United States Department of Agriculture

# National Aviation Safety and Management Plan

## 2019–2020

Forest Service

March 2019

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# 2019–2020

# National Aviation Safety and Management Plan

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# 2019–2020

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# 2019–2020

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# Digest

The table below provides a list of changes made to the 2019-2020 National Aviation Safety and Management Plan (NASMP). *Note:* This list is not inclusive of all changes made.

| Section | Description of Change |
|---|---|
| ALL | Global change to remove Northeast Area |
| 2 | Added two Aviation Safety Officers |
| 2 | Added the Aviation Training positon under the BC Aviation Strategic Planner |
| All | Minor changes |
| | |
| | |
| | R2 Regional Changes |
| 1.2 | Added Regional Mission Statement |
| 5.19.4 | Added ideal staffing level for Exclusive Use helicopter program |
| 5.27 | Page 71 under aircraft clarification (Carded) |
| 6.6 | Removed Regional Supplement |
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# 1.0 Aviation Management Plan

## 1.1 Purpose

The purpose of the Forest Service National Aviation Safety and Management Plan (NASMP) is to describe Washington Office Fire and Aviation Management (FAM) leader's intent, authority, roles and responsibilities, programs, and activities. Additionally, it provides strategic and operational direction as well as operational guidance to each organizational level. While the information contained within this plan references policy, this document implements policy that may change throughout the year. Although this is a biennial national plan, it may receive annual supplements at the discretion of individual Regions and Units.

The USDA Forest Service must endeavor to place the safety of employees above all else and ensure recognized hazards are mitigated. The Forest Service's 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. Incorporating FS Aviation Safety Management System (SMS) Guide with a strong Quality Assurance (QA) component will improve the operating model for safety, efficiency, and effectiveness.

### Regional Supplement

*The National Aviation Management Plan, along with The Regional Aviation Safety and Management Plan set forth through Rocky Mountain Regional Supplements defines the aviation program in Region 2. The operational policies and methods used are intended to be consistent with national policy and pertinent Federal Aviation Regulations (FAR's). The Rocky Mountain Regional Supplements address where the Region has established more restrictive and conservative operational and safety policies than those established at the National level. The Regional Aviation Safety and Management Plan will identify the responsibilities of the Regional Aviation program managers, each position within the organization, and includes tasks and responsibilities.*

*The National Aviation Safety and Management Plan, along with Rocky Mountain Rocky Mountain Regional Supplements, are to be used by the forests, in conjunction with specific Forest supplements, to plan and execute aviation programs and projects.*

### Forest Supplement

This plan provides direction necessary for compliance with FSM 5700 pertaining to the local Forest organization level. Local topography and climate conditions present unique hazards and challenges for aviation users in Wyoming. Parts of Wyoming are known for the extreme wind conditions that persist for several days or weeks during certain times of the year. Afternoon thunderstorms develop frequently and suddenly during the summer months. The interaction of strong wind and mountain topography can create extreme hazards for all aircraft operations. Mission flights may be conducted at altitudes that range from 4,000 to 13,000 ft. above sea level. Decreased aircraft performance due to high Density Altitude is a critical consideration when ordering and utilizing specific

makes and models of aircraft, and when briefing pilots and Aircrews. Special emphasis must be placed on calculating aircraft performance, strictly adhering to allowable payload limits, and performing risk assessments.

A list of public use airports and approved helicopter landing sites on each Forest are maintained in the Dispatch Center. Information needed by pilots and aviation users, including airport latitude/longitude, elevation, fuel available, runway lengths, and radio frequencies, is readily available on FAA aeronautical sectional charts, in the current FAA Airport Facility Directory, and on various internet sites such as www.airnav.com.

## 1.2 Mission, Vision, and Core Values

**Forest Service Aviation Mission.** To provide safe, efficient, and coordinated aviation support for agency operations; to support partnership agreements; and to meet current and future needs through innovation and technology in order to sustain the health, diversity, and productivity of the Nation's forests and grasslands.

**Forest Service Aviation Vision.** Lead the world in aviation, supporting natural resources and wildland firefighting.

**Fire and Aviation Management Core Values.** Safety, integrity, treating people with mutual respect, and land stewardship.

**Forest Service Aviation Core Values.** To succeed in our mission as a public service organization, we believe that:

- Uncompromising integrity is a nonnegotiable part of our daily work activities.
- Excellence is expected.
- Proactive safety is a condition of employment.
- Disagreement does not equal disrespect.
- Everyone is accountable for his or her actions.
- Honest mistakes are expected.
- We can overcome challenges through innovation, collaboration, and hard work.

### Regional Supplement

*The mission of the Region 2 aviation program is to become a Highly Reliable Organization that empowers all employees and contractors to achieve a program of aviation safety though Risk Management, Policy, Promotion and Assurance.*

### Forest Supplement:

*No supplement.*

## 1.3 Leader's Intent

The Forest Service's aviation program goal is to provide aviation tools that safely and efficiently accomplish missions related to the task of managing national forests. Aircraft are dynamic and highly effective resources that can be both expensive and unforgiving when used carelessly. These resources require competent operational oversight; and appropriate utilization of aviation resources can drastically improve operational effectiveness and efficiency, while reducing cost and overall risk. Aviation management requires balanced and pragmatic consideration of multiple complex factors, including safety, the environment, costs and mission goals.

**Goal 1: Zero Accident Organization.** Become a zero-fatality and zero-accident organization by implementing a Safety Management System (SMS) agency-wide approach to management and operations that includes safety management policy, safety risk management, safety assurance and safety promotion.

**Goal 2: Take Care of Our People.** Recruit and maintain a sufficient number of highly qualified, trained and motivated workforce members.

**Goal 3: Organize for Success.** Align the Forest Service aviation program and organization to meet the needs of current and future operations.

**Goal 4: Take Advantage of Technology.** Where feasible, deploy technologically advanced and cost-effective aircraft, equipment and infrastructure to meet the agency's current and future mission.

Refer to the USDA Forest Service Aviation Strategic Plan for additional information.

### Regional Supplement

*No Supplement.*

### Forest Supplement

*Placeholder.*

## 1.4 Aviation Doctrine

Management has defined policy and doctrine in FSM 5700 that conveys aviation safety expectations and objectives to employees. Aviation safety policy in FSM 5700 addresses roles, responsibilities, and authorities regarding aviation safety at each organizational level.

This process starts with a clear value-based philosophy of what the organization and its business model should be and what it is about. The relevance of safety principles to Forest Service doctrine for aviation management cannot be overstated. These principles permeate the aviation management business model and drive SMS program design.

As an organization, our commitment is to manage risk to the lowest acceptable level. This effort is an iterative process that requires diligence in the following principle areas:

- Develop and maintain a safety culture that recognizes the value of safety management systems;
- Clearly define the duties, responsibilities, and accountabilities for all employees;
- Provide all employees with adequate training and information to enhance performance;
- Comply with or exceed all regulatory and agency specific requirements;
- Proactively manage the risks associated with our operation;
- Standardize risk management as a part of the aviation operations planning process such that all deliberate/strategic risk assessments follow the general format found in section 3.5 of the FS Aviation Safety Management System (SMS) Guide.
- Ensure externally supplied services and materials meet or exceed all regulatory and agency specific requirements;
- Determine specific performance goals and consistently measure performance against those goals;
- Conduct internal management and safety reviews to improve performance;
- Encourage all employees to report errors and safety issues in the spirit of a just culture.
- To formalize risk management as a part of the planning process, risk assessments should follow the format found in section 3.5 of the FS Aviation Safety Management System (SMS) Guide.

### *1.4.1 Quality Principles*

Top management shall ensure that quality policies and procedures are consistent with Aviation Safety Management System requirements defined in this manual. Aviation Safety Management System quality management (assurance and control) processes shall be consistent with agency to improve the efficiency of the entire organization.

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.

- Avoid reactive fixes to organizational problems.
- Define the problems of today and the future.
- Allocate resources for long-term planning and plan for high quality services.
- Constantly improve product and service.

2. “Adopt a new philosophy.” Meaningful change can only take place from within the organization. Change focus from operations output to quality service.

- Quality costs less not more.
- The call for major change comes from the top.

- Stop waiting for direction from upper management and instead seek direction by evaluating field customer needs.

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.

- Inspections should be used to collect data for process control and to provide input to guide management decisions resulting in a reduction in potential errors.
- Quality cannot be achieved through reactive identification and elimination of errors because it perpetuates the fly/crash/fix/fly cycle.

4. “Do not award business based on price tag alone." Our actions should be focused on the detection of variations between vendors' performances to identify the best service providers. Contract language should be consistent and clear so vendors understand our requirements.

- Price alone has no meaning: change focus from lowest cost to best value/cost.
- Develop a longer term relationship (contract) between the operation and vendors.

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.

- Quality starts with the intent of management, which is found in directives.
- Design Quality into the system with a fundamental focus on team work in design.
- Constantly maintain awareness and continue to reduce waste.
- Constant improvement of the system requires greater efforts than reactively responding to errors and issues.

### *1.4.2 Aviation Promotion Principles*

Management must be committed to the implementation of SMS as their highest priority: to provide safety resources, to continuously improve safety practices, and to provide a framework for responsibility and accountability.

1. "Institute a program of education and self-improvement." Personnel need a thorough grounding in the principles, tools, and techniques of SMS. People must learn new ways of working together as teams and adopt new behaviors that support the new management philosophy.

- Educate for higher awareness in management and in customers.
- Develop team-building skills in employees.

2. "Break barriers among staff areas." Another idea central to QA is the concept of the 'internal customer,' which in our case may mean that management processes, antiquated

policies, budget allocations, and hiring restrictions are the barriers to our success. We need to act to correct such inefficiencies.

- Promote team work to identify internal barriers and satisfy the internal customer.
- Know your inefficiencies as well as those of your suppliers and customers.

3. "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 a culture.

- Remove barriers to foster pride of workmanship and recognize positive outcomes.
- Leaders must know the work they manage and supervise.

4. "Take action to accomplish the transformation." Everyone in the organization must work together to facilitate change management. Forest Service Aviation Managers at all levels in the program should:

- Be proactive within the implementation of the change management process.
- Take pride in the new doctrine and the Quality Assurance Program Plan (QAPP).
- Include a cross section of people to implement the change from the top to the bottom.

## 1.5 USDA Forest Service Aviation Strategic Plan

The USDA Forest Service Aviation Strategic Plan provides an outline of how the agency will use aviation assets to accomplish the Forest Service mission: “To sustain the health, diversity, and productivity of the Nation’s forests and grasslands for the benefit of present and future generations.”

The Aviation Strategic Plan defines Aviation Management’s vision, mission, values and goals. To accomplish the Forest Service Aviation mission, “To provide safe, efficient, and coordinated aviation support for agency operations; to support partnership agreements, and to meet current and future needs through innovation and technology in order to sustain the health, diversity, and productivity of the Nation’s forests and grasslands,” Aviation goals are focused on safety, people, organization, and technologically advanced assets. These goals are characterized by specific objectives. Performance measures are used to define how well the agency has advanced toward accomplishing each objective. Strategies define the method or approach taken to accomplish the objectives and are reflective of opportunities and threats. Action plans will move the strategies forward and will be specific, measurable, and attainable. Progress will be reported in our annual aviation program report to assist the Forest Service with monitoring performance.

The Aviation Strategic Plan is the umbrella document that provides strategic context for all aviation activities. The plan is not a stand-alone document, but rather it complements, enhances, and guides other plans and strategies. The plan is tiered to higher level documents such as the Forest Service Strategic Plan. It is the long-term framework for guiding future Forest Service Aviation activities.

Regional Supplement

*No supplement.*

Forest Supplement:

*No supplement.*

## 1.6 Authority

This plan fulfills the requirements outlined in FSM 5700. This plan sets the standard that will be aviation policy 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

*No Supplement.*

Forest Supplement:

*No 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 FSM 5706.

Aviation operations require regulations, manuals, guides, and checklists to execute and coordinate operations in a safe and effective manner. Where the terms “shall” and “must” are used in manuals, handbooks, or guides, compliance with those items is mandatory and not discretionary (FSM 1110.8 – Exhibit 01 Degree of Compliance or Restriction in Directives). These principles should guide employees; they are authoritative, but require employees to apply their judgment in order to solve problems.

Regional Supplement

*No Supplement.*

Forest Supplement:

*No supplement.*

# 2.0 Aviation Management Organization

## 2.1 Organization

The Washington Office (WO) Fire and Aviation Management (FAM) is located at the USDA Forest Service National Headquarters in Washington D.C. and at a Washington Office detached unit 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 (Fire and Aviation are combined with Region 6, Portland, OR)

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 has several Forests/Units or Stations located within their geographical location or area of responsibility.

## 2.2 Washington Office (WO) Headquarters Staff

### *2.2.1 Director, Fire and Aviation (FAM)*

The Director, FAM, is responsible to the Deputy Chief for State and Private Forestry. The Director, FAM's responsibilities are located in the FSM 5704.2, FSM 5720.43, and Chapter 10 of FSH 5709.16.

### *2.2.2 Deputy Director, Aviation, Operations and Risk Management*

The Deputy Director, Aviation, Operations and Risk Management responsibilities are located in the FSM 5704.2.

### *2.2.3 Assistant Director, Aviation*

The Assistant Director, Aviation responsibilities are located in the FSM 5704.21. The Assistant Director, Aviation provides national program direction, leadership, and management of the Forest Service aviation program, including coordination of aviation activities with other staffs, agencies, and groups, with an emphasis on aviation planning, budget, policy, operations, aircraft airworthiness, pilot standardization, aviation training and quality assurance. The Assistant Director, Aviation supervises:

- Branch Chief, Aviation Business Operations – Washington D.C.
- Branch Chief, Aviation Operations – Boise, ID
- Branch Chief, Airworthiness – Boise, ID
- Branch Chief, Pilot Standardization – Boise, ID
- Branch Chief, Aircraft Program Management – Washington D.C.
- Branch Chief, Aviation Strategic Plans – Portland, OR

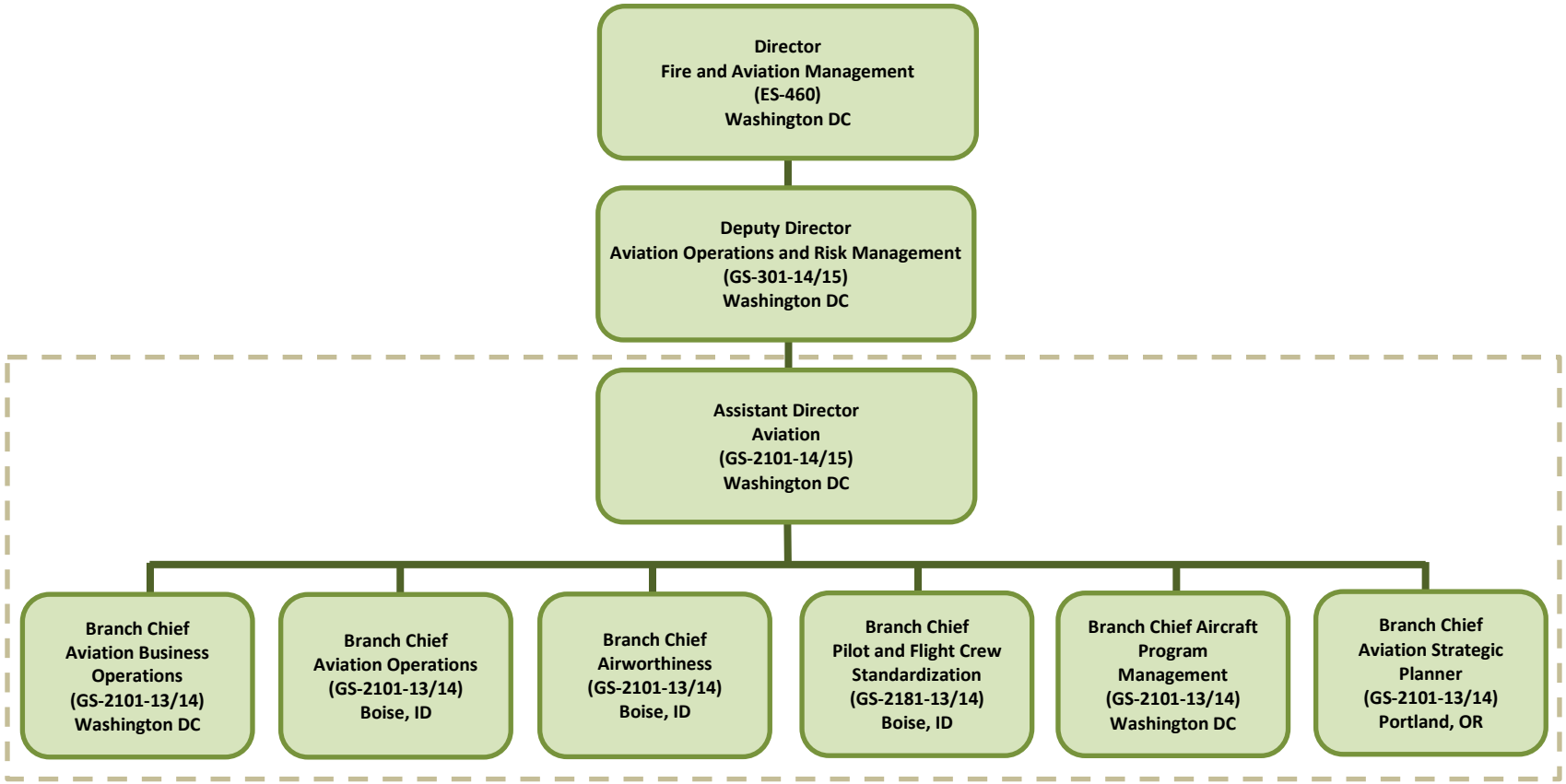
### *2.2.4 Branch Chief, Aviation Business Operations (ABO)*

The Branch Chief, Aviation Business Operations provides oversight, planning, coordination, and direction for aviation policy, budget, reporting, and analysis. The Branch Chief ABO supervises three Aviation Management Specialists.

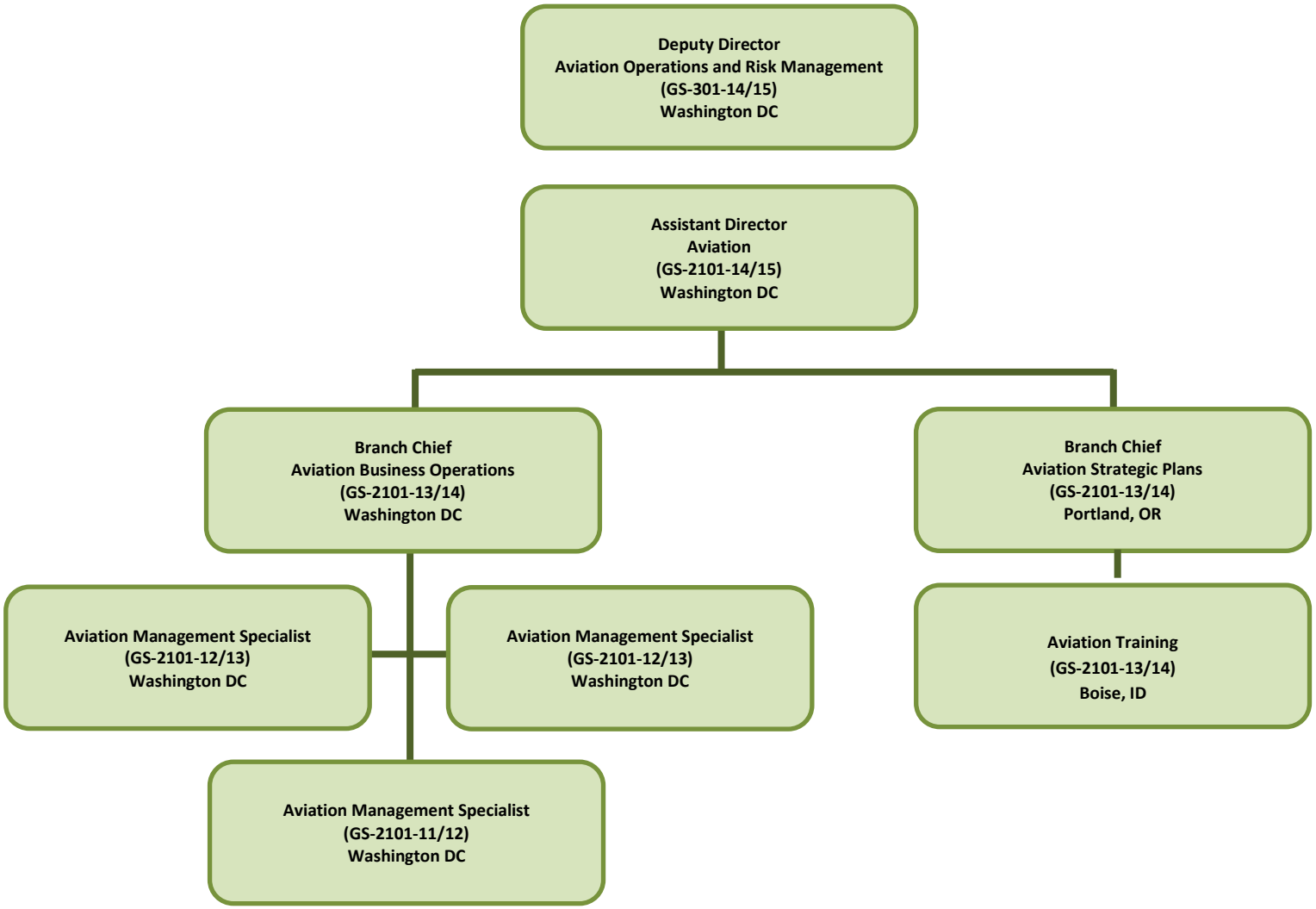
### *2.2.5 Branch Chief, Aviation Strategic Plans*

The Branch Chief, Aviation Strategic Plans develops aviation strategy for the Forest Service.

## Washington Office Fire and Aviation Management
## Aviation Division



## Washington Office Fire and Aviation Management
## Aviation Business Operations and Aviation Strategic Plans



### *2.2.6 Branch Chief, Aircraft Program Management*

The Branch Chief, Aviation Program Management manages aircraft fleet programs.

### *2.2.7 Branch Chief, Aviation Operations*

The Branch Chief, Aviation Operations provides oversight, coordination, and direction of aviation operations conducted by the National Office and Regions. The Branch Chief supervises the National Helicopter Program Manager, National Airtanker Program Manager, National Aircraft Coordinator, National Aerial Supervision Program Manager, National Helicopter Operations Specialist, National Smokejumper Program Manager, and National Rappel Specialist. The Branch Chief's responsibilities are located in the FSM 5704.22 and FSH 5709.16, Chapter 10, 10.41c.

**National Helicopter Program Manager**

The National Helicopter Program Manager:

- Provides oversight for the helicopter program.
- Serves as principal helicopter program advisor to National Contracting, Fire and Aviation HQ staff and the Regions in the development and implementation of policies, programs, and standard practices for helicopter programs and specialized projects.
- Responsible for coordinating contract helicopter inspections and pilot approvals.
- Serves as the contact and coordination point for industry groups and cooperating agencies regarding contract helicopter approvals and operations.

**National Airtanker Program Manager**

The National Airtanker Program Manager provides national airtanker program leadership, coordination, oversight, and interagency cooperation.

**National Aircraft Coordinator**

The National Aircraft Coordinator is responsible for coordinating the efficient use of airtankers, helicopters, lead planes and ASMs, and other aircraft as assigned. Movement of aircraft is coordinated with the National Interagency Coordination Center.

- Manages the Defense Logistics Administration fuel program
- May provide technical oversight, reporting and Contracting Officer Technical Representation (COTR) support for nationally contracted aircraft

**National Aerial Supervision Program Manager**

The National Aerial Supervision/Light Fixed-Wing Program Manager provides national program leadership, coordination, and interagency cooperation for the aerial supervision program and advisor to Contracting, Fire and Aviation HQ staff and Regions in the development and implementation of policies, programs, and standard practices

for the light fixed-wing aircraft and programs. The aerial supervision program consists of air tactical, lead plane, aerial supervision module and helicopter coordinator operations.

**National Helicopter Operations Specialist (NHOS)**

The National Helicopter Operations Specialist is responsible for the oversight, coordination, and direction of helicopter operations activities conducted by the National Office. The NHOS:

- Provides primary technical oversight and support for WO contracted helicopters.
- Provides oversight and assistance to regional helicopter program managers.

**National Smokejumper Program Manager**

The National Smokejumper and Large Fixed-Wing Program Manager provides national program leadership, coordination, and interagency cooperation in the smokejumper program and is program advisor to Contracting, Fire and Aviation HQ staff, and Regions in the development and implementation of policies, programs, and standard practices for large fixed wing aircraft and programs.

**National Rappel Specialist (NRS)**

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

The NRS:

- Provides oversight and continuous coordination of the national rappel program
- Assures standardization, quality assurance, integration and coordination among the rappel program to ensure that the program and equipment reflect aviation management policy direction, objectives, and regulations.

### *2.2.8 Branch Chief, Airworthiness*

The Branch Chief, Airworthiness supervises Aviation Maintenance Inspectors (Airworthiness), Aviation Safety Inspectors (Avionics), Aeronautical/Aerospace Engineer, and an Aviation Budget Analyst. The responsibilities of the Branch Chief are in the FSM 5704.23.

**Aviation Safety Inspectors–Airworthiness (5)**

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 Forest Service.
- Establish work programs for inspection, monitoring, audits and surveillance.

- Evaluates compliance with 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:

- 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 Forest Service.
- Evaluates compliance with 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 or cooperated with by the Forest Service.
- Prepares and reviews technical specifications for avionics and inspection requirements, contract rewrite evaluations (e.g., 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.

**Aeronautical/Aerospace Engineer (1)**

The Aeronautical/ Aerospace Engineer:

- Provides oversight of Forest Service owned Type Certified Data Sheets (TCDS) and Supplemental Type Certificates (STC), and the Forest Service Operational Loads Monitoring (OLM) Program.
- 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 UAS utilized by the Forest Service.

**Aviation Budget Analyst (1)**

The Aviation Budget Analyst is responsible for analyzing and evaluating aviation cost and use data for aviation plans and reports; managing aviation business cases; aviation IT program management; financial analysis and assessment of compliance with laws and regulations. The Aviation Budget Analyst also completes the Federal Aviation Information Reporting Systems reporting and working capital fund analysis and reports.

### *2.2.9 Branch Chief, Pilot and Flight Crew Standardization*

The Branch Chief, Pilot and Flight Crew Standardization supervises a National Fixed Wing Standardization Pilot, a National Helicopter Standardization Pilot, and National Helicopter Inspector Pilots. The Branch Chief, Pilot Standardization:

- Identifies and approves qualified pilot instructor, check, and inspector pilots.
- Maintains current listings, including all mission and aircraft authorizations, of all qualified instructor, check, and inspector pilots.

**National Fixed-Wing Standardization Pilot (1)**

The National Fixed-Wing Standardization responsibilities are in the FSH 5709.16, Chapter 20, 20.42.

**National Helicopter Standardization Pilot (1)**

The National Helicopter Standardization responsibilities are in the FSH 5709.16, Chapter 20, 20.44.

**National Helicopter Inspector Pilots (4)**

The National Helicopter Inspector Pilots:

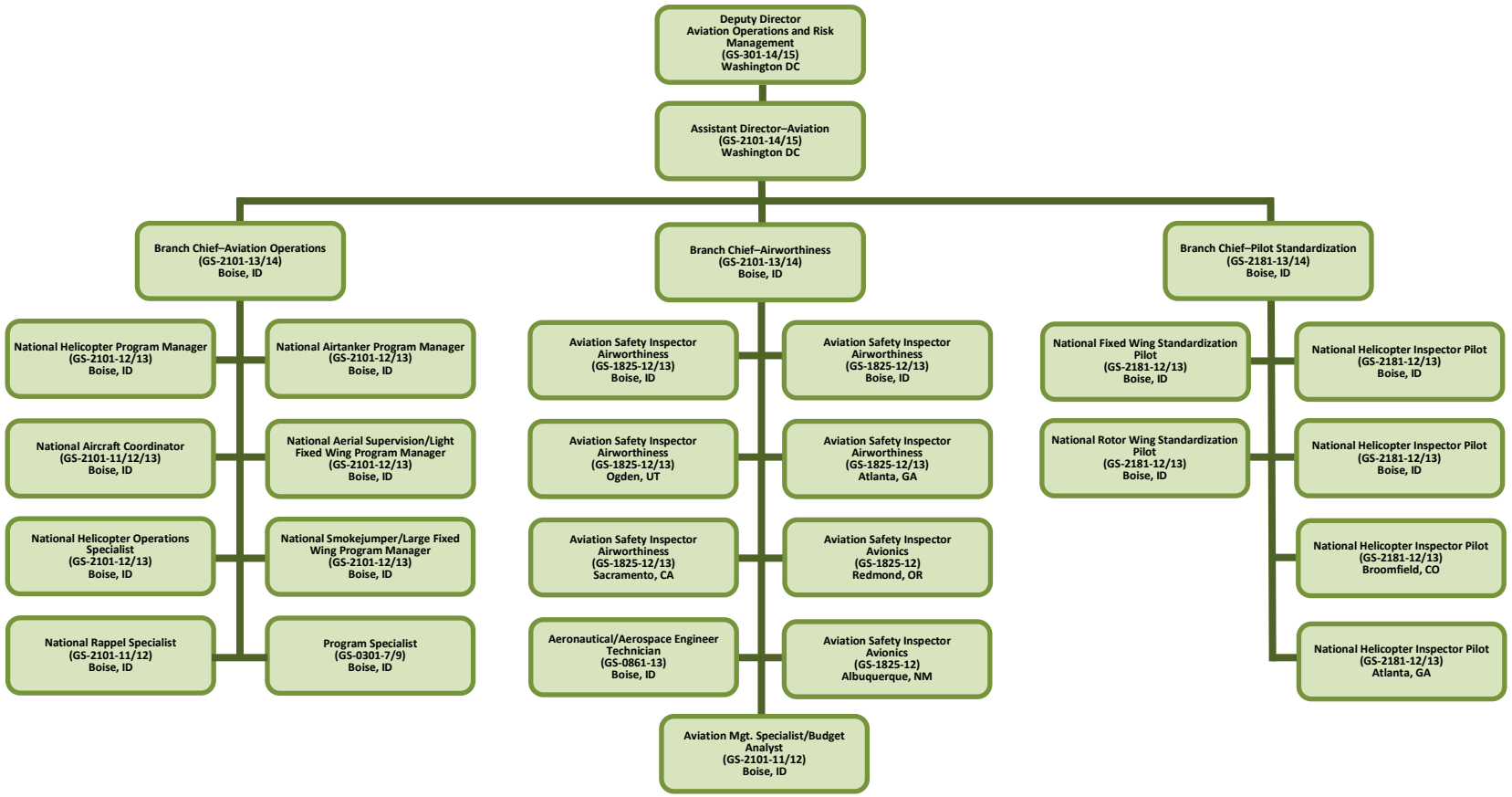
- Provides leadership and oversight for the development and implementation of a national helicopter pilot and training program.
- Provides expertise necessary to support the USFS National Standardization and Quality Assurance initiative for oversight of national contract operations.
- Administers pilot evaluations for the purpose of determining an individual's suitability to perform special use missions typical of natural resource operations.
- Provides technical oversight of pilots, aircraft, and equipment used in support of agency missions.

Two NHIPs are stationed in Boise, 2 virtual (Colorado and Georgia).

### *2.2.10 Assistant Director, Doctrine, Communications and Risk Management*

The Assistant Director, Doctrine, Communications and Risk Management supervises one Branch Chief, Aviation Safety Management System

# Washington Office Fire and Aviation Management
# Operations, Airworthiness, and Pilot Standardization



### *2.2.11 Branch Chief, Aviation Safety Management System*

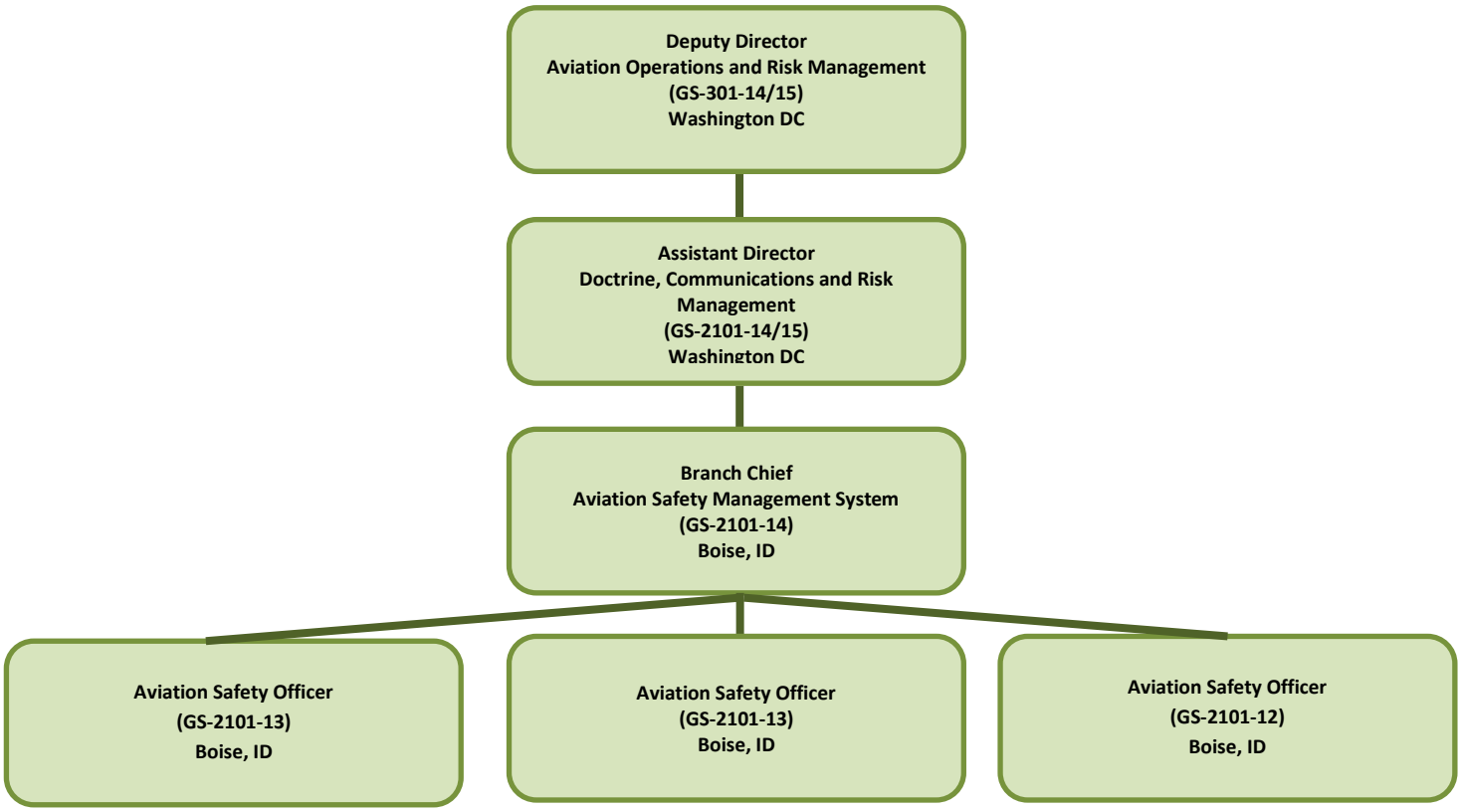
This position has the operational responsibility for development, implementation, and monitoring of the Aviation Safety Management System, including oversight of the following key SMS components:

- Policy, including managing and coordinating implementation of the National Aviation Safety Management Plan.
- 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, National Aviation Safety Council, SAFECOM reporting system, aviation safety training and education.
- Maintains a process for data collection and analysis as well as evaluation of aviation risk management and operational safety.
- Establishes safety criteria and standards for National aviation contracts.
- Coordinates with the Aviation Branch Chiefs to assure aircraft and pilot standards incorporate latest lessons learned from incidents and accidents.
- Provides program oversight and direction for aviation education and training, including interagency aviation training (IAT), Advanced Aviation Management Training (AAMT) and Lessons Learned.

**National Aviation Safety Officers (3)**

National Aviation Safety Officers are responsible for service-wide programs involving the development and implementation of plans and programs in aviation safety and standardization for aviation safety programs.

**Washington Office Fire and Aviation Management**
**Aviation Safety and Risk Management**




### *2.2.12 National Forest Health Protection Aviation Manager*

The National Forest Health Protection Aviation Manager (NFHPAM) is responsible for coordinating forest health aviation safety and operations with the appropriate Regional Aviation Safety Manager, Regional Aviation Officer or Unit Aviation Officer.

## 2.3 Regional Office (RO) Staff

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

### *2.3.1 Regional Forester*

Regional Forester responsibilities are located in FSM 5704.3.

### *2.3.2 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 FSM 5720.48b.

### *2.3.3 Regional Aviation Safety Managers (RASM)*

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

### *2.3.4 Regional Aviation Safety Inspector (ASI), 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 Aircraft Inspection Guide (AIG).

### *2.3.5 Regional Aviation Safety Inspectors – Avionics*

The ASI, Avionics, performs 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 Forest Service.

Regional Supplement

*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).*

*With the exception of the RASI- Avionics who is borrowed, the Rocky Mountain Regional Office has the following:*

***Aviation Maintenance Inspector** (responsible to the Lead Pilot)*

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

- *Provides efficient and effective management of the airworthiness and inspection program for Regional WCF, cooperator, and contract aircraft.*
- *Provides technical support to the National maintenance program, briefs pilots and other appropriate personnel on maintenance and avionics issues affecting safety and equipment, and assists on national aviation contract inspections.*

- *Maintains proficiency in their field in accordance with applicable Federal Aviation Regulations, interagency guides (FSM 5706), and Forest Service Manuals and Handbooks.*
- *Provides technical assistance in aircraft mishap investigation.*

***Lead Pilot*** *(Responsible to RAO)*

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

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

***Regional Pilots*** *– (Responsible to Lead Pilot-FSM 5704)*

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

***Helicopter Operations Specialist*** *(HOS) (responsible to the RAO)*

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

- *Provide technical assistance in helicopter operations to the Forests.*
- *Assist Forests in development of helicopter programs and operating plans.*
- *Conduct helibase inspections.*
- *Provide and arrange for instruction for helicopter crew and support personnel.*
- *May serve as Contracting Officers Representative on helicopter contracts.*

- *Represent the Region at National level helicopter operations meetings and steering committees.*
- *Support national firefighting needs as member of STAT teams or technical specialist.*
- *Provide National Guard briefings for fire and Reconnaissance and Interdiction Detachment (RAID) missions.*

***Fixed-Wing Operations Specialist for Aerial Supervision*** *(responsible to the RAO and National Aerial Supervision/Light Fixed-Wing Program Manager)*

*Provides regional program leadership, coordination, and interagency cooperation for the aerial supervision program (AITS, ATGS, and HLCO) and advisor to Contracting, SFAM staff and Forests in the development and implementation of policies, programs, and standard practices.*

- *Serves as ATGS, HLCO, and AITS representative to the Interagency Aerial Supervision Subcommittee, IASS.*
- *Serves as Geographic ATGS representative and performs duties listed in Interagency Aerial Supervision Guide.*
- *Manages ATGS, HLCO, and AITS program and fixed-wing operations.*
- *Manages Nationally Sponsored Exclusive Use ATGS platform based at JEFFCO Tanker Base.*
- *ATGS contract advisor.*
- *Conducts Aerial Supervision Workshops and training.*
- *Serves as ATGS Evaluator and Final Evaluator in training regional and national priority trainees.*
- *Serves as AITS Evaluator and Final Evaluator in training regional and national priority trainees.*

***Fixed-Wing Operations Specialist for Ground Operations*** *(responsible to the RAO and the Branch Chief of Aviation Operations Boise, ID)*

*Provides regional program leadership, coordination, and interagency cooperation for Fixed Wing Ground Operations and advisor to Contracting, SFAM staff and Forests in the development and implementation of policies, programs, and standard practices.*

- *Coordinate the development, budget, and construction of the Colorado Springs ATB awarded from the WO as part of the Aviation Safety and Modernization Funding Strategy.*

- *Responsible for the operation of the Colorado Springs Temporary ATB as activated.*
- *Serves as a Geographic Airtanker Base Representative in the RO and WO in regards to training development, policy development, accident prevention and investigation as well as airtanker base verification and base inspections.*
- *Advise the RO and WO with modernization strategies related to NextGen Airtankers operating from current and future Airtanker Bases.*
- *Participate in Regional Airtanker Base Reviews.*
- *Participate in Large Airtanker Contract development, Technical Evaluation, Preseason and Post Season evaluations.*

***Aviation Management Specialist*** *(AMS) (reports to the HOS/RASM)*

- *Aviation Specialist is a developmental aviation management position. Responsibilities include:*
- *The AMS serves as a technical advisor*
- *Assist in administrative support to the Region's Aviation Program*
- *Assist RAO and RASM in program management*
- *Assist HOS, AMI in program management*
- *Assist Safety and Training*
- *Participate in helicopter and airtanker base reviews*
- *Assist in the analysis of SAFECOM data*
- *Participate in IWP and Incident investigations*

Forest Supplement:

*No supplement.*

## 2.4 Forest Staff

### *2.4.1 Line Officer*

Line Officer responsibilities are located in FSM 5704.6, FSM 5711.04, and FSM 5720.48a.

### *2.4.2 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 should meet the Aviation Manager qualifications in Interagency Aviation Training 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.

### *2.4.3 All Employees*

All employees involved in aviation activities are responsible for acquiring, knowing, and following aviation policy and regulations (FSM 5704.9, FSM 5720.46). Forest Service employees shall fly only in approved government aircraft flown by an approved pilot(s) (refer to Government Aircraft definition in FSM 5705). Approvals are specified in FSM 5703.1, 5712.3, 5712.4 and 5713.4. Employees are empowered and expected to manage the risks of aviation operations, and make reasonable and prudent decisions to accomplish the mission. Employees shall use an operational risk management process to evaluate the risk and hazards prior to every flight. Individuals will be held accountable for their decisions, which should be based on policy, principles, training, experience, and the given situation.

Forest Service employees have the responsibility to immediately report to the appropriate official any instances of unsafe equipment or aviation operations (5720.46).

Regional Supplement

*No supplement.*

Forest Supplement

Forest Aviation Officer is a shared position between the Shoshone, Bighorn National Forest and Wind River Bighorn Basin District BLM. During periods of high fire activity accompanied with moderate to complex aviation operations, it will likely be necessary to order additional expertise in aviation operations to help with oversight of aircraft use. The expertise may be shared in the Cody Interagency Dispatch Zone. The Cody Interagency Dispatch Zone Mobilization Guide, provides guidance on when to request additional oversight in times of heightened fire activity, when the heaviest use of aircraft typically occurs. The Cody Interagency Dispatch Zone Mobilization Guide, provides guidance on when to request additional oversight in times of heightened fire activity.

## 2.5 Additional Aviation Positions

### *2.5.1 Station Aviation Officer (SAO)*

The SAO coordinates the station aviation activities with the appropriate FAO/UAO and/or the RAO. The SAO may provide general aviation oversight and technical advice under the guidance of the FAO/UAO or RAO. The SAO will meet the Aviation Manager qualifications in Interagency Aviation Training Guide.

Regional Supplement

*No supplement.*

Forest Supplement:

*No supplement.*

## 2.6 National Groups/Committees

### *2.6.1 National Aviation Team (NAT)*

The National Aviation Team consists of all members of the Aviation Division, including the Assistant Director, Aviation; six Branch Chiefs; Program Managers and supporting staff.

### *2.6.2 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."

### *2.6.3 National Interagency Aviation Committee (NIAC)*

The National Interagency Aviation Committee (NIAC) is established to serve as a body of resident aviation experts, assisting NWCG with realizing opportunities for enhanced safety, effectiveness, and efficiency in aviation related operations, procedures, programs and coordination. NIAC is chartered under the Equipment and Technology Branch of NWCG.

Committee membership will reflect a mix of people who are knowledgeable in the subject area and who represent NWCG member agencies and organizations, including representation from Department of Interior (DOI) Office of Aviation Services (OAS).

The WO Branch Chiefs, Aviation Operations and Pilot Standardization are designated by the WO Assistant Director, Aviation as Forest Service representatives to NIAC.

NIAC Sub Committees include:

- Interagency Aerial Supervision Subcommittee
- Interagency Airspace Subcommittee
- Interagency Airtanker Base Operations Subcommittee
- Interagency Airtanker Board (IAB)
- Interagency Aviation Training Subcommittee (IAT)
- Interagency Fire UAS Subcommittee (IFUASS)
- Interagency SEAT Board

- Smokejumper Aircraft Screening and Evaluation Board (SASEB)
- Interagency Helicopter Operations Subcommittee (IHOps)
  - Aerial Capture Eradication and Tagging Animals Unit (ACETA)
  - Interagency Aerial Ignition Unit
    - Helitorch Subunit
  - Interagency Helicopter Operations Guide Unit (IHOG)
  - Interagency Helicopter Rappel Unit
    - Rappel Equipment Subunit
  - Helicopter Short Haul Unit

## 2.7 Program Overview

The Forest Service aviation program is comprised of national, regional and forest organizations.

All agency-owned and operated (WCF) aircraft are registered to the Washington Office and hosted by regions. The WO is the lead for most of the contracted aircraft used by the interagency wildland firefighting community including Large Airtankers (LATs), smokejumper aircraft, Type I and II helicopters, Aerial Supervision Module (ASM) and lead plane aircraft, infrared (IR) airplanes, aerial supervision aircraft, water scoopers and other miscellaneous aircraft. These aircraft are acquired for the primary use of the Forest Service; however, they are available for use by other federal, state, and local partners and cooperators as specified in agency policy, agreements and procedures.

Regions also contract for aircraft including, but not limited to, Forest Health Protection (FHP) airplanes, Call-When-Needed Type III helicopters, aerial supervision airplanes, and other fire and resource management aircraft.

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

### Regional Supplement

*No supplement.*

### Forest Supplement

*No 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

*No supplement.*

### Forest Supplement

*No 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 as required by OMB Circular A-126.
- Retaining contract management records for 6.5 years.
- Complying as applicable with existing records holds and freezes for all records.
- Responding to Freedom of Information Act (FOIA) requests – All aviation records are subject to Freedom of Information Requests.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 3.3 Aviation Plans

Aviation Management Plans, with the exception of the National Aviation Safety and Management Plan (see section 3.3.1), must be approved by the appropriate line officer.

Aviation Operational Plans must be approved by the appropriate fire or aviation program manager. (FSM 5711.04). See section 3.3.10 (Aviation Operations Plans) of this document.

Regional Supplement

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

*Project planning should include the use of the End-Product Exhibit matrix (FSM 5711.21) to determine if a project should be managed as an end product contract or flight services contract. If it is determined that a project is going to be contracted as an End Product, a Project Aviation Safety Plan (PASP) is not required.*

Forest Supplement:

Typically, Forest use of aircraft is very limited outside of Fire Suppression activities. Project Aviation Safety Plans are required for any non-fire aviation projects, and have been completed in the past for prescribed burning activities (aerial ignition), aerial reconnaissance, and material or passenger shuttling for projects (radio repeater maintenance and project material delivery).

### *3.3.1 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 from which Regional and Forest Aviation Plans tier. The Assistant Director, Aviation will maintain a current National Aviation Safety and Management Plan (FSM 5704.21). The Director, Fire and Aviation approves all national safety and aviation management plans and addendums/changes to these plans (FSM 5704.2).

### *3.3.2 Regional or Station Aviation Management Plans (RAMP)*

Each region 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 annually update 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.

### *3.3.3 Regional and Station Homeland Security Response Plan*

Each Region, NA, and Station must develop a Homeland Security Response Plan that details the security actions that each Region, NA, and Station will implement, based upon the Homeland Security threat level. The Regional, NA, or Station Homeland Security Response Plan must be reviewed by the Fire and Aviation Management staff, HQ Washington Office (FSH 5709.16, Chapter 60, 52.1). The Regional, NA, and Station Homeland Security Response Plans are approved by the Regional Forester.

### *3.3.4 Regional Aviation Safety Plan*

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

### *3.3.5 Regional 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 and NA Aviation Mishap Response Plan is approved by the Regional Forester/ Director NA.

### *3.3.6 Forest and Station Aviation Management Plans (FAMP/ SAMP)*

Forests and Stations 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 / SAMP is approved by the appropriate Forest Supervisor/ Station Director annually.

### *3.3.7 Facility Homeland Security Response Plan*

Each aviation facility must develop a Facility Homeland Security Response Plan that is specific to that aviation facility and details the security actions the facility will take for each Homeland Security threat level. The Facilities Homeland Security Response Plan is approved by the appropriate Forest Supervisor annually.

Regional Supplement

*Each Forest shall have a forest level Aviation Security and Response Plan for each permanent aviation facility. Aviation Security and Response Plans shall be updated and submitted for review by the RAO and RASM, and signed by the Forest Supervisor. Aviation facility Self Assessments are required at a minimum once every five (5) years and submitted to the Regional Aviation Officer.*

### *3.3.8 Forest and Station Aviation Mishap Response Plan*

Forest Supervisors, Station Directors, 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).

### *3.3.9 Project Aviation Safety Plans (PASP)*

A PASP is submitted independent of a Forest, NA, or Station Aviation Management Plan. A PASP shall be developed and approved as required in the FSM 5711.04 and FSM 5711.1 for all non-emergency aviation projects.

### *3.3.10 Aviation Operations Plans*

Operations Plans shall be developed and updated annually by the program managers. Specific Operations Plans will be developed for National Programs. Regions may supplement national operations plans as necessary. Aviation facility plans will be developed for national, regional, and forest aviation bases.

National Aviation Operations Plans will be approved by the Assistant Director, Aviation. Regional Aviation Operations Plans will be approved by RAOs. Forest/Unit Aviation Operations Plans will be approved by Forest Fire Management Officers or Fire Staff Officers.

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

*Airbase Operations*

*Helicopter operations (Exclusive Use)*

- Helitack
- Rappel
- Tank/Bucket operations
- External Loads
- Night Air Operations
- Emergency Medical Short-haul

*Smokejumper operations*

*Airtanker operations*

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

*Scooper operations*

*Aerial Supervision*

*Light Fixed-Wing operations*

*Unmanned Aircraft Systems operations*

*Law Enforcement & Investigation operations*

*Forest Health Protection (FHP)*

*Research*

*Natural Resource management and protection*

These plans at a minimum should include:

- Authority
- Aircraft
- Aircraft Quantity
- Funding
- Contracts
- Sustainment
- Mission Requirements
- Facilities
- SMS
- Staffing

Operations Plans shall be approved by the appropriate line officer (FSM 5711.04).

Regional Supplement
*Airbase Operations:*
*JEFFCO Tanker Base Operations Plan*
*Durango Tanker Base Operations Plan*
*Rapid City Tanker Base Operations Plan*
*Colorado Springs Tanker Base Operations Plan*
*Pueblo Tanker Reload Base Operations Plan*
*Northern Colorado Helitack*
*Monument Helicopter Operations Plan*
*Rifle Helicopter Operations Plan*
*Durango Helicopter Operations Plan Northern Colorado Helicopter Operations Plan*
*JEFFCO Helicopter Operations Plan*
*Custer Helicopter Operations Plan*

### Forest Supplement

The Forest participates as an interagency partner through agreements with the BLM High Desert District and Yellowstone National Park type 3 exclusive use helicopters and modules. The Forest Service contributes funding to both agencies in exchange for initial response to fires on the Shoshone NF. Services provided by both Agencies to the Shoshone are outlined in an operating plan. The BLM and NPS are responsible for oversight of the aircraft, personnel and bases. The performance of the aircraft and crew are monitored by Shoshone NF fire managers when operating on the Forest and evaluated annually.

## 3.4 Aircrew Orientation Briefings

All Forests and Units shall create an Aircrew/Pilot Orientation Briefing Package. The Aircrew/Pilot Orientation Briefing Package serves as a source of information to provide pilots, aircrews, and Incident Management Teams. Elements of the briefing package should include:

- Leader's intent
- Local frequencies and their use (to include map if available)
- Contacts, name title, phone (may include vendor information)
- Local sunrise/sunset charts
- Local airport information (to include a map)
- Local lodging information
- Local water sources/dip sites (name, latitude and longitude, ownership, hazards, elevation, contact information)
- Helispots (name, latitude and longitude, map or aerial photo)
- Map depicting MTRs and Special Use Airspace
- IA size-up card
- Local medical evacuation information (including nearest burn and trauma centers)
- Local Search and Rescue authority, procedures, and contacts
- Flight Hazards Map (map and description)
- Airport crash rescue procedures
- Map and description of jettison areas
- Local flight following procedures (AFF and/or radio contact)
- Aviation Operations Plan
- Special considerations
- Local or Mission Specific Flight Risk Assessment Tool (FRAT)

### Regional Supplement

*No supplement.*

### Forest Supplement

An aircrew orientation briefing package is prepared by the Cody Interagency Dispatch center.

## 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 Federal Aviation Regulations (14 CFR).

Temporary aviation operations on Forest Service lands may be 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 Project Aviation Safety Plans. When identified by resource managers, FAOs should implement any invasive species control measures for aviation activities. FAOs also coordinate reporting of any fire chemical aerial application in or near waterways.

### Regional Supplement

*In addition, the Region has management documentation for MAFFS training; Forest Letters of Authorization to practice drops on specific forest lands. Also, prior to utilizing any water source for fire application or projects, ensure Forest Staff have been contacted to determine if aquatic invasive species occupy the water source and what process is in place (sterilizing buckets, etc…) to prevent spreading the species to other water sources (See 5.14).*

### Forest Supplement

The Shoshone NF Forest Land and Resource Management Plan and associated Fire Management Electronic Reference file provide guidance for compliance with resource related land use policies. Within fire management activities, permission is obtained from private landowners or other land management agencies for use of water sources off the Forest.

## 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. The budget request is then vetted separately through the U.S. Department of Agriculture and Office of Management and Budget (OMB). Finally, it is then 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.

WO Branch Chief's shall develop OTT program/project budget proposals in early 2nd Quarter for submission to the BC, Aviation Business Operations upon request.

Aviation programs and aviation contracts funded by the Washington Office shall be approved for commitment and obligation (FS 6500-224) ONLY by the Assistant Director, Planning and Budget. Aviation programs and aviation contracts that require requests for contract action (FS 6300-4) shall be approved by one of WO FAM Deputy Directors.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 3.7 Contracting

Reference the FS Aviation Contracting Desk Reference for contracting process and procedures.

Aircraft are acquired through different types of contracts, Exclusive-Use (Ex-Use), Call-When-Needed (CWN), Indefinite Delivery/Indefinite Quantities (IDIQ), or End Product.

Exclusive-use contracts are generally used when the agency has a definite aircraft need for a specific period of time. Exclusive-use aircraft are guaranteed a minimum amount of use through a Mandatory Available Period (MAP). Daily availability is usually less expensive with exclusive-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 exclusive-use crew has, and that daily availability rates are generally higher since the vendor has no guaranteed work.

IDIQ and End Product contracts are often used for projects such as aerial application of pesticides or other types of work where: 1) the precise limits of the treatment area or quantity of material is uncertain or the contract may span multiple years (IDIQ) or 2) only the desired outcome is specified and/or specific area of treatment is known (End Product). Refer to Section 3.10 for End Product Contracts.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 3.8 Aircraft Contract Start/Modification/Extension

Aircraft contract start dates and MAP lengths are a coordinated decision between the National Office and Regions based on current funding available.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 3.9 Contractor Performance

All CWN and exclusive-use contractor performance will be documented in accordance with FSH 6309.11. Contract Officer Representatives (CORs) are required to complete contractor evaluations annually using the Contractor Performance Assessment Reporting System (CPARS). It should be noted that SAFECOMs are non-punitive and are not used to document contractor performance or determine contract awards.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 3.10 End Product Contracts

An end-product contract is intended to efficiently and effectively accomplish certain projects with no internal operational controls or specifications from the Forest Service aviation personnel. 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

*No supplement.*

### Forest Supplement

*No supplement.*

## 3.11 Aircraft Acquisition

Aircraft (including UAS) transfer, acquisition, and lease shall be approved by the Washington Office Director, Fire and Aviation Management (FAM).

The Washington Office Aviation Management shall initiate all aircraft transfers, acquisitions, and leases using an Office of Management and Budget, OMB Circular A-11, Business Case (Aviation Business Case).

An Integrated Project Team will be designated to develop Aviation Business Cases.

Aviation Business Cases will be recommended by the Director, FAM and approved by the Deputy Chief, State and Private Forestry.

a. Additional review and approvals may be required by the agency and the Department of Agriculture prior to submission to the OMB.

Aviation Business Cases for all Forest Service aircraft must be formally revalidated every 5 years.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 3.12 Cooperator Aircraft

Cooperative aircraft operations and partnerships are encouraged in order to increase efficiency and enhance procedure standardization. The Regional Offices and the States shall 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 will require prior inspection and approval by Forest Service or OAS, in the form of the approved Cooperator Letter of Approval template. Proposed use of these aircraft should be requested through the FAO to the RAO. Any employee expecting 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 must be developed and approved to address at a minimum:

- 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. National Guard pilots must meet the requirements identified in FSM 5712.34.2.

See Appendix 10.1 for Letter of Cooperator Approval template. See Appendix 10.2 for Cooperator Approval Guide.

### Regional Supplement

*Cooperator approval is issued annually for:*

*National Guard assets (specific to state)*
*Wyoming Department of Transportation*
*Wyoming Department of Forestry*
*South Dakota Department of Forestry*
*Colorado Department of Public Safety*

### Forest Supplement

*No supplement.*

## 3.13 Aircraft Administrative Use and Reporting

Utilize the Forest Service Administrative Use of Aircraft Desk Reference to provide guidance and clarify the administrative use of aircraft.

The USDA Property Management Regulation (PMR) 110-33 supplements Federal Management Regulation 102-33 Management of Government Aircraft. Both documents are agency wide policy for the use of Government aircraft to accomplish official business. In coordination with the Office of Management and Budget Circular A-126, they restrict the operation of government aircraft to defined official purposes: restricting travel on such aircraft, requiring 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 by Dispatch and on file for two years.

Regional Supplement

*No supplement.*

Forest Supplement

*No supplement.*

## 3.14 Dispatching

### *3.14.1 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.

### *3.14.2 Administrative Use Flight Requests*

Reference the Forest Service Administrative Use of Aircraft Desk Reference.

### *3.14.3 Mission Flight Requests*

All flight requests for mission flights shall follow the National Mob Guide, Chapter 20.

### *3.14.4 Non-Incident Related Flight Requests*

Follow local procedures.

Regional Supplement

*No supplement.*

Forest Supplement

Services provided by Cody Interagency Dispatch.

## 3.15 Flight Use Reporting

### *3.15.1 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) (FSM 5717.1). 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) or Aviation Business System (ABS) as applicable.

For Administrative Use flight reporting reference the Forest Service Administrative Use of Aircraft Desk Reference.

### *3.15.2 Office of Aviation Services (OAS) Aviation Information Reporting Support (AIRS)*

All Department of Interior (DOI) contracted aircraft utilize the OAS Aviation Management System (AMS) web based flight reporting system. The AMS application is available at https://www.doi.gov/aviation/aqd/airs.

Regional Supplement

*No supplement.*

Forest Supplement

*No supplement.*

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

RESERVED

Regional Supplement

*No supplement.*

Forest Supplement

*No supplement.*

## 3.17 Working Capital Fund (WCF) (Fleet Aircraft)

All agency-owned and operated WCF aircraft are FAA registered to USDA Forest Service, Boise Idaho. WCF aircraft are hosted by regions, but national use is the primary goal to increase use and lower overall costs.

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 and depreciation as other WCF non-expendable personal property.

The Working Capital Fund Accounting Operations Handbook, FSH 6509.11f, chapter 40 provides detail on the WCF Aircraft Program. The WCF Aircraft User Guide provides greater detail on how to accomplish day-to-day financial management, operations, and tasks. Additionally, for more information regarding WCF fleet aircraft, refer to FSM 5713.1.

Regional Supplement

*No Supplement.*

### Forest Supplement

*No supplement.*

## 3.18 Federal Excess Personal Property (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 Aircraft, refer to Chapter 40 of FSH 3109.12 and Chapter 40 of the FEPP Desk Guide.

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 Department of Defense (DOD).
- Review State security risk assessments and mitigation plans.
- Review all acquisition documents prior to transfer of aircraft.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 3.19 Program Reviews

Program reviews will be conducted jointly by Regions and the WO for regional and national office programs. FSM 1410 will be used for these reviews.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 3.20 New Project/Program/Issue Requests

A project/program/issue may include the following examples:

- New or changed aviation equipment, e.g., aircraft, parachute system, etc.
- New contractor contract change, e.g., LFS Helicopter, etc.

- New agreement or MOUs.
- New process or changed process, e.g., rappel standardization, pilot standardization, etc.
- Deviation from standards, e.g., LEI exemption, Wire Strike Protection System, etc.
- New or changed policy, e.g., doctrinal policy changes, 100 hr, turbine single engine, etc.
- New or changed procedure, e.g., rappel procedures.

The proposal is submitted to the WO Aviation Division through any of the WO Aviation Branch Chiefs or Assistant Director, Aviation. The proposal should be formatted in the Project/Program/Issue Proposal template (10.4).

The Aviation Division will socialize the proposal within the division and to the RAOs and RASMs for a minimum of 30 days with a due date for discussion.

The proponent may be asked to brief the National Aviation Team (NAT). The NAT will:

- Discuss, ask questions and come to a decision.
- The decision may be to develop or gather more information, bring the proposal back to a later meeting for a Go/No Go decision or make a Go/ No Go decision.
- A No Go decision will end the proposal.
- Notify the proponent of the decision.

The proposal is briefed by NAT staff or the proponent to the Regional Aviation Officer and Regional Aviation Safety Manager Council. The councils will:

- Discuss, ask questions and come to a decision.
- The decision may be to develop or gather more information, bring the proposal back to a later meeting for a Go/No Go decision or make a Go/ No Go decision.
- A No Go decision will end the proposal.
- Notify the proponent of the decision.
- Depending on the scope a project team may be formed by the NAT, RAO and RASMs at this step.

Depending on the scope, the proposal may be briefed to the WO Director, Fire and Aviation Management (FAM) and the Regional Fire Directors (RFD). The Director FAM and RFDs may:

- Discuss, ask questions and come to a decision.
- The decision may be to develop or gather more information, bring the proposal back to a later meeting for a Go/No Go decision or make a Go/ No Go decision.
- A No Go decision will end the proposal.
- Go decision will include the NAT, RAOs, and RASMs forming a Project Team.

- Notify the proponent of the decision.

If a Project Team is formed it may be chartered by the Director FAM depending on the scope of the proposal. The Project Team will include Subject Matter Experts (SMEs) necessary to complete a Project Implementation Plan. SMEs may include:

- Aviation Operations- WO and/or Regional
- Aviation Safety- WO and/or Regional
- Airworthiness- WO and/or Regional
- WO Pilot Standardization
- WO Aviation Business
- FAM Budget
- AQM
- Fire Operations- WO and/or Regional
- Project proponent

A Project Implementation Plan outlining the steps to plan and implement a project may include the following components:

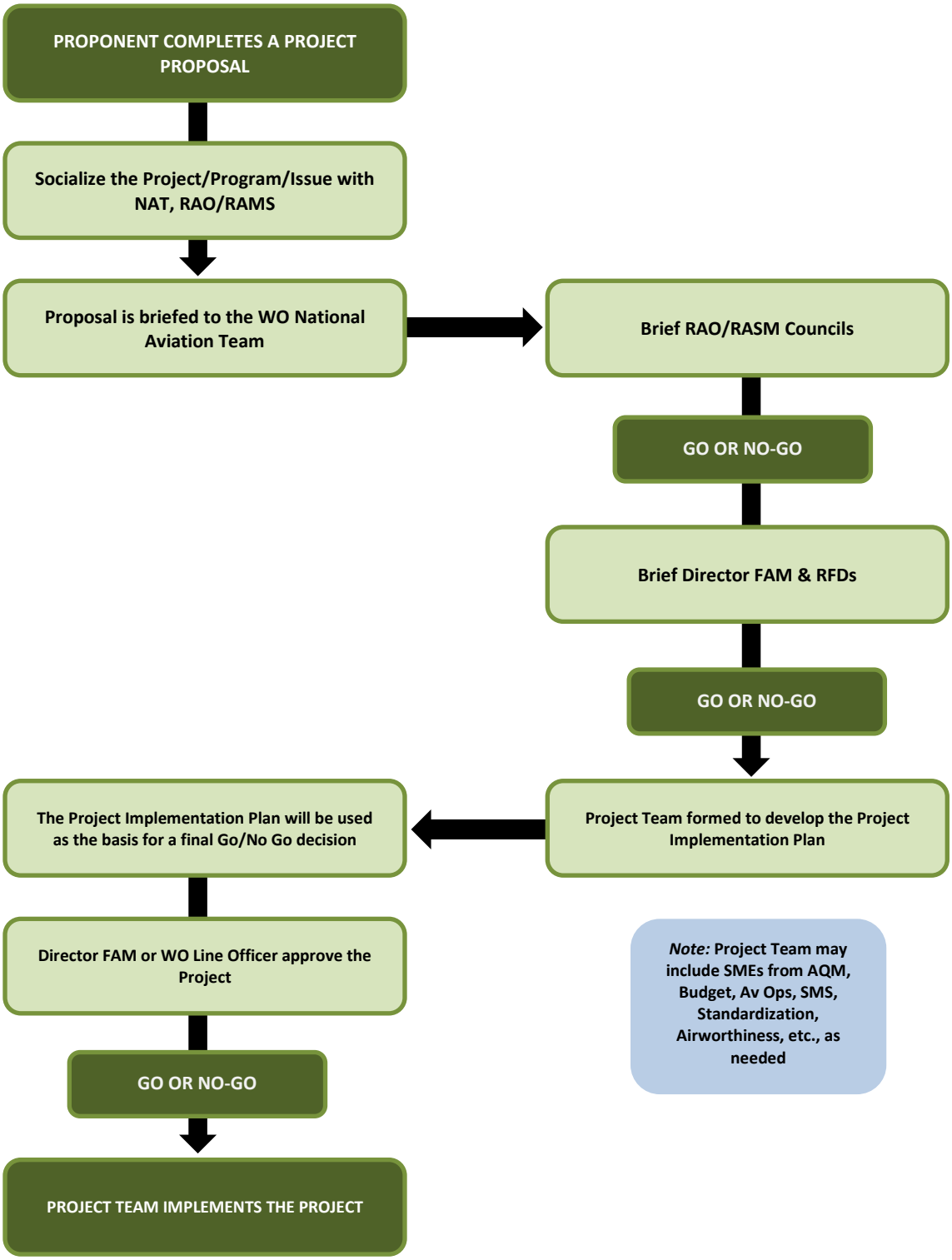
- Business Case- if required
- Requirements Analysis- if required
- Process Change Plan- if required
- Acquisition Plan- if required.
- Communication strategy- if necessary
- Official documentation- required.
- Action Plan- required
- Quality Assurance Plan- required
- Risk Assessment (safety impact analysis, business, and financial) - a safety impact analysis is required for any aviation operations related project.

The Project will require decision approval from the Director, FAM at a minimum. Depending on the scope it may require WO Line Officer approval – Chief or Deputy Chief prior to implementation and operations.

- The decision may be a Go/ No Go decision.
- A No Go decision will end the proposal.

Implement Project as defined by the Project Implementation Plan.

# AVIATION
## Project/Program/Issue Process



# 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 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

*The Regional Aviation Safety Manager (RASM) for R2 promotes SMS throughout the region, to align the existing regional safety approach with the SMS organizational template. Where gaps are identified, every effort will be made to adopt or create a process to fulfill the need.*

### Forest Supplement

*No supplement.*

## 4.2 Aviation Safety Management System (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 well those initiatives function. SMS is divided into four components: Policy, Risk Management, Assurance, and Promotion.

### Regional Supplement

*The RASM has adopted this business model for safety management and will continue to organize the Regional aviation safety culture around the four fundamental categories listed above and addressed in detail in this plan.*

### Forest Supplement

The Forest Aviation Officer promotes the use of SMS by ensuring needed employee training and supervision is completed.

## 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 section 3.3 of this document).
- 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

*No supplement.*

### Forest Supplement

*No 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 undesirable 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 as outlined in the FS Aviation Safety Management System Guide:

1. Define Objectives (i.e., System and task analysis).
2. System Descriptions: Identify each system – component that contributes to the mission. Consider change management in systems.
3. Hazard Identification: Brainstorm all possible failures, threats, and danger points.
4. Risk Analysis: Disassemble the hazard to identify outcomes, impacts of a hazardous event, and degree of exposure to risk. (Ask the question: If this hazard exists, then what happens?)
5. Risk Assessment: Evaluate the combined effects of the potential for injury, damage, fatality, etc. based upon severity and likelihood of an event occurring.
6. Decision Making: Determine mitigations needed, conduct cost/benefit analysis, develop an action plan, and implement controls. (This is risk management).
7. Validation of Control: Monitor controls and supervise operations to determine if controls are effective.

Risk assessment can be divided into three levels:

- *Real Time.* This method of risk management is an “on-the-run” mental or verbal review of the situation using the Operational Risk Management (ORM) process without necessarily recording the information. Many of the skills used in this context are applicable to normal mission where deliberate risk management has occurred and crews must manage risk in a dynamic situation. Note that “time critical” does not mean “hasty” or “uninformed.”
- *Operational.* This ORM 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 method will involve documentation of the process and actions. Examples of the tools in use for ORM are project aviation safety plans (PASP) and job hazard analysis (JHA).
- *Strategic.* Strategic Risk Management (SRM) 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. A system or task description should completely explain the interactions among the software, hardware, environment, and live ware (e.g. SHEL model) that make up the system in sufficient detail to identify hazards and perform risk analysis.

This method should be used in instances where an entire program-wide assessment is deemed necessary; new technology or a change in process is being proposed; or when risks appear consistently high in a specific functional area. The strategic process produces a permanent record of findings and decisions used for long term planning, organizational decision-making and as authoritative training resources.

*Note:* The SRM process shall not preclude employees or contractors from taking interim immediate action to eliminate or mitigate existing safety risk when and where it is recognized that urgent action is required.

### Regional Supplement

*All aviation operations in the Region are analyzed using risk management/assessment principles. The emphasis will be on organizing information required by aviation and line managers to make informed decisions. Information associated with the risk assessment process can be found at: http://www.fs.fed.us/fire/av_safety/index.html*

### Forest Supplement

*No supplement.*

## 4.5 Assurance

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

- Provide aviation safety oversight and review through active field presence and encourage a reporting culture between management and aviation.
- Monitor established standards and procedures and make corrections as needed.
- Monitor accident and incident trends, and implement appropriate prevention action.
- Report accidents and incidents with potential in accordance with the local emergency response plan.
- Conduct accident and incident investigations.
- Provide guidance, coordination, and monitoring of safety evaluations conducted by the Regional aviation staff and Forest/Unit Aviation Officers.
- Provide assistance in aviation activities to ensure best practices and procedures are understood.
- Promote and provide corrective action on SAFECOM reports, develop trend analysis and communicate lessons learned.
- Review aviation accident and incident reports and follow-up on action items.

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.

All effort should be made to focus corrective action as specifically as possible.

### *4.5.1 Aviation Safety and Technical Assistance Team (ASTAT)*

During increased levels of wildland fire activity, an Aviation Safety and Technical Assistance Team assures safety by providing (1) on-the-spot safety and technical assistance to aviation operations and (2) a conduit through which the field can communicate to Fire and Aviation Management. When conducting reviews, an ASTAT team should follow direction as stated in:

- Forest Service Aviation Safety Management System Guide
- FSM 1410
- Interagency Standards for Fire and Fire Aviation

### *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 reports 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 such action is warranted.

### *4.5.3 Aircraft Accident Investigation Process*

The National Transportation Safety Board (NTSB) is responsible for investigating all Forest Service aviation accidents. Concurrently, and as a party-to-the-investigation, the Forest Service Aviation Investigation Team utilizes the Aircraft Mishap Investigation Guide in order to conduct an additional safety investigation review of Forest Service management and policy issues. The aviation investigation team completes an Aviation Mishap Investigation Report for the Branch Chief, Aviation Safety Management System. This report is briefed and vetted through aviation subject matter experts, and aviation safety improvement recommendations are developed. These recommendations can then be shared with a Learning Team for the purpose of generating a comprehensive report for the Learning Review Board (LRB). The Critical Response Protocol Guide provides Learning Team protocols and direction for the LRB.

Regional Supplement

*The region maintains a Qualified Technical Investigator (QTI) program utilizing a task book concept to assure that QTI Trainees are equipped with the skills necessary to be an effective team member when mobilized. Lists of these individuals are maintained at the Regional Office.*

### *4.5.4 Forest Service Strategic Risk Assessment Close-Out Process*

Once the Strategic Risk Assessment has been completed, and the Assistant Director, Aviation and Assistant Director, Risk Management will deliver the final product to the Director, Fire and Aviation Management. The Director will provide direction for the risk assessment report to be reviewed. The Strategic Risk Assessment Close-out Working Group (SRACOW) will establish a Subject Matter Expert (SME) group of no more than five SMEs. The SME group will be given direction, parameters and timelines to review the report; identify mitigations that are one time effort and those that are on-going; assess individual mitigation's effectiveness and implementation cost and to develop a Quality Assurance (QA) checklist for long-range monitoring. The SME group will provide the SRACOW with these products in the established timelines. The SRACOW will review and either accepts the SME products or a back and forth coordination will begin to develop acceptable products. Once the SRACOW agrees on an acceptable QA checklist, the SRACOW will provide the Assistant Director, Aviation and Assistant Director, Risk Management with documentation on the completion of the project. The Assistant Directors will deliver the final product to the Director of Fire and Aviation for Deputy Chief, State and Private Forestry signature. Strategic Risk Assessments should be closed out and formally completed no later than one year from the date of tasking to the SRACOW. A bulleted representation of the process is below:

- Aviation Strategic Risk Assessment completed and assigned to the SRACOW with the expectation of being formally closed out within one year. (Director FAM)
- Develop SME Group and provide clear direction of assigned tasks. (SRACOW)
    - Identify on-going and one time mitigations and assess their viability. (SME)
    - Develop QA Checklist. (SME)
    - Provide products back to SRACOW. (SME)
- Review, validate and either accept or return SME products. (SRACOW)
    - Pass Back Process if needed.
- Once acceptable products are developed, formally complete and close out the risk assessment through documentation to the Assistant Director, Aviation and the Assistant Director, Risk Management. (SRACOW)

### *4.5.5 Project Aviation Safety Planning (PASP)*

Accident prevention is paramount when planning individual aviation operations. PASPs are not required for incident aviation operations or point to point / administrative use flights.

Prior to commencing non-emergency aircraft operations, or aircraft operations outside the scope of an approved training program, the Regional Directors, Area Director, Forest Supervisors, and Station Directors shall develop and document a Project Aviation Plan including a PASP that will be reviewed by the RAO (FSM 5704.31). It is strongly recommended that an aviation safety manager be included in the review process. An appropriate line officer shall approve all Aviation Plans per direction in FSM 5704.21.

### Regional Supplement

*PASP are critical to understanding project objectives, formalizing and mitigating risks, the acceptance there of, and documenting personnel associated with the management of the effort.*

*Attached are three PASP templates which are now the USFS R2 standard associated with:*

1. *Helitorch operations*
2. *Plastic Sphere Dispensing*
3. *All other non-emergency aviation operations*

*PASP templates can be found at: https://gacc.nifc.gov/rmcc/aviation.php*

*At a minimum, any Project Aviation Safety Plan must include the following 14 elements as stipulated in FSM 5711.1:*

1. *Supervision*
2. *Project Name and Objectives*
3. *Justification*
4. *Project Date(s)*
5. *Location*
6. *Projected Cost of Aviation Resources*
7. *Aircraft*
8. *Pilot(s)*
9. *Participants*
10. *Flight Following and Emergency Search and Rescue*
11. *Aerial Hazard Analysis*
12. *Protective Clothing/Equipment*
13. *Load Calculations and Weight-and-Balance*
14. *Risk/Hazard Assessment*

### Forest Supplement

The Forest prepares and the Regional Office reviews all PASPs prior to approval. A recurring mission that will be flown on a frequent or regular basis throughout the year requires only one blanket PASP, unless there is a significant change in the flight profile (such as switching from fixed wing to rotor-wing) or a change in the area or manner in which a project is flown. A recurring mission requires a new manifest and flight schedule to be documented and provided to Dispatch each time a flight occurs under a blanket PASP (9400-1a). Each PASP will be reviewed and signed by the Project Manager, Flight Manager, Forest Aviation Officer, and the Regional Aviation Officer (RAO). A line officer (i.e. Forest Supervisor) is the approver of the PASP.

## 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 is a reporting culture that captures employee operational knowledge and experience. 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 with the Forest Service organization. National awards are given following the guidelines in FSM 5724 for pilots and employees.

#### Regional Supplement

*No supplement.*

#### Forest Supplement

*No 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 by 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 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

*No supplement.*

### Forest Supplement

*No supplement.*

## 5.2 Manuals, Handbooks, and Guides

### *5.2.1 Manuals*

**Aeronautical Information Manual (AIM):** Issued by the Federal Aviation Administration; copies are available from the Government Printing Office and commercial sources. Also available at: https://www.faa.gov/air_traffic/publications/

**Rotorcraft Flight Manual (RFM):** The original equipment manufacturer's manual is available in each aircraft operated by the agency.

**Airplane Flight Manual (AFM):** The original equipment manufacturer's manual is available in each aircraft operated by the agency.

**Federal Aviation Administration Commercial Pilot Practical Testing Standards (PTS):** Rotorcraft or Airplane as appropriate. Available at: https://www.faa.gov/training_testing/testing/test_standards/

**FSM 5700 Aviation Management:** Available at: http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsm?5700

### *5.2.2 Handbooks*

**FSH 5309.11 – Law Enforcement Handbook, Chapter 50 – Actions and Procedures**: Available at: https://fs.usda.gov/FSI_Directives/5309.11_50.doc.

**FSH 5709.16 Aviation Management and Operations Handbook:** Available at: http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?5709.16

**FSH 6709.11 Health and Safety Code Handbook:** Available at: http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?6709.11.

**Military Use Handbook:** Available at: http://www.nifc.gov/nicc/predictive/intelligence/military/Military_Use_Handbook_2006_2.pdf.

**Pilot's Operating Handbook (POH):** Also known as the FAA Approved Airplane Flight Manual; available in each aircraft operated by the agency.

### *5.2.3 Forest Service Guides*

The most recent Forest Service approved version of the following guides supersedes all previous versions. Forest Service National Guides shall be approved in writing by the Deputy Chief, State & Private Forestry.

**Aviation Mishap Investigation Guide:** http://www.fs.fed.us/t-d/pubs/pdfpubs/pdf05672806/pdf05672806dpi72pt01.pdf.

**Aircraft Inspector Guide:** Available from the Washington Office Detached Unit, Boise agency aviation staff. Available at: http://www.fs.fed.us/fire/aviation/av_library/AIG_2008.pdf

**Air Card Guide**

**Aviation Safety Management System Guide:** http://www.fs.fed.us/fire/av_safety/

**Federal Excess Personal Property (FEPP) Desk Reference Guide:** http://www.fs.fed.us/fire/partners/fepp/desk_guide/chap40.html

**Fire and Aviation Qualifications Guide:** http://www.fs.fed.us/fire/publications/fsfaqg/fsfaqg.pdf.

**Helicopter Flight Evaluation Guide (HFEG):** Available from the Washington Office Detached Unit, Boise agency aviation staff.

**National Law Enforcement and Investigations (LEI) Short-Haul and Hoist (S-H/H) Guide**

**National Rappel Operations Guide:** http://www.fs.fed.us/fire/aviation/av_library/NROG/USFS%20NROG%202013.pdf

**Professional Helicopter Pilot Guide:** http://www.fs.fed.us/fire/aviation/av_library/professional_helic_pilot_guide.pdf

**Security Standard Requirements Guide:** Available from aviation management staff, Washington Office, 1400 Independence Avenue SW, Washington, DC 20250.

**Special Mission Airworthiness Assurance Guide:** http://www.fs.fed.us/fire/aviation/av_library/FS%20Special%20Mission%20Airworthiness%20Assurance%20Guide_Revision1_12_7_2011.pdf.

**WCF Aircraft User Guide:** http://www.fs.fed.us/fire/aviation/av_library/Final_WCF_User_Guide_June_2010.pdff

**Forest Service National Rappel Operations Guide:**
http://www.fs.fed.us/fire/aviation/av_library/NROG/USFS%20NROG%202013.pdf

**Operations and Safety Procedures Guide for Helicopter Pilots:**
http://www.nifc.gov/aviation/av_documents/av_helicopters/SafetyBrief.pdf

### *5.2.4 Forest Service Aviation Operations Plans*

The most recent Forest Service approved version of the following operational plans supersedes all previous versions.

- **Emergency Medical Short-Haul Operations Plan**
- **Modular Airborne Firefighting System (MAFFS) Operating Plan**
- **Night Air Operations Plan**
- **Water Scooper Aircraft Operating Plan**
- **Airtanker Operations Plan**
- **Aircraft Coordination Operations Plan**
- **National Rappel Operations Guide**
- **Unmanned Aircraft Systems Operations Plan**

### *5.2.5 Interagency Aviation Operational Guides*

The most recent Forest Service approved version of the following guides supersedes all previous versions. Interagency Guides utilized by the Forest Service shall be approved in writing by the Deputy Chief, State & Private Forestry.

**Cooperator Aircraft and Pilot Approval Guide for Interagency Fire:**
http://www.fs.fed.us/fire/aviation/av_library/COOP%20NASF%20Standards.pdf

**Interagency Aerial Ignition Guide (IAIG):**
http://www.nwcg.gov/sites/default/files/products/PMS501_2015.pdf

**Interagency Aerial Supervision Guide (IASG):**
http://www.nwcg.gov/publications/interagency-aerial-supervision-guide

**Interagency Airplane Pilot Practical Test Standards:**
https://www.doi.gov/sites/doi.gov/files/migrated/aviation/tech/upload/Airplane_Pilot_Practical_Test_Guide_2012.pdf

**Interagency Airspace Coordination Guide (IACG):**
http://www.airspacecoordination.org/guide/asguide_full.pdf

**Interagency Airtanker Base Operations Guide (IABOG):**
http://www.nwcg.gov/publications

**Interagency Aviation Life Support Equipment (ALSE) Handbook:**
https://www.iat.gov/Training/Attachments/Uploads/Interagency%20ALSE%20Handbook%20v2.8.pdf

**Interagency Aviation Mishap Response Guide and Checklist:**
https://www.doi.gov/sites/doi.gov/files/migrated/aviation/safety/upload/IAMRGC_PMS503.pdf

**Interagency Aviation Training Guide (IAT):** Also available at:
https://www.iat.gov/docs/IAT_Guide_2014_0331.pdf

**NWCG Standards for Aviation Transport of Hazardous Materials Guide:**
https://www.nwcg.gov/sites/default/files/publications/pms513.pdf

**Interagency Helicopter Operations Guide (IHOG):**
http://www.nwcg.gov/publications

**Interagency Helicopter Pilot Practical Test Standards:**
http://www.fs.fed.us/fire/aviation/av_library/ihpts.pdf

**Interagency Helicopter Rappel Guide (IHRG):**
http://www.nifc.gov/PUBLICATIONS/ihrg/Interagency_Helicopter_Rappel_Guide_2011.pdf.

**Interagency Single-Engine Airtanker Operations Guide (ISOG):**
http://www.nwcg.gov/publications

**Interagency Smokejumper Operations Guide (ISMOG):**
http://www.fs.fed.us/fire/aviation/av_library/ismog/ismog-fs.pdf

**Interagency Smokejumper Pilots Operations Guide (ISPOG):**
http://www.fs.fed.us/fire/aviation/av_library/ISPOG.pdf

**Interagency Standards for Fire and Aviation Operations (annual revision):**
https://www.nifc.gov/policies/pol_ref_redbook_2015.html

**NASF Cooperators Aviation Standards for Interagency Fire:**
http://www.fs.fed.us/fire/aviation/av_library/COOP%20NASF%20Standards.pdf.

**National Interagency Mobilization Guide (annual revision):**
http://www.nifc.gov/nicc/mobguide/index.html.

### *5.2.6 Other References*

**Administrative Use of Aircraft Desk Reference**

**Regional UAS Desk Guides:**
http://fsweb.wo.fs.fed.us/fire/fam/aviation/uas/uasflights.htm
**Aviation Risk Management Workbook:**
http://www.fs.fed.us/fire/av_safety/risk_management/ARMW%20Individual%20Files/ARM_2011W.pdf

**Foundational Doctrine Fire and Aviation Rotor and Wing January 2006:** http://fsweb.wo.fs.fed.us/fire/fam/aviation/foundational_doctrine_fam_2006.pdf

**Interagency Airtanker Base Directory:** Available from the Washington Office Detached Unit, Boise Great Basin Cache, as National Fire Equipment System (NFES) Order Number 002537.

**National Aviation Safety and Management Plan:** http://www.fs.fed.us/fire/aviation/av_library/

Regional Supplement

*No supplement.*

Forest Supplement

*No 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.

### *5.3.1 Civil Aircraft*

All Forest Service aircraft operations are civil unless specifically declared public. All aircraft other than public aircraft are considered civil aircraft (FAR1.1).

### *5.3.2 Public Aircraft*

The definition for Public Aircraft can be found in the FSM 5705. The Forest Service will comply with all 14 Code of Federal Regulations (14 CFR) Federal Aviation Regulations in the operation and maintenance of public aircraft with the few exceptions outlined in FSM 5714.

Regional Supplement

*No supplement.*

Forest Supplement

*No supplement.*

## 5.4 Employees on Unapproved 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 are not limited to: approved aircraft and pilot (carding or letter of approval), PASP, flight following, PPE, and appropriate management.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 5.5 Aviation Emergency Response

In unusual circumstances, Forest Service personnel may perform a flight in non-approved aircraft with non-approved pilots (FSM 5713.53). The Regional Forester may authorize this flight based on advisement and recommendation from the Regional Aviation Officer and counsel from the Regional Aviation Safety Manager.

A Flight Risk Assessment Tool (FRAT) shall be completed and approved by the appropriate Line Officer prior to the flight(s). The Green-Amber-Red (GAR) Model Risk Assessment is an example of an appropriate flight risk assessment tool to utilize in an aviation emergency response situation.

These flights shall be documented on form FS-5700-14, SAFECOM: Aviation Safety Communiqué.

### Regional Supplement

*No supplement.*

### Forest Supplement

Forest Service employees may be requested to assists the jurisdictional agency (County Sheriff) for Search and Rescue (SAR) operations on National Forest System lands in accordance with Forest Service policy and terms outlined in the Park and Fremont County Search and Rescue MOUs. SAR operations could involve the use of fixed wing or rotor-wing aircraft. Except under emergency situations as described below, Forest employees are authorized only to ride in aircraft that are currently authorized by the Forest Service including the pilot and required crew (or other agency aircraft and personnel approved by the Forest Service).

In emergency situations where it has been determined that there is a threat to someone and immediate action is required, Forest employees may need to ride in unapproved aircraft. Contact the District Ranger/Forest Supervisor for approval before engaging in the operation. See FSM 5713.5 and 5714.53 for additional direction regarding use of unapproved aircraft and emergency situations.

# 5.6 Flight Planning

## *5.6.1 Point-to-Point*

Point-to-Point flights will be tracked by either an FAA – VFR (Visual Flight Rules), IFR (Instrument Flight Rules) Flight Plan, or agency flight plan. Minimally, there must be notification to Dispatch Centers upon departure and arrival.

## *5.6.2 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.

## *5.6.3 Agency Flight Plans*

Agency flight plans for point-to-point flights are documented on a Flight Request/Flight Schedule form. The procedures for accomplishing agency flight tracking are documented in detail in the National Interagency Mobilization Guide.

## *5.6.4 Flight Hazard Maps*

The Aviation Flight Hazard Map Product Description Sheet, located at the following link, describes standard and optional map elements used to build an NWCG-standard local unit Flight Hazard Map: http://www.nwcg.gov/committees/geospatial-subcommittee/resources/documents/aviation-hazards/aviation-flight-hazard-map-product-description-sheet

Regional Supplement

*No supplement.*

Forest Supplement

Local Flight Hazard maps are updated annually. Hazard maps are on file with Cody Interagency Dispatch Center and may be down loaded of the CIDC website.

*Aviation Hazards* https://gacc.nifc.gov/rmcc/dispatch_centers/r2cdc/dispatch/Aviation.htm

# 5.7 Flight Following

## *5.7.1 Mission Flight Following*

All Forest Service flight activities, except those activities conducted under IFR flight plans (14 CFR 91.173) or which are under positive control with air traffic control (ATC), shall be coordinated through an originating dispatch office during its hours of operation in accordance with FSH5709.16 Chapter 33.11.

AFF is the preferred method of agency flight following but shall not preclude the use of radio flight following as an alternate means. Automated Flight Following (AFF) does not reduce or eliminate the requirement for FM radio capability and radio communication.

Reference Chapter 20 of the National Interagency Mobilization Guide for Flight Following Requirements and Procedures.

The method of flight following for Fire incidents is documented on an Aircraft Resource order or in a Dispatch

# 5.7 Flight Following

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All Forest Service flight activities, except those activities conducted under IFR flight plans (14 CFR 91.173) or which are under positive control with air traffic control (ATC), shall be coordinated through an originating dispatch office during its hours of operation in accordance with FSH5709.16 Chapter 33.11.

AFF is the preferred method of agency flight following but shall not preclude the use of radio flight following as an alternate means. Automated Flight Following (AFF) does not reduce or eliminate the requirement for FM radio capability and radio communication. Reference Chapter 20 of the National Interagency Mobilization Guide for 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

*No supplement.*

#### Forest Supplement

Cody Interagency Dispatch provides flight following services.

# 5.8 Radio Frequency Management/Communications

RESERVED

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

*The following link contains Regional specific communications information.*

*http://gacc.nifc.gov/rmcc/administrative/publications.html Contact the Rocky Mountain Regional Coordination Center for access.*

#### Forest Supplement

*No supplement.*

## 5.9 Latitude and Longitude Formats

The aviation standard for communicating latitude and longitude shall be: Degrees Decimal Minutes (also known as Degrees Minutes, Decimal Minutes, or Degrees Minutes Tenths) i.e., 48°36.12'N 114°08.12'W. Ground units must ensure their GPS is set to Degrees Decimal Minutes before providing coordinates to aircraft.

There is also a format specific to the Interagency National Mobilization Guide, for requesting TFRs, which is an exception to the above formats. An example would be 483612N/1140812W (uses no punctuation at all with degrees, minutes and seconds).

Reference the Latitude/Longitude Information for GPS Navigation Information Bulletin FS-10-02 for more information.

## 5.10 Overdue or Missing Aircraft

An aircraft is considered "overdue" when it fails to arrive within 30 minutes after 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

*No supplement.*

### Forest Supplement

Cody Interagency Dispatch annually updates and maintains an Interagency Mishap Response Guide for the dispatch zone.

## 5.11 Mishap Response

Forest Service local units shall establish procedures in an Emergency Response Plan to, FSM5720.48:

- Coordinate and plan the response to aviation accidents and incidents; and should
- Conduct periodic exercises of mishap response plans.

The Emergency Response Plan is specific to each unit and shall be available in all dispatch offices. The Emergency Response Plan must be updated annually at a minimum.

Regional / Program Aviation Safety Manager should be notified immediately of any aviation mishaps or NTSB reportable incident.

### Regional Supplement

*No supplement.*

### Forest Supplement

A Mishap Response Plan has been prepared and is on file with the Cody Interagency Dispatch Center.

## 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.

### *5.12.1 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 CFR Part 2635.802-803)

### *5.12.2 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

*No supplement.*

### Forest Supplement

*No supplement.*

## 5.13 Transportation of Hazardous Materials

Transportation of hazardous materials aboard agency contracted aircraft must meet the requirements set forth in the NWCG Standards for Aviation Transport of Hazardous Materials Guide.

Hazardous materials transported aboard commercial aircraft fall under 49 CFR Part 175. Employee shall check with commercial carrier prior to traveling. Some commercial carriers may not permit hazardous materials.

When hazardous materials are transported on agency aircraft, the most current special permit authorization issued by the Department of Transportation directly to the USDA Forest Service (DOT SP-9198) shall be onboard each aircraft. All aircraft operated under this special permit must be under operational control of the Forest Service for the purposes of a government function listed in the special permit.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 5.14 Invasive Species Control

Aquatic invasive species are easily transported in a variety of ways (e.g., 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 should 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.

In addition, the Equipment Technology Committee under the National Wildfire Coordinating Group established an Invasive Species Subcommittee to focus on developing guidance for use in the interagency fire community.

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:

**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

**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

**Forest Service Invasive Species Program:** http://www.fs.fed.us/invasivespecies/index.shtml; http://www.fs.fed.us/invasivespecies/relatedlinks.shtml

**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:** https://www.fws.gov/Answest/

**Global Invasive Species Database:** http://www.issg.org/database/welcome/

**California Department of Fish and Game Invasive Species:** https://www.wildlife.ca.gov/Conservation/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

*NWCG PMS 444 Guide to preventing Aquatic Invasive Species Transport by Wildland Fire Operations - January 2017 version can be found here:*

*https://www.nwcg.gov/sites/default/files/publications/pms444.pdf*

### Forest Supplement

Additional guidance for the can be found in the Forest Wildland and Prescribed Fire Resource Protection Guide.

## 5.15 Fire Chemicals and Aerial Application Policy for Areas Near Waterways

For operational guidelines on use of fire chemicals, refer to Implementation Guide for Aerial Application of Fire Retardants. For aerial application of pesticides near "waters of the United States", refer to Environmental Protection Agency's National Pesticide Discharge Elimination System (NPDES) http://cfpub.epa.gov/npdes/ and consult your USFS Regional Pesticide Coordinator for NPDES permitting information.

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 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. MSDSs for pesticides or other materials must be available on site for duration of project. One resource for searching MSDSs is http://www.msdsonline.com/msds-search/.

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.

Avoid aerial application of wildland fire chemicals within 300 feet of waterways. Report all retardant misapplications using the report tools located on the USFS Retardant Environment Impact Statement (EIS) website: Aerial Application of Fire Retardant. The following link provides assistance with access to retardant misapplication forms and the reporting process:
http://www.fs.fed.us/fire/retardant/forms/wfcmr_getting_started_guide.pdf

### *5.15.1 Retardant Avoidance Areas*

Aerial retardant drops are not allowed in mapped avoidance areas for certain threatened, endangered, proposed, candidate or sensitive (TEPCS) species or in waterways. This national direction is mandatory and would (sic) be implemented except in cases where human life or public safety is threatened and retardant use within avoidance areas could be

reasonably expected to alleviate that threat (Implementation Guide for Aerial Application of Fire Retardant).

View Forest Service Aerial Fire Retardant Avoidance Maps here: http://ftp.nifc.gov/base_info/retardant_avoidance_areas/Maps/.

### Regional Supplement

*No supplement.*

### Forest Supplement

Retardant avoidance maps are available electronically through the dispatch center and are referenced prior to application of retardant during initial and extended incident responses.

## 5.16 Search and Rescue (SAR)

Refer to the FSM 5713.53 and FSM 1590 regarding search and rescue. Search and rescue operations could lead to actions in conflict with policy. Refer to section 5.5 in this Plan for Aviation Emergency Response.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 5.17 Large Airtanker Operations

Large Airtankers are a national resource and their primary mission is initial attack. Geographic Areas 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 all Airtankers can be referenced in the Interagency Airtanker Base Operations Guide (IATBOG) and the Interagency Aerial Supervision Guide (IASG).

### *5.17.1 Very Large Airtanker (VLAT) Operations*

VLATs require a VLAT qualified lead plane or aerial supervision module for all missions. Not all airtanker bases are capable of supporting VLAT operations due to runway or ramp limitations.

Airtanker bases must evaluate base size, configuration, retardant capacity and other relevant factors before inserting VLATs into the existing pit areas. Consider establishing a satellite base at the airport or an airport in the proximity.

### *5.17.2 Airtanker Bases*

Airtanker bases will be staffed, and procedures and operations will be executed, in accordance with the Interagency Airtanker Base Operations Guide (IATBOG).

#### Regional Supplement

*No supplement.*

#### Forest Supplement

Wyoming SEAT bases are maintained and supervised by the BLM.

## 5.18 SEAT Operations

SEATs primary mission is initial attack. Mobilization is managed by Dispatch Centers with support by the Bureau of Land Management's National SEAT Coordinator and BLM State Aviation Managers. Operational considerations concerning SEATs can be referenced in the Interagency SEAT Operations Guide (ISOG) and the Interagency Aerial Supervision Guide (IASG).

SEAT Manager (SEMG) responsibilities are outlined in the Interagency SEAT Operations Guide (ISOG), and their training and currency requirements are contained in the NIMS Wildland Fire Qualification System Guide (NWCG PMS 310-1).

#### Regional Supplement

*Region 2 is signatory to the Colorado Interagency SEAT Operations Plan (CISOP). This plan is reviewed annually.*

#### Forest Supplement

*No supplement.*

## 5.19 Aerial Supervision Operations

Lead planes (LP) and Aerial Supervision Modules (ASM) are national resources as defined by the National Interagency Mobilization Guide.

Air Tactical Group Supervisor (ATGS) aircraft, LPs, ASMs and Helicopter Coordinators (HLCO) conduct operations in accordance with the Interagency Aerial Supervision Guide (IASG) 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.

Personnel shall be fully qualified as an ATGS to perform air tactical supervision.

Lead planes and ASM will be considered interchangeable in terms of the lead plane mission. An ATGS should be ordered if there is a need for incident air tactical supervision.

Lead plane pilot trainees will be given priority over all ASM flights/ missions.

The Aerial Supervision Program is managed by the WO Aerial Supervision Program Manager.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## *5.19.1 Aerial Supervision Personnel*

The ATGS manages incident airspace and controls incident air traffic. The ATGS is an airborne firefighter who coordinates, assigns, and evaluates the use of aerial resources in support of incident objectives. The ATGS is the link between ground personnel and incident aircraft.

Air tactical aircraft 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 (IASG) and the pilot must be carded to perform the air tactical mission.

Air Tactical Group Supervisors (ATGS) responsibilities and procedures are outlined in the Interagency Aerial Supervision Guide (IASG), and the position qualifications, training and currency requirements are contained in the Forest Service Fire and Aviation Qualifications Guide.

The ATGS works for the Air Operations Branch Director (AOBD) when an AOBD is assigned. If an AOBD in not assigned, the ATGS works for the incident commander or designee.

## *5.19.2 ASM*

An ASM is a two person crew consisting of a lead plane pilot and ATGS- ATS (Air

Tactical Supervisor). The ASM crew is qualified in their respective positions and has received additional training. An ASM can be utilized as a LP or ATGS depending on the needs of incident management personnel.

ASM responsibilities and procedures are outlined in the Interagency Aerial Supervision Guide (IASG). LP pilot responsibilities and procedures are outlined in Forest Service policy (FSM 5714.11 – Exhibit 01, FSH 5709.16 Chapter 20) and the IASG.

Lead plane pilot designations are the responsibility of the WO Branch Chief, Pilot Standardization.

ATGS-ATS designations are the responsibility of the WO Aerial Supervision Program Manager.

ASMs work for the ATGS when an ATGS is assigned. If an ATGS in not assigned, the ASM works for the incident commander or designee.

### *5.19.3 Lead Plane*

Lead planes coordinate, direct, and evaluate airtanker and other incident aircraft operations. The low level capabilities of a lead plane enhance the safety and effectiveness of airtanker operations in the low level turbulent, smoky, and congested fire environment. Lead planes are single pilot aircraft unless a lead plane trainee is assigned.

LP responsibilities and procedures are outlined in Forest Service policy (FSM 5714.11 – Exhibit 01, FSH 5709.16 Chapter 20) and the Interagency Aerial Supervision Guide (IASG).

Lead plane pilot designations are the responsibility of the WO Branch Chief, Pilot Standardization.

Lead planes work for the ATGS when an ATGS is assigned. If an ATGS in not assigned, the LP works for the incident commander or designee.

### *5.19.4 HLCO*

The HLCO coordinates, directs, and evaluates tactical/logistical helicopter operations. The HLCO works for the ATGS. This position is typically activated on complex incidents where several helicopters are assigned. A HLCO can reduce the span of control of the ATGS by managing all the helicopters over an incident.

HLCO responsibilities and procedures are outlined in the Interagency Aerial Supervision Guide (IASG). The position qualifications, training and currency requirements for the HLCO are contained in the Forest Service Fire and Aviation Qualifications Guide.

HLCOs work for the ATGS when an ATGS is assigned. If an ATGS in not assigned, the HLCO works for the incident commander or designee.

## 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 Interagency Helicopter Operations Guide (IHOG), and their training and currency requirements are contained in the Forest Service Fire and Aviation Qualifications Guide.

Regional Supplement

*Minimum staffing requirements; for established, new and proposed helitack programs within the Rocky Mountain Region will maintain IHOG standard 7 day effectiveness during the helicopter Mandatory Availability Period (MAP). The aqua color is the ideal staffing level. This will help with recruitment/retention, allow for additional skill sets to be developed and increase daily staffing levels to provide better crew effectiveness and higher margins of safety.*

*Helitack crew configurations are established to maintain a high level of quality supervision, safety oversight, and allow for career ladder opportunities.*

*The ideal staffing level is recommended, each unit hosting an Exclusive Use Helitack program shall at a minimum meet or exceed the Rocky Mountain standard (Red) until such time that a National standard is determined.*

| **Standard Type 3 Helitack Module** | **Grade/Tour** | **Position Description** | **Count** |
|---|---|---|---|
| Helitack Sup. | GS-462-9 PFT | GS-9-FS1920 | 1 |
| Helitack Assistant Manager | GS-462-8 18/8 PFT | GS-7/8-FS1918/1919 | 1 |
| Helitack Squad Leader | GS-462-7 13/13 18/8 | GS-6/7-FS1986/1987 | 1 - 2 |
| Helitack Senior FFTR** | GS-462-5 13/13 | GS-4/5-FS0199/0200 | 1 - 2 |
| FFTR (temp) | GS-462-3/4/5 | 1039 Seasonal | 4 - 6 |
| Regional Goal is to set a crew size standard of a minimum of 10-12 | | Total: | **8**<br>**10-12** |

| **Type 2 National Helicopter Module** | **Grade/Tour** | **Position Description** | **Count** |
|---|---|---|---|
| Helitack Sup. | GS-462-9 PFT | GS-9-FS1920 | 1 |
| Helitack Assistant Manager | GS-462-8 18/8 PFT | GS-7/8-FS1918/1919 | 1 |
| Helitack Squad Leader | GS-462-7 13/13 18/8 | GS-6/7-FS1986/1987 | 2 - 3 |
| Helitack Senior FFTR** | GS-462-5 13/13 | GS-4/5-FS0199/0200 | 2 - 4 |
| Helitack Apprentice / SNFF | GS-462-3/4/5 13/13 | GS-3/4/5-AR5776/5767/5768 | 2 |
| FFTR (temp) | GS-462-3/4/5 | 1039 Seasonal | 4 |
| Note: Standard set by the W.O. – 15<br>Goal is to meet National Standard | | Total:<br>Total: | **10**<br>**15** |

*** Senior FFTR positions may be permanent or temporary to allow for program flexibility*

| ***Type 1 Helicopter Manager*** | ***Grade/Tour*** | ***Position Description*** | ***Count*** |
|---|---|---|---|
| *Helicopter Manager* | *GS-462-8/9 18/8* | **GS-8/9-FS1783/1784* | ***1*** |
| *Helitack Assistant Manager* | *GS-462-7/8 PFT or 18/8* | **GS-7/8-FS1918/1919* | ***1*** |
| *Goal is to meet national Standard* | | *Total* | ***2*** |

**This is a different PD from the GS-9 Helitack Manager. Use the PD listed above for whoever is managing the Type 1 Helicopter on a permanent basis. This is a non-supervisory PD.*

**Existing Helitack programs that have a Type 1 Helicopter co-located at their base may choose to add an additional Assistant Manager in lieu of a GS 8/9 Helicopter Manager.*

### *5.20.2 Rappel*

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

### *5.20.3 Cargo Letdown*

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

### *5.20.4 Emergency Medical Short-Haul*

Emergency Medical Short-Haul operations support the rapid evacuation of injured personnel. All Emergency Medical Short-Haul operations will be conducted in accordance with the Emergency Medical Short-Haul Operations Plan (EMSHOP).

### *5.20.5 LEI Short-Haul and Hoist*

Short-Haul and Hoist operations are approved for Region 5 Law Enforcement and Investigations at this time. Short-Haul and Hoist operations will be conducted in compliance with the Interagency Helicopter Operations Guide (IHOG) and the Forest Service (FS) National Law Enforcement and Investigations (LEI) Short-Haul and Hoist (S-H/H) Guide.

### *5.20.6 Helicopter Bucket and Tank Operations*

Helicopter Bucket and Tank Operations will be conducted in compliance with the Interagency Helicopter Operations Guide (IHOG).

### *5.20.7 Helicopter External Load Operations*

Helicopter External Load Operations will be conducted in compliance with the Interagency Helicopter Operations Guide (IHOG).

### *5.20.8 Night Helicopter Operations*

Forest Service Night Helicopter Operations are only authorized in Region 5. Night helicopter operations are restricted to fixed tank, ground fill only. Night helicopter operations will be conducted in compliance with the Night Air Operations Plan.

### *5.20.9 Interagency Helicopter Screening and Evaluation Subcommittee*

The Interagency Helicopter Screening and Evaluation Subcommittee (IHSAES) will provide guidance for standardization when evaluating new interagency helicopters and related accessories.

## 5.21 Aerial Ignition Operations

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

#### Regional Supplement

*No supplement.*

#### Forest Supplement

*No supplement.*

## 5.22 Wild Horse & Burro Operations

RESERVED

#### Regional Supplement

*No supplement.*

#### Forest Supplement

*No supplement.*

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

RESERVED

#### Regional Supplement

*No supplement.*

#### Forest Supplement

*No supplement.*

## 5.24 Water Scooper Operations

Water scoopers are a national resource and should be managed and used much like heavy helicopters. Operations will be in compliance with the Water Scooper Evaluation and Operations Plan

## 5.25 Smokejumper Operations

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

### *5.25.1 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.

**Smokejumper Parachute System:** Forest Service parachute operations are currently transitioning to a ram-air parachute system. Forest Service ram-air parachute operations will be performed in accordance with the Ram Air Parachute System Change Management and Implementation Plan (CMIP).

### *5.25.2 Smokejumper Aircraft*

Smokejumper aircraft are evaluated and approved by the Smokejumper Aircraft Screening and Evaluation Subcommittee (SASES). The SASES will provide guidance for standardization when evaluating new smokejumper aircraft and related accessories.

#### Regional Supplement

*No supplement.*

#### Forest Supplement

*No supplement.*

## 5.26 Light Fixed-Wing Operations

Fixed-wing dispatch, ordering, and operations are accomplished in accordance with the local geographic area and National Mobilization guides.

For all non-fire flights, the Interagency Aviation Training 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 FWFM shall be assigned to point-to-point flights and FWFM Special-Use for mission flights.

*Low-level Flight Operations (Less than 500 feet 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.

### *5.26.1 Reconnaissance or Patrol Flights*

The purpose of aerial reconnaissance or detection flights is to gather and relay information. In addition to detecting, mapping, and sizing up fires, this resource may be utilized to provide ground resources with intelligence, and provide recommendations to the appropriate individuals.

Only qualified Aerial Supervisors (ATGS, ASM, HLCO, and Lead) are authorized to coordinate incident airspace operations. 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.

## 5.27 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.

All transport of hazardous materials during LEI operations shall follow the Interagency Aviation Transport of Hazardous Materials Guide.

Regional Supplement

*Law enforcement aviation operations on occasion have special needs. Many are performed in a covert manner necessitating a departure from established standard operating procedures (SOP) detailed in other sections of this plan. Covert missions are being conducted for the purpose of establishing probable cause that a crime is or has been committed. Covert missions shall always be conducted on a need to know basis. On these missions, releasing information to the wrong person/s could jeopardize the safety of the personnel involved. At a minimum, it could result in the loss of evidence and loss of suspects and as such, departures from some SOP’s are tolerated in the interest of the United States Government.*

*On the other hand, some law enforcement missions can be performed overtly, meaning that the mission can be performed as any other Forest Service work related mission.*
*Though there are Agency specific policies, or circumstances as referenced in FSH 5309.11 and the Interagency Helicopter Operations Guide (IHOG) Chapter 16 that may exempt law enforcement from some standard aviation operating procedures, it must be emphasized that an exemption in one area does not automatically exempt law enforcement users from following other standard operating practices and procedures.*
*When planning covert law enforcement aviation missions, the appropriate LE&I Flight Manager, Special Agent in Charge, Assistant Special Agent in Charge or Regional Patrol Commander shall be consulted to ensure compliance with guidelines and procedures as outlined in FSH 5309.11 Chapter 52 and IHOG chapter 16-3.*
*For Overt missions, the same notifications shall be made. In addition, notifications and consultations shall be made to the Forest Aviation Officer (FAO), and or Regional Aviation Officer (RAO).*

***Personnel***

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

***Aircraft***

*The majority of missions that are to be accomplished by Law Enforcement and Investigations will be covert missions. These missions will predominantly use State National Guard through a Letter of Agreement. DHS and DOJ aircraft can be utilized through an approved Letter of Authorization from the Chief's office. Overt aviation missions may be accomplished utilizing agency-owned, contracted, rented, other-government agency, or military aircraft that are carded and/or approved by a Letter of Agreement, Letter of Authorization (2013 Letter of Authorization from Chiefs Office) or a Memorandum of Understanding (MOU) (IHOG chapter 5-3, 16-3) carded and approved by a Letter of Agreement, or a Memorandum of Understanding (MOU) (IHOG chapter 5-3, 16-3)*

***Pilot Qualifications***

*Per FSH 5309.11 Chapter 52.13, all aircraft used to fly Forest Service law enforcement personnel must be flown by pilots who meet agency standards and possess a current form FS-5700-20 (Airplane) or FS-5700-20a (Helicopter), Pilot Qualifications and Approval Record (FSM 5700), or the equivalent interagency card issued by Office of Aircraft Services (OAS), except for aircraft operated by Department of Homeland Security (DHS) and or Department of Justice (DOJ) where Forest Service employees working to fulfill the LEI mission are hereby exempt from the requirements to only use Forest Service approved aircraft and pilots when using aircraft and pilots meeting DHS and DOJ requirements (WO letter, 2013). The Special Agent in Charge or designate will be notified prior to any LEI missions being flown in DHS and or DOJ aircraft. Use of another law enforcement agency, aircraft requires acceptance of that agency's pilot qualifications if operating under a current Letter of Agreement (LOA) or Memorandum of Understanding (MOU). For any pilot and/or aircraft not meeting these guidelines, the supervisory special agent or supervisory law enforcement officer shall request, through the regional aviation officer, to have the pilot*

*and/or aircraft approved. Law enforcement personnel shall make every attempt to give adequate lead time to the regional aviation officer when requesting certification for a pilot and/or aircraft.*

***Uncarded/Unapproved Aircraft and Pilots:*** *Reference FSH 5309.11 Law Enforcement Handbook Chapter 50-Actions and Procedures 52.15 - Emergency Operations*
*In certain emergency and/or covert operations, it may be necessary for personnel to ride in unapproved aircraft and/or with unapproved pilots. These situations usually involve search and rescue or medical evacuation operations being conducted by local authorities using public agency, military, commercial, or private aircraft.*
*Undercover, covert law enforcement situations exist where an agency employee may become engaged in an activity while operating within the normal scope of employment, which precludes utilizing carded and approved aircraft and pilots. For example, a law enforcement officer is put in a situation, while operating undercover, where the officer is required to fly in a suspect's aircraft. Law enforcement personnel are authorized to use unapproved aircraft and pilots during the covert phase of an operation providing such use when, in their judgment, it is necessary. The following policies must govern emergency situations:*
*1. Authorization must be given on a case-by-case basis by the supervisory special agent, supervisory law enforcement officer, or incident commander.*

*2. A written justification statement must be prepared by the supervisory special agent, supervisory law enforcement officer, or incident commander, attached to a form FS-5700-14, SAFECOM; Aviation Safety Communiqué, and submitted to the appropriate aviation manager within 24 hours of the completion of the mission (FSM 5713.5).*

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

***Flight Following***
*Adhere to the flight following check-in procedures (FSH 5709.16, sec. 33) except when conducting covert operations where the need for secure communications is essential. In these situations, utilize the following procedures:*
*1. Grid map reference check-ins. The flight plan must be inserted into a sealed envelope and must be opened by the dispatcher only in the event of an aircraft emergency or failure to check-in with normal specified timeframes. Flight check-inspections are performed utilizing coded grid references rather than geographical location descriptors.*
*2. Flight following through another agency. Flight following may be performed by another agency (for example, Department of Defense, National Guard facility or Sheriff's office).*
*3. Automated Flight Following (AFF). Flight following via an automated reporting satellite system is highly recommended, since no voice communication is necessary.*

### *5.27.1 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.

### *5.27.2 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.

Regional Supplement

*Law enforcement operations routinely use aircraft, usually helicopters. Aviation safety is a primary concern of management and therefore specific specialized training is warranted. The courses below represent the minimum training each USFS Law Enforcement Officer must complete prior to operations utilizing aircraft. Everyone associated with aviation operations should complete A-100.*

*A-100 (Basic Aviation Training) located at: https: A-100 (Basic Aviation Training) located at: https://www.iat.gov/Training/modules/a100/*

*For those LE officers who will be performing duties on the aircraft additional training is required to include:*

*Aircrew Member*
*In addition to A-100, the following is required:*

- *A-110 Aviation Transport of Hazardous Materials (on-line)*
- *A-116 General Awareness Security Training (on-line)*
- *A-200 Mishap Review (on-line)*

*Aircrew Member that may work with long-line operations*
*Meet the aircrew member requirements and additionally attend*

- *A-219 Long line training*

### *5.27.3 Civil Air Patrol (CAP)*

A new Memorandum of Agreement (MOA) is being developed between the USFS and CAP. It will restrict use of CAP to LEI only and limit the make and model of aircraft that can be used. Regions will approve CAP pilots and aircraft based on the MOA. 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 Section 5.5 Aviation Emergency Response.

Regional Supplement
*CAP utilization must be authorized by the Regional Aviation Officer prior to use where USFS personnel are boarding the aircraft with the intention of flight.*

### *5.27.4 Department of Homeland Security (DHS)*

The Chief has issued a letter of Authorization for Law Enforcement and Investigations Employees to Fly on Department of Justice (DOJ) and Department of Homeland Security (DHS) Aircraft (Appendix 10.3) while performing joint law enforcement operations and missions coordinated with DHS agencies.

### *5.27.5 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). 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.

### *5.27.6 Emergency Operations*

The LEI personnel shall follow the FSH 5309.11, Chapter 52.15 – Emergency Operations

Regional Supplement
*Document any policy deviations in the SAFECOM system: www.safecom.gov.*

Forest Supplement

*No supplement.*

## 5.28 Unmanned Aerial Systems (UAS)

National and Regional Fire and Aviation Management recognizes the potential for increased Unmanned Aerial System operations and that establishing a program is critical.

> *UAS operating in the national airspace system are considered by the Federal Aviation Administration (FAA) as aircraft, regardless of size; therefore, UAS executing FS missions are required to adhere to FAA requirements and Forest Service policy. These requirements are similar to manned aircraft in terms of pilot training, currency and certification, airworthiness approval, avionics, and operational restrictions.*

The agency UAS Operations Guide is currently under development and will be widely distributed when finalized. Since this program is new to the FS, Fire and Aviation Management intends to proceed cautiously.

While UAS program-related policy (FSM 5713.7) and integration matures, any planned use (including through agreements, acquisition proposals, or leasing proposals) needs to be coordinated with the appropriate Regional Aviation Officer and with Washington Office, Fire and Aviation Management UAS Program Manager.

Forest Service requests to the FAA for UAS Certificates of Waiver or Authorization (COA) will be coordinated through the Washington Office, Fire and Aviation Management UAS Program Manager. Other agencies that have received a COA from the FAA can be considered Cooperator aircraft (FSM 5710.35). UAS operated by cooperators (including the military) in support of Forest Service missions are subject to the approval requirements in FSM 5713.7 and shall meet additional requirements established in the FSM 5713.43.

### Regional Supplement

*No Supplement.*

### Forest Supplement

*No supplement.*

## 5.29 Forest Health Protection (FHP) Operations

FHP utilizes light fixed and rotor wing aircraft to conduct aerial reconnaissance, aerial photography and aerial application. The purpose of these operations is to gather information regarding forest health conditions and manage pests in accordance with FSM 2100 and FSM 3400.

All FHP aviation operations should be coordinated with the appropriate Regional Aviation Officer. Dispatch, ordering, and operations are accomplished in accordance with the local geographic area and National Mobilization Guide and the Interagency Helicopter Operations Guide (IHOG).

For all non-fire flights, the Interagency Aviation Training Guide provides minimum training standards for fixed-wing flight managers (FWFM) in charge of point-to-point and FWFM Special-Use mission flights. Additional training required by FHP and the FWFM Special-Use Aerial Survey Observer Task Book are available at www.fs.fed.us/foresthealth/aviation/training.shtml. All aerial reconnaissance and photography mission flights shall utilize a qualified FWFM Special-Use for fixed wing and

qualified Helicopter Manager for rotor wing. Agency personnel are not permitted on board restricted category aerial application aircraft and full PPE is required for aerial application pilots operating low level.

## 5.30 Aerial Firefighting Use and Effectiveness (AFUE) Study Aviation Operations

The Aerial Firefighting Use and Effectiveness (AFUE) Study was initiated in 2012 in order to develop and implement performance metrics to analyze aircraft utilized for aerial suppression. The Study is supported by the Fire Executive Council, Fire Management Board, and the National Association of State Foresters.

The mission of the AFUE Study aircraft is to capture firefighting aircraft drops using an on onboard sensor so that the drops' effectiveness in meeting tactical and strategic objectives can be evaluated.

The Study's aircraft does not execute the ATGS mission, is not resourced through ROSS, and its operations are not funded by specific fires or local units. AFUE Study ground and aviation resources preposition based on Predictive Services' National 7-Day Significant Fire Potential outlooks and current and expected fire activity. The Study then self-dispatches to wildfire incidents based on a combination of its dynamic data collection priorities and aviation resources ordered to specific wildfires.

Data collected from this Study and from other sources will eventually be utilized to inform decisions that determine the composition of the federal interagency aircraft fleet that supports the management of wildland fire.

### *5.30.1 AFUE Study Aircraft Incident Airspace De-confliction*

The Study's pressurized airplane executes a passive data collection mission orbiting over the fire at 10,000ft above ground level (AGL). On occasion, the aircraft may descend to an altitude *no lower than* 8,500ft AGL in order to acquire smaller aerial suppression aircraft. The aircraft does not check in, nor normally communicate, with aerial supervisors; however, if communication is required, its call sign is "AFUE Aircraft" (tail number TBA).

# 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 PMS 310-1 and Forest Service Fire and Aviation Qualifications Guide directs 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 Forest Service Fire and Aviation Qualifications Guide / National Wildland Coordinating Group PMS 310-1 or other interagency guidance as appropriate (Interagency Aerial Supervision Guide (IASG), etc.).

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

*No supplement.*

### Forest Supplement

*No supplement.*

## 6.2 Responsibility

The Washington Office, Branch Chief, Aviation Safety Management 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

*No supplement.*

### Forest Supplement

*No supplement.*

## 6.3 Instructor Standards

Aviation trainers provide specialized training in many aviation job skills, e.g., helitack, aerial attack, SEAT management, air tanker base management, 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.

Personnel serving in NWCG instructor positions need to meet the qualification and currency requirements in Forest Service Fire and Aviation Qualifications Guide and the PMS 901-1 Field Manager's Course Guide.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 6.4 Records Management

All employee training records shall meet the requirements stated in the Forest Service Fire and Aviation Qualifications Guide 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

*No supplement.*

### Forest Supplement

*No 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. Supervisors are to provide adequate levels of funding for the tuition and travel to attend training that will maintain aviation personnel currency and advance their skills.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 6.6 Development

The Forest Service encourages development of interested personnel who desire to pursue an aviation career path. Developmental positions (e.g., Regional Aviation Management Specialists) and all positions that have aviation operations responsibility are encouraged to attend Aviation Safety Management Systems related training.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 6.7 IAT/NWCG Crosswalk

| **NWCG/Forest Service Fire and Aviation Qualifications Guide** | **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 / Forest Service Fire and Aviation Qualifications Guide Qualifications column will crosswalk into the non-fire IAT Resource Qualifications.

If individuals do not meet the NWCG / Forest Service Fire and Aviation Qualifications Guide 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

*No supplement.*

### Forest Supplement

*No supplement.*

## 6.8 Aviation Contracting Officer Representative (COR) Requirements

Aviation COR's must meet initial training and maintenance requirements as stipulated in Agency Acquisition Regulations (AGAR).

### Regional Supplement

*To become certified as an Aviation COR (level III) you must complete 60 hours of formal (classroom) COR training. To maintain COR qualifications you must complete 40 hours of training every other year. This training can be classroom, online, or a combination of both.*

*Below is a link to COR training information and some approved on-line COR training to help you maintain your qualifications.*
http://fsweb.wo.fs.fed.us/aqm/pros/cor.php#req

### Forest Supplement

*No supplement.*

## 6.9 Crew Resource Management (CRM) Training

Refer to the National Incident Management System Wildland Fire Qualification System Guide, PMS 310-1, and Forest Service Fire & Aviation Qualification Guide (FSFAQG) in order to determine which aircrew positions require N9059-Crew Resource Management 7 Skills training.

# 7.0 Airspace Coordination

## 7.1 Interagency Airspace Coordination

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

### Regional Supplement

*Refer to the Rocky Mountain Area Interagency Mobilization Guide, Chapter 50.*

### Forest Supplement

*No 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-hazard incidents. The structure emphasizes established communications, clearances and compliances. The FTA process will be used by all tactical aircraft. The local dispatch center will be the initial point of contact for aviation resources approaching and departing the FTA when no aerial supervision is in place. If aerial supervision is not on scene, the first responding aircraft must establish / control the FTA until aerial supervision arrives, as specified in the Interagency Aerial Supervision Guide (IASG).

### Regional Supplement

*No supplement.*

### Forest Supplement

*No 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

*Refer to the Rocky Mountain Area Interagency Mobilization Guide, Chapter 50.*

### Forest Supplement

*No 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

*Placeholder.*

### Forest Supplement

Refer to the Cody Interagency Dispatch Zone Mobilization Guide.

## 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.

Regional Supplement

*Refer to the Rocky Mountain Area Interagency Mobilization Guide, Chapter 50.*

### *7.5.1 International Airspace Boundary – Mexico*

Aircraft entering Mexican airspace must follow established protocols and communicate mission details to the appropriate Interagency Dispatch Center. Aircraft must not enter Mexican airspace without consent from the coordinating authorities and concurrence from the identified aerial supervision. Permission must be received from National Forestry Commission of Mexico (CONAFOR) prior to entering Mexican airspace.

### *7.5.2 International Airspace Boundary – Canada*

Aviation operations across the U.S.A./Canada border must be conducted in accordance with The Canada/United States Reciprocal Forest Fire Fighting Arrangement (NMG chapter 40) or the normal US Customs and Border Protection procedures. Flights must follow protocol established by the respective coordinating authorities and involve the appropriate Dispatch Center. Such flights usually require prior notification, special tracking procedures and an understanding of the mutually agreed upon operating parameters.

Regional Supplement

*No supplement.*

Forest Supplement

*No supplement.*

## 7.6 Airspace De-confliction

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

*Refer to the Rocky Mountain Area Interagency Mobilization Guide, Chapter 50.*

### Forest Supplement

Refer to the Cody Interagency Dispatch Zone Mobilization Guide. De-confliction has been necessary with Ellsworth Air Force Base (605) 385-1230, for Military Training Route (#IR473) that crosses the southwest corner of the Forest.

## 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

*Refer to the Rocky Mountain Area Interagency Mobilization Guide, Chapter 50.*

### Forest Supplement

*No 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 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

*Refer to the Rocky Mountain Area Interagency Mobilization Guide, Chapter 50.*

### Forest Supplement

*No 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 measures that respond to alerts of the Homeland Security National Terrorism Advisory System (NTAS)
- Quick response emergency procedures

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 8.2 FS Facilities Security Risk Assessments

Each Forest Service aviation facility must complete a risk assessment on a timeline based on its Facility Security Level (FSL) to determine the security standard. The FSL can be determined using the document Facility Security Level Determinations for Federal Facilities, An Interagency Security Committee 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 FSH 5709.16 Chapter 60 for the FS Risk Assessment.

### Regional Supplement

*No supplement.*

### Forest Supplement

*Placeholder.*

## 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 an alert of the Homeland Security National Terrorism Advisory System.

It is FS policy to immediately adjust the level of aviation security any time an NTAS Alert is issued for the facility.

### Regional Supplement

*No supplement.*

### Forest Supplement

*No supplement.*

## 8.4 General Aviation Security Awareness Programs

RESERVED

### Regional Supplement

*No Supplement.*

### Forest Supplement

*No supplement.*

## 8.5 Aircraft Security Information (Cooperators)

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

### Regional Supplement

*Placeholder.*

### Forest Supplement

*No supplement.*

## 8.6 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

*Placeholder.*

### Forest Supplement

*No 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. Facility base reviews shall be conducted in accordance with Appendix E of the Interagency Helicopter Operations Guide (IHOG); Chapter 5 Section B of the Interagency Airtanker Base Operations Guide (IATBOG); and Chapter 8 of the Interagency Standards for Fire and Fire Aviation Operations.

### Regional Supplement

*Placeholder.*

### Forest Supplement

*No 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

*Placeholder.*

### Forest Supplement

*No 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).

### Regional Supplement

*Placeholder.*

### Forest Supplement

*No 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

*Placeholder.*

### Forest Supplement

*No supplement.*

## 9.6 Agency Owned/Operated Airstrips

RESERVED

### Regional Supplement

*Placeholder.*

### Forest Supplement

*No 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

*Placeholder.*

### Forest Supplement

*No supplement.*

## 9.8 Funding

RESERVED

### Regional Supplement

*Placeholder.*

### Forest Supplement

*No 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 Chapter 20 of the Interagency Incident Business Management Handbook.

### Regional Supplement

*Placeholder.*

### Forest Supplement

*No 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 of this document and FSM 5709.16 Chapter 60 (Aviation Security) for additional facilities security.

### Regional Supplement

*Placeholder.*

### Forest Supplement

*No supplement.*

# 10.0 Appendix

## 10.1 Sample Letter of Cooperator Approval

RESERVED

## 10.2 Cooperator Approval Guide

RESERVED

# 10.3 Authorization for Law Enforcement and Investigations Employees to Fly on Department of Justice (DOJ) and Department of Homeland Security (DHS) Aircraft

**Forest Service** | **Washington Office** | **1400 Independence Avenue, SW Washington, DC 20250**

**File Code:** 5300/5700 **Date:** May 20, 2013
**Route To:**

**Subject:** Authorization for Law Enforcement and Investigations Employees to Fly on Department of Justice (DOJ) and Department of Homeland Security (DHS) Aircraft

**To:** Director, Law Enforcement and Investigations

This letter will permit Forest Service (FS) Law Enforcement & Investigations (LEI) employees on official duty to fly aboard Department of Justice (DOJ) and Department of Homeland Security (DHS) owned and operated aircraft while performing joint law enforcement operations and coordinating missions with the respective agencies.

Agreements with DOJ and DHS regarding joint law enforcement aviation operations should be used to provide overall operational requirements and procedures for all agencies.

This letter specific to DOJ and DHS owned and operated aircraft used by FS LEI employees on official duty will meet the intent of FS Manual (FSM) 5704.9 which requires that all FS employees "shall fly only in approved government (refer to Government Aircraft definition in FSM 5705) aircraft flown by an approved pilot(s)."

The FS law enforcement program has unique mission requirements and a need for close interagency coordination and cooperation with the DOJ and DHS.

Field-level LEI employees are required to notify the Regional Special Agent-in-Charge and Washington Office employees the Director of LEI, when using this approval.

The Director of LEI is responsible for ensuring overall employee safety under this exemption.

This letter rescinds the Flight Authorization on Department of Homeland Security Aircraft letter dated May 20, 2008.

/s/ *James E. Hubbard*
JAMES E. HUBBARD
Deputy Chief, State and Private Forestry

cc: Robert A Baird, Dan Olsen, Ron Hanks, John A Nelson, Thomas A Cook, Tom Harbour, Ezequiel N Parrilla, Caleb A Berry

USDA

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## 10.4 Fixed Wing Aircraft Passenger Manifest Form

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## 10.5 Project Proposal Template

*Note:* The template begins on the following page.

United States Department of Agriculture

## USDA Forest Service
## Fire & Aviation Management
## Aviation Division

# PROJECT or PROGRAM or ISSUE PROPOSAL NAME

Forest Service

Month 20XX

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# 1.0 General Process Information

This Project, Program, Issue Proposal Template (PPT) is included in the National Aviation Safety and Management Plan (NASMP).

Utilize the PPT when proposing the following:

- New equipment, e.g., aircraft, parachute, etc.
- New contractor contract change, e.g., VLAT, LFS Helicopter, etc.
- New agreement or MOUs.
- New process or changed process, e.g., rappel standardization, RADS, etc.
- Deviation from standards, e.g., LEI exemption, etc.
- New or changed policy, e.g., doctrinal policy changes, 100 hr, turbine single engine, etc.
- New or changed procedure, e.g., rappel procedures.
- New program, e.g., UAS, etc.

Questions regarding the PPT and development of a proposal should be directed to the Branch Chief, Aviation Business Operations, 202-205-0974.

Completed PPTs will be forwarded to the Branch Chief, Aviation Business Operations by email. Call the number above to get a current email address.

The project, program, issue proposal process will follow steps outlined in Section 3.3 of the NASMP.

# 2.0 Introduction

*Summarize briefly the problem/issue, project objective(s), and expected benefit(s) and cost of the proposal. Is the problem/issue an entire system or a sub-system element?*[1]

## 2.1 Problem Statement

*Describe the problem/issue in terms of system or sub-system.*

*What does the problem/issue affect (who and/or what)? What are the impacts (safety, cost, risk, lack of standardization, etc.) of the problem/issue?*

[1] A system is an integrated set of integral elements that are combined in an operational or program to accomplish a defined objective. These elements include personnel, aircraft, facilities, technology, facilities, human factors, operations, procedures, equipment, services, and other components. Sub-systems are integral to the operation and function of the system. E.g. performance, capability and specialized equipment for the mission would be sub-systems of an aircraft system.

## 2.2 Background

*Describe the background information about the project. Provide only factual information, observations or opinions should be noted as such.*

## 2.3 Challenges

*Describe the known challenges of the existing system or sub-system to be addressed by the project.*

## 2.4 Objective(s)

*Identify specific and measurable objectives of what the project is anticipated to achieve. Identify any anticipated changes in the system or sub-system.*

## 2.5 Deliverables

*Identify the tangible and verifiable product or service that meets the objectives stated above.*

# 3.0 Proposed Method

*Describe and define the technical and/or non-technical aspects of the proposal. This section should include a description of the methodology to be used to complete the project, a specific plan for gathering requirements, design requirements, information technology requirements best practices for implementation, and quality assurance.*

## 3.1 Requirements

*Describe the requirements for the proposal. Requirements are quantifiable functional and technical needs of the proposal. Include diagrams or charts to visually display the information if applicable.*

## 3.2 Technology

*Describe any technology required to implement the project. Describe hardware, software, or network components as relevant and as understood at this time. Include diagrams or charts to visually display the proposed system components and the relationships between them.*

## 3.3 Implementation Method

*Describe your methodology for implementation, including best practices.*

## 3.4 Risk and Quality Assurance

*Describe the potential risks (financial, business, cultural, operational, safety, etc.) related the project.*

Describe the examples of quality assurance that would be used to mitigate risks.

# 4.0 Expected Project Results

*Using the objectives and deliverables listed in section 1 describe the technical, operational, cultural and behavior changes the project would implement.*

## 4.1 Performance Measures

*Complete the Performance Measure table below based on the objectives of the project. Describe an assessment plan to monitor Performance Goals over time.*

| Metric # | Year Initiated | Performance Baseline | Performance Goal | Actual Result |
|---|---|---|---|---|
| 1 | 2014 | The status quo needs 345 hours consuming 207 thousand gallons to fly 100,000 miles | Fuel use for the same distance is reduced by 10 percent | Do not complete |
| | | | | |
| | | | | |
| | | | | |

# 5.0 Action Plan and Timeline

*Develop a draft action plan for the project.*

| Action Steps<br>What will be done? | Responsibilities<br>Who is the lead? | Deadline<br>By when? (mm/dd/yy) | Resources<br>Resources available?<br>Resources needed (financial, human, political & other)? | Potential barriers<br>Individuals or organizations?<br>Mitigation? | Communications Plan<br>Who is involved?<br>What methods?<br>How often? |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |