United States Department of Agriculture

National Aviation Safety and Management Plan

Intermountain Supplement

Fishlake National Forest Supplement

2022–2023

Forest Service

April 2022

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Approval

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National Aviation Safety and Management Plan 2022-2023

2022–2023

Regional Aviation Safety and Management Plan

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2022–2023

Forest Health Protection/Law Enforcement Management Plan

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2022–2023

Forest/Station Aviation Safety and Management Plan

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Contents

Digest

The table below provides a list of changes made to the 2021-2022 National Aviation Safety and Management Plan (NASMP). *Note:* This list is not inclusive of all changes made. Intermountain Supplement changes are in red. Fishlake National Forest Supplement changes will be in blue.

Section	Description of Change
Throughout	Removed references to Northeastern Area. Added references to R4 Aviation Teams Site
Section 2	• Updated WO staff positions. • Section 2: Added additional Regional Aviation Staff position descriptions. • Section 2.7: Added/changed NIROPs aircraft tail numbers
Section 3	• Included references to 2020 Aviation Program Acquisition Strategy • Section 3.3: Added language for separation of HSRP from other plans. • Section 3.3.9: Modified language for RO digital signatures in pdf format only • Section 3.3.10: Removed reference to Heli-ski Plan. • Section 3.4: Added Wilderness language. • Section 3.15.2: Added Alaris Pro reference for UAS flight reporting
Section 4	• Updated Aircraft Accident Investigation Process • Section 4.4: Risk Management language and clarifications added. • Section 4.5.2: SAFECOM information added. • Section 4.6.2: Additional Award options
Section 5	• Updated internet links • Section 5.3.2: Added PAO references. • Section 5.5: Added language for RAO and RASM notification. • Section 5.21: Updated UAS Aerial Ignition NIAC letter reference • Section 5.23.1: Regional Aviation notification language added
Section 6	Updated One Way NWCG to IAT equivalency matrix.
Section 7	• Section 7.7: Aircraft Conflict Report Form reference provided
Throughout	Updated references to NWCG Standards where appropriate.

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 the Washington Office and individual Regions and Forests. 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.

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Objectives:

1. To provide expansion for local guidance, but not a replacement for aviation management directives or policy.
2. To describe regional aviation management programs and activities.
3. To provide strategic direction for unit aviation activities.
4. To provide regional aviation policy, where the terms "must" and "shall" are used in this guide, compliance is mandatory and not discretionary.

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Purpose:

1. Align the Fishlake National Forest aviation planning and operations to the national standard.
2. Aid the user in discovering the scope of aviation services available on the forest.
3. Document policies, regulations, and procedures to be followed while involved with the Aviation program.
4. This plan also identifies the Fishlake National Forest personnel involved in aviation management and their responsibilities.

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.

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- Organizational decision making is a priority.
- Accepting no unnecessary risk is critical to our operations.
- Empower the organization to make risk decisions.
- Integrating risk management at all levels is the key to our success.

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. *The Strategic Plan is currently under revision and an update will be published later in 2022.*

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All individuals are expected to closely monitor aviation operations with an eye to managing risk at the lowest level possible. If you are uncomfortable with a mission, voice concerns before the mission to elevate decision making to the appropriate level and ensure risk mitigations are in place. Any time during a mission anyone can halt that mission for a safety concern. As soon as the concern is voiced the mission shall stop and concerns addressed before proceeding with or canceling the mission. We will continually assess, analyze, communicate, and share risk before, during, and after operations. We will accept no unnecessary risk. Missions will be accomplished using this method and meet all the mission requirements while exposing personnel and resources to the lowest possible risk.

Unnecessary risk: Is any risk that, if taken, will not contribute meaningfully to the mission or task accomplishment or will needlessly jeopardize personnel or equipment.

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A key part of the safety risk management process is the involvement of employees who will be affected by a decision; their expertise is often critical to decision making. The benefits to using this decision process include:

- Ensure that all aspects of the risk problem are identified and considered when making decisions.
- Ensure that all legitimate interests are considered.
- Provide the decision makers with tools to make good decisions.

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;
- 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 Aviation Management Reviews, Quality Assurance, and Safety Assurance
- 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 the NWCG Standards for Aviation Risk Management, PMS 530.

1.4.1 Quality Principles

Aviation leadership shall ensure that 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 teamwork 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. Key Performance Indicators/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. Program Management 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. An amendment to the Aviation Strategic Plan will be published early 2021.

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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.

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1.7 General Policy

The policy of the Forest Service requires employees to follow the direction in aviation manuals, handbooks, standards, plans, and guides as listed in this chapter, under FSM 5706.
Aviation operations require regulations, manuals, hand~~books, sta~~ndards, plans, 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.

Forest Service aviation policy is approved by the Deputy Chief, State and Private Forestry. Regions, Forests, and units may create local policy supplements which are more restrictive only for responsibilities and administrative procedures. Changes to safety, operations, airworthiness, pilot standardization and aviation training policy shall be approved only at the national office level.

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Deviations from policy are permitted when there is an imminent threat to human life and time doesn't permit using approved deviation methods (5709.16 Chapter 30.13c). To deviate, policy requires individuals to complete a Time Critical Risk Assessment IAW the National SMS guide, submit a SAFECOM, and notify the appropriate line officer as soon as practical.

In addition to this policy, the Regional Aviation Office must be notified as soon as practical after the deviation.

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Follow Regional Supplement stated above and notify the Forest Aviation Officer as soon as practical after the deviation.

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 the Washington Office in Boise, ID.

The Forest Service has nine Regional Offices located throughout the United States.

Region 1: Missoula, MT

Region 2: Lakewood,

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

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 Rocky 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 Forests 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.

2.2.2 Deputy Director, Aviation and Operations

The Deputy Director, Aviation and Operations responsibilities are located in the FSM 5704.

2.2.3 Assistant Director, Aviation

The Assistant Director, Aviation responsibilities are located in the FSM 5704. 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
- Branch Chief, Rotor-Wing
- Branch Chief, Fixed-Wing
- Branch Chief, Airworthiness
- Branch Chief, Aviation Strategic Planning
- Branch Chief, Aviation Safety Management Systems

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 Aviation Business Branch also includes:

Aviation Management Specialists (3)

2.2.5 Branch Chief, Aviation Strategic Planning

The Branch Chief, Aviation Strategic Planning develops aviation strategy for the Forest Service. The Strategic Planning Branch also includes:

Aviation Management Specialist

National Aviation Training Program
Manager Assistant Strategic
Planner/Integrator

2.2.6 Branch Chief, Rotor-Wing

The Branch Chief, Rotor-Wing provides oversight, coordination, and direction of Rotor-Wing and UAS operations conducted by the National Office and Regions. The Branch Chief's responsibilities are located in the FSM 5704. The Rotor-Wing Branch also includes:

National Helicopter Standardization
Pilot Helicopter Inspector Pilots (3)

National Helicopter Program Manager
National Helicopter Operations Specialist

National Assistant Helicopter Operations
Specialist National Rappel Specialist

National Aircraft Coordinator
National UAS Program Manager
National UAS Specialist –
Operations National UAS
Specialist – Coordinator National

UAS Specialist – Training

National UAS Specialist – Data Management
National UAS Specialist – Fleet Management
National UAS Specialist – Aerial Ignition
National UAS Specialist – Resource Missions

2.2.7 Branch Chief, Airworthiness

The Branch Chief, Airworthiness provides leadership for agency aircraft and avionics inspector qualifications and training standards, aircraft and equipment standards development for all aircraft operated by the Forest Service, and aviation maintenance programs. The responsibilities of the Branch Chief are in FSM 5704 and the FSH 5709.16, Chapter 40. The Airworthiness Branch also includes:

Aviation Safety Inspectors–Airworthiness (5)
Aviation Safety Inspectors–Avionics (2)
Aeronautical/Aerospace Engineer (1)
Airworthiness Management Specialist/Analyst
(1)

2.2.8 Branch Chief, Fixed-Wing

The Branch Chief, Fixed-Wing provides oversight, coordination, and direction of Fixed-Wing operations conducted by the National Office and Regions. The Branch Chief's responsibilities are located in the FSM 5704. The Fixed-Wing Operations Branch also includes:

National Fixed-Wing Standardization
Pilot Fixed-Wing Inspector Pilot

National Airtanker Program Manager
National Fixed-Wing Operations
Specialist National Fixed-Wing
Coordinator

National Aerial Supervision Program
Manager National Smokejumper Program
Manager Aviation Program Specialist

2.2.9 Branch Chief, Aviation Safety Management System (ASMS)

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
  - Coordinating implementation of the National Aviation Safety Management Plan.
  - Establishes safety criteria and standards for National aviation contracts
- Risk management
  - Maintains a process for data collection and analysis as well as evaluation of aviation risk management and operational safety.
- Safety Assurance
  - 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

- Establishes safety criteria and standards for National aviation contracts
- Provides program oversight and direction for aviation education and training, including Interagency Aviation Training (IAT) and Lessons Learned.

- Safety Promotion
  - Management and oversight of Aviation Safety Systems including, National Aviation Safety Center, National Aviation Safety Council, SAFECOM reporting system, aviation safety training and education
  - Coordinates with the Aviation Branch Chiefs to assure aircraft and pilot standards incorporate latest lessons learned from incidents and accidents

The Aviation Safety Management Systems Branch also includes:

National Aviation Safety Officers (3)

2.2.10 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, and Regional 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.

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.

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 5704.

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 and in the Aircraft Inspector 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.

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Intermountain Region Director, Fire and Aviation Management

The Primary aviation safety role of the Regional Fire Director is to provide overall leadership to the Region, Forest, and aviation organizations. This position is the focal point for setting the tone with each Forest Supervisor for the expected level of aviation safety, which is consistent with the Regional Forester's established safety expectations.

Regional Standardization Officer

Regional Standardization Officer assists in the administration and oversight of region-wide pilot training programs specifically in the Fixed-wing standardization and training program areas. Recommends, promotes, and assists in the implementation of regional aviation policies covering many phases of Agency's Aviation training program, primarily supporting the fire management activities. Responsible for the development and coordination of regional aircraft and pilot aviation training based on performance, requirements, and standardization. Recommends pilots for upgrades and instructor positions, as needed. Provides technical and professional advice IAW policy, standards, and procedures for region-wide application. Provides development, direction and coordination of regional fire aviation aircraft and scheduling of personnel to assure quality and standardization for aviation mission personnel. Participates in contract pilot evaluation, performance and in Interagency, contractor and regional reviews. RSO monitors regional pilot effectiveness and evaluation programs to assure the national goals and objectives are met. Oversees the formulation, development and implementation of new training courses, aircraft and risk analysis.

Supervisory Pilots

Responsible for the supervision and training of regional agency pilots by mission specialty, i.e., smokejumper, ASM/Leadplane, helicopter, infrared, resource reconnaissance, and photography.

Pilots

Responsible for safe, efficient, and cost-effective use of FS owned or leased aircraft (FSM 5704.7 and 5712.31). Pilots assist in performing contract inspections and pilot approvals. Only properly certified and qualified pilots, as designated by the Regional Aviation Officer and/or National Fixed Wing or Helicopter Standardization pilots will be responsible for flight training and management of the regional standardization and evaluation programs.

Fixed Wing Program Manager (FWPM)

The position is responsible for developing and recommending objectives, plans and policies, for the Regional Fixed Wing Program in support of National Forest System resource management and protection activities. The incumbent serves as an expert in Fixed Wing operations and provides principal support to the Regional Aviation Officer (RAO).

Fixed Wing Operations Specialist (FWOS)

Responsible for leadership, coordination, and direction of the regional fixed-wing program. Leads and coordinates development of recommended policies, standards, and operational procedures. Organizes the regional fixed wing contract light aircraft inspection and pilot approval program. Responsible for coordinating training and disseminating information in support of the Aerial Supervision program. Provides technical support for the Aviation Contracting Officer, Regional Aviation Safety Manager, the Regional Aviation Officer, and Forest Aviation Officers. Responsible for overseeing R-4 tanker bases and SEAT operations. This position may assist with sharing of aviation resources as needed but the responsibility for sharing resources resides with the sending and receiving parties in coordination with the IMTs, dispatch and GACC as necessary. Assists GBCC or dispatch centers with coordinating coverage areas to address resource shortages, being a 'point of contact' for units/IMTs to address current or future resource needs.

Air Tactical Group Supervisor (ATGS) Coordinator

The position assists with and facilitates the sharing of aviation resources as needed. This may include assisting GBCC or dispatch centers with tracking/locating resources, coordinating coverage areas to address resource shortages, being a 'point of contact' for units/IMTs to address current or future resource needs, and facilitating the dialogue needed for resource sharing in coordination with the FWOS.

Air Tactical Supervisor (AITS)

This position is responsible for developing and recommending objectives, plans, and policies for the regional Aerial Supervision Module (ASM) program. The incumbent serves as an expert in aerial supervision operations and provides principal support to the Fixed Wing Program Manager. The incumbent serves as a primary position on an ASM crew, along with an Air Tactical Pilot, providing leadership in safe, effective, and efficient aerial supervision operations nationally.

Helicopter Operations Specialist (HOS)

Responsible for leadership, coordination, and direction of the helicopter program. Provides technical assistance to National Aviation Contracting Officer, Regional Aviation Safety Manager, Regional Aviation Officer, and Forest Aviation Officers. Leads and coordinates development of recommended policies, standards and operational procedures. Coordinates training in helicopter management. Provides technical support for specialized programs such as rappel, short haul, aerial ignition, helitack, and aerial delivery systems. This position may assist with sharing of aviation resources as needed but the responsibility for sharing resources resides with the sending and receiving parties in coordination with the IMTs, dispatch and GACC, as necessary. Assists GBCC or dispatch centers with coordinating coverage areas to address resource shortages, being a 'point of contact' for units/IMTs to address current or future resource needs.

Helicopter Inspector Pilot (HIP)

Performs contract helicopter inspections and pilot approvals. Assist the Helicopter Operations Specialist in the helicopter program management and oversight.

Regional UAS Specialists

Responsible for providing technical and programmatic oversight for UAS operations in the Region primarily for wildfire, but also for project activities. Additionally, provides technical aviation direction and support to extremely complex elements of the Region's aviation and safety program, including oversight and direction in UAS operations and programs related to fire and resource work; liaison with the Federal, State, military, and commercial UAS industry; support for and cooperation with State and Federal land management agencies; support for National and Interregional aviation initiatives; and other related aviation projects.

Regional Aviation Organization Chart is available under the Regional Teams Aviation Site, or upon request from the RAO.

Forest Supplement

Placeholder.

2.4 Forest Staff

2.4.1 Line Officer

Line Officers who supervise employees that use aircraft to support agency programs (first and second level supervisors as determined by the agency) will meet the Interagency Aviation Training (IAT) requirements for supervisors. Knowledge required includes aviation safety, policy, risk management, and supervisory responsibilities. Line Officer responsibilities are located in FSM 5700.

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 responsibilities are located in the FSM 5704.35b. 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.). Forest Service employees shall fly only in approved government aircraft flown by an approved pilot(s) (refer to Government Aircraft definition in FSM 5700). Approvals are specified in FSM 5700 and 5710. 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 (5704).

Regional Supplement

Per FSM 5704.35, it is the responsibility of the Forest Supervisors to designate Forest Aviation Officers (FSH 5709.16).

Forest Supplement

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

During those times when the FAO is absent from the Forest, the Forest FMO will assume the FAO duties, or he/she will designate an Acting Forest Aviation Officer. The FAO will ensure that this acting has the experience and training needed to meet the unit needs and is knowledgeable about current issues affecting these duties.

The FAO should have a thorough knowledge of FSM 5700; accompanying Handbooks and Guides (see Reference Appendix). The FAO's background should include experience in management and supervision of aircraft operations. The responsibilities of the FAO can be found in FSH 5709.16, 10.42e.

In addition to the duties in manual and handbook direction, the Forest Aviation Officer on the Fishlake National Forest will also be responsible for the following:

1. Assists Project managers in development of, reviews, and when appropriate approves Mission/Project Aviation Safety Plans

2. Coordinates with the Richfield Interagency Fire Center (RIFC) Aircraft desk on planned administrative aircraft use on the Forest.

3. Maintains coordination with other government agencies on subjects involving aviation operations.

4. Attends training sessions to maintain proficiency. Training plan should include Interagency Aviation Training (IAT) Courses.

5. Coordinates activities with the local FAA, military, and other concerned agencies that may operate on, over, or near the Fishlake National Forest.

6. Ensures that Flight invoices are processed in accordance to agency guidelines.

7. Reviews SAFECOMs and makes recommendations to the Regional Aviation Safety Manager when appropriate.

8. Maintains a SAFECOM Log.

9. Participates in contract development and contract administration, as necessary. Assists Regional and Forest Contracting Officer(s) in developing aircraft service contracts.

10. The FAO has the responsibility and delegated authority to stop aviation activities that are unsafe or are not operating within agency policy guidelines.

11. Serves as the COR for CWN light fixed- wing and Helicopter contracts.

12. Brief and debrief aircrews, Incident Management Teams and operators on Fishlake National Forest and Central Utah interagency area aviation missions.

13. When necessary, assist RIFC and/or project manager in completing cost analysis of aircraft types.

The Richfield Interagency Fire Center Manager is a member of the Forest Aviation Management Team. The Center Manager will have thorough knowledge of aviation operations that includes aircraft capabilities and limitations, Forest Service policies and regulations, aircraft rental, contracting, and administration procedures, payment procedures, and experience in using and directing aircraft in Forest management operations. It is recommended that the Center Manager successfully complete Basic Air Operations (S-270), and IAT courses.

The following duties are delegated from the Forest Aviation Officer to the Center Manager:

1. The Center Manager and/or dispatch staff coordinate aviation project plans with the Forest Aviation Officer and designated project manager and provides flight following and communications for all aviation projects on the Fishlake National Forest.

2. Maintains coordination with other government agencies on subjects involving aviation operations.

4. Attends available training sessions to maintain proficiency. Training plan should include Aviation Management courses.

5. Review all flight requests for fixed-wing and rotorcraft. Dispatches all fire related flights, and flight follows aircraft while in flight.

6. Responsible for ordering aircraft and providing dispatch services for all flights on the combined agency lands, except for job contract or end product contracts, which are obtained through agency specific procurement processes.

7. Coordinates with FAO to help facilitate administrative flights on the Fishlake National Forest and coordinates these flights with the Great Basin Coordination Center (GBCC) as needed.

8. Initiates aviation related search and rescue operations as outlined in the Unit's Aviation Mishap Response Guide and Checklist: Ensures that the Guide is updated annually with current phone numbers and contacts.

9. Verifies that a Flight Manager is assigned for all flights.

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

All duties of Center Manager may be delegated to the Assistant Center Manager and/or Aircraft Dispatchers.

Interagency Aircraft Dispatchers:

Interagency aircraft dispatchers are responsible for:

- Dispatching all aircraft (except commercial and special use permit flights).
- Ensuring an agency flight plan has been filed, as necessary.
- Ensuring flight following procedures are implemented and adhered to.
- Coordinating all requests for the use of National Air Tankers.

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 shall meet the Aviation Manager qualifications in Interagency Aviation Training Guide.

Regional Supplement

Placeholder.

Forest/Station Supplement

Placeholder.

2.6 National Groups/Committees

2.6.1 Washington Office (WO) Aviation Management Team.

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

2.6.2 National Aviation Officer Council (NAOC)

The NAOC includes the AD, Aviation, WO Aviation Branch Chiefs, and Regional Aviation Officers.

2.6.3 National Aviation Safety Council (NASC)

The NASC is a chartered aviation safety counsel comprised of Regional Aviation Safety Managers, the WO Aviation Safety Staff, FHP Aviation Safety Manager, The National Aviation Training Manager, an RAO rep, as well as all Branch Chief's designated as adjunct members.

2.6.4 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."

2.6.5 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, ASMS, and Pilot Standardization are designated by the WO Assistant Director, Aviation as Forest Service representatives to NIAC.

NIAC Sub Committees include:

- Aviation Risk Management Subcommittee
- Interagency Aerial Supervision Subcommittee
- Interagency Airspace Subcommittee
- Interagency Airtanker Base Subcommittee

    - Airtanker Base Directory Unit
    - Standards for Airtanker Base Operations Unit
    - Airtanker Base Training and Qualifications Unit
- Interagency Airtanker Board (IAB)
- Interagency Aviation Preparedness Task Team
- Interagency Aviation Strategic Plan Subcommittee
- Interagency Aviation Training Subcommittee (IAT)
- Interagency Cooperator and Pilot Standards Subcommittee
- Interagency Fire UAS Subcommittee (IFUASS)
- Single Engine Airtanker (SEAT) Board
- Smokejumper Aircraft Screening and Evaluation Subcommittee
- Interagency Helicopter Screening and Evaluation Subcommittee
- Interagency Helicopter Operations Subcommittee
    - Aerial Capture Eradication and Tagging Animals Unit (ACETA)
    - Interagency Aerial Ignition Unit
    - Standards for Helicopter Operations Unit
    - Interagency Helicopter Rappel Unit
    - 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 applicable program is the lead for all agency contracted aircraft used by the interagency wildland firefighting community including Airtankers, smokejumper aircraft, Type 1, 2 and 3 helicopters, Aerial Supervision Module (ASM) and lead plane aircraft, infrared (IR) airplanes, aerial tactical 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 partners and cooperators as specified in agency policy, agreements and procedures.

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.

Regions and Forests should include in their respective supplement an overview or link to an overview of their aviation organization.

Regional Supplement

The Intermountain Region typically hosts the following aircraft:

- NIROPS: Beechcraft King Air 260s, N181Z and N115Z
- Smokejumper: 2 deHavilland Twin Otter, N141Z and N143Z
- Lead Plane: King Air 250 N147Z; additional WCF/Contract leadplane aircraft may be operated by R4 pilots.

- Air Attack: contract aircraft are in McCall, ID and Boise, ID.

- Type 1 helicopters are located on the Boise NF, Caribou-Targhee NF, Dixie NF, Payette NF, and Uinta- Wasatch-Cache.
- Type 2 helicopters are located on the Boise (Rappel), Payette (2 - Rappel), Salmon Challis (2 -Rappel), and Uinta-Wasatch-Cache.
- Type 3 helicopters located on the Boise NF, Bridger-Teton NF (2, Short Haul), Caribou-Targhee (2), Humboldt-Toiyabe NF, Payette NF (1, Short Haul), Salmon-Challis NF (2), Sawtooth NF, and Uinta-Wasatch-Cache NF (2).

Additional CWN aircraft may be assigned to increase capabilities during periods of high fire activity.

Forest Supplement

The Fishlake National Forest will be hosting a Type 3 CWN Helicopter in Richfield, UT for 45 days. April 21st to June 7th for Aerial Ignition and other projects as conditions and times permit.

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

Placeholder.

Forest Supplement

Placeholder.

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.
- Maintain a Pilots Record Database per 14 CFR Part 111.1for all agency pilots.
- Responses to Government Accountability Office audits.

- Report all aviation accidents to GSA per 41 CFR 102-33 Subpart E.
- Responses to National Transportation Safety Board recommendations/inquiries.

Regional Supplement

Placeholder.

Forest Supplement
Placeholder.

3.3 Aviation Plans

Aviation Management Plans, with the exception of the National Aviation Safety and Management Plan (see section3.3.1), must be approved by the appropriate line officer.

Aviation Operational Plans must be approved by the appropriate fire or aviation program manager. (FSM 5711). See Section 3.3.10 (Aviation Operations Plans) of this document.

Regional Supplement

By policy, the following plans must be reviewed by the Regional Office. Submit these plans to the RAO and RASM prior to line officer approval:

1. Forest Aviation Plans
2. Facility Homeland Security Response Plans
3. Mission Aviation Safety Plans
4. Regional or Local Supplements to Aviation Operations Plans, e.g., Rappel

For security purposes, Homeland Security Response Plans should be separate from Forest and Base operating plans and submitted in Box and require password protection to open.

Base operating plans, e.g., helitack or airtanker base plans, do not require Regional Office review, see FSH 5709.16, chapter 11.5. However, the RO encourages these plans be submitted to the RO for review.

Mission planning should include the use of 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 an End-Product contract is used, a MASP is not required.

If requested, all plans must be made available to the Regional Office for quality assurance and oversight.

National and Regional templates for these plans, as well as the signed NASMP Regional Supplement are available from the RASM or the R4 Aviation Teams Page.

The Interagency Aviation Mishap Response Guide and Checklist is available online from:

https://www.nwcg.gov/sites/default/files/publications/pms503.pdf

Forest Supplement

Placeholder.

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 to be supplemented annually by Regions/Stations and Forests with an aviation program. The Assistant Director, Aviation will maintain a current National Aviation Safety and Management Plan (FSM 5704). The Director, Fire and Aviation approves all national safety and aviation management plans and addendums/changes to these plans (FSM 5704).

3.3.3 Regional and Station Homeland Security Response Plan

Each Region and Station must develop a Homeland Security Response Plan that details the security actions that each Region and Station will implement, based upon the Homeland Security threat level. The Regional or Station Homeland Security Response Plan must be reviewed by the Fire and Aviation Management staff, HQ Washington Office (FSH 5709.16, Chapter 30). The Regional 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 5704). The Regional Aviation Safety Plan is approved by the Regional Forester 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 have responsibility to ensure that every Forest Service unit that utilizes aircraft develops and annually updates, an aviation mishap response plan (FSM 5710). The Regional Aviation Mishap Response Plan is approved by the Regional Forester.

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 5710). 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 alert (FSH 5709.16, 38.34) . The Facilities Homeland Security Response Plan is approved by the appropriate Forest Supervisor annually.

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 5710).

3.3.9 Mission Aviation Safety Plans (MASP)

A MASP is submitted independent of a Forest or Station Aviation Management Plan. A MASP shall be developed and approved as required in the FSM 5700.

Regional Supplement:

The Region has a standard MASP template that is required and is available from the RASM or the R4 Teams Site. MASPs will be submitted to the Regional Office in a shared Pinyon folder, co-owned by the FAO and Regional Office Staff. Additional users may be added by these co-owners. All reviewed MASPS will remain in Pinyon and can be downloaded for Line Officer signatures. MASPS will be digitally signed by the RO in PDF format only. Expired MASPs will not be deleted or removed from Pinyon once signed.

Forests that have dual role aviation managers that are primarily BLM employees can make other arrangements with the Regional Office for MASP submission. External collaborator folders have been created in Pinyon that support these uses.

The process for MASP approval in the Intermountain Region is as follows:

1. Requesting organization submits MASP to the FAO for review.
2. The FAO reviews and posts the MASP and all supporting documents into the Forest's respective Pinyon box. The best method for rapid response is to "assign a task" to both the RAO and the RASM in Pinyon. This action will automatically notify the RO that a MASP is ready for review and email the submitter when it is complete. A step-by-step guide for this process is available from the RASM.
3. The RASM will involve the Regional Aviation Staff as necessary for review.
4. Final review by the RAO and RASM.
5. The reviewed MASP will be available to the FAO in Pinyon.

MASPs with line officer approvals will be retained for 3 years, IAW FSH 6209.11 Records Management Handbook, Table 5000-41. File Code – Heading 5730 – Aviation Management.

Forest Supplement

FSM 5711.1 – Mission Aviation Safety Plan will be the standard applied to all aviation planning. Individuals developing a MASP will consult the System Safety Aviation Risk Management Workbook for information regarding the hazards, risks, and suggested mitigations associated with their specific aviation project. Any aviation projects not approved in this plan should be submitted to the FAO as soon in the planning process as possible for review. The Dixie/Fishlake National Forests, Forest Aviation Officer has been delegated the authority to review all Mission Aviation Safety Plans on this Forest. MASP will be submitted to the FAO who will review and submit to the Region Aviation Officer for review. Once Regional review has occurred line officer approval will be required.

MASP Submission

MASP approval must be secured before aviation operations commence. There are two approval time requirements to be met based on project complexity.

Two Weeks. Routine missions of low complexity must be submitted at least two weeks prior to planned mission start dates to ensure adequate review, approval, and procurement time.

Four Weeks. Non-routine/ complex mission/projects of moderated to high complexity will require submittal at least four weeks prior to planned mission start dates due to the additional two week Regional/ State approval time requirement.

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

National Infrared Operations Plan (NIROPS)

Natural Resource Management and Protection

These plans at a minimum should include:

- Authority
- Aircraft
- Aircraft Quantity
- Funding
- Contracts
- Sustainment
- Mission Requirements
- Facilities
- Safety Management Systems
- Staffing

Operations Plans shall be approved by the appropriate line officer (FSM 5704).

Regional Supplement

The Intermountain Region's operation plans include:

- Intermountain Region Rappel Guide

These plans are reviewed annually and updated as required. The Regional Aviation Officer is the signature authority for Regional Aviation Operating Plans IAW FSM 5704.34b.

Forest Supplement

Placeholder.

3.4 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 Mission 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

Wilderness Areas: All aircraft use in wilderness areas must first be approved according to each specific Wilderness Plan. Longline and paracargo operations will include consideration of other delivery methods before use. Longline, rappel, smokejumper, Short-haul, paracargo, and UAS operations are classified as aircraft landings in some wilderness areas and require approval before operation. Refer to FSM 2320 for specifics on use of aircraft on fire and other operations in the wilderness.

Forest Supplement

Placeholder.

3.5 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 Chiefs shall develop 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 requested for commitment and obligation by the Assistant Director, Aviation unless otherwise designated. Approval of the -224 is by a FAM Budget Analyst. Aviation programs and aviation contracts that require requests for contract action (FS 6300-4) shall be approved by the Assistant Director Aviation unless otherwise designated.

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

3.6 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 Performance/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. CWN contracts have been used to negotiate guaranteed MAPs with reduced rates from normal CWN rates to supplement exclusive use aircraft. 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 contracts are used to acquire supplies and/or services when the exact times and/or exact quantities of future deliveries are not known at the time of contract award. These contracts are also known as delivery order contracts (for supplies) or task order contracts (for services). These contracts generally limit the Government's obligation under the contract to the minimum quantity specified in the contract; this minimum guarantee will be due to the contractor, regardless of whether we actually place orders for that quantity. The contracts provide for an indefinite quantity, within stated limits, of supplies or services during a fixed period. The Government places orders for individual requirements. Quantity limits may be stated as number of units or as dollar values.

Performance contracts are intended to procure services where the emphasis is on end product or end result. This approach to contracting focuses on defining what is desired, with levels of acceptability defined by performance levels. End-product service contracts are frequently awarded to accomplish field projects where the contractor supplies all personnel and equipment to provide a "service" or "end-product". Many contractors may choose to utilize aircraft to meet the performance objectives of these contracts. The end product service contract should not be confused with "flight service" aircraft procurements as these two types of procurements are totally separate and distinct in the way that they are initiated and managed.

The 2020 Aviation Program Acquisition Strategy (Strategy) documents how the Aviation Program collectively plans, executes, and manages all aviation acquisitions (i.e., contracts or procurements) required to meet agency goals, objectives and performance measures. This Strategy is not a stand-alone document, but rather complements, enhances, and guides other plans and strategies. It is the long-term framework for guiding all future Forest Service aviation procurement activities. The Strategy will be updated in response to any changes in Forest Service strategic plans, goals, objectives, key performance indicators or Forest Service budget to ensure ongoing alignment.
Aviation includes five different program areas; Helicopters, Large/Very Large Airtankers, Multi-engine Water Scooper Aircraft, Diverse Mission Fixed-Wing aircraft, and Unmanned Aircraft Systems (UAS).

Refer to Section 3.10 for End Product Contracts.

Regional Supplement

Contractors provide the majority of Forest Service aviation services. Each aircraft manager that uses contractor and cooperator-furnished aircraft shall ensure that the pilots and aircraft have been approved for the specific Forest Service mission.

Forest Supplement

Placeholder.

3.7 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

Placeholder.

Forest Supplement

Placeholder.

3.8 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

Contract specifications describe the minimum safety and performance requirements for mission-specific equipment and operations. The Contracting Officer (CO) is the legal authority for administration of the contract. Every employee using or managing contractor furnished aviation services shall immediately notify the FAO when a contractor or a contractor's employee engages in unsafe acts or violates a requirement of the contract. The FAO will notify the appropriate Regional Aviation Staff and the CO.

Forest Supplement

Placeholder.

3.9 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 FSH 5709.16 Vol 10 for more information on end-product contracts.

Regional Supplement

End-product contracts that are completed using aviation resources do not require MASPS and are not under Forest Service operational control.

Forest Supplement

Placeholder.

3.10 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.

The Forest Service recently published an Aviation Program Acquisition Strategy that will be operational as of 1/1/2021. This acquisition strategy emphasizes the application of basic program and project management techniques to manage major program acquisitions. Forest Service Aviation has five Aviation Programs that are major non-IT and mission critical programs. These are helicopters, large airtankers, multi-engine water scoopers, diverse mission fixed-wing aircraft, and unmanned aircraft systems.

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

3.11 Cooperator Aircraft

Cooperator aircraft operations are performed in accordance with policy in FSM 5710, FSH 5709.16 Volumes 36, 40, and 50, Interagency Standards for Fire and Aviation Operations (Red Book)/ NWCG Standards, and the National Interagency Mobilization Guide. Specific limitations are included in the specific cooperator letter.

Regional Supplement

Requests for cooperator letters are made to the Regional Aviation Officer. Approvals may require an inspection of both pilots and aircraft by the Region's Helicopter Inspector Pilot and Aviation Safety Inspector. Cooperator agreements will be completed using the national template provided by the WO and will be routed through interagency partners to avoid duplicative efforts.

FSH 5709.16 42.21.3 prohibits Forest Service personnel from riding aboard military surplus restricted category aircraft.

Forest Service personnel have not yet been approved to ride aboard CalFire's S70M/i helicopters. When approved, the Regional Office will notify the field.

Type 1 National Guard or Active Duty helicopters may be used to transport Forest Service Firefighters or Law Enforcement Officers (FSH 5709.16 42.21.1d (2)), provided, the appropriate cooperators letters are in place.

Forest Supplement

Placeholder.

3.12 Aircraft Administrative Use and Reporting

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

The USDA Property Management Regulation (PMR) Chapter 110-33, Management of Government Aircraft, 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 5710.

All documents pertaining to these flights must be maintained by Dispatch and on file for two years.

Regional Supplement

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Forest Supplement

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3.13 Dispatching

3.14.1 General

All flights (other than scheduled commercial air carrier flights) will be arranged by qualified aviation dispatchers (ACDP) 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 guide.

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

The Great Basin Interagency Air Crew and Flight Crew Orientation Guide provides a list of all Great Basin dispatch centers and their contact information. The guide can be provided to vendors by local aviation management.

Chapter 50 of the Great Basin Mobilization Guide provides additional dispatch information.

Forest Supplement

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3.14 Flight Use Reporting

3.15.1 Forest Service Incident Business System (IBS) 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 Incident Business System (IBS) (FSH 5709.16 Vol 10). 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 Incident Business System (IBS) as applicable.

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

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

UAS flight reporting will be recorded utilizing the AlarisPro UAS operations and Fleet Management system.

Forest Supplement

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

RESERVED

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Forest Supplement

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3.16 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, 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 5700.

Regional Supplement

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Forest Supplement

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3.17 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. For policy guidance regarding FEPP Aircraft, refer to Chapter 40 of FSH 3109.12 and Chapter 40 of the FEPP Desk Guide.

The Regional Aviation Officer 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 FEPP aircraft.
- Help 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.
- Participates in the review of acquisition documents prior to transfer of aircraft.

Regional Supplement

The Intermountain Region has three Restricted Category FEPP helicopters (UH-1 Huey) operated by the State of Nevada Division of Forestry. Cooperator agreements with these aircraft are drafted and signed on an annual basis, typically late spring, or early summer. Except for Helicopter Inspector Pilots, Forest Service personnel are not authorized to ride aboard these aircraft.

Forest Supplement

The Fishlake National Forest will follow national and regional direction if any property is unneeded and is to be excessed.

3.18 Program Reviews

Program reviews will be conducted in accordance with FSM 5710 and FSH 5709.16 Chapter 30.

Regional Supplement

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3.19 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
- 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 Washington Office Aviation staff through any of the Washington Office 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 National Aviation Team 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 National Aviation Team 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 National Aviation Team, 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 National Aviation Team, 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.

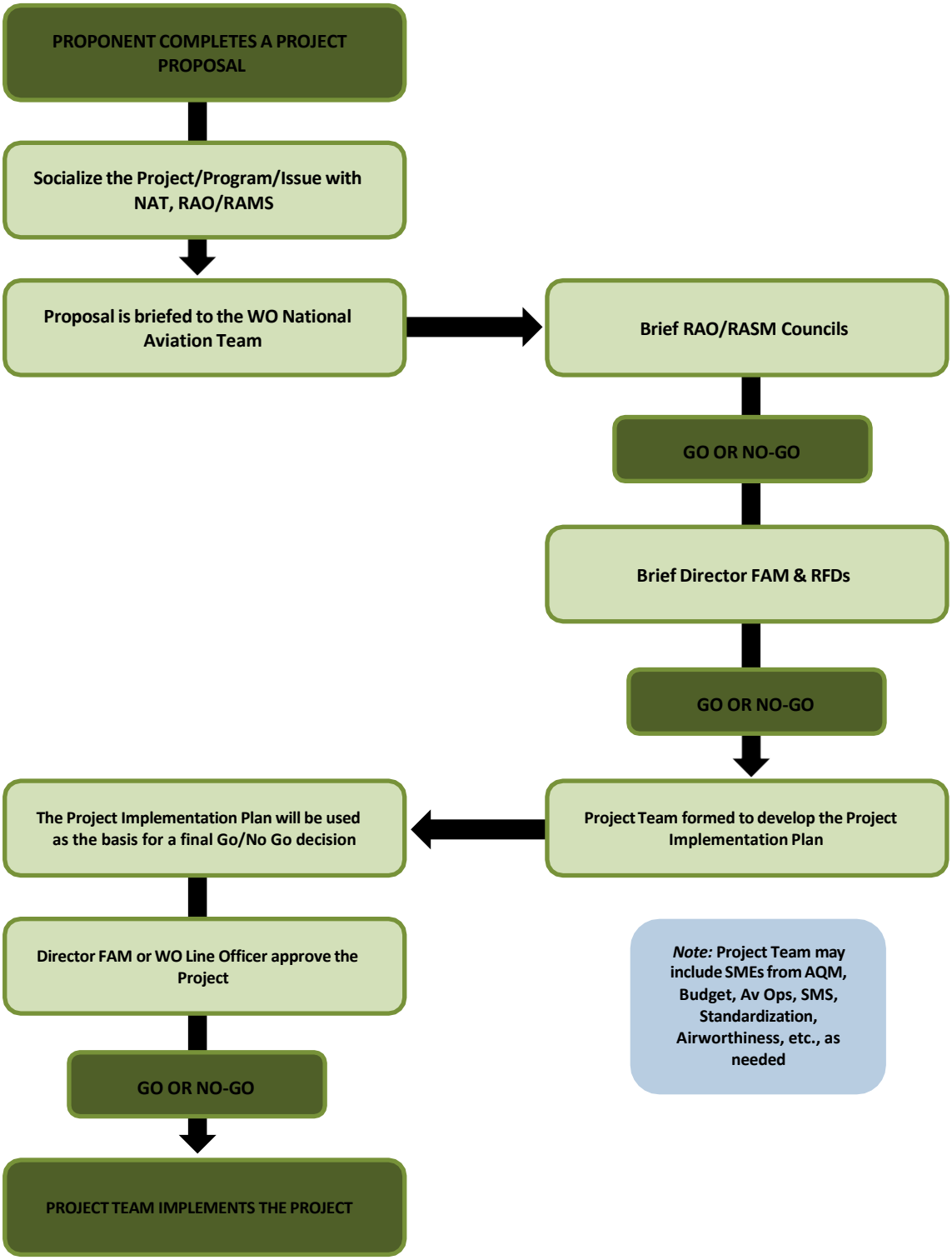
The Project will require decision approval from the Director, FAM at a minimum. Depending on the scope it may require WO Line Officer approval – Chief or Deputy Chief prior to implementation and operations.

- 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

Summary



4.0 Aviation Safety Management Systems (ASMS)

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.

ASMS 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. ASMS incorporates a proactive approach using hazard identification and risk management to achieve accident prevention.

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4.2 Aviation Safety Management System (ASMS)

The Federal Aviation Administration defines *Safety Management System (ASMS)* as the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. It includes systematic procedures, practices, and policies for the management of safety risk. ASMS 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. ASMS 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. Further details are available in FSM 5720 CH 20, and the ASMS Guide,

Regional Supplement

The Forest Service's SMS program is outlined in the National Aviation SMS Guide (2019), with the goal to develop a safety culture that achieves and maintains a zero-accident rate. The Intermountain Region supports this goal and further defines our safety program objectives:

1. To minimize human exposure to hazards through implementation of effective risk management techniques.
2. To minimize loss of life, suffering from injury, permanent impairment, and the anguish and suffering of family and friends.
3. To minimize the government costs that result from mishaps.
4. To encourage self-reporting of aviation safety incidents, both positive and negative, for the purposes of mishap prevention.
5. For management at all levels to foster and promote a positive safety culture that incorporates the elements of Safety Management Systems, Crew Resource Management, and emphasizes the non-punitive nature of safety reporting, for both employees and aviation contractors.

Safety Awareness

Safety awareness is a mental attitude fostered by proper management and supervisory procedures. FS management must be a partner in aviation safety to ensure that personnel understand and consistently adhere to established standards and procedures. It means that where operational decisions must be made, they are made prudently, with safety given priority over mission accomplishment. This requires individuals to know how to do a job or mission properly, apply applicable FS policies, use approved operating procedures, and to follow them consistently. With a good safety awareness attitude and well-trained individuals, most aviation accidents can be prevented.

Aviation safety cannot be legislated or mandated; it can only be successfully accomplished by fostering and inspiring an attitude in which conducting aviation operations safely is the foremost priority. An undeviating and persistent commitment to professional conduct by everyone involved in the aviation program is paramount to achieving safety awareness, accident prevention and successful risk management. All people involved in the aviation program play a key role in the successful (safe) outcome of aviation activities; however, management is responsible for developing safety goals. This can only be accomplished through awareness and uncompromising support by management and all individuals involved in aviation operations.

Organization for Accident Prevention

The fundamental reason for establishing the majority of Forest Service aviation positions in the past was for administration of aviation safety within the Forest Service. All personnel with aviation responsibilities are expected to actively participate in the execution of a successful aviation safety program.

The Region has designed a professional aviation organization and requires the forests to design a forest aviation organization to emphasize safety awareness. The Regional organization is staffed with technical and managerial specialists in various aviation fields that operate in their respective areas to provide continuous observations, implement accident prevention measures, monitor compliance with established procedures, and advocate a cooperative safety-oriented attitude in the execution of aviation operations. Accident prevention activities include all segments of aviation and must be closely affiliated with other Forest Service functions.

Forest Supplement

Fishlake National Forest employees involved in aviation oversite, missions and management will follow Scope of Employment-CRF 177-101-, all FSM, FSH, and adopted Standards, Handbooks and Guides related to aviation oversite, missions, and management, including:

- FSM 5700 Aviation Management.
- FSM 5704 Responsibility
- FSM 5704.1 All employees
    - All employees involved in aviation activities shall:
    - Ensure their safety as well as that of other personnel.
    - Acquire, know, and adhere to agency aviation policy and regulations (FSM 5700 and FSH 5709.16). Comply with agency aviation policies, when on official duty, performing agency duties on board any organization's aircraft and/or aircraft operated under any other organization's operational control.
    - Utilize the principles of the Aviation Safety Management System (ASMS). Participate in an operational risk-management process that must include a continual assessment of risks.
    - Utilize agency doctrine to guide decision making (FSM 5702.1).
    - When flying, employees must adhere to the following: a. Fly only in carded agency, agency contracted, or approved cooperator aircraft.
    - Fly only with carded agency, agency contracted, or approved cooperator pilot(s).
    - Approvals are specified in FSH 5709.16, chapters 40 and 50. d. Exemptions to employees flying on non- carded aircraft or with non- carded pilot(s):
    - All Hazard Response (Refer to FSH 5709.16, Ch. 30.4).

- In unusual circumstances, Forest Service personnel may perform a flight in nonapproved aircraft with non-approved pilots. The Regional Forester may approve this flight based on a recommendation from the Regional Aviation Officer. Refer to FSH 5709.16, chapter 30.3.
- A scheduled air carrier airline.
- An inspector pilot conducting a pilot evaluation flight on a carded aircraft for a non-carded pilot.
- Immediately report potential and actual problems, incidents, and accidents, and any instances of unsafe equipment or aviation operations to their supervisor and the appropriate official.
- During the course of an aviation operation, flight, or mission, employees are empowered to voice concerns, and receive acknowledgment of the concerns, regarding the safety and operation of the flight. If there is immediate risk to life, the employee must request the flight/flight profile be discontinued as safely as conditions permit.
- Meet the minimum standards for training and experience for the position they are performing. All aviation-related Incident Command System (ICS) position qualifications are governed by the Forest Service Fire and Aviation Qualifications Guide and the Interagency Wildland Fire Qualifications System Guide (PMS 310-1).
- Utilize the Interagency Aviation Training Guide for all aviation-related non-fire positions. 9.
- Not use government aircraft and equipment for personal use or use personal aircraft for agency missions.
- Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within the scope of their duties.

- FSM 5704.2 Supervisors (1ST and 2nd line)
  Supervisors, at all organizational levels, **shall:**
  - Ensure that aviation users in their units have the appropriate aviation experience and training.
  - Ensure that their aviation program has appropriate aviation supervision.
  - Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within the scope of their duties.
  - First and second level Supervisors of employees who use aircraft to accomplish agency missions must have the appropriate aviation experience and training, as defined by current Forest Service Aviation Policy and the Interagency Aviation Training Guide.
- FSM 5704.35 Forest Supervisors
  - Ensure the forest aviation program is based on National/Regional aviation policy, direction, and leaders' intent. This must include, but is not limited to, aviation planning, budget, policy, operations, aviation training, and quality assurance.
  - Designate a Forest Aviation Officer. If the position is shared or a collateral duty, it must be designated in writing (Refer to FSM 5704.35b).
  - Approve a MASP (or delegate to the appropriate Line Officer where the project will be conducted) prior to commencing all forest non-fire projects involving the use of aircraft.
  - Develop the forest aviation management goals, objectives, and activities.
  - Provide forest-related strategic direction based on national aviation strategy.
  - Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within the scope of their duties.
  - Approve the following required plans (Annually):
    - Forest supplement to the National/Regional Aviation Safety and Management Plan (NASMP).
    - Aviation Facility Homeland Security Response Plan,
    - Forest Aviation Mishap Response Plan.
    - Aviation Base Operational Plans.

- FSM 5704.35a Staff Officer responsible for aviation
  - The Forest Staff Officer Responsible for Aviation is responsible to the Forest Supervisor. The Staff Officer shall:
  - Implement a forest aviation program through leaders' intent and direction.
  - Provide aviation assistance to the forest, districts, and other cooperators.
  - Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within the scope of their duties.
  - Review the following required plans:
    - Forest supplement to the National/Regional Aviation Safety and Management Plan (NASMP)
    - Facility Homeland Security Response Plan.
    - Forest Aviation Mishap Response Plan.
    - Aviation Base Operational Plans.
  - Review the forest supplement to the regional supplement to the National Aviation Safety and Management Plan (NASMP).
  - Meet the training requirements for Aviation Supervisors found in the Interagency Aviation Training Guide.
- FSM 5704.35b Aviation Officer
  - Implement and manage the forest aviation program based on national/regional aviation policy, direction, and leaders' intent. This must include, but is not limited to, aviation planning, budget, policy, operations, aviation training, and quality assurance.
  - Meet the training requirements for aviation managers found in the Interagency Aviation Training Guide.
  - Oversee aviation mission planning, operations, and risk assessment, including fire and non-fire missions and incidents managed by incident management teams.
  - Function as the primary point of contact for all forest/unit/zone aviation operations.
  - Provide forest/unit/zone orientation briefings to incident management teams, flight-crews, and other aviation support personnel working on the forest/unit/zone.
  - Briefings will include forest/unit/zone plans, aerial and flight hazard maps, risk assessments, coordinating with forest/unit dispatch, initial attack responsibilities, aviation emergency and accident response procedures, and other forest/unit/zone specific procedures and processes and other pertinent information.
  - Ensure compliance with aviation management, safety policies, and procedures.
  - Provide input and follow-up to SAFECOMS involving aviation operations on the Forest.
  - Conduct periodic safety evaluations of aviation operations.
  - Evaluate aircraft effectiveness, including cost and utilization.
  - Administer helicopter and fixed wing contracts and other aviation support contracts.
  - Understand, implement, and maintain the responsible areas of the Forest Service Aviation Safety Management System within the scope of their duties.
  - Ensure that the following required plans are supplemented, updated annually, reviewed, and approved at the appropriate management level: Forest supplement to the National/Regional Aviation Safety and Management Plan (NASMP), Aviation Facility Homeland Security Response Plan, Forest Aviation Mishap Response Plan, and Aviation Base Operational Plans.
  - Coordinate with Regional Office aviation management as necessary.
  - Coordinate Forest aviation training.
- FSM 5707.32 Helicopter Programs
  - NWCG Standards for Helicopter Operations (NSHO)
  - NWCG Standards for Aerial Ignitions (NSAI)

- FSM 5707.31 Fixed-Wing Programs
  - NWCG Standards for Aerial Supervision (NSAS)
  - NWCG Standards for Single Engine Airtanker Operations
  - NWCG Standards for Airspace Coordination (NSAC)
- FSH 5709.16 Aviation Management and Operations Handbook.

4.3 Policy

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

- Policy guides aviation safety 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 aviation principles and safety management systems within the Regions.

Regional Supplement

The National Aviation Safety Management System Guide (2019) is available from the following website:

https://www.fs.usda.gov/managing-land/fire/aviation/publications

Training to understand the SMS is available from the RASM or at the following link. This course is now required in FSH 5709.16 Chapter 60 – Aviation Training. A formal process to track this training via IAT has not yet been developed. The R4 Aviation Teams Site also maintains current SMS training information.

https://www.youtube.com/watch?v=3JznzHBh0vI&feature=youtu.be

Forest Supplement

Placeholder.

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.

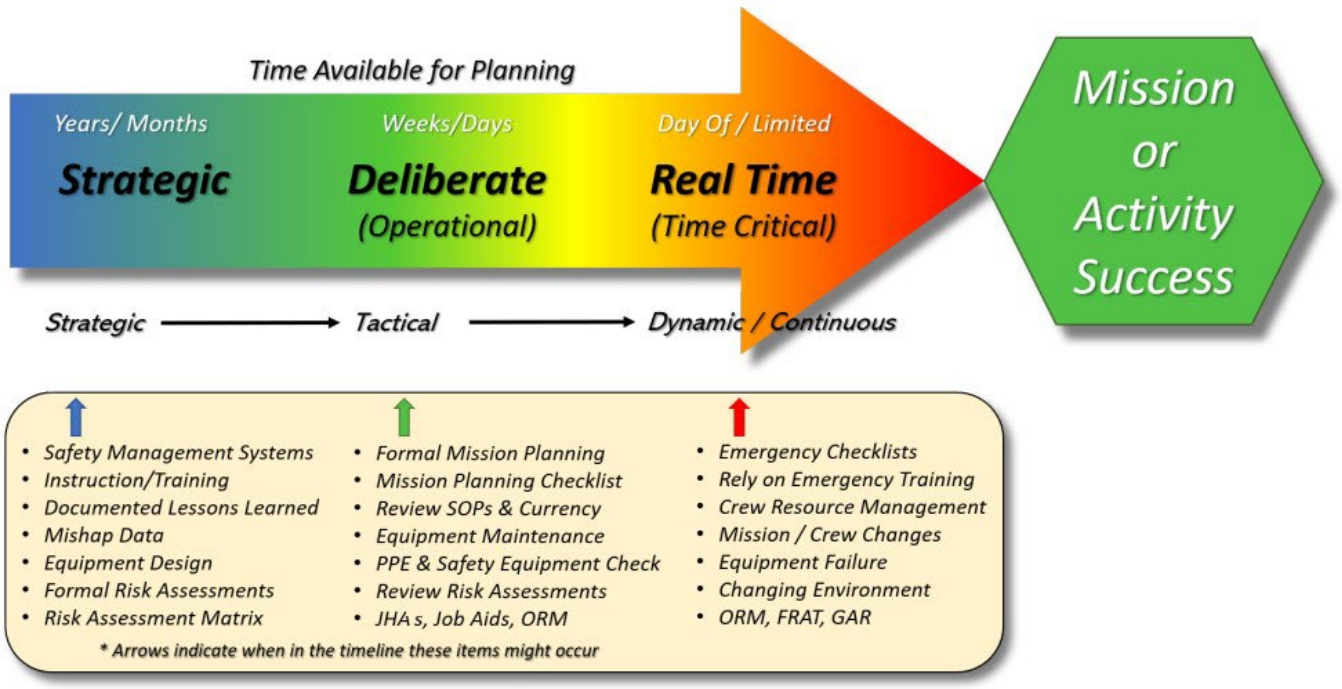
Will establish feedback loops between assurance functions to evaluate the effectiveness of safety risk controls.

The necessary steps in the risk assessment process are outlined in the NWCG Standards for Aviation Risk Management PMS 530.

Regional Supplement

Risk management is performed at multiple levels with the goal of managing risk to as low as reasonably practicable (ALARP.) The following figure is from the PMS 530 illustrating risk management levels and associated example documents and processes.

Figure 1: Relationship of Risk Management Levels



The NWCG Aviation Risk Management Workbook, PMS 530-1 | NWCG provides guidance and example Risk Assessments to assist in risk management processes at multiple levels (i.e. MASP development).

Per FSH 5709.16 Ch 10: Time critical risk assessment is the tool that pilots and managers use to assess actual risks specific to the day of flight

Regional/Forest aviation programs will adhere to the following guidance regarding Time Critical Risk Assessment tools:

- A FRAT shall be completed by the pilot(s) prior to the first flight of the day, this includes mission flights, administrative flights, training flights, etc. Agency pilots will complete FRATs within PRISM, to maintain records and satisfy SMS requirements. Contract pilots will complete a FRAT as part of their company SMS.
- Additional Operational Risk Management can include the use of a General Assessment of Risk (GAR), also known as "Green-Amber-Red", and should include key personnel involved in the mission (i.e. pilots, aviation managers, qualified non-crewmembers, mechanics, etc.). The results of a GAR may or may not be recorded and retained depending on the level of time criticality.
- With the exception of the pilot FRAT requirement, aviation resources may use the risk assessment their choosing (FRAT, GAR, DORA, etc.). Example templates for customization are available on the R4 Aviation Teams Site.
- Ensure that risk assessment final ratings are elevated and discussed with the appropriate personnel who maintain the risk decision authority for each risk level (i.e. Line Officer, IC, Aviation Manager, etc.)
- Record and retain copies of FRATs (3years) in accordance with FSH 6209.11 and for quality assurance purposes.
- Review completed FRATs routinely as part of AARs and trend analysis.

The National Aviation SMS guide is currently undergoing revision.

Forest Supplement

Placeholder.

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
- Interagency Standards for Fire and Fire Aviation Operations

Regional Supplement

The Intermountain Region may establish an ASAT when aviation activity in the region is extensive or if safety incidents suggest a team would be beneficial. All efforts will be made to coordinate with FAOs and aviation positions in IMTs about ASAT activities.

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). 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.

Regional Supplement

FAO/UAOs and select Regional Aviation personnel should contact the RASM for SAFECOM access, permissions, and issues.

SAFECOM Reporting Processes:

1. The individual involved or with first-hand knowledge of a hazard or incident should complete a SAFECOM online through www.safecom.gov. Call or email the RASM directly if you are unable to submit a SAFECOM online or require assistance.
2. It is recommended that individuals communicate and collaborate with the FAO/UAO prior to submission.
3. The SAFECOM system automatically assigns a tracking number to each SAFECOM entered into the database.
4. The system simultaneously sends a message to the RASM, the FAO/UAO of the unit with operational control, select Regional Aviation Staff, and the WO safety team, letting them know a SAFECOM has been submitted.

5. The RASM coordinates any follow-up required, sanitizes the SAFECOM of any identifying information, makes recommendations for corrective actions, and posts the SAFECOM for public access. FAO/UAOs and select Regional Aviation Staff may also review and make recommendations for corrective actions.

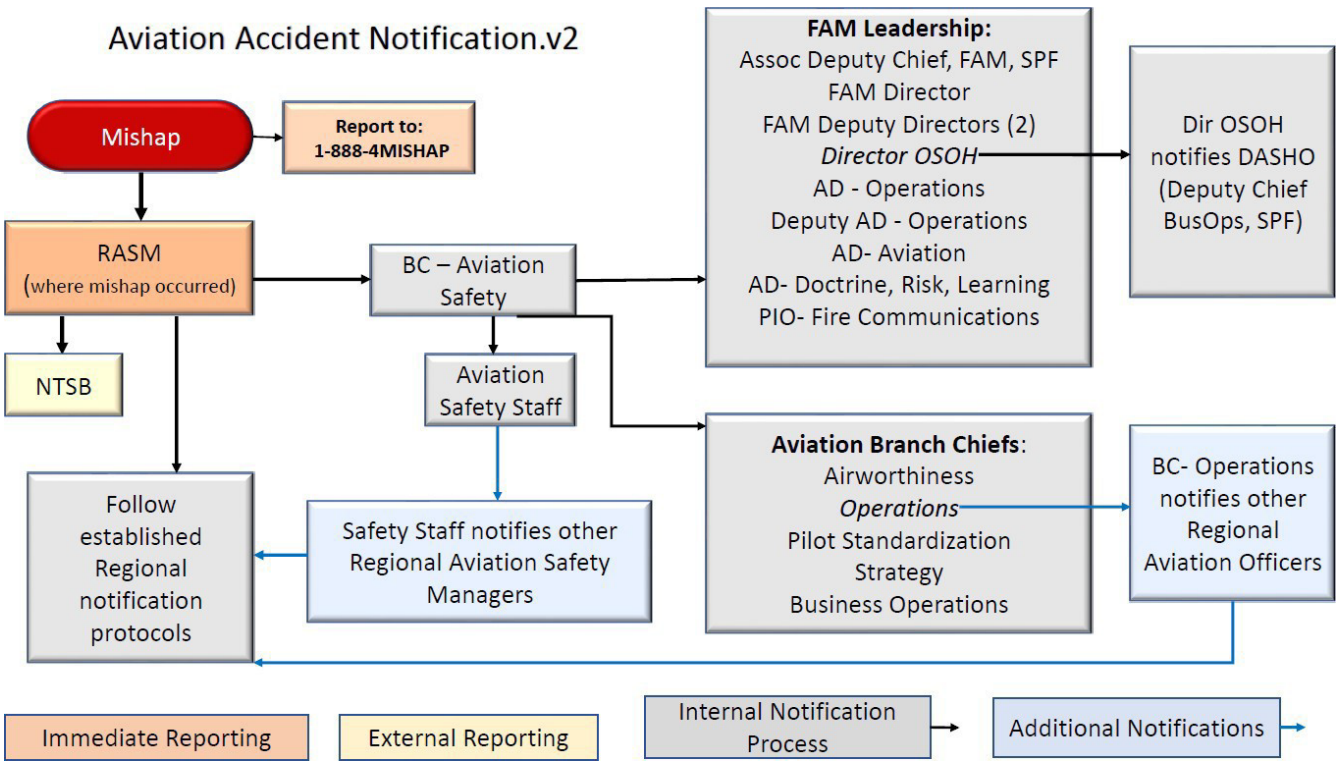
6. Aviation bases are encouraged to continually review new public SAFECOMS and discuss them with crews and vendors. The RASM will send out highlights of submitted SAFECOMS and discuss any trends identified throughout the year.

Aviation managers at all levels should review and implement corrective actions identified as necessary and applicable to their organizations.

4.5.3 Aircraft Accident Investigation Process

The National Transportation Safety Board (NTSB) is and independent federal agency responsible for investigating all civil and public aviation accidents. The Forest Service may be a party to an NTSB investigation and must follow all instructions from the NTSB Investigator in Charge. To ensure a thorough investigation that complies with NTSB statute, the Forest Service Aviation Investigation Team utilizes the Aircraft Mishap Investigation Guide (AMIG) to conduct the agency safety investigation. 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. The Forest Service may also receive recommendations from the NTSB. The process for managing recommendations is prescribed in the AMIG.

Aviation Accident Notification



4.5.4 Forest Service Strategic Risk Assessment Close-Out Process

Once the Strategic Risk Assessment (SRA) has been completed, the Assistant Director, Aviation 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 approximately one year after the SRA has been completed. The Strategic Risk Assessment Close-out Steering Committee (SRACO) 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 Strategic Risk Assessment Close-out Steering Committee with these products in the established timelines. The Strategic Risk Assessment Close-out Steering Committee will review and either accepts the SME products or a back-and-forth coordination will begin to develop acceptable products. Once the Strategic Risk Assessment Close-out Steering Committee agrees on an acceptable QA checklist, the Strategic Risk Assessment Close-out Steering Committee 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 Strategic Risk Assessment Close-out Steering Committee.

4.5.5 Mission Aviation Safety Planning (MASP)

Accident prevention is paramount when planning individual aviation operations. MASPs are not required for incident aviation operations or administrative use flights.

Prior to commencing non-emergency aircraft operations, or aircraft operations outside the scope of an approved training program, the Regional Directors, Forest Supervisors, and Station Directors shall develop and document a Project Aviation Plan including a MASP that will be reviewed by the RAO (FSM 5700). 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 5700.

Regional Supplement

Intermountain Region Aviation Safety Reviews

In order to prevent an aircraft mishap, incident, or property damage, the Intermountain Region conducts safety reviews to help local units comply with safety standards and detect unsafe conditions. Reviews may be tied to a Regional Fire Preparedness Review, base reviews, or may be conducted as needed.

To accomplish formal reviews, a team of Forest Service, interagency, and/or industry aviation and management officials may be used to conduct surveys, audits, and reviews. The review team will provide the operating unit and its managing organization with a written report of its findings and recommendations. The unit and their supervisors shall develop and implement an action plan that addresses the findings and recommendations contained in the report. Reviews will be conducted to provide safety assurance on a six-year schedule for each Forest, with up to two forests reviewed each year. Informal evaluations may be conducted on a more frequent basis by aviation specialists during field assistance visits to Forests, aviation bases, incident bases, and project sites.

Forest Supplement

FSM 5711.1 – Mission Aviation Safety Plan will be the standard applied to all aviation planning. Individuals developing a MASP will consult the System Safety Aviation Risk Management Workbook for information regarding the hazards, risks, and suggested mitigations associated with their specific aviation project. Any aviation projects not approved in this plan should be submitted to the FAO as soon in the planning process as possible for review. The Dixie/Fishlake National Forests, Forest Aviation Officer has been delegated the authority to review all Project Aviation Safety Plans on this Forest. MASP will be submitted to the FAO who will review and submit to the Region Aviation Officer for review. Once Regional review has occurred line officer approval will be required.

MASP Submission
MASP approval must be secured before aviation operations commence. There are two approval time requirements to be met based on project complexity.

Two Weeks. Routine missions of low complexity must be submitted at least two weeks prior to planned mission start dates to ensure adequate review, approval, and procurement time.

Four Weeks. Non-routine/ complex mission/projects of moderated to high complexity will require submittal at least four weeks prior to planned mission start dates due to the additional two week Regional/ State approval time requirement.

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 5720 for pilots and employees.

Regional Supplement

In accordance with FSM 5709.16 Chapter 20 and the National SMS Guide, Aviation Safety Awards, also called Airwards, can be given to Forest Service employees and units, other local government employees and organizations, and non-government individuals and organizations who perform exceptional acts or service in support of aviation safety and accident prevention. If you would like to submit a name or unit for an award, written documentation of the achievement needs to be submitted to the RASM for review. Written documentation shall include the information listed in FSM 5724.13: full name and position of the person(s) being nominated, date, time and location, mission, flight profile (if applicable), action taken, and a copy of the SAFECOM (if one was submitted). The preferred method of an Airward nomination is in a 1-2-page Word document emailed directly to the RASM.

Safe Flying Awards for Agency Pilots are now outlined in the National Aviation SMS Guide. In additional to these awards, the Region also awards pilots for 500 accident-free flight hours.

Pilot supervisors should notify the RASM when the following milestones are reached by their employees:

- 500 hours accident-free flight time
- 1000 hours or 5 years accident-free flight time
- 2000 hours or 10 years accident-free flight time
- 3000 hours or 15 years accident-free flight time
- 4000 hours or 20 years accident-free flight time
- Each subsequent 1000 hours, or every 5 years after 20 years.

The Region strongly supports awards for safe aviation operations. Options are available to recognize individuals and organizations for contributing to a positive aviation safety culture for the organization. Awards should be discussed and submitted to the RASM to determine appropriate award elements. Some awards have submission date requirements, as shown below.

- Washington Office Aviation Management Awards End of February
- Regional Forester's Honor Awards – End of June
- Chief's Awards- End of May
- ICAP Federal Aviation Awards- End of May

Forest Supplement

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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 ensure 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

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Forest Supplement

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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: https://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: https://www.nifc.gov/nicc/logistics/references/Military_Use_Handbook.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: This is available upon request from the WO ASMS Branch.

Aircraft Inspector Guide: Available from the Washington Office Detached Unit, Boise agency aviation staff. Available at: https://www.fs.usda.gov/managing-land/fire/aviation/publications

Air Card Guide: Available from the Washington Office Detached Unit, Boise agency aviation staff **Aviation Safety Management System Guide:** https://www.fs.usda.gov/managing-land/fire/aviation/publications
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 agency aviation staff. **National Rappel Operations Guide:** https://www.fs.usda.gov/managing-land/fire/aviation/publications **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: https://www.fs.usda.gov/sites/default/files/2019-04/webfs_special_mission_airworthiness_assurance_guide_revision_2015.pdf **WCF Aircraft User Guide:** https://www.fs.usda.gov/sites/default/files/media_wysiwyg/approved_wcf_aircraft_user_guide_3_8_2016.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
- National Night Air Operations Plan
- Water Scooper Aircraft Operating Plan
- Airtanker Operations Plan
- Aircraft Coordination Operations Plan
- Forest Service Standards for Unmanned Aircraft Systems Operations
- Helicopter 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.

NWCG Standards for Interagency Cooperator Type 2 and 3 Helicopters, PMS 525-1: https:/www.nwcg.gov/sites/default/files/publications/pms525-1.pdf

NWCG Standards for Aerial Ignition NWCG Standards for Aerial Ignition, PMS 501
NWCG Standards for Aerial Supervision NWCG Standards for Aerial Supervison, PMS 505 **Interagency Airplane Pilot Practical Test Standards:** interagency_airplane_pilot_practical_test_standards_2012_revision_2.0.pdf (usda.gov)
NWCG Standards for Airspace Coordination: https://www.fs.usda.gov/managing-land/fire/aviation/publications

NWCG Standards for Airtanker Base Operations: NWCG Standards for Airtanker Base Operations, PMS 508
Interagency Aviation Life Support Equipment (ALSE) Handbook: https://www.doi.gov/sites/doi.gov/files/interagency-aviation-life-support-equiment-handbook-guide-v3.0.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):** https://www.iat.gov/default.asp
NWCG Standards for Aviation Transport of Hazardous Materials Guide: https://www.nwcg.gov/sites/default/files/publications/pms513.pdf

NWCG Standards for Helicopter Operations: NWCG Standards for Helicopter Operations, PMS 510
Interagency Helicopter Pilot Practical Test Standards: https://www.fs.usda.gov/sites/default/files/2020-06/interagency_helicopter_pilot_practical_test_standards_2015.pdf
National Rappel Operations Guide (NROG): https://www.fs.usda.gov/sites/default/files/2021-09/2019%20USFS%20NROG_Final%20Approved_Ver%201.3%20FULL%20VERSION.pdf
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): Interagency Standards for Fire and Fire Aviation Operations | National Interagency Fire Center (nifc.gov)
NASF Cooperators Aviation Standards for Interagency Fire: http://www.fs.fed.us/fire/aviation/av_library/COOP%20NASF%20Standards.pdf.
Incident Response Pocket Guide: https://www.nwcg.gov/sites/default/files/publications/pms461.pdf
National Interagency Mobilization Guide (annual revision): GACC >Logistics/Dispatch (nifc.gov) .
NWCG Standards for Fire UAS Operations: NWCG Standards for Fire Unmanned Aircraft Systems Operations, PMS 515

5.2.6 *Other References*

Regional UAS Desk Guides: http://fsweb.wo.fs.fed.us/fire/fam/aviation/uas/uasflights.htm
Aviation Risk Management Workbook: This can be obtained from the WO ASMS Branch

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. https://www.nwcg.gov/publications

National Aviation Safety and Management Plan: https://www.fs.usda.gov/managing-land/fire/aviation/publications

Regional Supplement

Regional Plans can be found on the R4 Aviation Teams Site.

Forest Service Standards for UAS Operations at: Forest Service Standards for UAS Operations 07012020.pdf (usda.gov)

NWCG Standards for Fire Unmanned Aircraft Systems Operations at: NWCG Standards for Fire Unmanned Aircraft Systems Operations, PMS 515

Forest Supplement

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5.3 Public/Civil Aircraft Operations

Forest Service aviation activities include both "civil" and "public" operations. Civil aircraft operations shall comply with FSM 5703.41. Public aircraft operations shall comply with FSM 5703.42.

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 FSH 5709.16 CH 30.

Regional Supplement

Regional and Forest Aviation Staffs should be familiar with Public Aircraft Law, Pressler Bill, FAA AC 00-1.1B, contracts, and agency aviation policies relating to Public Aircraft Operations.

Forest Supplement

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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), MASP, flight following, PPE, and appropriate management.

Regional Supplement

See also Regional Supplement Sections 3.12.

In accordance with FSM 5704.1, in unusual circumstances, Forest Service personnel may perform a flight in non-approved aircraft with non-approved pilots. The Regional Forester may approve these flights based on a recommendation from the RAO and counsel from the RASM.

Forest Supplement

Placeholder.

5.5 Aviation Emergency Response

In unusual circumstances, Forest Service personnel may perform a flight in non-approved aircraft with non-approved pilots (FSM 5704.1). 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. Under emergency circumstances, where human life is immediately at risk by wildland fire on lands under Federal protection, a Federal Line Officer can approve the use of non-federally approved aircraft (FSH 5709.16, chapter 30.3). This exemption must only take place when sufficient federal firefighting aircraft are not readily available to meet the emergency need. Federal Line Officers are encouraged to consult with their agency aviation management personnel to aid in decision-making.

A Flight Risk Assessment Tool (FRAT) shall be completed and approved by the appropriate Line Officer prior to the flight(s). The General Assessment of Risk (GAR) Model Risk Assessment, outlined in PMS 530, 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

The RAO and RASM shall be notified of the deviation in a timely manner.

Forest Supplement

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5.6 Flight Planning

Flight Planning Information is available in the National Interagency Mobilization Guide.

Regional Supplement

Forest Aviation Officers (FAOs) or the Forest's aviation delegate, will ensure that Flight Hazard Maps are accurate and available for Incident Management Teams and aircraft operating on incidents, missions, or project work within the boundary of their forests.

5.7 Flight Following

Flight following guidance is available in the National Interagency Mobilization Guide. Chapter 50 and FSH 5709.16 Chapter 30.

Regional Supplement

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Forest Supplement

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5.8 Radio Frequency Management/Communications

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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

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Forest Supplement

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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. The TFR Request form is found in https://www.nifc.gov/nicc/logistics/coord_forms/tfr.rtf. Additional information is available in the NWCG Standards for Airspace Coordination, PMS 520. 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 Mishap Response

Forest Service local units shall establish procedures in an Emergency Response Plan to, FSM 5704:

- 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

The Intermountain Region maintains a "Notification Requirements for Accidents/Incidents" document on its R4 Aviation Teams site, under the "Safety" link. This document outlines who should be notified and when they should be notified based on the type of event that led to an injury or illness.

Local units will use the Interagency Mishap Response Guide and Checklist as a foundation and incorporate local fire and aviation management contacts, local hospitals, "Life Flight" type resources and pertinent emergency response information (i.e., phone numbers, latitude, longitude and frequency information for area hospitals, helibases, etc.) into their respective response guides.

Responding to aviation mishaps is a rare occurrence, therefore, practice drills and discussion on responding to mishaps will be reviewed throughout the year. These discussions should include what crews and passengers should do in the event of a mishap at any location where they operate, e.g., backcountry, on airport, at helibase, cross-country, etc. Emergency response drill information is available on the R4 Aviation Safety Intranet Website under promotion and the R4 Aviation Teams Site.

Forest Supplement

Placeholder.

5.11 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 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)

5.12.1 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.

Regional Supplement

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Forest Supplement

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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.

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.

Regional Supplement

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Forest Supplement

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5.14 Invasive Species Control

In order to prevent the spread of aquatic invasive species, it is important that aviation personnel recognize how aviation operations can prevent the transport of these species. The **NWCG Guide to Preventing Aquatic Invasive Species Transport by Wildland Fire Operations** provides operational guidelines, best management practices, and equipment cleaning guidance to minimize the spread of aquatic invasive species.

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

Regional Supplement

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Forest Supplement

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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 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

Since 2011, there have been several National Forests that through misapplications, have exceeded the amount of incidental take authorized by the Nationwide Aerial Application of Fire Retardant on National Forest System Lands, Record of Decision (2011) and the associated Biological Opinion (BO). The Forest Service reinitiated consultation on species in the National Marine Fisheries Services (NMFS) west coast region in spring of 2017. The associated biological opinion was rendered in 2019 and has been accepted and implemented.

The following websites provide updated information regarding aerial application of retardant:

Interagency Wildland Fire Chemicals Policy and Guidance

https://www.fs.fed.us/managing-land/fire/chemicals

Implementation Guide for Aerial Application for Fire Retardant

https://www.fs.fed.us/sites/default/files/media_wysiwyg/wfcs_2016afr_handbook.pdf

Forest Service Aerial Fire-Retardant Avoidance Maps

https://ftp.nifc.gov/public/base_info/retardant_avoidance_areas/Maps/ *(Quad maps for all Regions/Forests with all retardant avoidance maps)*

https://usfs.maps.arcgis.com/apps/webappviewer/index.html?id=53c2f30ed89f429b93f2e09dc3336ad0 *(new national avoidance map viewer – more interactive).*

GIS Data:
Map Services (public):

Terrestrial/TEPCS avoidance areas:
https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW_AerialFireRetardantAvoidanceAreas_01/MapServer

Hydrographic avoidance areas (public):
https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW_AerialFireRetardantHydrographicAvoidanceAreas_01/MapServer

FSGeodata Clearinghouse (public, geodatabase and shape file):
https://data.fs.usda.gov/geodata/edw/fire-avoidance.php

Data.gov (public, geodatabase and shape file):
https://catalog.data.gov/dataset?q=retardant+avoidance&sort=none&ext_location=&ext_bbox=&ext_prev_extent=-142.03125%2C8.754794702435618%2C-59.0625%2C61.77312286453146

Forest Supplement

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5.16 Search and Rescue (SAR)

Refer to the FSH 5709.16 CH 30 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

The Forest Service does not have jurisdictional authority for SAR operations on FS Lands. Ground SAR operations on FS Lands are coordinated under the authority of the County Sherriff where the incident occurred. There have been circumstances where the County Sherriff has requested assistance in locating or extracting both general aviation aircraft, and lost, ill, or otherwise injured civilians. In these circumstances, approval to assist must come from the local line officer.

When SAR support activities occur, consideration should be given to the use agreements or MOU between requesting parties for cost or reimbursement, see FSM 1596.01 and 1596.03.

Notify the RAO or the RASM as soon as practical after supporting SAR incidences.

Forest Supplement

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5.17 Airtanker Operations

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.

Refer to the Forest Service Standards for Airtanker Operations, https://www.fs.usda.gov/sites/default/files/2020-08/fs_standards_for_airtanker_operations_-_final_08192020.pdf

5.17.2 Airtanker Bases

Airtanker bases will be staffed, and procedures and operations will be executed, in accordance with the NWCG Standards for Airtanker Base Operations.

Regional Supplement

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Forest Supplement

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5.18 SEAT Operations

SEATs primary mission is initial attack. SEATs are contracted by the Department of the Interior, Office of Aviation Services, operationally managed by the Bureau of Land Management's National SEAT Coordinator and BLM State Aviation Managers. Operational considerations concerning SEATs can be referenced in NWCG Standards for Airtanker Base Operations, PMS 508 SEAT Section and the NWCG Standards for Aerial Supervision

SEAT Manager (SEMG) responsibilities are outlined in the NWCG Standards for Airtanker Base Operations, PMS 508 SEAT Section and their training and currency requirements are contained in the NWCG Standards for Wildland Fire Positions (NWCG PMS 310-1).

Regional Supplement

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Forest Supplement

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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 NWCG Standards for Aerial Supervision 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

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5.19.1 Aerial Supervision Personnel

Roles and responsibilities of Aerial Supervision Personnel can be found in NWCG Standards of Aerial Supervision, PMS 505.

5.19.2 ASM

ASM roles and responsibilities can be found in NWCG Standards of Aerial Supervision, PMS 505.

5.19.3 Lead Plane

Lead plane roles and responsibilities can be found in NWCG Standards of Aerial Supervision, PMS 505.

5.19.4 HLCO

The HLCO roles and responsibilities can be found in NWCG Standards of Aerial Supervision, PMS 505.

5.20 Helicopter Operations

All helicopter operations shall be accomplished in accordance with the NWCG Standards for Helicopter Operations, Forest Service Standards for Helicopter Operations, the NWCG Standards for Aerial Ignition and other applicable Forest Service or interagency helicopter operations plans, standards and guides, and the aircraft contract.

5.21 Aerial Ignition Operations

Aerial Ignition operations shall be accomplished in accordance with the NWCG Standards for Aerial Ignition.

Regional Supplement

Helitack crews in the Intermountain Region are equipped to conduct aerial ignition through PSD and Heli-torch operations. Ignition device operators must meet training and qualifications identified in the Interagency Aerial Ignition Guide.

Aerial Ignition using approved UAS Aerial Ignition Payload devices has been authorized by NIAC-20-01 approval letter.

5.22 Multi-engine Water Scooper Operations

Multi-engine (ME) Water scoopers are a national resource and should be managed and used much like heavy helicopters. Operations will be in compliance with the ME Water Scooper Operations Plan

5.23 Smokejumper Operations

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

5.23.1 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 and Interagency Smokejumper Pilot Operations Guide (ISPOG).

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).

Regional Supplement

In addition to the Smokejumper incident notification protocols, the RASM will be notified in the event a Smokejumper is injured in the performance of a jump from an aircraft or a J-PAD incident or mishap. If the RASM is unavailable, then notification will be made to the RAO.

Forest Supplement

Placeholder.

5.23.2 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

Placeholder.

Forest Supplement

Placeholder.

5.24 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.

5.24.1 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 MASP will be prepared. This includes the use of aviation resources for Flight Service Contracts. The responsible individual will prepare a MASP and submit the plan for review and approval. All LEI operations will have a MASP prior to commencing operations. Line officers shall be informed of law enforcement and investigator non-covert aviation activities within their area of responsibility.

5.24.2 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.

5.24.3 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

The MOA mentioned above regarding CAP has not been developed. There were many issues with the aircraft systems, i.e., avionics, etc. and the FS Aviation decided to no longer pursue the agreement.

5.24.4 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.

5.24.5 LEI Personal Protective Equipment (PPE) During Tactical Operations

Follow the direction on the use of personal protective equipment (PPE) described in the NWCG Standards for Helicopter Operations. 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.

5.24.6 Emergency Operations

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

Regional Supplement

Intermountain Region LEI may be approved for short-haul and/or hoist operations. If so, an approval letter will be issued by the Deputy Chief, State and Private Forestry and the Director of LEI.

FSM 6725 Intermountain Region - Provides direction to Intermountain Region units to evaluate local Emergency Medical Response capabilities to determine if there is a need to supplement those capabilities through training and certification of Forest Service employees as Emergency Medical Providers (EMP). Identifies resources needed to help in the Emergency Medical Response planning effort. Provides procedural guidance to comply with individual State regulations, while maintaining focus on the objective of providing Emergency Medical Response for employees, cooperators, and the public.

FSM 6725- (Section 4) Intermountain Region – As appropriate, each unit will evaluate the need to establish Emergency Helicopter Extraction protocols (EHE) and prepare helitack crews to perform this operation where no other reasonable or reliable alternative exists. Resources operating in remote locations may benefit from cross training in patient packaging and rigging for Emergency Helicopter Evacuation.

5.25 Unmanned Aerial Systems (UAS)

Any planned use of UAS (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.

> *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.*

Forest Service UAS Operations and training will comply with the Forest Service Standards for UAS Operations and the NWCG Standards for Fire UAS Operations, PMS-515.

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 (FSH 5709.16 CH 30). UAS operated by cooperators (including the military) in support of Forest Service missions are subject to the approval requirements in FSM 5700 and shall meet additional requirements established in the Forest Service Standards for UAS Operations.

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

5.26 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 shall 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 NWCG Standards for Helicopter Operations. For all non-fire flights, the Interagency Aviation Training Guide provides minimum training standards for fixed-wing flight managers (FWFM) in charge of 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.

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 NWCG Standards for Wildland Fire Position Qualifications, 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 / NWCG Standards for Wildland Fire Position Qualifications, PMS 310-1or other interagency guidance as appropriate (NWCG Standards for Aerial Supervision, 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

Forest Aviation Officers shall keep IAT up to date with the appropriate names of line officers and agency administrators required to hold IAT Supervisor qualifications. This aids the RO tracking compliance with A314 and A200.

Forest Supplement

Aviation training should be addressed in all employees Individual Training Plans. See the Interagency Aviation Training Guide for education, qualification, and currency requirements and for position descriptions and required modules. Required training and experience requirements for fire related aviation positions can be found in the Wildland Fire Qualifications Subsystem Guide, 310-1 and FSH 5109.17. It is the policy of the Fishlake National Forest that all aviation trainees meet agency standards.

Fire operations personnel at or above the Division Supervisor or ICT3 level are encouraged to reinforce their aviation tactical and logistical skills. Firefighters occupying these positions should attend Interagency Aviation Training (IAT) and Interagency Airspace Coordination if possible.

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 5700.45). The Washington Office, Branch Chief, Aviation Strategic Planning is responsible for national oversight of the aviation training program. Washington Office Branch Chiefs will provide oversight over training in their area of expertise.

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

Placeholder.

Forest Supplement

Placeholder.

6.3 Instructor Standards

Aviation training instructors 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. For those individuals who serve as an Interagency Aviation Training (IAT) instructor shall follow the IAT Guide, Part 3 - Interagency Aviation Training Instructor Certification.Personnel serving in NWCG instructor positions need to meet the qualification and currency requirements in Forest Service Fire and Aviation Qualifications Guide and the NWCG Standards for Course Delivery, PMS 901-1.

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

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/Unit 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

Placeholder.

Forest Supplement

Placeholder.

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

Placeholder.

Forest Supplement

Placeholder.

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

Placeholder.

Forest Supplement

Placeholder.

One-Way NWCG to IAT Equivalency Matrixes

The One-Way S course to A course IAT equivalency Matrix; and One-Way NWCG Position to IAT Position Crosswalk is available in IAT.org. https://www.iat.gov/ and found in the IAT guide.

Some positions listed in the NWCG / Forest Service Fire and Aviation Qualifications Guide Qualifications column will crosswalk into the non-fire IAT Resource Qualifications. As well as some courses listed in NWCG / Forest Service Fire and Aviation Qualifications Guide will grant equivalency for IAT A courses.

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. Additional information on IAT/NWCG training can be found on FSH 5709.16 chapters 30 and 60.,

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

6.7 Aviation Contracting Officer Representative (COR) Requirements

Aviation COR's must meet initial training and maintenance requirements as stipulated in the USDA Contracting Desk Book.

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

6.8 Crew Resource Management (CRM) Training

For CRM, the Forest Service requires N9059-Crew Resource Management 7 Skills Training. Refer to the NWCG Standards for Wildland Fire Position Qualifications, PMS 310-1, Forest Service Fire & Aviation Qualification Guide (FSFAQG) and Interagency Aviation Training (IAT Guide in order to determine which 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 Subcommittee (IASC) charted under the National Interagency Aviation Council (NIAC). Guidance and education is provided through the NWCG Standards for Airspace Coordination, PMS 520.

7.2 Fire Traffic Area (FTA)

FTA Information is available in NWCG Standards for Airspace Coordination, PMS 520.

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 the NWCG Standards for Airspace Coordination, PMS 520..

Regional Supplement

When using Temporary Flight Restrictions (TFRs) to protect the airspace over a fire operation, Aviation Managers are expected to review their active operational area and the TFR boundary daily; adjusting as necessary to ensure safe airspace for fire operations and returning those areas of airspace no longer needed to the National Airspace System.

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. Information is available in NWCG Standards for Airspace Coordination, PMS 520 and NWCG Standards for Aerial Supervision. PMS 505.

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 areas or zones.

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

Placeholder.

Forest Supplement

Placeholder.

7.6 Airspace De-confliction

Airspace de-confliction should occur for both emergency response and non-emergency aviation activities. De-confliction should 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 should obtain scheduling information from DOD units that have Special Use Airspace or Military Training Routes and share this information as "Aircraft Hazards" information on the NWCG Aircraft Dispatch Form, PMS 250 when the aircraft is dispatched. For non-emergency flights, information should 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

Placeholder.

Forest Supplement

Aviation Dispatchers are responsible for assuring that agency aircraft dispatched to initial or extended attack incidents, leave their bases with accurate mission information. If aircraft are crossing or working near unit boundaries utilize the following checklist:

HAVE NEIGHBORING DISPATCH CENTER(S) BEEN NOTIFIED OF YOUR RESPONSE?
Yes ____ No ____

HAVE COMMON FREQUENCIES BEEN ASSIGNED TO ALL RESPONDING AIRCRAFT?
Yes ____ No ____

IF EXTENDED ATTACK, HAVE DISPATCH CENTERS AGREED ON SINGLE ORDERING POINT FOR INCIDENT RESOURCES?
Yes ____ No ____

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

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

HAVE YOU NOTIFIED COOPERATING AGENCIES?
Yes ____ No ____

7.7 Airspace Conflicts

Aviation personnel have a responsibility to identify and notify the Air Route Traffic Control Center (ARTCC) and report conflicts and incidents through the Interagency SAFECOM (Safety Communication) System to assist in the resolution of airspace conflicts. Notification to the ARTCC should be timely. 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 the NWCG Standards for Airspace Coordination.

Regional Supplement

The Aircraft Conflict Initial Report Form shall be used to report any of the above referenced conflicts or incidents. It can be found at the link below and on the GBCC Aviation page under "Aircraft Forms" and "UAS" drop-down sections.

Aircraft Conflict Initial Report (nwcg.gov)

For UAS Intrusions and Incursions that halt incident operations, the time should be noted on the form and the SAFECOM.

Forest Supplement

Placeholder.

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 NWCG Standards for Airspace Coordination, PMS 520.

Regional Supplement

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Forest Supplement

Placeholder.

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

See section 3.3 Aviation Plans for information about required security/facility plans.

Forest Supplement

Placeholder.

8.2 FS Facilities Security Self-Assessment

Each Forest Service aviation facility must complete a security self-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 self-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 30 for the FS Security Self-Assessment.

Regional Supplement

Templates to aid completing these assessments and the HSRP are available on the R4 Aviation Teams Site. These assessments may require restricted access due to the nature of the content.

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. Review FSH 5709.16 Chapter 30 for security response actions.

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

8.4 General Aviation Security Awareness Programs

RESERVED

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

8.5 Aircraft Security Information (Cooperators)

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

Regional Supplement

Due to increased airport security requirements, some aviation personnel (i.e., transient pilots and mechanics for Type I and II helicopters) may require an escort by approved personnel to gain access to airport parking or staging areas.

Forests should work with local airports to establish a procedure for escorting transient pilots and mechanics that base their operations within a Security Information Display Area (SIDA). As an example, a Type I helicopter could be based at a commercial airport in support of a large fire for several days. The mechanic supporting that helicopter will require access to the aircraft on the airport at all hours. The airport may require that the mechanic be escorted by an authorized individual.

Forests can work with their local airports to receive training and background checks to obtain the appropriate credentials to escort pilots and mechanics to operate within the SIDA. All airports will have personnel authorized to escort personnel in the SIDA, however they may not be staffed to support the 24 hour a day support required for some aircraft operations.

Forest Supplement

The Fishlake F.A.O., RIFC or Duty Officers will coordinate with local airport managers to establish a procedure for escorting transient pilots and mechanics that base their operations within a Security Information Display Area (SIDA).

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, which are safe, adequate, and are in compliance with applicable Forest Service regulations.

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

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 NWCG Standards for Helicopter Operations; the NWCG Standards for Airtanker Base Operations and Chapter 8 of the Interagency Standards for Fire and Fire Aviation Operations.

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

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

Placeholder.

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

Placeholder.

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

Placeholder.

9.6 Agency Owned/Operated Airstrips

RESERVED

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

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

Placeholder.

9.8 Funding

RESERVED

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

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 NWCG Standards for Interagency Incident Business Management (PMS 902).

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

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 30 (Aviation Security) for additional facilities security.

Regional Supplement

Placeholder.

Forest Supplement

Placeholder.

10 Appendix

- ## 10.1 Sample Letter of Cooperator Approval

AT THE END OF CHAPTER 10

10.2 Cooperator Approval Guide

RESERVED

10.3 Fixed Wing Aircraft Passenger Manifest Form

RESERVED

10.4 Project Proposal Template

RESERVED

United States Department of Agriculture

Washington Office

1400 Independence Avenue, SW
Washington, D.C. 20250

File Code: 5700
Date: July 27, 2021

Ms. Teresa Fitzpatrick
3500 Fetchet Avenue
Andrews RC, MD
20762

Dear Ms. Fitzpatrick:

By way of this letter, the Department of Defense Air National Guard RC-26 aircraft and Joint Terminal Attack Controllers support personnel are approved for wildland fire infrared operations through Interagency Agreement # 21-IA-l l 132543-028. The RC-26 mission in support to wildland fires is within the scope of the interagency agreement, as well as supports the U.S. military. No special inspections of aircraft or flight crew are needed to conform to wildland fire support missions. Operations shall be conducted in accordance with U.S. Department of Agriculture's Forest Service Manual 5700 and Forest Service Handbook 5709.16, applicable operations plans, and the appropriate U.S. Air Force regulations. This letter of approval expires on April 30, 2022.

Forest Service and Department of the Interior personnel may perform quality assurance reviews to verify compliance with the Interagency Agreement # 21-IA-l l 132543-028, Forest Service Manual 5700 and Forest Service Handbook 5709.16 whenever aircraft are being used or might be used on federal incidents. This letter shall be maintained within the RC-26 aircraft and shall be made available for inspection upon request.

Joint Terminal Attack Controller personnel are fireline qualified and may or may not be deployed with the aircraft depending on need. If deployed, they can be assigned to different Divisions (or an Incident Command Post) on the same fire, or they can be split among several fires in the same geographic area. If Joint Terminal Attack Controllers are not requested or deployed with the aircraft, then RC-26 produced maps and detection data are sent to a Geographic Information System analyst at the Geographic Area Coordination Center. The information will be processed, distributed, and posted for access by Incident Management Teams and fire managers.

Other intelligence gathering aircraft owned or contracted by the Forest Service, or owned or contracted by a cooperating State, may also operate on fires in the western United States. RC-26 National Infrared Operations, contract infrared/mapping and Night Watch personnel must coordinate with each other prior to flights when flying in the same geographic area. Communication should occur inflight using National Flight Following, Guard, or incident assigned frequencies. The RC-26 will operate at 10,000 feet or more above the Fire Traffic Area ceiling or the Temporary Flight

Restriction ceiling, whichever is higher. For reference, the Forest Service Night Watch fixed-wing aircraft generally operates 3,000 to 8,000 feet above ground level depending on fire size; contract infrared/mapping aircraft night operations occur between 6,000 to 18,000 feet above ground level; the National Infrared Operations aircraft will generally operate between 8,000 to 12,000 feet above ground level; Multi-Mission Aircraft generally fly at 10,000 to 15,000 feet above ground level; and the State of Colorado's Multi-Mission Aircraft may also be operating on fires.

If requested by the RC-26 flight crew to facilitate fire situational awareness, Forest Service and Department of the Interior personnel may ride on the RC-26 aircraft as essential crewmembers during missions. The Forest Service and Department of the Interior personnel shall get approval from the appropriate Regional/Bureau of Land Management State Aviation Officer prior to boarding the aircraft.

Questions regarding this letter of approval should be directed to the following Washington Office Fire and Aviation Management personnel: Kim Christensen, Deputy Assistant Director for Operations, at (208) 867-5082, Billy Gardunio, Acting Fire Imaging Program Manager, at (530) 226-2730, or Paul Linse, Assistant Director for Aviation, at

(202) 557-1545.

Sincerely,

WILLIAM AVEY

Acting Director, Fire and Aviation Management

cc: Major Sean Recame, William Avey, Gordon Sachs, Paul Linse, Kim Christensen, Billy Gardunio, John Nelson, Lori Clark, Rock Parrilla, Heather Castillo, Aaron Schoolcraft, Abe Fandrich, Regional Fire Directors, RAO & RASM

United States Department of Agriculture

USDA Forest Service
Fire & Aviation
Management

Aviation Division

PROJECT or PROGRAM or ISSUE PROPOSAL NAME

Forest Service **Month 20XX**

Table of Contents

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?

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.

[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.

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