **PRINCIPLE 1: "Create a constancy of purpose"** Replace short-term reaction with long-term planning. This applies to action plans that make adjustments for weaknesses and deficiencies.
- **PRINCIPLE 2: "Adopt a new philosophy"** Meaningful change can only take place from within the organization. Change focus from operations output to quality service.
- **PRINCIPLE 3: "Cease dependence on inspection to achieve quality"**. Quality does not come from inspection alone. If quality is designed into the process and standards are fully implemented then variation is reduced and there is less need to inspect operations for defects because there won't be any.
- **PRINCIPLE 4: "Do not award business based on cost alone"** Move towards a fewer suppliers for any one service. Multiple suppliers mean greater potential for variation between service providers. Actions should be focused on the detection of variations between vendor standards and validates the need to move to fewer vendors.
- **PRINCIPLE 5: "Improve constantly the system of production and service"** Each new action must constantly strive to reduce variation and introduce mitigations that reduce mishaps and improve effectiveness.
- **PRINCIPLE 6: "Institute a program of education and self-improvement"** Personnel need a thorough grounding in the principles, tools and techniques of Safety Management Systems. People must learn new ways of working together as teams and new behaviors that support the new management philosophy.
- **PRINCIPLE 7: "Break barriers among staff areas"** There is an 'internal customer' that should be considered. Management processes, antiquated policies, budget allocations and hiring restrictions may be barriers to success. Act to correct such inefficiencies.
- **PRINCIPLE 8: "Take action to accomplish the transformation"** Everyone in the organization must work together to create change management.
- **Principle 9: Adopt and Institute Leadership.** Leadership means designing the system around high standards, building a quality culture, and modeling behavior that exemplifies the values to support such culture.

1.5 National Aircraft Management Strategy

Aviation resources are one of a number of tools available to accomplish land management objectives. The use of aviation resources has value only if it serves to accomplish these objectives. In order to maximize effectiveness and efficiency, aviation resources must be centrally controlled, and aviation operations must be locally executed.

Aviation use must be determined based on strategic management objectives, identified hazards and risk mitigation and the probability of a successful outcome. The risk management process must consider the risks to the aircrew, ground resources, and the public versus the risk exposure of not performing the mission.

The agency aviation program goals are:

1. The Aviation program has the right people, in the right places with the budget and staffing commensurate with the work to be done.
2. Aviation leadership is skilled in aviation program management, articulates leader's intent, inspires the workforce, and appropriately manages the program.
3. The Aviation program is clearly defined for the Washington Office HQ and at the Boise detached unit at NIFC.

More information regarding aviation program goals can be found at:

http://www.fs.fed.us/fire/aviation/av_library/AVIATION%20PROGRAM%20STRATEGY%20SUMMARY%20112009.pdf

Regional Supplement:

Forest Supplement:

1.6 Authority

This plan fulfills the requirements outlined in [FSM 5700](#). This plan sets the standard that will be aviation policy in 2011 and has been developed to provide standardization and policy for aviation programs. While this document is Forest Service specific, it does incorporate interagency standards.

Regional Supplement:

Forest Supplement:

1.7 General Policy

The policy of the Forest Service requires employees to follow the direction in aviation manuals, handbooks, and the aviation guides as listed in this chapter, under [FS Manual section 5706](#).

Regional Supplement:

Forest Supplement:

2.0 Aviation Management Organization

2.1 Organization

The Washington Office (WO) Fire and Aviation Management (FAM) is located at the United States Forest Service (USFS) National Headquarters in Washington D.C. and has a detached unit at the National Interagency Fire Center (NIFC) in Boise, ID.

The Forest Service has nine Regional Offices and the North East Area located throughout the United States.

Region 1: Missoula, MT

Region 2: Golden, CO

Region 3: Albuquerque, NM

Region 4: Ogden, UT

Region 5: Vallejo, CA

Region 6: Portland, OR

Region 8: Atlanta, GA

Region 9: Milwaukee, WI

Region 10: Juneau, AK

Northeast Area: Newtown Square, PA

There are five (5) Research Stations, one (1) Institute and one (1) Laboratory.

Pacific Northwest Research Station: Portland, OR

Pacific Southwest Research Station: Berkeley, CA

Rock Mountain Research Station: Ft. Collins, CO

Northern Research Station: Newtown Square, PA

Southern Research Station: Ashville, NC

International Institute of Tropical Forestry: San Juan, PR

Forest Products Laboratory: Madison WI

Each region/area/station/ has several forests/ units located within their geographical location or area of responsibility.

2.2 Washington Office (WO) Headquarters Staff:

Washington D.C. Staff

Director, Fire and Aviation (FAM)

The Director, FAM, is responsible to the Deputy Chief for State and Private Forestry. The Director (FAM) responsibilities are located in the [FSM 5704.2](#), [FSM 5720.43](#), and [FSH 5709.19, Chapter 10](#).

Deputy Director, FAM Operations

The Deputy Director, Operations, is responsible to the Director of FAM. The Deputy Director, Operations responsibilities are located in the [FSM 5704.21](#) and the [FSH 570916, Chapter 50](#).

Assistant Director, Aviation

The Assistant Director, Aviation, is responsible to the Deputy Director FAM Operations. The Assistant Director, Aviation is located in the [FSM 5704.21](#). The Assistant Director, Aviation provides national program direction, leadership, and management of the FS aviation program, including coordination of aviation activities with other staffs, agencies and groups, with an emphasis on Aviation Planning, Budget, Policy, Operations, Aircraft Airworthiness and Quality Assurance. The Assistant Director, Aviation supervises:

- Branch Chief, Aviation Operations (National Aviation Operations Officer) - Boise
- Branch Chief, Airworthiness (National Airworthy and Logistics Officer) – Boise
- Quality Assurance Group – Boise
- Four Aviation Management Specialists (AMS) - HQ
- Aviation Technology Specialist - Missoula

Aviation Management Specialists (AMS) – 4

The AMS are responsible to the Assistant Director, Aviation for providing management oversight in developing, recommending and implementing aviation objectives supported by the National Office.

Aviation Technology Specialist

Aviation Technology Specialist is responsible to the Assistant Director, Aviation.

The Aviation Technology Specialist:

- Provides management oversight in developing and recommending aviation technology objectives, plans, and policies for the full range of aviation programs in support of National Forest System resource management.
- Serves as a focal point with internal and external users, Technical & Development Centers, and interagency partners.

Boise Aviation Staff

NIFC detached unit functions at the Forest Service National Headquarters Office

Quality Assurance Group

National Fixed-Wing Standardization

The National Fixed-Wing Standardization responsibilities are in the [FSH 5709.16, Chapter 20, 20.42](#).

National Helicopter Standardization

The National Helicopter Standardization responsibilities are in the [FSH 5709.16, Chapter 20, 20.44](#).

Aviation Safety Inspector - Airworthiness

- Assists with helicopter and fixed wing contract specifications, evaluations and approvals.
- Analysis of aircraft maintenance related [SAFECOMs](#).

- Part of the Forest Service quality assurance team that provides oversight of Forest Service fleet, contracted and cooperator aircraft.

Branch Chief, Airworthiness (National Aviation Maintenance and Logistics Officer)

The Branch Chief is accountable to the Assistant Director, Aviation. The Branch Chief supervises an Aeronautical/ Aerospace Engineer and Aviation Maintenance Inspectors (Airworthiness). The responsibilities of the Branch Chief are in the [FSM 5704.23](#).

Aeronautical/ Aerospace Engineer

The Aeronautical/Aerospace Engineer is responsible to the Branch Chief Airworthiness.

The Aeronautical/ Aerospace Engineer Provides oversight of Forest Service owned Temporary Certified Data Sheets (TCDS) & Supplemental Type Certificates (STC), the Forest Service Operational Loads Monitoring (OLM) program.

The Aeronautical/ Aerospace Engineer:

- Assists in the evaluation of proposed new equipment and aircraft modifications.
- Member of the Forest Service Airworthiness Working Group and/ or the Interagency Airworthiness Practices Board.
- Interfaces with engineering representatives from aircraft and equipment manufacturers.
- Makes up a part of the airworthiness approval process for UASs utilized by the Forest Service.

Aviation Safety Inspectors – Airworthiness (2)

The Aviation Safety Inspectors - Airworthiness are responsible to the Branch Chief, Airworthiness.

The Aviation Safety Inspectors - Airworthiness:

- Provide oversight for delegated National / Regional program areas
- Perform National and Regional Aviation program quality assurance, inspections and evaluations to support US Forest Service
- Establish work programs for inspection, monitoring, audits and surveillance.
- Evaluates compliance with US Forest Service policy and Federal Aviation Regulations (14 CFR) with respect to airworthiness, maintenance, preventive maintenance, and alteration programs.
- Provides expert technical representation on agency and interagency working groups.
- Prepares and reviews technical specifications for aircraft, aircraft equipment / modifications, maintenance and inspection requirements

Aviation Safety Inspectors – Avionics (2)

The Aviation Safety Inspectors - Avionics are responsible to the Branch Chief, Airworthiness.

The Aviation Safety Inspectors - Avionics:

- Performs National and Regional aviation avionics program management, including planning, organizing, implementing and controlling the aviation avionics program.
- Accomplishes equipment, aircraft and operator inspections and evaluation to support the US Forest Service.
- Evaluates compliance with US Forest Service policy and Federal Aviation Regulations (14 CFR) with respect to avionics, avionics maintenance, avionics installations and alteration programs.
- Inspects the avionics of multi-engine piston, or twin-engine turboprop aircraft as well as various fixed and rotor wing aircraft owned, contracted by and cooperated with by the US Forest Service.
- Prepares and reviews technical specifications for avionics and inspection requirements, contract rewrite evaluations (Subject Matter Expert) and contract pre-award evaluation.
- Submits findings and recommendations to the National and or Regional office which result from surveillance and inspections of aircraft.

Branch Chief, Aviation Operations (National Aviation Operations Officer)

The Branch Chief is responsible to the Assistant Director, Aviation provides oversight, coordination, and direction of aviation operations coordinated and conducted by National Office. The Branch Chief supervises the National Helicopter Operations Specialist, National Helicopter Program Manager, National Aerial Attack Specialist, National Airtanker Program Manager, 2 Aviation Management Specialists and 1 National Helicopter Inspector Pilot. The Branch Chief also supervises 2 National Helicopter Inspector Pilots located virtually. The Branch Chief's responsibilities are located in the [FSM 5704.22](#) and [FSH 5709.16, Chapter 10, 10.41c](#).

National Helicopter Inspector Pilots (NHIP) – 4

The Helicopter Inspector Pilots are responsible to the Branch Chief Aviation Operations. The National Helicopter Inspector Pilots:

- Provides leadership and oversight for the development and implementation of a national helicopter pilot and training program.
- Establishes the content and methodology of the national aircraft pilot training program for meeting the national goals and objectives of a safe, effective, and standardized aviation program.
- Identifies and approves qualified airplane pilot instructor, check, and inspector pilots.
- Maintains current listings, including all mission and aircraft authorizations, of all qualified instructor, check, and inspector pilots.

Two NHIPs are stationed in Boise, 2 virtual TBD.

National Helicopter Program Manager

National Helicopter Program Manager is responsible to the Branch Chief, Aviation Operations and provides oversight, coordination, and direction of the national helicopter program.

The National Helicopter Program Manager:

- Serves as principal helicopter program advisor to National Contracting, Fire and Aviation HQs staff and the Regions in the development and implementation of policies, programs and standard practices for helicopter programs and specialized projects.
- Responsible for performing contract helicopter inspections and pilot approvals.

National Aerial Supervision Specialist

The National Aerial Supervision Specialist is responsible to the Branch Chief, Aviation Operations and provides national program leadership, coordination, and interagency cooperation in aerial supervision and the smokejumper program. The National Aerial Supervision Specialist responsibilities are located in the [Interagency Aerial Supervision Guide, Section, 2\) Air Attack Group Supervisor, \(a\) ii.](#)

National Airtanker Program Manager

The National Airtanker Program Manager is responsible to the Branch Chief, Aviation Operations and provides national airtanker program leadership, coordination, oversight and interagency cooperation.

Aviation Management Specialist

The AMS is responsible to the Branch Chief, Aviation Operations for providing management oversight in developing, recommending and implementing aviation objectives, plans, and policies for the full range of aviation programs supported by the National Office.

National Helicopter Operations Specialist (NHOS)

The NHOS is responsible to the Branch Chief, Aviation Operations for the oversight, coordination, and direction of helicopter operations activities conducted by the National Office. The NHOS supervises the Helicopter Efficiency Coordinator.

The NHOS:

- Provides primary technical oversight and support for WO contracted helicopters, including the responsibility for contract pilot approval, either in person or through regional/interagency pilot inspector designees.
- Contact and coordination point for industry groups and cooperating agencies regarding contract helicopter approvals and operations.
- Providing oversight and assistance to regional helicopter program managers.
- Provide National oversight and continuing evaluation of the aviation program executed to accomplish National, Regional, Forest, and District level aviation objectives.
- Provides oversight of the national helicopter program.

National Helicopter Efficiency Coordinator (NHEC)

The NHEC is responsible to the NHOS for the coordination, and direction of helicopter activities conducted by the National Office in coordination with the National Interagency Coordination Center.

The NHEC:

- Provides oversight and continuous coordination of the national helicopter program executed to accomplish National, Regional, Forest, and District level aviation objectives.
- Provides technical oversight and Contracting Officer Technical Representation (COTR) support for nationally contracted helicopters.

National Rappel Specialist (NRS)

The NRS is responsible to the NHOS for the oversight in developing, recommending and implementing rappel objectives, plans, and policies for the national rappel program.

The NRS:

- Provides oversight and continuous coordination of the national rappel program executed to accomplish National, Regional, Forest, and District level aviation objectives.
- Assures quality, integration and coordination among the rappel program to ensure that the program and materials reflect aviation management policy direction, objectives, and regulations.
- Provides standardization needs and coordinates with cooperating agencies to meet these needs through the design and development of comprehensive aviation operating standards and practices, and training curricula and courses.

Assistant Director, Risk Management

The Assistant Director, Risk Management, is responsible to the Deputy Director, FAM Operations. The Assistant Director, Risk Management supervises one Branch Chief, Aviation Safety Management Systems.

Branch Chief, Aviation Safety Management Systems

The Branch Chief, Aviation Safety Management Systems, is responsible to the Assistant Director, Risk Management. The Branch Chief, Aviation Safety Management Systems has collateral duties for oversight of aviation safety and Aviation Training.

This position has the operational responsibility for development, implementation, and monitoring of the Aviation [Safety Management Systems](#), including oversight of the following key SMS components:

- Policy, including managing and coordinating implementation of the National Aviation Safety Management Guide.
- Risk management.
- Safety Assurance.
- Safety Promotion, including training programs.

- Reporting accidents and incidents to the Director, Fire and Aviation Management Staff, Washington Office and to Forest Service and Department Safety and Health officials.
- Determining the classification of mishaps as accidents, incidents with potential or incidents
- Management and oversight of Aviation Safety Systems including;
- National Aviation Safety Center, System Safety Enterprise Team, National Aviation Safety Council, [SAFECOM](#) reporting system; aviation safety training and education.
- Maintains a process for data collection and analysis; and evaluation of aviation risk management and operational safety.
- Establishes safety criteria and standards for National aviation contracts.
- Coordinates with the National Aviation Officer, Logistics to assure aircraft airworthiness standards and aircraft selection in Agency and service provider aircraft types and provides guidance for final fleet composition.
- Provides program oversight and direction for aviation education and training, including interagency aviation training (IAT), System Safety Leadership for Agency Managers (SSLAM) and Lessons Learned.

Aviation Training and Risk Management Officer

The Aviation Training and Risk Management Officer are responsible to the Branch Chief, Aviation Safety Management Systems. Provides program leadership, develops policy, and provides oversight and coordination of service-wide aviation training and standardization programs for manager, user and pilot groups.

The Aviation Training and Risk management Officer is:

- Responsible for evaluating the Forest Service multi-resource aviation management training
- Standardization needs and coordinates with cooperating agencies to meet these needs through the design and development of comprehensive aviation operating standards and practices, and training curricula and courses.
- Assures quality, integration and coordination among these programs to ensure that the programs and materials reflect aviation management policy direction, objectives, and regulations.
- Monitors interagency aviation training programs to ensure current training developments, technical accuracy and current Forest Service procedures are reflected.
- Evaluates effectiveness of technology transfer and adjusts training material/content to incorporate state-of-the-art technology into the needs and objectives of all related activities.

National Aviation Safety Specialist

The National Aviation Safety Specialist is responsible to the Branch Chief, Aviation Safety Management Systems. The National Aviation Safety Specialist is responsible for service-wide programs involving the development and implementation of plans and programs in aviation safety and standardization for aviation safety programs.

The National Aviation Safety Specialist:

- Provides program coordination and management in the application of service-wide aviation safety policy and programs.
- Collects and manages data maintained in the national statistical data bases for aviation operations and safety programs for the purpose of providing managers with statistical information for the accomplishment of national aviation safety accident and incident prevention requirements.
- Analyzes and evaluates the data to determine the effectiveness and efficiencies of program operations in meeting established goals and objectives.
- Provides aviation managers with statistical reports and technical advice and recommendations based on the evaluation and analysis of the outputs generated from the data.
- Supports risk management processes and produces an annual report that contains aviation statistical data on use, flight hours, departures, accident rates, [SAFECOM](#) incident report analysis, and a brief summary of incidents and accidents.

Forest Health Protection National Aviation Safety Manager

Designated by the Director of Forest Health Protection, State and Private Forestry, Washington Office, the Forest Health Protection National Aviation Safety Manager (FHP NASM) is responsible for coordinating safety matters for Agency and cooperators conducting FHP aviation activities such as aerial reconnaissance, aerial application and aerial photography.

The FHP NASM:

- Provides a national focal point for forest health aviation, a conduit between National leadership and Regional FHP aviation, works closely with National and Regional Fire and Aviation staffs and also with various state and other federal partners.
- Provides application of the principles of SMS in order to provide risk management oversight, monitor aviation trends, coordinate and provide training as a qualified Interagency Aviation Training (IAT) Instructor, ensure compliance with aviation policies and procedures, participate in safety evaluations, coordinate with safety managers and unit aviation officers for the purpose of accident prevention.
- The FHP NASM is the permanent chair of the Aerial Survey Working Group, a member of the Aerial Applications Safety Council, the National Aviation Safety Council, the IAT Steering Committee, and participates within a variety of other forest health and aviation-related councils and committees.

2.3 The Regional Office (RO) Staff

Regional level aviation organizations vary based on workload and overall organization. The Regional Aviation Officer and Regional Aviation System Safety Manager are the two consistent positions.

Regional Forester

Regional Forester responsibilities are located in [FSM 5704.3](#).

Regional Aviation Officer (RAO)

The RAO is responsible for the oversight, coordination, and direction of aviation operations activities conducted by the Regional Office. The RAO responsibilities are located in the [FSM 5704.3](#), [FSH 5709.16, Chapter 10, 10.42b](#) and [FSH 5720.48b](#).

Regional Aviation Safety Managers (RASM)

The RASM reports to the Director or the Deputy Director and are responsible for implementation, fostering and promoting SMS, including Policy, Risk Management, Assurance and Promotion. Their responsibilities are located in the [FSM 5720.48d](#).

Regional Aviation Safety Inspector, Airworthiness / Regional Aviation Maintenance Program Manager

The ASI, Airworthiness is responsible for the maintenance and airworthiness program conducted by the Regional Office. The ASI responsibilities are located in the [FSH 5709.16, Chapter 40, 40.44, 40.45](#) and in the FS Aircraft Inspection Guide (AIG).

Regional Aviation Safety Inspectors – Avionics

The ASI, Avionics, performs National and Regional aviation avionics program management, including planning, organizing, implementing and controlling the aviation avionics program. The ASI accomplishes equipment, aircraft and operator inspections and evaluation to support the National and Regional US Forest Service.

Regional Supplement:

2.4 Forest Staff

Line Officer

Line Officer responsibilities are located in the [FSM 5720.48a](#).

Forest Aviation Officer/Unit Aviation Officer (FAO/UAO)

The FAO/UAO manages the forest aviation program by providing technical and management direction of aviation resources to support Forest programs. The FAO/UAO shall meet the Aviation Manager qualifications in [IAT Guide](#). The FAO/UAO responsibilities are located in the ([FSM 5704.61](#)). Some Forests employ “service-first” positions to fulfill the FAO/UAO responsibilities. On those units, the position is referred to as a UAO.

All Employees

All employees involved in aviation activities are responsible for acquiring, knowing and following aviation policy and regulations ([FSM 5704.09](#), [FSM 5720.46](#)).

Employees:

- Shall fly only in government approved aircraft flown by an approved pilot, [FSM 5704.9](#).
- Have the responsibility to immediately report to the appropriate official any instances of unsafe equipment or aviation operations. [FSM 5723.1](#) and [5720.46](#)

- Must use the appropriate personal protective and life support equipment.
- Must report potential and actual problems, incidents, and accidents using the [SAFECOM](#) reporting system.
- Maintain currency in required aviation training.
- Ensure their safety as well as that of other personnel.

Forest Supplement:

2.5 Additional Aviation Positions

RESERVED

Regional Supplement:

Forest Supplement:

2.6 National Groups/Committees

National Aviation Team (NAT)

The NAT comprises of the all the Washington Office aviation staff (Policy/Budget/ Operations/Airworthiness/ Quality Assurance, and Aviation Risk Management).

NAT Branch Chiefs

The NAT Branch Chiefs comprise of all the Branch Chiefs in each aviation functional area.

Interagency Committee on Aviation Policy (ICAP)

This committee is chaired by the General Services Administration (GSA) and includes all federal agencies that own or hire aircraft. GSA established the committee at the direction of the President’s Office of Management and Budget (OMB). GSA publishes regulatory policy for aircraft management in [41 Code of Federal Regulations \(CFR\) 102-33](#), “Management of Government Aircraft,” and [41 CFR 300-3; 301-10; and 301-70](#), “Travel on Government Aircraft.”

[OMB Circular A-126](#), “Improving the Management and Use of Government Aircraft, provides the basic guidance for management of federal aviation programs and for travel on government aircraft.

National Interagency Aviation Council (NIAC)

Provide efficiencies and enhancements in interagency aviation programs, safety and operations.

Steering Committee chartered under NIAC:

- Interagency Airtanker Board (IAB)
- Interagency Airspace (IASC)
- [Interagency Aviation Training \(IAT\)](#)
- Smokejumper Screening and Evaluation Board (SASEB)
- Interagency Single Engine Airtanker Steering Committee
- Interagency Airtanker Base Operations (IABO)
 - Interagency Base Operating Guide
 - Airtanker Base Directory Working Group
- Interagency Aerial Supervision Steering Committee

- Automated Flight Following (AFF) Steering Committee
- Interagency Helicopter Operations (IHOps) Steering Committee
- IHOps Working Groups
 - Aerial Ignition
 - Aerial Capture, Eradication & Tagging of Animals
 - Rappel
 - Short Haul
 - Interagency Helicopter Operations Guide

2.7 Program Overview

The Forest Service aviation program is comprised of national, regional and forest level personnel and aircraft.

From the national office, the Forest Service takes the lead in owning and contracting several aviation assets used by the interagency wildland firefighting community including Very Large Airtankers (VLATs), Large Airtankers (LATs), smokejumper aircraft (owned and leased), Type I and II helicopters (leased), Lead/Aerial Supervision Module (ASM) airplanes (owned and/or leased), and Infrared (IR) airplanes. These assets are acquired for the primary use of the Forest Service; however, they are available for use by other federal, state, and county partners as specified in agency policy and procedure.

Regions own and contract for several aviation assets including Forest Health Protection (FHP) airplanes (owned and leased), Type III helicopters (contracted), aerial supervision airplanes (owned and leased), and Single Engine Airtankers (SEATs).

The majority of Forest Service aviation use is for wildland fire detection, suppression and support. Other aviation uses include forest health protection and survey, wildlife survey, projects related to natural resource management, and administrative flights.

Regional Supplement:

Forest Supplement:

3.0 Administration

3.1 General

The administration section establishes management responsibilities, policies, and procedures for the administration of the aviation program in the Forest Service.

Regional Supplement:

Forest Supplement:

3.2 Reporting and Documentation Requirements

The Forest Service is responsible for providing for the following;

- Responses to Department of Agriculture [Office of Inspector General \(OIG\)](#) audits.
- Responses to Congressional inquiries.
- Meeting the requirement of the Federal Requirement for Federal Aviation for Interactive Reporting System (FAIRS).
- Approving and documenting senior executive travel in agency and agency-procured aircraft is required by [OMB Circular A-126](#).
- Retaining contract management records for 6 and ½ years.
- Complying as applicable with existing records holds and freezes for all records.
- Responding to [Freedom of Information Act](#) (FOIA) s – All aviation records are subject to Freedom of Information Requests.

Regional Supplement:

Forest Supplement:

3.3 Aviation Plans

All Aviation Management Plans must be approved by the appropriate line officer ([FSM 5711.04](#)).

Regional Supplement:

Forest Supplement:

National Aviation Safety and Management Plan (NASMP)

The NASMP provides information regarding Forest Service aviation organization, responsibilities, administrative procedures and policy and is intended to serve as an umbrella document that Regional and Forest Aviation Plans tier from. The Director, FAM, will develop and maintain an Aviation Management Plan that is updated and supplemented ([FSM 5711.04](#)). The NASMP is approved by the Director of FAM annually.

National Aviation Safety and Mishap Prevention Plan

The Forest Service National Aviation Safety and Mishap Prevention Plan is incorporated into the National Aviation Management Plan ([FSM 5711](#)) and the Safety Management System ([SMS](#)) Guide.

Regional, Northeast Area or Station Aviation Management Plans (RAMP)

Each region, the Northeast Area (NA) and Stations shall publish a RAMP that implements national policy and describes protocols specific to each regional aviation program. The RAMP serves as an umbrella document for Forest Aviation Management Plans. The regional directors shall supplement and update annually the aviation management goals, objectives, programs and activities, and strategic direction at each organizational level ([FSM 5711.04b](#)). The RAMP is approved by Regional Foresters annually.

Regional, Northeast Area and Station Aviation Safety Plan

The RASM has the responsibility to prepare the Regional Aviation Safety Plan ([FSM 5720.48d](#)). The Regional, NA Station Aviation Safety Plan is approved by the Regional Forester annually.

Regional, Northeast Area and Station Homeland Security Advisory System (HSAS) Response Plan

Each Region, NA and Station must develop a HSAS Response Plan that details the security actions that each Region, NA and Station will implement, based upon the HSAS threat level. The Regional, NA or Station HSAS Response Plan must be reviewed by the Fire and Aviation Management staff, HQ Washington Office ([FSH 5109.16, Chapter 50, 52.1](#)). The Regional, NA and Station HSAS Response Plan is approved by the Regional Forester.

Regional, Northeast Area and Station Aviation Safety Plan

The RASM has the responsibility to prepare the Regional Aviation Safety Plan ([FSM 5720.48d](#)). The Regional, NA Station Aviation Safety Plan is approved by the Regional Forester annually. Regional FHP unit aviation officers have the responsibility to draft FHP Aviation Safety Plans that either tier to the RAMP or appear as an appendix within.

Regional, NA or Station Aviation Mishap Response Plan

Regional Foresters and/or Area Director have responsibility to ensure that every Forest Service unit that utilizes aircraft develops, and annually updates, an aviation mishap response plan ([FSM 5720.48a](#)). The Regional, NA or Station Aviation Mishap Response Plan is approved by the Regional Forester.

Forest Aviation Management Plans (FAMP)

Forests are required to maintain and update unit aviation plans annually, which implement national and regional policy and establish local procedures and protocol. The Forest Service and Station Directors shall supplement and update annually the aviation management goals, objectives, programs and activities, and strategic direction at each organizational level ([FSM 5711.04b](#)). The FAMP is approved by the appropriate Forest Supervisor annually.

Facility HSAS Response Plan

Each aviation facility must develop a Facility HSAS Response Plan that is specific to that aviation facility and details the security actions the facility will take for each HSAS threat level. The Facility HSAS Response Plan must be reviewed by the FAM staff, Washington Office ([FSH 5109.16, Chapter](#)

[50, 52.2](#)). The Facilities HSAS Response Plan is approved by the appropriate Forest Supervisor annually.

Forest Aviation Mishap Response Plan

Forest Supervisors, district rangers, and other officials designated with line authority have responsibility to ensure that every Forest Service unit that utilizes aircraft develops, and annually updates, an aviation mishap response plan ([FSM 5720.48a](#)).

Project Aviation Safety Plans (PASP)

A PASP is submitted independent of a Forest, Northeast Area or Station Aviation Management Plan. For all non-emergency aviation projects, a PASP shall be developed and approved as required in the [FSM 5711.04b](#) and [FSM 5711.1](#).

Mission Use of Aircraft (Operational) Plans

Mission Use of Aircraft (Operational) Plans shall be developed and updated annually to address recurring aircraft operations.

Specific Operational Plans will be developed for national, regional or local permanent and temporary:

Airbase Operations

Helitack/Rappel operations (Exclusive Use)

Smokejumper operations

Airtanker operations

- Very Large Airtanker
- Large Airtanker
- Scoopers
- Single Engine Airtankers (SEATs)

Aerial Supervision

Light Fixed Wing operations

Law Enforcement & Investigation operations

Forest Health Protection (FHP)

Elements of the plans shall at a minimum include: organization, identification of typical missions, mission risk assessment and mitigation, training program, administrative procedures. The agency must use a risk management based approach for every task, looking for the hazards that may interfere with the safe and successful completion of the task at hand.

Regional Supplement:

Forest Supplement:

3.4 Aircrew Orientation Briefing Package

It is encouraged that each forest creates an Aircrew/Pilot Orientation Briefing Package. The Aircrew/Pilot Orientation Briefing Package serves as a source of information to provide visiting pilots, aircrews, and Incident Management Teams.

Regional Supplement:

Forest Supplement:

3.5 Land Use Policy for Aviation Activities

The regulation of aviation activities on or over Forest Service managed lands is solely dependent on Land Management Plans (LMP) direction and any applicable [FARs](#).

Temporary aviation operations on Forest Service lands maybe restricted due to LMP direction. FAOs should coordinate with resource managers to identify areas of restriction when developing Operating Plans, Forest Aviation Management Plans, and PASP. FAOs shall implement any invasive species control measures for aviation activities, and are also the focal point for coordinating the reporting of any fire chemical aerial application in or near waterways.

Regional Supplement:

Forest Supplement:

3.6 Budget

Budgeting is completed on a three year cycle. Out year budget requests are submitted to Congress in the President's Budget in February, six months prior to the fiscal year for which they were submitted. It is then vetted separately through the Department of Agriculture and [Office of Budget Management \(OMB\)](#). Finally, it will then be aggregated with all other agency and program requests into the President's Proposed Budget. The current year budget is finalized after congress passes an Appropriations bill.

Regional Supplement:

Forest Supplement:

3.7 Contracting

Aircraft are acquired through two different types of contracts, either Exclusive-Use (Ex-Use) or Call-When-Needed (CWN).

Exclusive-use contracts are generally used when the agency has a definite aircraft need for a specific period of time. Ex-use aircraft are guaranteed a minimum amount of use through a Mandatory Available Period (MAP). Daily availability is usually cheaper with Ex-Use contracts since the vendor is guaranteed a minimum amount of work.

Call-When-Needed contracts are a way for the agency to have ready access to a pool of aviation assets that meet a minimum standard, usually used for non-recurring missions or during periods of surge activity often related to wildland fire suppression. The disadvantages are that the aircraft may not be available, the agency personnel and vendor personnel don't have the same opportunity for crew cohesion that an Ex-use crew has, and that daily availability rates are generally higher since the vendor has no guaranteed work.

Regional Supplement:

Forest Supplement:

3.8 Aircraft Contract Start/ Modification/ Extension

For Large Airtankers and Type I and II helicopters, contract start dates and MAP are a coordinated decision between the national office and Regions. For Type III helicopters, Regions determine all contract information. Light fixed-wing aircraft are contracted through the Regions. The MAP is the required time frame that an aircraft must be available for government use.

Regional Supplement:

Forest Supplement:

3.9 Contractor Performance

All CWN and EXU contractor performance shall be documented on a daily diary and in a final evaluation. This information shall be provided to the CO. Future contract awards are based on past performance.

Regional Supplement:

Forest Supplement:

3.10 End Product Contracts

An end-product contract 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. Refer to [FSM 5711.2](#) for more information on end-product contracts.

Regional Supplement:

Forest Supplement:

3.11 Supplemental Fire Aircraft Acquisition

RESERVED

Regional Supplement:

Forest Supplement:

3.12 Cooperator Aircraft

Cooperative aircraft operations and partnerships are encouraged for the purpose of efficiency and standardization in procedure. The Regional Office and the states shall make a concerted effort to establish cooperative structures to increase capability and avoid duplication and conflicting procedures.

Use of state/local government, military, or other federal agency aircraft by Forest Service employees may require prior inspection and approval by Forest Service or AMD, usually in the form of a Cooperator Letter of Approval. Proposed use of these aircraft should be requested through the FAO to the RAO. Any employee wishing to ride on cooperator aircraft or work around a cooperator aircraft operation must consult their respective aviation manager.

Cooperator agreements for all aviation services provided to the Forest Service by other agencies and cooperators must specify levels of operational standards and safety comparable to those required of agency or contractor operations ([FSM 5710.35](#)).

When the Forest Service utilizes other governmental agency aircraft for non-fire missions, an agreement shall be created and at a minimum address:

- Payment
- Operational Control
- Aircraft Management
- Performance Planning
- Mission Profile
- Landing Zones (When Applicable)
- Agreement Expiration Date
- [Public /Civil Aircraft Utilization Dispatch Work Sheet \(Public Law 103-411\)](#) (When Applicable)

Fire Missions:

- Create a resource order

Non-Fire Missions:

- Completed cost analysis
- Complete Project Aviation Safety Plan (PASP)

Military and cooperator aircraft approval shall meet the requirements in the [FSM 5713.43](#).

Regional Supplement:

Forest Supplement:

3.13 Aircraft Administrative Use and Reporting

The [USDA Property Management Regulation \(PMR\) 110-33](#) is the agency wide policy guidance for the use of Government aircraft to accomplish official business. In combination with the [Office of Management and Budget Circular A-126](#) they restrict the operation of government aircraft to defined official purposes; restrict travel on such aircraft; require special review of such travel on government aircraft by senior officials or non-federal travelers under certain circumstances; and codifies policies for reimbursement for the use of government aircraft. The transportation of passengers or cargo on Forest Service aircraft shall be limited in accordance with these Regulations.

[FSH 6509.33_301 Federal Travel Regulation](#) requires that all employees have a travel authorization for any official travel. Each instance of administrative use of a Forest Service aircraft to transport passengers must be justified, documented and approved and as such, will comply with the requirements contained in [FSM 5711.3](#). All documents pertaining to these flights must be maintained on file for two years.

Special requirements exist for travel that is not to meet mission requirements or required use travel by the following individuals and must be authorized in advance and in writing:

- Senior Federal officials;
- Members of families of such senior Federal officials; and
- Non-Federal travelers.

Such authorizations must be approved and signed on a trip-by-trip basis by the Department's General Counsel or his or her principal deputy to insure compliance with Regulations.

Regional Supplement:

Forest Supplement:

3.14 Dispatching

General

All flights (other than scheduled commercial air carrier flights) will be arranged by qualified aviation dispatchers and/or appropriate aviation manager and approved at the appropriate management level.

Administrative Flight Requests

Prior to submitting an administrative flight request, a [Flight Request/Justification for Administrative Use of Aircraft \(Form FS 5700-10\)](#), [Travel Cost Comparison Worksheet \(Form FS 5700-11\)](#), and an [Aircraft Flight Request/Schedule](#) shall be completed.

Mission Flights Flight Requests

All flight requests for mission flights shall follow the [National Mob Guide, Chapter 20, 24.3](#).

Ordering

The aircraft ordering process can be found in the [National Mob Guide, Chapter 20, 24.1](#).

Regional Supplement:

Forest Supplement:

3.15 Flight Use Reporting

Forest Service Aviation Business System (ABS) and Aviation Management Information Systems (AMIS)

Flight time, daily availability, and other authorized charges or deductions shall be recorded on a Flight Use Report in [Aviation Business System \(ABS\)](#). The data shall be entered and reviewed by the Government and the Contractor's Representative.

Working Capital Fund (WCF) aircraft use is entered into the [Aviation Management Information System \(AMIS\)](#) until ABS can accept WCF use.

Aviation Management Directorate (AMD) Aviation Management Systems (AMS)

All Bureau of Land Management (BLM) fleet aircraft and Department of Interior (DOI) contracted aircraft will utilize the AMD Aviation Management System (AMS) web based flight reporting system. The AMS application will become available at <http://ams.nbc.gov>.

Regional Supplement:

Forest Supplement:

3.16 Coding and Funding of Contract, Fleet, Severity Aircraft Availability

RESERVED

Regional Supplement:

Forest Supplement:

3.17 Working Capital Fund (WCF) (Fleet Aircraft)

The purpose of the WCF is to provide a sustainable funding mechanism for the operation and replacement of agency owned aircraft that support fire suppression and non-fire aviation activities. WCF aircraft are subject to the same regulations regarding capitalization, decapitalization, and depreciation as other WCF non-expendable personal property.

The *Working Capital Fund Accounting Operations Handbook*, [FSH 6509.11f](#) provides greater detail on how to accomplish day-to-day management, operations, and tasks, and what the WCF Aircraft User Guide will provide more aircraft specific information. Additionally, for more information regarding WCF fleet aircraft, refer to [FSM 5713.1](#).

Regional Supplement:

Forest Supplement:

3.18 Federal Excess Property Program (FEPP)

The FEPP program refers to Forest Service owned property that is on loan to State Foresters for the purpose of wildland and rural firefighting. Once acquired by the Forest Service, it is loaned to State and local cooperators for firefighting purposes. Approximately 70% of FEPP is sub-loaned to local fire departments. For policy guidance regarding FEPP, refer to [FSH 3109.12](#) (aviation specific [FSH 3109.14, Chapter 40](#)), the [FEPP Desk Guide, Chapter 40](#).

The RAO may:

- Review all State aviation operations plans for compliance with Forest Service and State excess property direction.
- Help establish minimum standards for pilot qualifications and maintenance for excess property aircraft.
- Coordinate and/or establish an approved source of parts for excess property aircraft, such as the DoD.
- Review State security risk assessments and mitigation plans.

Regional Supplement:

Forest Supplement:

3.19 Financial Business Management System (FMBS)

RESERVED

Regional Supplement:

Forest Supplement:

3.20 Program Reviews

RESERVED

Regional Supplement:

Forest Supplement:

3.21 New Program Requests

1. If there is a request for:
 - 1.1. New equipment e.g. aircraft, parachute, etc.
 - 1.2. New contract, agreement or contract change e.g. VLAT, Scoopers, etc.
 - 1.3. New process or changed process e.g. rappel standardization, RADS,
 - 1.4. Deviation from standards e.g. LEI exemption,
 - 1.5. New or changed policy e.g. policy revisions or updates
 - 1.6. New or changed procedure e.g. rappel procedures,
2. Proponent will develop a Concept Paper that describes:

- 2.1. Background
 - 2.2. Position
 - 2.3. Estimated Costs
 - 2.4. Justification and Summary
 - 2.5. Key Points
3. Aviation Branch Chiefs- will review the Concept Paper.
 - 3.1. A Go/No Go decision will be made
 - 3.2. There may be a request for additional information before a Go/No Go is made
 - 3.3. GO decision will continue the concept
 - 3.3.1. Proponent will develop a complete proposal paper with supporting documentations.
4. Assistant Director, Aviation brief the Concept during a weekly Fire & Aviation Management AD calls.
 - 4.1. Provide copies to ADs prior to call
 - 4.2. Initiate brief discussion and decision.
 - 4.2.1. Decision to continue with the proposal and develop an analysis team or implement
 - 4.2.2. Decision to develop or gather more information and bring the proposal back to a later meeting for a GO/ NO GO decision.
 - 4.2.3. NO GO decision will end the proposal.
 - 4.2.4. Notify the proponent of the decision
5. Identify and inform stakeholders
 - 5.1. This process should continue throughout Steps 3 and 6.
6. Analysis Team Development
 - 6.1. National Aviation Team (NAT) puts together the Analysis Team- includes Acquisition, Budget, Ops, Risk, QA, Airworthiness.
 - 6.2. Inclusion of SMEs for Analysis
 - 6.3. Stakeholders may include RAOs, RASMs, Airworthiness, HOSs, HIPs, RFDs, etc.
 - 6.4. Acquisition Plan
 - 6.5. Process Change Plan
 - 6.6. Marketing/ Communication strategy
 - 6.7. Official documentation
 - 6.8. Risk Assessment (safety, business and financial)
 - 6.9. Time lines
 - 6.10. Approval Level
 - 6.11. Recommendation(s)
7. National Aviation Team Review of Analysis Team Plan and Recommendation(s)
 - 7.1. NAT reviews, makes changes and finalizes the plan

- 7.2. NAT briefs Director/ADs
- 7.3. Gain approval from stakeholders as necessary
- 7.4. Director/ ADs make a Go/ No-Go decision
- 7.5. No-Go decision ends the proposal
- 7.6. Go decision begins Implementation/ Action Plan process
- 7.7. Brief high-level stakeholders (RFs, DCs, etc)

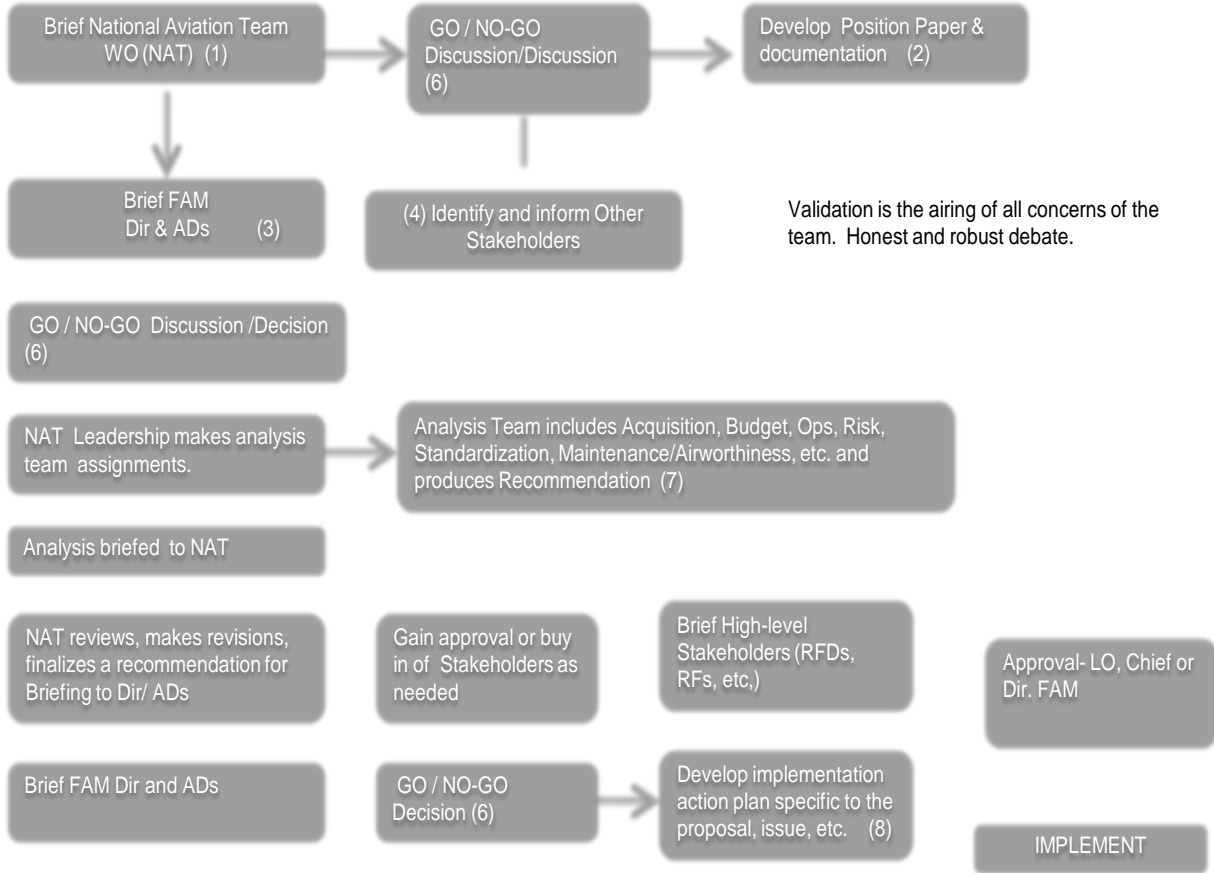
8. Implementation/Action Plan

- 8.1. Acquisition Plan
- 8.2. Process change plan
- 8.3. Marketing /Communication strategy
- 8.4. Official document
- 8.5. Risk Assessment
- 8.6. Create timelines
- 8.7. Approval letter
- 8.8. Line Officer approval or Chief's Decision Memo if requested by policy (FSM 5704.1)

AVIATION PROJECT PROCESS

New or changed- Proposal, Equipment, Policy, Procedure, etc.

Develop a Concept paper for FAM briefing. Completed by Specific aviation specialty or Proponent.



Validation is the airing of all concerns of the team. Honest and robust debate.

4.0 Aviation Safety Management Systems

4.1 General

Safety is the state in which the possibility of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through continuing processes of hazard identification and risk management. *“It (safety) must be a core value of our culture, ingrained in the character of every employee. As an agency, we must endeavor to place the safety of our co-workers and ourselves above all else. This obligation requires integrity, trust, and leadership: the integrity of every employee to adhere to Agency standards, the trust in our leaders to place safety as the first priority, and leadership at all levels to provide a culture that encourages employees to communicate unsafe conditions, policies, or acts that could lead to accidents without fear of reprisal”* (Chief’s Safety Policy, August 27, 2009). This commitment to safety will be reflected as doctrine within aviation safety management. The adoption of [Safety Management System \(SMS\)](#) continues the application of Forest Service Doctrine. SMS is not a safety program; rather it is a system which aligns, assesses, and organizes an organization’s existing safety processes around the concept of system safety. SMS incorporates a proactive approach using hazard identification and risk management to achieve accident prevention.

Regional Supplement:

Forest Supplement:

4.2 Safety Management Systems (SMS)

SMS offers a complimentary solution based on structuring the existing rules and continuous review of the efficacy of those rules. Thus, the system ensures that guidance and regulation meet the original intent and that they have no unforeseen adverse side effects. SMS can be considered as functioning like a filing system, which structures the organization’s existing safety initiatives and provides a review process for how they well those initiatives function. SMS is divided into four components: Policy, Risk Management, Assurance, and Promotion.

Regional Supplement:

Forest Supplement:

4.3 Policy

SMS is a critical element of management responsibility in determining the agency’s safety policy and SMS also defines how the agency intends to manage safety as an organizational core function.

- Policy guides aviation safety doctrine, philosophy, principles and practices.
- Policy provides framework for aviation plans ([Refer to 3.3 Aviation Plans](#))
- Policy assists in the development of local standard operating procedures
- Policy will foster and promote doctrinal principles and safety management systems within the Regions

Regional Supplement:

Forest Supplement:

4.4 Risk Management

To provide structure to control risk in operations a formal system of hazard identification and safety risk management is essential. The risk management process is designed to manage risk to acceptable levels by the identification, assessment, and prioritization of risks followed by coordinated application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events.

The agency:

- Will define a process for risk acceptance that defines acceptable and unacceptable levels of safety risk; establishes descriptions for severity levels, and likelihood levels.
- Will define specific levels of management that can make safety risk acceptance decisions.
- Will define acceptable risk for hazards that will exist in the short-term while safety risk control/mitigation plans are developed and executed.
- Will establish feedback loops between assurance functions to evaluate the effectiveness of safety risk controls.

There are necessary steps in the Risk Management Process.

- Define Objectives (i.e. Strategic program analysis, change management, accident action plan, other)
- System Descriptions: Identify each system-component that contributes to the mission.

Risk assessment is a step in the risk management process. Risk assessment is the determination of hazards associated with a situation or activity.

There are necessary steps in the risk assessment process:

- Hazard Identification: Brainstorm all possible failures, threats, and danger points.
- Assessment: Evaluate potential for injury, damage, fatality, etc. based upon severity and likelihood of an event occurring.
- Control: Determine mitigations needed, conduct risk/benefit analysis, develop an action plan.
- Implement Controls: Initiate designed controls.
- Evaluate Controls: Monitor controls and supervise operations to determine if controls are effective.

Risk assessment can be divided into three levels:

Time Critical: This method of risk assessment is an “on-the-run” mental or verbal review of the situation without necessarily recording the information.

Deliberate: This method is used with adequate planning time and may involve more than one system at its source. It involves a systems identification, hazard identification, risk assessment/analysis, consideration of control options and risk decision making, implementation of controls, and supervision. This will involve documentation of the process and actions.

Strategic: Strategic Risk Management is conducted at the highest levels of the organization and is typically applied to "systems of systems" type complexity, and requires more sophisticated techniques

and professional reviews. This method should be used in instances where new technology, change, or institute of new programs or activities. It involves an additional phase in the objective of the risk assessment which includes a cost/benefit analysis of mitigations. The strategic process produces a more permanent record of findings and decisions used for long term planning, organizational decision-making and as authoritative training resources.

Regional Supplement:

Forest Supplement:

4.5 Assurance

The safety assurance component involves processes for quality control, mishap investigation, and program reviews.

- Continuing Monitoring
- Standards for Evaluations
- Audits and Evaluations
- Investigations
- Reporting and Feedback

Quality Assurance (QA) techniques can be used to provide a structured process for achieving objectives. Forest Service efforts to date have concentrated on the development and implementation of comprehensive doctrine/policy revision, risk management processes, SMS promotion and training.

4.5.1 Aviation Safety and Technical Assistance Team (ASTAT)

The Forest Service provides representation on ASTAT to support aviation resources and personnel operating in the field during periods of increased aviation operations. The team's purpose is to assist and review helicopter and/or fixed wing operations on ongoing wildland fires. An ASAT should be requested through the agency chain of command and operate under a delegation from the appropriate state/regional aviation manager or multi-agency coordinating group. Formal written reports will be provided to the appropriate manager.

An ASAT should consist of:

- Aviation Safety Manager
- Operations Specialist (helicopter and/or fixed wing)
- Pilot Inspector
- Maintenance Inspector (optional)
- Avionics Inspector (optional)

4.5.2 Aviation Safety Communiqué - SAFECOM

[SAFECOMs](#) fulfills the Aviation Mishap Information System (AMIS) requirements for aviation mishap reporting for the Forest Service. The [SAFECOM](#) is to report any condition, observance, act, maintenance problem, or circumstance which has the potential to cause an aviation-related mishap ([FSM 5720.46](#)). The [SAFECOM](#) system is **not** intended for initiating punitive actions. Submitting a [SAFECOM](#) is **not** a substitute for "on-the-spot" correction(s) to a safety concern. It is a tool used to

identify, document, track and correct safety related issues. This form is located on the [SAFECOM](#) web page, [Interagency SAFECOM System](#). All personnel involved in aviation activities are encouraged to submit [SAFECOMs](#), when they feel it is warranted.

4.5.3 Aircraft Accident Investigation Process

In short, the [National Transportation Safety Board \(NTSB\)](#) has the responsibility to investigate all Forest Service aviation accidents. In addition, the Forest Service investigation team will conduct their investigation of Forest Service management and policy issues following the Accident Investigation Guide (Edition 2005) concurrent with the [NTSB](#) investigation. At completion of the accident investigation, a draft report will be reviewed by an Accident Review Board (ARB). The chair person forwards the Final Investigation Report, the Draft Accident Prevention Action Plan and transmittal letter to the Chief's office for approval.

4.5.4 Project Aviation Safety Planning (PASP)

Accident prevention is paramount when planning individual aviation operations. Prior to commencing non-emergency operations involving the use of aircraft, the Regional Directors, Area Director, Forest Supervisors, and Station Directors shall develop and document a PASP that will be reviewed by the RAO ([FSM 5711.04b](#)).

Regional Supplement:

Forest Supplement:

4.6 Promotion

The organization must promote safety as a core value with practices that support a positive safety culture. Safety promotion can be accomplished through safety awards, education and communication.

- Training
- Communication
- [Lessons Learned Website](#)
- Reporting and Feedback
- Safety and Mishap Information
- Safety Awards

The desired positive Safety Culture is informed, flexible, learning, just and a reporting culture that captures the operational knowledge and experience of the employees. The end result of this cultural shift is to achieve the status of a High Reliability Organization (HRO).

4.6.1 Human Factors

Human error is the single area, which if possible to eliminate or reduce, would provide the greatest benefit in accident prevention. Human behavior is so complex that it is unrealistic to think that human error can be eliminated. When fully implemented, SMS provides and promotes a positive Safety Culture which can reduce the impact of human error.

4.6.2 Aviation Safety Awards Program

Aviation Safety Awards are a positive part of the aviation program and are provided to all levels within the Forest Service organization. National awards are given following the guidelines in [FSM 5724](#) for pilots and employees.

Regional Supplement:

Forest Supplement:

4.7 National Fire and Aviation Operations Alert System

RESERVED

5.0 Aviation Operations

5.1 General

It is the responsibility of each employee, cooperator, and contractor to conduct aviation operations that have been approved by management, planned properly, utilizes the correct equipment, use qualified personnel, and insure that the risk has been mitigated to an acceptable level. Forest Service employees are often challenged with working in very high-risk and dynamic environments that are not always predictable. This responsibility can only be realized through participation of every employee. Safety is the first priority and leadership at all levels to must foster a culture that encourages employees to communicate unsafe conditions, policies, or acts that could lead to accidents without fear of reprisal. The four components of SMS (Policy, Risk Management, Assurance, and Promotion) are critical to the success of safe operations.

Regional Supplement:

Forest Supplement:

5.2 Operational Guides and Handbook

A list of all of the Forest Service aviation policy documents can be found in the [FSM 5703](#).

Reference:

[Forest Service Manual 5700 Aviation Management](#)

[Title 14 CFR](#)

[Forest Service Handbook 5109.17 Fire and Aviation Management Qualifications Handbook](#)

[Forest Service Handbook 5709.16 Flight Operations](#)

[6709.11 Health & Safety Code Handbook](#)

[5309.11 Chapter 50 Law Enforcement Manual](#)

[Applicable Federal Aviation Regulations \(FAR's\)](#)

[Office of Management and Budget \(OMB\) Circulars A-76, A-123, A-126](#)

[GSA Federal Property Management Regulation \(FPMR\) 101-37](#)

[Interagency Standards for Fire and Aviation Operations](#) Standards

Interagency Aviation Operational Guides:

- Aircraft Inspection Guide
- [Forest Service Accident Investigation Guide](#)
- Helicopter Flight Evaluation Guide (HFEG)
- [Interagency Aviation Mishap Response Guide and Checklist](#)
- [Interagency Aviation Training Guide \(IAT\)](#)
- [Interagency Smokejumper Operations Guide \(ISMOG\)](#)
- [Interagency Smokejumper Pilots Operations Guide \(ISPOG\)](#)
- [National Interagency Mobilization Guide](#)
- [Interagency Helicopter Operations Guide \(IHOG\)](#)

- [Interagency Airspace Coordination Guide \(IACG\)](#)
- [Interagency Aviation Hazardous Materials Guide](#)
- [Interagency Aerial Ignition Guide \(IAIG\)](#)
- [Interagency Helicopter Rappel Guide \(IHRG\)](#)
- [Interagency Aerial Supervision Guide \(IASG\)](#)
- [Interagency Airtanker Base Operations Guide \(IABOG\)](#)
- [Interagency Single Engine Air Tanker Operations Guide \(ISOG\)](#)
- [Professional Helicopter Pilot Guide](#)
- Interagency System Safety Aviation Guide
- [NASF Cooperators Aviation Standards for Interagency Fire](#)

Handbooks:

- [Interagency Aviation Transport of Hazardous Materials Handbook](#)
- [Military Use Handbook](#)

Regional Supplement:

Forest Supplement:

5.3 Public/Civil Aircraft Operations

Forest Service aviation activities include both "civil" and "public" operations. Civil aircraft operations shall comply with [FSM 5703.32](#). Public aircraft operations shall comply with [FSM 5703.31](#).

Civil Aircraft

All Forest Service aircraft operations are civil unless specifically designated public. All aircraft other than public aircraft are considered civil aircraft ([FAR1.1](#)).

Public Aircraft

Public aircraft operations shall be the exception not the rule. The definition for Public Aircraft can be found in the [FSM 5705](#). The Forest Service will comply with all [Federal Aviation Regulations \(FAR\)](#) in the operation and maintenance of public aircraft with the few exceptions outlined in [FSM 5714](#).

Regional Supplement:

Forest Supplement:

5.4 Employees on Non-Forest Service Aircraft

All agency employees will comply with Forest Service aviation policies when performing agency employment-related duties on board any organization's aircraft and/or aircraft operated under any other organization's operational control. Employees shall be mindful of policy and the appropriate approval level for any deviation from policy. These policies include, but not limited to: approved aircraft and pilot (carding or letter of approval), PASP, flight following, PPE, and appropriate management.

Regional Supplement:

Forest Supplement:

5.5 Emergency Exception to Policy

Federal employees who are involved in an event in which there clearly exists an imminent threat to human life, and there is insufficient time to utilize approved methods, may deviate from policy to the extent necessary to preserve life.

The following provisions and follow-up actions apply:

- Personnel involved in the decision making associated with deviating from policy must weigh the risks versus benefit, must have an adequate understanding and knowledge the mission risk, or contact an individual that does if practical.
- Any deviations shall be documented on a [SAFECOM](#).
- Requires Line Officer (District Ranger, Forest Supervisor, etc) to authorize each flight. Refer to [FSM 5713.53](#).

Regional Supplement:

Forest Supplement:

5.6 Category of Flight

The following terminology is used throughout this section under these definitions.

A **“Point-to-Point”** flight is one that originates at one developed airport or permanent helibase and flies directly to another developed airport or permanent helibase with the sole purpose of transporting personnel or cargo cross country. These types of flights are often referred to as "administrative" flights and require the aircraft and pilot to be only carded and approved for point-to-point flight. A point-to-point flight is conducted higher than 500 feet above ground level (AGL), except for takeoff and landing. Flights conducted to/from an unimproved or backcountry strip will NOT be considered point-to-point due to the additional hazards.

A **“Mission flight”** is defined as any flight other than point-to-point, conducted with the express purpose of performing (or directly supporting) an agency or resource management related task or tactical job such as fire suppression, wildlife census, reconnaissance, etc. Mission flights require additional agency planning, active flight following, additional pilot and aircraft inspections and carding, and operational supervision by qualified agency personnel.

Regional Supplement:

Forest Supplement:

5.7 Flight Planning

Point-to-Point

Point-To-Point flights will be tracked by either an FAA - VFR (Visual Flight Rules) or IFR (Instrument Flight Rules) Flight Plan. Additionally, there must be notification to dispatch upon departure and arrival.

FAA Flight Plans

FAA Flight Plans are filed by the pilot, opened in flight upon departure, and closed by the pilot with FAA Air Traffic Control (ATC) or Flight Service upon arrival.

Agency Flight Plans

Agency flight plans for Point-to-Point flights are documented on a Flight Request/Flight Schedule form. Flights are tracked through documented, positive hand-offs to other Dispatch Centers until arrival is confirmed. The procedures for accomplishing agency flight tracking are documented in detail in the National and Geographic Area Mobilization Guides.

Mission flights may not be conducted any earlier than 30 minutes before official sunrise or later than 30 minutes past official sunset. Mission flights may only be conducted when weather and visibility conditions meet or exceed the VFR weather minimums specified in [14 CFR 91.155](#).

Regional Supplement:

Forest Supplement:

5.8 Flight Following

Mission Flight Following

Mission Flight Following is accomplished by flight crews and agency Dispatchers using agency radio systems or by agency personnel using radio systems on the scene of an incident or project where the aircraft is operating.

[Automated Flight Following \(AFF\)](#) can be used to supplement radio communication, but does not reduce or eliminate the requirement for FM radio capability and radio communication. Reference the [National Interagency Mobilization Guide, Chapter 20](#) Automated Flight Following Requirements and Procedures.

The method of flight following for Fire incidents is documented on an Aircraft Resource order or in a Dispatch Center's Mobilization/Operating Guide. The method for flight following non-fire resource missions will be documented in a Project Aviation Safety Plan (PASP) and/or Flight Request/Flight Schedule form.

Regional Supplement:

Forest Supplement:

5.9 Radio Frequency Management/Communications

Do not use any frequency without proper authorization from the authorized radio frequency management personnel at the local, state, regional or national level.

Regional Supplement:

Forest Supplement:

5.10 Overdue or Missing Aircraft

An aircraft is considered “overdue” when it fails to arrive within 30 minutes past the Estimated Time of Arrival (ETA) and cannot be located. An aircraft is considered “missing” when its fuel duration has been exceeded, it has been reported as “overdue” to the FAA and the FAA has completed an administrative search for the aircraft without success. If an aircraft is missing, overdue, or downed, initiate the Interagency Mishap Response Guide and Checklist.

Regional Supplement:

Forest Supplement:

5.11 Mishap Response

The Interagency Aviation Mishap Response Guide and Checklist outlines appropriate response to a loss of flight following, or an aircraft incident or accident. The guide describes procedures and requirements, including initiation of SAR, fire, medical response, notification of Forest Service Safety (1-888-4MISHAP) and Forest Service management. This guide is specific to each unit and shall be available in all dispatch offices. The guide must be updated annually at a minimum.

Regional Supplement:

Forest Supplement:

5.12 Passengers

A passenger is any person aboard an aircraft, when traveling on official Forest Service business, who does not perform the function of a flight crewmember or air crewmember.

Passengers will:

- Use appropriate personal protective equipment for the type of flights being conducted
- Report aviation incidents, operations deviating from policy, potential incidents
- Ensure personal safety as well as safety for others involved in the flight

Agency Employees off Duty:

Federal employees cannot utilize annual leave/Leave without Pay (LWOP) or “volunteer” in order to circumvent agency policy. If any aspect of the employee’s activity is related to their official duties, they are conducting agency business, regardless of their pay or leave status.

Refer to the regulations regarding off-duty activities in accordance with the Standards of Ethical Conduct for Employees of the Executive Branch (5 C.F.R. Part 2635.802-803)

Volunteers

Volunteers when traveling on official business are official passengers, within the terms of FSH 6509.33, Federal Travel Regulations 301-1. A [Day Trip Authorization \(FS-5700-12\)](#) shall be filled out for each flight listing each volunteer. During fire mission flights, the Incident Commander with Delegation of Authority from the unit line officer or the local line officer is the appropriate level of approval. ([FSM 5716.44- Exhibit 01](#))

Regional Supplement:

Forest Supplement:

5.13 Transportation of Hazardous Materials

Transportation of hazardous materials aboard agency contracted aircraft must meet the requirements set forth in the [Interagency Aviation Transport of Hazardous Materials Guide](#). When hazardous materials are transported on agency aircraft, the [DOT SP-9198](#) shall be onboard each aircraft.

There shall be no transport of hazardous materials aboard commercial aircraft.

Regional Supplement:

Forest Supplement:

5.14 Invasive Species Control

Aquatic invasive species are easily transported in a variety of ways (i.e. helicopter buckets, fixed tank helicopters and SEATs utilizing open water sources, engines and tenders, and other water handling equipment). Agency personnel should become knowledgeable in the preventive measures associated with the prevention of the spread of aquatic plants and invertebrates. Aviation managers shall consult with local unit representatives to acquire information associated with: contaminated water sources, approved water sources, cleaning equipment exposed to contaminated water requirements, and other pertinent information.

Work is underway to develop additional guidance and procedures in the cleaning of equipment that has been exposed to aquatic invasive. Current information concerning cleaning solutions can be found at this web site: <http://www.fs.fed.us/rm/fire/wfcs/documents/watercon.pdf>

Many web sites exist containing information on invasive aquatic species. The following is not an all inclusive list but will provide the user with specifics about aquatic invasive species, guidance surrounding the prevention of spreading invasive, as well as equipment cleaning information:

US Forest Service Region 4 Fire Operations Guidance for Aquatic Invasive Species

- <http://www.fs.fed.us/r4/resources/aquatic/guidelines/index.shtml>

USDA National Invasive Species Information Center Resource Library

- <http://www.invasivespeciesinfo.gov/resources/orgstate.shtml>

US Forest Service Technology & Development Water-Source Toolkit

- <http://www.fs.fed.us/t-d/programs/wsa/watertoolkit.htm>

Environmental Protection Agency Useful Links to Invasive Species Information

- http://www.epa.gov/owow/invasive_species/links.html

US Forest Service Invasive Species Program

- <http://www.fs.fed.us/invasivespecies/index.shtml>
- <http://www.fs.fed.us/invasivespecies/relatedlinks.shtml>

US Forest Service Region 4 Invasive Species Homepage

- <http://www.fs.fed.us/r4/resources/invasives/>

US Fish and Wildlife Service Western Regional Panel on Aquatic Nuisance Species Homepage

- <http://www.fws.gov/answest/resources.htm>

Global Invasive Species Database

- <http://www.issg.org/database/welcome/>

California Department of Fish and Game Invasive Species

- <http://www.dfg.ca.gov/invasives/>

USDA National Invasive Species Information Center Homepage

- <http://www.invasivespeciesinfo.gov/>

Aquatic Nuisance Species Task Force Homepage

- <http://anstaskforce.gov/default.php>

US Fish and Wildlife Service Invasive Species Homepage

- <http://www.fws.gov/invasives/>

US Geological Survey Non-indigenous Aquatic Species Homepage

- <http://nas.er.usgs.gov/>

Regional Supplement:

Forest Supplement:

5.15 Fire Chemicals and Aerial Application Policy near Waterways

For operational guidelines on use of fire chemicals, refer to Interagency Standards for Fire and Fire Aviation Operations, Chapter 12 in the *Interagency Standards for Fire and Fire Aviation Operations Handbook*.

Interagency policy only allows the use of a product that is qualified and approved for intended use. A Qualified Products List (QPL) is published for each wildland fire chemical type and maintained on the Wildland Fire Chemical Systems (WFCS) web site: <http://www.fs.fed.us/rm/fire/wfcs/index.htm>

Personnel involved in handling, mixing, and applying fire chemicals or solutions shall be trained in proper safe handling procedures and use the personal protective equipment recommend on the product label and *Material Safety Data Sheet* (MSDS). The MSDSs for all approved fire chemicals can be found on the WFSC web site.

Airtanker bases shall have appropriate spill containment facilities (and equipment) in place.

Products must be blended or mixed at the proper ratio by approved methods prior to being loaded into the aircraft. Inaccurate mixing of fire chemicals may negate the suppressant or retarding properties, which is not cost effective and may be a safety factor.

Regional Supplement:

Forest Supplement:

5.16 Search and Rescue (SAR)

Refer to the FSM 5713.53 regarding search and rescue. Search and rescue operations could lead to actions in conflict with policy. Refer to NASMP 5.4 Emergency Exemptions to Policy.

The county sheriff or designee is usually responsible for search and rescue of overdue or missing person(s), depending on the legislative jurisdiction of National Forest System lands. Pursuant to 16 USC 575, the Secretary of Agriculture is authorized to incur such expenses as maybe necessary in searching for person(s) lost within the National Forests or to provide transportation to person(s) seriously ill, injured, or who die within the National Forests to the nearest place where the sick or injured person(s) may be transferred to interested parties or local authorities.

- All personnel involved with and assisting other agencies with law enforcement or search and rescue operations should remain within the scope of their training, certification, and employment.
- Proper planning, risk assessments, and briefing the mission prior to an event will significantly reduce risk and improve the odds of success.

Regional Supplement:

Forest Supplement:

5.17 Large Airtanker Operations

Large Airtankers are a national resource and their primary mission is initial attack. Geographic Areas administering these aircraft will make them available for wildland fire assignments when ordered by the National Interagency Coordination Center. In addition to federally contracted airtankers, MAFFS (military) and cooperator aircraft may be utilized to supplement the federal fleet through established agreements.

Operational considerations concerning Large Airtankers can be referenced in the Aerial Supervision Guide.

5.17.1 Very Large Airtanker (VLAT) Operations

VLATs should be used primarily for large fire support. In 2009, the FS contracted with the National Aviation and Space Administration (NASA) to conduct a VLAT Operational Test and Evaluation.

NASA recommended several operational parameters including, VLAT use should be in “level or gently rolling terrain” greater than 300 feet above ground level, use “in very steep or rugged terrain is not recommended” and they should be “used to supplement other aerial retardant delivery platforms rather than replace them”.

VLATs should be used accordingly.

5.17.2 Airtanker Base Personnel

The airtanker base manager supervises ground operations in accordance with the Interagency Airtanker Base Operations Guide (IATBOG).

Regional Supplement:

Forest Supplement:

5.18 SEAT Operations

SEATs primary mission is initial attack. Mobilization is managed by Dispatch Centers with support by a National SEAT Coordinator and Aviation Managers. Operational considerations concerning SEATs can be referenced in the Interagency SEAT Operations Guide (ISOG) and the Aerial Supervision Guide.

SEAT Manager (SEMG) responsibilities are outlined in the ISOG, and their training and currency requirements are contained in [NWCG PMS 310-1](#).

Regional Supplement:

Forest Supplement:

5.19 Aerial Supervision Operations

Aerial Supervision Module aircraft are national resources. These air tactical resources conduct operations in accordance with the Interagency Aerial Supervision Guide and the policies and procedures prescribed in the Interagency Standards for Fire and Fire Aviation Operations Handbook. Dispatch and ordering are accomplished in accordance with the Geographic Area and National Mobilization Guides.

Air Attack platforms can be considered a local unit, incident, or geographic resource. Air tactical aircraft must meet the avionics typing requirements listed in the Interagency Aerial Supervision Guide and the pilot must be carded to perform the air tactical mission.

5.19.1 Aerial Supervision Personnel

Personnel associated with aerial supervision will be trained to the standards in [FSH 5109.17](#) and the Interagency Aerial Supervision Guide. Training and qualification requirements for ASM crewmembers are defined in the Interagency Aerial Supervision Guide. Individuals performing duties as an Air Tactical Supervisor (ATS) or Air Tactical Pilot (ATP) must be certified and authorized by the BLM or USFS National Aviation Operations Officer.

Air Tactical Group Supervisors (ATGS) responsibilities are outlined in the IASG, and their training and currency requirements are contained in [FSH 5109.17](#). Personnel who are performing aerial

reconnaissance and detection will not perform aerial supervision duties unless they are fully qualified as an ATGS.

Regional Supplement:

Forest Supplement:

5.20 Helicopter Operations

All helicopter operations shall be accomplished in accordance with the Interagency Helicopter Operations Guide (IHOG), the Aerial Ignition Guide, and the aircraft contract.

The applicable Hover out of Ground Effect (HOGE) chart will be used for initial attack operations, first time into remote landing site, or when the pilot deems that environmental conditions warrant use of HOGE chart

5.20.1 Helitack

Each unit hosting an exclusive-use helicopter is responsible for providing essential management, overhead, equipment, facilities and the resources necessary to fully support the helitack crew. Minimum crew staffing is contained in the *Interagency Standards for Fire and Fire Aviation Operations*. Helicopter personnel responsibilities are outlined in the IHOG, and their training and currency requirements are contained in [FSH 5109.17](#).

5.20.2 Rappel

Rappel activities will be conducted in compliance with the Interagency Helicopter Rappel Guide.

5.20.3 Cargo Letdown

Cargo letdown will be conducted in compliance with the Interagency Helicopter Rappel Guide.

5.20.4 Short-Haul and Hoist (Law Enforcement and Investigations ONLY)

Short-Haul and Hoist operations are approved for Law Enforcement and Investigations only. Short-Haul and Hoist operations will be conducted in compliance with the Interagency Helicopter Operations Guide and the National LEI Short-Haul and Hoist Operations Guide.

5.21 Aerial Ignition Operations

Aerial ignition operations and projects are accomplished in accordance with the Interagency Aerial Ignition Guide.

Regional Supplement:

Forest Supplement:

5.22 Wild Horse & Burro Operations

RESERVED

Regional Supplement:

Forest Supplement:

5.23 Aerial Capture, Eradication and Tagging of Animals (ACETA)

RESERVED

Regional Supplement:

Forest Supplement:

5.24 Smokejumper Operations

Smokejumper dispatch and ordering are accomplished in accordance with the Geographic and National Mobilization Guides and Interagency Smokejumper Operations Guide (ISMOG).

5.24.1 Smokejumper Personnel

Smokejumpers: Smokejumper operations are performed according to the Interagency Smokejumper Operations Guide (ISMOG), and the policies and procedures prescribed in the *Interagency Standards for Fire and Aviation Operations Handbook*.

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

5.24.2 Smokejumper Aircraft

Smokejumper aircraft are evaluated and approved by the Smokejumper Aircraft Screening and Evaluation Board.

Regional Supplement:

Forest Supplement:

5.25 Light Fixed Wing Operations

Fixed wing dispatch, ordering, and operations are accomplished in accordance with the Geographic Area and National Mobilization guides. The IAT guide provides the training standards for fixed wing flight managers (FWFM) in charge of point-to-point and FWFM special-use mission flights. A qualified fixed wing flight manager (FWFM) shall be assigned to point-to-point flights and FWFM special-use for mission flights.

Low-level Flight Operations (Less than 500' AGL)

The only fixed-wing aircraft missions authorized are:

- Para-cargo.
- Aerial Supervision Module (ASM) and lead profile operations.
- Aerial retardant, water and foam application.
- Aerial Seeding/Spraying

Operational Procedures:

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

5.25.1 Reconnaissance or Patrol Flights

The purpose of aerial reconnaissance or detection flights is to locate and relay fire information to fire management. In addition to detecting, mapping and sizing up new fires, this resource may be utilized to provide ground resources with intelligence on fire behavior, provide recommendations to the IC when appropriate, and describe access routes into and out of fire areas for responding units.

Only qualified Aerial Supervisors (ATGS, ASM, HLCO and Lead/ATCO) are authorized to coordinate incident airspace operations and give direction to aviation assets.

Flights with a “Recon, Detection or Patrol” designation should communicate with tactical aircraft only to announce location, altitude and to relay their departure direction and altitude from the incident.

5.25.2 Single Engine Instrument Meteorological Conditions and Night Flight

Reference Appendix 10.3.

5.25.3 Backcountry Airstrips Operations

Backcountry airstrip operations include flights conducted to and/or from designated backcountry or unimproved landing strips. Only properly endorsed pilots may land at backcountry airstrips. A PASP is required for all non-emergency operations when involving backcountry airstrip landings.

Regional Supplement:

Forest Supplement:

5.26 Law Enforcement and Investigations (LEI) Operations

The LEI personnel shall follow the [FSH 5309.11, Chapter 50](#), [FSM 5700](#), and [FSH 5709.16](#) for all aviation operations.

Local LEI personnel that are required to utilize aircraft to support aviation operations should discuss all aspects of the operation with the FAO or UAO well in advance of operations.

5.26.1 Special Law Enforcement Aviation Projects

Occasionally there are “special” law enforcement aviation missions that are not covered in a standard PASP. If any proposed flights are not covered by an appropriately established aviation plan, then a PASP will be prepared. This includes the use of aviation resources for Flight Service Contracts. The responsible individual will prepare a PASP and submit the plan for review and approval. All LEI

operations will have a PASP prior to commencing operations. Line officers shall be informed of law enforcement and investigator non-covert aviation activities within their area of responsibility.

5.26.2 Rapid Assessment and Initial Detection (RAID)

Occasionally helicopters cross jurisdictional boundaries to seize goods or valuables. LEI may be armed during a raid situation, which requires several additional precautions to be followed.

When law enforcement personnel carry firearms in a helicopter, the following safety precautions must be addressed:

- Brief the pilot(s) on the weapons and safety policy.
- Ensure long guns do not have a round in the chamber and are under the control of law enforcement personnel at all times. Handguns may be loaded but must be holstered. Fully automatic weapons must have an empty chamber and must be bolt locked in the safe position.
- Point all weapons in a safe direction as determined by the pilot during preflight briefings.
- Consult with the appropriate law enforcement personnel in charge and the pilot to determine which emergency situations may necessitate carrying weapons with a round chambered. Ensure that all agency guidelines and requirements are followed.

5.26.3 LEI Training

LEI personnel involved with aviation activities shall receive and be current in required aviation training (NWCG and/or IAT) commensurate with the aviation position they will fill, prior to any aviation operations.

5.26.4 Civil Air Patrol (CAP)

The Civil Air Patrol (CAP) can transport USFS employees in accordance with the WO Amendment 1534.12 ([WO Amendment 1534.12](#)) MOU; however, there shall to be written operating procedures established.

LEI personnel will utilize aircraft and pilots that have been approved for use by a letter of approval from the Regional Aviation officer. Not all CAP pilots and/or aircraft will be approved for use. Aircraft contracted for fire/resource operations are not mandated to participate in LEI operations. Aircraft companies must agree to participate in LEI operations. Missions outside of the scope of the contract require a contract modification.

Certain LEI operations could lead to actions in conflict with Forest Service policy; reference National Aviation Management Plan 5.4 Emergency Exception to Policy.

5.26.5 Department of Homeland Security (DHS)

The Chief issued a letter that permits LEI employees on official duty to fly aboard DHS owned and operated aircraft while performing joint law enforcement operations and coordinating missions with DHS agencies.

5.26.6 LEI Personal Protective Equipment (PPE) During Tactical Operations

Follow the direction on the use of personal protective equipment (PPE) described in the Interagency Helicopter Operations Guide (IHOG) ([NFES 1885](#)). Approved PPE must be prescribed by the incident

commander, operations supervisor, or their designee per FSM 5300. Law enforcement personnel are authorized to wear the following for special tactical operations, for emergency flights, or on flights that are short in duration:

- Battlefield dress uniform (BDU),
- Forest Service uniform, or
- Approved utility uniform.

5.26.7 Emergency Operations

The LEI personnel shall follow the [FSH 5309.11, Chapter 52.15 – Emergency Operations](#)

5.26.8 LEI Short-Haul and Hoist Operations

Reference 5.20.4.

Regional Supplement:

Forest Supplement:

5.27 Unmanned Aerial Systems (UAS)

All requests to utilize UAS must be routed through the Assistant Director, Aviation.

6.0 Aviation Training

6.1 Aviation Training for All Flight Activities and Positions

Aviation training is essential to aircraft pilots (both contract and employee), aviation users, supervisors, and managers to ensure that they are knowledgeable of the inherent hazards of aviation operations. The Forest Service Aviation Training Program is a “fire” and “non-fire” system. The [National Wildland Coordinating Group’s \(NWCG\)](#) guides the fire qualifications ([FSH 5109.17](#)), while the [Interagency Aviation Training Guide](#) regulates the “non-fire” qualifications. Personnel serving in NWCG positions need only meet the qualification and currency requirements required in [PMS 310-1/ FSH 5109.17](#) or other interagency guidance as appropriate (Smokejumper Spotter, Interagency Aerial Supervision Guide, etc). For a functional crosswalk from fire aviation positions (NWCG) to resource related aviation positions refer to the Interagency Aviation Training Guide ([Appendix 1 FS Requirements](#)).

The objectives of selection, recruitment, development and training are to improve safety, quality and efficiency by placing employees in jobs to which they are suited and qualified. Although this concept is obvious, it is fundamental at all levels within an agency and worthy of emphasis. The appropriate experience and training requirements for safety-related posts much be defined, monitored and recorded.

Regional Supplement:

Forest Supplement:

6.2 Responsibility

The Washington Office, Branch Chief, Aviation Safety and Training Systems is responsible for national oversight of the aviation safety education program and aviation accident prevention efforts ([FSM 5720.45](#)).

It is management’s responsibility to provide training and career development opportunities to personnel under its control, to expand, improve, correct deficiencies, or meet job performance requirements.

It is every employee’s responsibility to take advantage of aviation training opportunities and to notify their supervisor of any aviation training they believe they require for accomplishing their jobs safely and efficiently.

Regional Supplement:

Forest Supplement:

6.3 Instructor Standards

Aviation trainers provide specialized training in many aviation job skills i.e. helitack, aerial attack, SEAT manager, aerial ignition, rappel and helicopter management. The Interagency Aviation Training (IAT) guide identifies position training requirements for non-fire aviation functions. Specialized training courses can be accessed on the IAT website at: <http://iat.nifc.gov/online.asp>.

Personnel serving in NWCG instructor positions need to meet the qualification and currency requirements in [FSH 5109.17 Ch 30, part 31](#) which refers to the [PMS 901-1 Field Manager's Course Guide](#).

Regional Supplement:

Forest Supplement:

6.4 Records Management

All employee training records shall meet the requirements stated in the [FSH 5109.17](#) for all NWCG qualifications. All training records for non-fire qualifications (IAT) shall either reside with the Training Officer or the Forest Aviation Officer.

Each operating unit needs to develop and implement plans for the identification of initial and recurrent aviation training needs specific to its missions.

Areas of aviation training are:

- Orientation and basic aviation safety for all users
- Flight Manager Training
- Dispatching and flight-following procedures
- Management of aviation operations and equipment
- Planning, risk assessment and execution of projects using aviation resources
- Proficiency and special mission training for pilots
- Technical training on aviation equipment and aircraft maintenance
- Advanced safety management systems (SMS) and quality assurance for aviation professionals and specialists

Regional Supplement:

Forest Supplement:

6.5 Tuition and Travel

Forest Service management is dedicated to conducting or providing for professional and technical training of employee or contract personnel at all levels of the organization that use and/or influence the use of aviation resources. Regions are provided with appropriate levels of funding for the tuition and travel to attend training that will maintain aviation personnel currency and advance their skills.

Regional Supplement:

Forest Supplement:

6.6 Development

The Forest Service encourages development of interested personnel who desire to pursue an aviation career path. Developmental positions (i.e. Regional Aviation Management Specialists) and all positions that have aviation operations responsibility are advised to attend [System Safety Leadership for Aviation](#)

[Managers \(SSLAM\)](#). Completion of the 5 week SSLAM curriculum results in the issuance of a Certificate of Completion from UC Davis, and a GSA Federal Aviation Safety Officer Certificate. All Regional Aviation Safety Managers are required to complete this course requirement.

Regional Supplement:

Forest Supplement:

6.7 IAT/NWCG Crosswalk

NWCG/ FSH 5109.17 Qualifications	IAT Resource Qualifications
HECM	Aircrew Member
ACDP	Aircraft Dispatcher
AOBD, ASGS, ATGS	Aviation Manager
AOBD, ASGS, ATGS, HLCO	Fixed-Wing Flight Manager –Special Use
HMGB	Helicopter Manager-Resource
AOBD, ASGS, HEB1/2	Project Aviation Manager
AOBD	Supervisor

The positions listed in the NWCG/[FSH 5109.17](#) Qualifications column will crosswalk into the non-fire IAT Resource Qualifications.

If individuals do not meet the NWCG/[FSH 5109.17](#) Qualifications (above), they shall follow the training requirements found in the [IAT Guide](#) in order to conduct/oversee non-fire resource aviation operations.

Regional Supplement:

Forest Supplement:

6.8 Aviation Contracting Officer Representative (COR) Requirements

Employees working as Aviation CORs must obtain a minimum of 56 initial training hours and 16 hours of training every two years to remain active participants in the USDA Acquisition Workforce (AW) Career Management certification program. Failure to meet the maintenance requirements may result in the termination of a COR certification, or an inability to meet the [GS-1102 \(Contracting Specialist Series\)](#) qualification standard. COR training requirements can be found in [DR 5001-1](#).

Regional Supplement:

Forest Supplement:

7.0 Airspace Coordination

7.1 Interagency Airspace Coordination

Interagency airspace coordination is accomplished through the Interagency Airspace Steering Committee (IASC) chartered under the National Interagency Aviation Council (NIAC). Guidance and education is provided through the [Interagency Airspace Coordination Guide](#).

Regional Supplement:

Forest Supplement:

7.2 Fire Traffic Area (FTA)

The FTA provides a standardized initial attack sequence structure to enhance air traffic separation over wildfire or all risk incidents. The structure emphasizes established communications, clearances and compliances. The FTA process will be used by all tactical aircraft. See the [Interagency Aerial Supervision Guide \(IASG\)](#) for details.

Regional Supplement:

Forest Supplement:

7.3 Temporary Flight Restriction (TFR)

In order to enhance safety during an incident, the FAA may be requested to issue a TFR that closes the airspace to non-participating aircraft (with some exceptions). While there are currently nine different types of TFR's, the most commonly issued TFR for wildfire is 14 CFR 91,137 (a) 2 which is explicit as to what operations are prohibited, restricted, or allowed. Aviation Managers requesting a TFR should be familiar with the ordering procedures, coordination protocol and exceptions that are outlined in [Chapter 6](#) of the [Interagency Airspace Coordination Guide](#).

Regional Supplement:

Forest Supplement:

7.4 Aircraft Transponder Code (Firefighting)

The FAA has provided the 1255 Transponder code as the national designation for firefighting aircraft. It is not agency specific. The code should be utilized by aircraft responding to and operating over fire incidents supporting suppression operations (unless otherwise directed by Air Traffic Control (ATC). It is not to be used for repositioning or during cross-country flights.

Regional Supplement:

Forest Supplement:

7.5 Airspace Boundary Plan

When resources are dispatched by more than one unit to an incident that shares a common boundary, care should be taken to ensure safe separation and communication of responding aircraft. Boundary Plans should be prepared that focus on a 10 NM wide “neutral airspace” corridor for mutual or exchanged initial attack area’s or zones. Agencies conducting flight activity within the boundary corridors should implement notification procedures to adjoining agencies and cooperators.

Regional Supplement:

Forest Supplement:

7.6 Airspace Deconfliction

Airspace de-confliction can occur for both emergency response and non-emergency aviation activities.

De-confliction can be accomplished through the following measures.

- Pilots must obtain all information pertinent to flight before flying. This is accomplished by obtaining a briefing from the FAA through the Flight Service Stations. This is the official source of NOTAM information.
- Dispatching units may obtain scheduling information from DOD units that have Special Use Airspace or Military Training Routes and share this information as “hazards” information on the Resource Order when the aircraft is dispatched. For non emergency flights, information may be shared through common communication protocol.
- Aviation Internet websites are prolific on the internet. When used for obtaining airspace information, the user must be aware of any disclaimers regarding the timeliness of the information posted. The FAA’s US NOTAM office provides current TFR information through DINS (DOD Internet NOTAM Service) at <https://www.notams.faa.gov>.

Regional Supplement:

Forest Supplement:

7.7 Airspace Conflicts

Aviation personnel have a responsibility to identify and report conflicts and incidents through the [Interagency SAFECOM \(Safety Communication\) System](#) to assist in the resolution of airspace conflicts. When a conflict or incident occurs, it may indicate a significant aviation safety hazard. Conflicts may include Near Mid Air Collisions (NMAC), TFR intrusions, and FTA communication non-compliance. Further guidance is available in [Chapter 8 of the Interagency Airspace Coordination Guide](#).

Regional Supplement:

Forest Supplement:

7.8 Airspace Agreements – Memorandums of Understanding

When Special Use Airspace (SUA’s), Military Training Routes (MTR’s), Slow Routes (SR’s), or Aerial Refueling Routes (AR’s) are located over lands within an agency’s jurisdiction or within their area of

normal flight operations (fire or non-fire), the agency should consider instituting an agreement with the appropriate Department of Defense (DoD) entity that schedules the airspace. Airspace agreements establish protocol for emergency and non-emergency contacts. They provide local level leadership a tool that defines protocols to address recurring activities, coordination of time critical responses, deconfliction and resolving issues in a timely manner. Initiation of an agreement can begin by contacting the Military Representative to the FAA located at FAA Service Centers, Air Force Representative, Navy Representative, and Department of Army Representative. A template and sample format is provided in [Chapter 12 of the Interagency Airspace Coordination Guide](#).

Regional Supplement:

Forest Supplement:

8.0 Aviation Security

8.1 Aviation Security

The policies and procedures in this chapter when implemented are intended to make the theft of FS aircraft more difficult and time consuming and therefore reduce the threat to our facilities from criminal elements.

The FS will provide an aviation security program that will include:

- Aviation facilities and aircraft security standards
- Aviation security adjustment plans that respond to changes in the Homeland Security Advisory System (HSAS) threat levels
- Quick response emergency procedures

Regional Supplement:

Forest Supplement:

8.2 FS Facilities Security Risk Assessments

Each Forest Service aviation facility must complete a yearly risk assessment to determine the security standard.

The risk assessment must include an analysis of:

- The vulnerability level of the facility, which is any weakness in the design or operation of a facility that can be exploited by an adversary.
- The probability of threat, or the likelihood of an undesirable event occurring over time.
- The severity of event consequences, which is the level, duration, and nature of the loss resulting from an undesirable event.

Reference the [5709.16 Chapter 50](#) for the FS Risk Assessment. After completion, the risk assessments, including the self-assessments must be submitted and reviewed by the Fire and Aviation Management Staff, Washington Office.

Regional Supplement:

Forest Supplement:

8.3 FS Security Response Actions

The objective is to ensure that the FS is prepared to increase security standards at agency aviation facilities in response to increases in the Homeland Security Advisory System (HSAS) threat levels. It is FS policy to immediately adjust the level of aviation security any time an HSAS threat level changes.

Regional Supplement:

Forest Supplement:

8.4 Regional Homeland Security Advisory System Response Plan

Each Region must develop a HSAS Response Plan that details the security actions that the Region will implement, based upon the HSAS threat level. The Regional HSAS Response Plan must be reviewed by the Fire and Aviation Management staff, Washington Office.

Regional Supplement:

Forest Supplement:

8.5 Facility Homeland Security Advisory System Response Plan

Each FS aviation facility must develop a Facility HSAS Response Plan that is specific to that aviation facility and details the security actions the facility will take for each HSAS threat level. The Facility HSAS Response Plan must be reviewed by the Fire and Aviation Management staff, Washington Office.

Regional Supplement:

Forest Supplement:

8.6 General Aviation Security Awareness Programs

RESERVED

Regional Supplement:

Forest Supplement:

8.7 Aircraft Security Information (Cooperators)

The security of cooperator/contractor provided aircraft and equipment is the responsibility of the cooperator/contractor.

Aircraft shall be electrically and/or mechanically disabled by two independent security systems whenever the aircraft is unattended. Deactivating security systems shall be incorporated into preflight checklists to prevent accidental damage to the aircraft or interfere with safety of flight.

Examples of Unacceptable disabling systems are:

- Locked door/windows
- Fenced parking areas

Regional Supplement:

Forest Supplement:

8.8 TSA Commercial Airport Security

Commercial airport security requirements can be found at the [Transportation Security Administration \(TSA\)](#) web site.

9.0 Aviation Facilities

9.1 General

All facilities managers are responsible for providing aviation facilities, within their respective area, that are safe, adequate, and are in compliance with applicable Forest Service regulations.

Regional Supplement:

Forest Supplement:

9.2 Permanent Aviation Facilities

These facilities (helibases, retardant bases, and airport facilities) are permanent installations (owned and leased) and are used on a continuous or seasonal basis for aviation operations. These include aviation facilities on Forest Service property and facilities on non-Forest Service land where Forest Service has primary responsibility for operations, maintenance, and oversight.

Regional Supplement:

Forest Supplement:

9.3 Temporary Aviation Facilities

Temporary bases are sites that are used on a temporary or intermittent basis (helispots and remote airstrips). Sites not located on Forest Service land must be pre-approved and use shall be documented in an Agreement. Each site should be cataloged as to location, description, local hazards, use procedures, agreements, and contacts. Preseason inspection and maintenance should be completed as necessary to meet agency safety requirements.

Regional Supplement:

Forest Supplement:

9.4 Safety

Aviation facilities must comply with safety regulations outlined in Forest Service manuals, guides, handbooks, and the [Occupational Safety and Health Act \(OSHA\)](#). Building equipment and landing surfaces will be inspected by FOAs annually to identify any maintenance or safety deficiencies.

Regional Supplement:

Forest Supplement:

9.5 Agency Owned/ Operated Facilities

Refer to the [Building and Facilities Related Handbook FSH 7309.11](#) for information regarding:

Planning
Development
Management
Special-Use Facilities
Records and Reports
Regional Supplement:

Forest Supplement:

9.6 Agency Owned/ Operated Airstrips

Forest Service owned and operated airstrips will be maintained in accordance with [FSM 7709.58, Chapter 30](#).

Regional Supplement:

Forest Supplement:

9.7 Leasing

Leased facility needs can be met through the Acquisition Management (AQM) organization, either via lease or grants and agreements. These are more fully described on the AQM website: <http://fsweb.wo.fs.fed.us/aqm/>. Facilities can also be acquired on Government-owned land by means of land exchanges.

Regional Supplement:

Forest Supplement:

9.8 Funding

RESERVED

Regional Supplement:

Forest Supplement:

9.9 Land Use Agreements

Simplified acquisition procedures should be used to acquire the use of property or facilities for emergency incidents. Emergency incident agreements do not require special leasing authority. Procurement officials with warrant authority may enter into these agreements. More detailed information is available in the Interagency Incident Business Management Handbook, Chapter 20. http://www.nwccg.gov/pms/pubs/iibmh2/pms902_iibmh.pdf.

Regional Supplement:

Forest Supplement:

9.10 Facilities Security

All sites will be provided with appropriate physical security measures commensurate with the risk of loss of operating capability, irreplaceable data, or expensive property ([FSH 7309.11, 41.2](#)).

- Equip all buildings with locks. The keys shall be managed by the facility manager or other individual designated by the line officer. Where emergency access by non-unit personnel is necessary for fire management and other common occurrences, use master locks.
- Install signs and fences and/or provide other physical deterrents to warn and retard entry to all remote sites containing vulnerable operations such as telecommunications and research projects. Consider maintainability in the design of fences in areas subject to heavy snow, ice, and wind conditions.
- Restrict entry of unauthorized personnel into operations such as flammable, chemical and pesticide storage rooms or buildings, explosive storage facilities, computer rooms, biologically sensitive and controlled-environment areas, and others as the facility manager and policy deem necessary.

Refer to Chapter 8 in the National Aviation Management Plan and [FS Manual 5709.17 Chapter 50, Aviation Security](#) for additional facilities security.

Regional Supplement:

Forest Supplement:

10.0 Appendix

10.1 [IAT Appendix 1 Forest Service Requirements](#)

10.2 [Day Trip Authorization](#)

10.3 Policy Change - FSM 5700 and 5709.16, Instrument Flight Conditions and Night Flying

Appendix 10.3

File Code: 5700

Date: October 13, 2010

Route To:

Subject: Policy Change - FSM 5700 and 5709.16, Instrument Flight Conditions and Night Flying

To: Regional Foresters, Station Directors, Area Director, Director, Law Enforcement and Investigations, Regional Fire Directors, Regional Aviation Officers

Current Forest Service (FS) policy prohibits single-engine flight in Instrument Meteorological Conditions (IMC) and at night except for ferry and cargo-carrying flights. Technology has made single-engine turbine airplanes and helicopters as safe to fly in IMC and at night as multi-engine aircraft when equipped to do so.

All Federal Aviation Regulations (FAR) which address IFR and night flight will be required for these flights.

Effective on this date, FSM 5716.12 and 5716.2 will read as follows:

FSM 5700

5716.12 – Instrument Flight Conditions

Use only multi-engine or turbine powered single-engine aircraft for flights in Instrument Meteorological Conditions (IMC) that meet the applicable Instrument Flight Rules (IFR) requirements in Federal Aviation Regulations (FAR) Part 135, Part 91 and Part 61 as referenced in FSH 5709.16 or applicable contracts.

Low-level (FSM 5716.3) fixed-wing flight operations will be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

5716.2 - Night Flying

Use only multi-engine or turbine powered single-engine aircraft for night flights that meet the applicable requirements in FAR Part 91 and Part 61 as referenced in FSH 5709.16 or applicable contracts.

Pilots flying night missions shall land at airports or heliports that meet Federal Aviation Administration (FAA) lighting standards, except:

1. This restriction does not apply to helicopter flights utilizing Night Vision Goggles (NVG).

Low-level helicopter flight operations will only be conducted using NVG. Helicopters will be approved for such an operation.

Reciprocating engine powered single-engine aircraft flights at night are authorized only for ferry and cargo-carrying missions at pilot-in-command discretion and in accordance with FAR Part 91.

Low-level (FSM 5716.3) fixed-wing flight operations will be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

Regional Foresters, Station Directors, Area Director, Director, Law Enforcement and Investigations,
Regional Fire Directors, Regional Aviation Officers

Effective on this date, FSH 5709.16, 11.26 will read as follows.

FSH 5709.16

11.26 – Operational Requirements – All Pilots

Requirements for all pilots flying Forest Service missions are as follows:

1. Instrument Flight Conditions. Use only multi-engine or turbine-powered single-engine aircraft for flights in Instrument Meteorological Conditions (IMC) that meet the applicable Instrument Flight Rules (IFR) requirements in Federal Aviation Regulations (FAR) Part 135, Part 91 and Part 61 as referenced in FSH 5709.16 or applicable contracts.

Low-level (FSM 5716.3) fixed-wing flight operations will be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

2. FSM 5716.2 - Night Flying. Use only multi-engine or turbine-powered single-engine aircraft for night flights that meet the applicable requirements in FAR Part 91 and Part 61 as referenced in FSH 5709.16 or applicable contracts.

Pilots flying night missions shall land at airports or heliports that meet Federal Aviation Administration (FAA) lighting standards, except:

1. This restriction does not apply to helicopter flights utilizing Night Vision Goggles (NVG).

Low-level helicopter flight operations will only be conducted using Night Vision Goggles (NVG). Helicopters will be approved for such an operation.

Reciprocating engine powered single-engine aircraft flights at night are authorized only for ferry and cargo-carrying missions at pilot-in-command discretion and in accordance with FAR Part 91.

Low-level (FSM 5716.3) fixed-wing flight operations will be conducted only in daylight Visual Flight Rules (VFR) conditions (30 minutes prior to official sunrise until 30 minutes after official sunset).

This policy change will be in effect until rescinded.

Questions regarding this policy change should be directed to Paul Linse, 202-205-0974.

/S/ JAMES E. HUBBARD

JAMES E. HUBBARD

Deputy Chief, State and Private Forestry

cc: Karyn L Wood, Wm C Waterbury, Ron Hanks, Pat Norbury, John A Nelson, Richard Kvale, Patricia Hiram, Tom Harbour, Paul Linse