United States Department of Agriculture

National Aviation Safety and Management Plan

2021–2022

Forest Service **January 14, 2021**

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2021–2022

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2021–2022

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Contents

Digest

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

Section	Description of Change
2	Updated WO Staffing
2	Clarified Line Officer training responsibilities
4	Updated SMS and Risk Management definitions
6	Updated training responsibilities
10	Added Flowchart, Briefing Paper, and forms for implementation of Tactical Pause, Stand Down, and Shut Down of operations.
All	Replaced IA guide titles with NWCG Standard titles
All	Minor changes

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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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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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.

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1.4 Aviation Doctrine

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

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

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

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

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, and the aviation guides as listed in this chapter, under FSM 5706.

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

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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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: Golden, CO

Region 3: Albuquerque, NM

Region 4: Ogden, UT

Region 5: Vallejo, CA

Region 6: Portland, OR

Region 8: Atlanta, GA

Region 9: Milwaukee, WI

Region 10: Juneau, AK

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, Operations, and Information Management

The Deputy Director, Aviation, Operations, and Information Management 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 – Washington D.C.
- Branch Chief, Aviation Operations – Boise, ID
- Branch Chief, Airworthiness – Boise, ID
- Branch Chief, Pilot Standardization – Boise, ID
- Branch Chief, Aviation Strategic Planners – Portland, OR

2.2.4 Branch Chief, Aviation Business Operations (ABO)

The Branch Chief, Aviation Business Operations provides oversight, planning, coordination, and direction for aviation policy, budget, reporting, and analysis. The Aviation Business Branch also includes:

Aviation Management Specialists (3)

2.2.5 Branch Chief, Aviation Strategic Planner

The Branch Chief, Aviation Strategic Plans 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, Aviation Operations

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

National Helicopter Program Manager
    National Helicopter Operations Specialist
    National Assistant Helicopter Operations Specialist
    National Rappel Specialist
National Airtanker Program Manager
    National Airtanker Base Specialist

National Aircraft Coordinator
    National Fixed-Wing Coordinator
National Aerial Supervision Program Manager
National Smokejumper Program Manager
    National Ram-Air Parachute Safety Specialist (NTE)
    National Ram-Air Parachute Program and Training Specialist (NTE)
Aviation Program Specialist
National Unmanned Aircraft Systems 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, Pilot Standardization

The Branch Chief, Pilot Standardization provides national leadership for Agency Inspector Pilot qualifications, performance and training standards and provides management and supervision for the development and implementation of a National Pilot and Aircrew Standardization and Training Program. The Branch Chief's duties are in FSM 5704 and FSH 5709.16 Chapter 50. The Pilot Standardization Branch also includes:

National Fixed-Wing Standardization Pilot
National Helicopter Standardization Pilot
Fixed-Wing Inspector Pilot
Helicopter Inspector Pilots (3)

2.2.9 Assistant Director, Doctrine, Learning and Risk Management

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

2.2.10 Branch Chief, Aviation Safety Management System

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

- Policy, including managing and coordinating implementation of the National Aviation Safety Management Plan
- Risk management
- Safety Assurance
- Safety Promotion
- Reporting accidents and incidents to the Director, Fire and Aviation Management Staff, Washington Office and to Forest Service and Department Safety and Health officials
- Determining the classification of mishaps as accidents, incidents with potential or incidents
- Management and oversight of Aviation Safety Systems including; National Aviation Safety Center, National Aviation Safety Council, SAFECOM reporting system, aviation safety training and education
- Maintains a process for data collection and analysis as well as evaluation of aviation risk management and operational safety
- Establishes safety criteria and standards for National aviation contracts
- Coordinates with the Aviation Branch Chiefs to assure aircraft and pilot standards incorporate latest lessons learned from incidents and accidents
- Provides program oversight and direction for aviation education and training, including interagency aviation training (IAT), Advanced Aviation Management Training (AAMT) and Lessons Learned

The Aviation Safety Management Systems Branch also includes:

National Aviation safety Officers (3)

2.2.11 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 Inspection Guide (AIG).

2.3.5 Regional Aviation Safety Inspectors – Avionics

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

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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 should meet the Aviation Manager qualifications in Interagency Aviation Training Guide. The FAO/UAO responsibilities are located in the (FSM 5704.61). Some forests employ “service-first” positions to fulfill the FAO/UAO responsibilities. On those units, the position is referred to as a UAO.

2.4.3 All Employees

All employees involved in aviation activities are responsible for acquiring, knowing, and following aviation policy and regulations (FSM 5704.). 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).

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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.

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2.6 National Groups/Committees

2.6.1 National Aviation Team (NAT)

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

2.6.2 Interagency Committee on Aviation Policy (ICAP)

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

OMB Circular A-126, "Improving the Management and Use of Government Aircraft," provides the basic guidance for management of federal aviation programs and for travel on government aircraft."

2.6.3 National Interagency Aviation Committee (NIAC)

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

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

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

NIAC Sub Committees include:

- 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 Large Airtankers (LATs), Very Large Airtankers (VLATs), smokejumper aircraft, Type 1 and 2 helicopters, Type 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.

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

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

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

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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.

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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.

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3.3 Aviation Plans

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

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

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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.

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).

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3.4 Aircrew Orientation Briefings

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

- Leader's intent
- Local frequencies and their use (to include map if available)
- Contacts, name title, phone (may include vendor information)
- Local sunrise/sunset charts
- Local airport information (to include a map)
- Local lodging information
- Local water sources/dip sites (name, latitude and longitude, ownership, hazards, elevation, contact information)
- Helispots (name, latitude and longitude, map or aerial photo)
- Map depicting MTRs and Special Use Airspace
- IA size-up card
- Local medical evacuation information (including nearest burn and trauma centers)
- Local Search and Rescue authority, procedures, and contacts
- Flight Hazards Map (map and description)

- Airport crash rescue procedures
- Map and description of jettison areas
- Local flight following procedures (AFF and/or radio contact)
- Aviation Operations Plan
- Special considerations
- Local or Mission Specific Flight Risk Assessment Tool (FRAT)

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3.5 Land Use Policy for Aviation Activities

The regulation of aviation activities on or over Forest Service managed lands is solely dependent on Land Management Plans (LMP) direction and any applicable Federal Aviation Regulations (14 CFR).

Temporary aviation operations on Forest Service lands may be restricted due to LMP direction. FAOs should coordinate with resource managers to identify areas of restriction when developing Operating Plans, Forest Aviation Management Plans, and 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.

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3.6 Budget

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

WO Branch 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 (Form FS 6500-224) ONLY by the Assistant Director, Aviation. 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.

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3.7 Contracting

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

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

Refer to Section 3.10 for End Product Contracts.

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3.8 Aircraft Contract Start/Modification/Extension

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

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3.9 Contractor Performance

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

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3.10 End Product Contracts

An end-product contract is intended to efficiently and effectively accomplish certain projects with no internal operational controls or specifications from the Forest Service aviation personnel. Certain aviation operations, such as aerial application of herbicides and insecticides, seed, fertilizer, prescribed burn projects, and some Burned Area Emergency Rehabilitation (BAER) projects may be administered in a more efficient and less expensive

manner if contracted on an end-product basis, instead of through a Forest Service flight services contract. Refer to FSH 5709.16 Vol 10 for more information on end-product contracts.

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3.11 Aircraft Acquisition

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

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

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

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

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

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

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.

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3.12 Cooperator Aircraft

Cooperator aircraft operations are performed in accordance with policy in FSM 5710, FSH 5709.16 Volumes 36, 40, and 50, and the National Interagency Mobilization Guide. Specific limitations are included in the specific cooperator letter.

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3.13 Aircraft Administrative Use and Reporting

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

The USDA Property Management Regulation (PMR) 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.

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3.14 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.

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.

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3.15 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.

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.

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

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3.17 Working Capital Fund (WCF) (Fleet Aircraft)

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

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

The Working Capital Fund Accounting Operations Handbook, 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.

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3.18 Federal Excess Personal Property (FEPP)

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

The 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 excess property aircraft.
- Coordinate and/or establish an approved source of parts for excess property aircraft, such as the Department of Defense (DOD).
- Review State security risk assessments and mitigation plans.

- Review all acquisition documents prior to transfer of aircraft.

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3.19 Program Reviews

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

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3.20 New Project/Program/Issue Requests

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

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

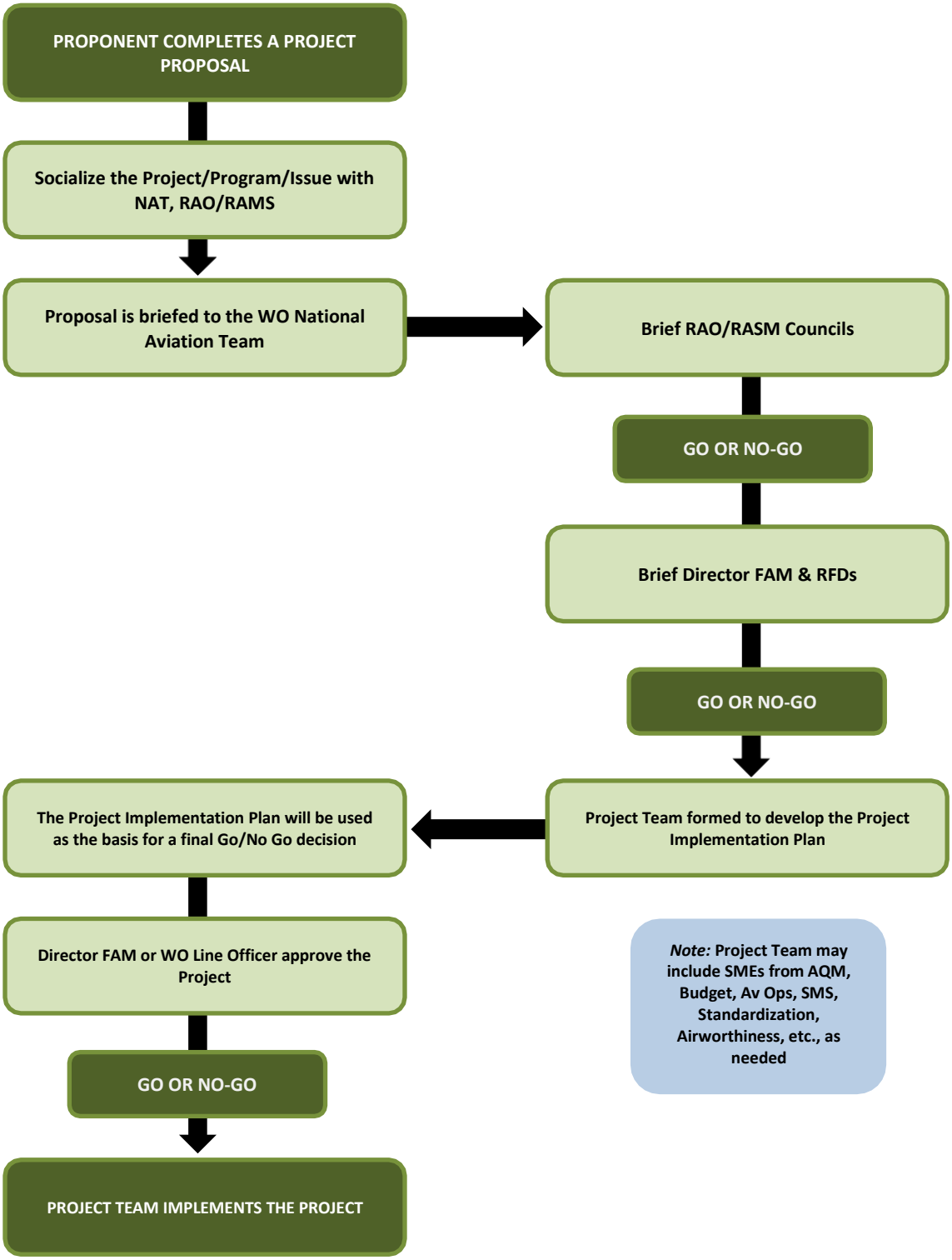
The Project will require decision approval from the Director, FAM at a minimum. Depending on the scope it may require WO Line Officer approval – Chief or Deputy Chief prior to implementation and operations.

- 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

Summary



4.0 Aviation Safety Management Systems

4.1 General

Safety is the state in which the possibility of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through continuing processes of hazard identification and risk management.

> It (safety) must be a core value of our culture, ingrained in the character of every employee. As an agency, we must endeavor to place the safety of our co-workers and ourselves above all else. This obligation requires integrity, trust, and leadership: the integrity of every employee to adhere to Agency standards, the trust in our leaders to place safety as the first priority, and leadership at all levels to provide a culture that encourages employees to communicate unsafe conditions, policies, or acts that could lead to accidents without fear of reprisal (Chief's Safety Policy, August 27, 2009).

This commitment to safety will be reflected as doctrine within aviation safety management. The adoption of SMS continues the application of Forest Service Doctrine. SMS is not a safety program; rather it is a system which aligns, assesses, and organizes an organization's existing safety processes around the concept of system safety. SMS incorporates a proactive approach using hazard identification and risk management to achieve accident prevention.

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4.2 Aviation Safety Management System (SMS)

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

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4.3 Policy

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

- Policy guides aviation safety doctrine, philosophy, principles and practices.
- Policy provides framework for aviation plans (refer to section 3.3 of this document).
- Policy assists in the development of local standard operating procedures.
- Policy will foster and promote doctrinal principles and safety management systems within the Regions.

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4.4 Risk Management

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

The agency:

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

There are necessary steps in the Risk Management Process.

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

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

There are necessary steps in the risk assessment process as outlined in the FS Aviation Safety Management System Guide:

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

Risk assessment can be divided into three levels:

- *Real Time.* This method of risk management is an "on-the-run" mental or verbal review of the situation using the Operational Risk Management (ORM) process without necessarily recording the information. Many of the skills used in this context are applicable to normal mission where deliberate risk management has occurred and crews must manage risk in a dynamic situation. Note that "time critical" does not mean "hasty" or "uninformed."
- *Operational.* This ORM method is used with adequate planning time and may involve more than one system at its source. It involves a systems identification, hazard identification, risk assessment/analysis, consideration of control options and risk decision making, implementation of controls, and supervision. This method will involve documentation of the process and actions. Examples of the tools in use for ORM are project aviation safety plans (PASP) and job hazard analysis (JHA).
- *Strategic.* Strategic Risk Management (SRM) is conducted at the highest levels of the organization and is typically applied to "systems of systems" type complexity, and requires more sophisticated techniques and professional reviews. A system or task description should completely explain the interactions among the software, hardware, environment, and live ware (e.g. SHEL model) that make up the system in sufficient detail to identify hazards and perform risk analysis.

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

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

- Enterprise Risk Management (ERM). Begins with clearly defining agency mission and then identifies national and agency-wide influencers affecting ability to attain mission objectives.

ERM involves an assessment of system level fundamentals that affect how strategic, operational and time-critical risk management choices are made. ERM decisions are generally made at the National Leadership Team level, department level or higher.

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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

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.

4.5.3 Aircraft Accident Investigation Process

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

4.5.4 Forest Service Strategic Risk Assessment Close-Out Process

Once the Strategic Risk Assessment has been completed, and the Assistant Director, Aviation and Assistant Director, Risk Management will deliver the final product to the Director, Fire and Aviation Management. The Director will provide direction for the risk assessment report to be reviewed. The Strategic Risk Assessment Close-out 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. A bulleted representation of the process is below:

- Aviation Strategic Risk Assessment completed and assigned to the Strategic Risk Assessment Close-out Steering Committee with the expectation of being formally closed out within one year. (Director FAM)

- Develop SME Group and provide clear direction of assigned tasks. (Strategic Risk Assessment Close-out Steering Committee)
    - Identify on-going and one-time mitigations and assess their viability. (SME)
    - Develop QA Checklist. (SME)
    - Provide products back to Strategic Risk Assessment Close-out Steering Committee. (SME)
- Review, validate, and either accept or return SME products. (Strategic Risk Assessment Close-out Steering Committee)
    - Pass Back Process if needed.
- Once acceptable products are developed, formally complete and close out the risk assessment through documentation to the Assistant Director, Aviation and the Assistant Director, Risk Management. (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 point to point / administrative use flights.

Prior to commencing non-emergency aircraft operations, or aircraft operations outside the scope of an approved training program, the Regional Directors, 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.

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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.

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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.

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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: http://www.fs.fed.us/cgi-bin/Directives/get_dirs/fsh?5709.16

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

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

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

5.2.3 Forest Service Guides

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

Aviation Mishap Investigation Guide: 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 Law Enforcement and Investigations (LEI) Short-Haul and Hoist (S-H/H) Guide

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

- Unmanned Aircraft Systems Operations Plan

5.2.5 Interagency Aviation Operational Guides

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

Cooperator Aircraft and Pilot Approval Guide for Interagency Fire:
https://www.nwcg.gov/sites/default/files/memos/eb-m-10-026b.pdf

-NWCG Standards for Aerial Ignition https://www.fs.usda.gov/managing-land/fire/aviation/publications

NWCG Standards for Aerial Supervision https://www.fs.usda.gov/managing-land/fire/aviation/publications

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

NWCG Standards for Airspace Coordination: https://www.fs.usda.gov/managing-land/fire/aviation/publications

NWCG Standards for Airtanker Base Operations: https://www.fs.usda.gov/managing-land/fire/aviation/publications

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

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

Interagency Aviation Training Guide (IAT): Also available at: https://www.iat.gov/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:
https://www.fs.usda.gov/managing-land/fire/aviation/publications
Interagency Helicopter Pilot Practical Test Standards:
http://www.fs.fed.us/fire/aviation/av_library/ihpts.pdf

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

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

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

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

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

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

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

5.2.6 Other References

Regional UAS Desk Guides:
http://fsweb.wo.fs.fed.us/fire/fam/aviation/uas/uasflights.htm

Aviation Risk Management Workbook:
http://www.fs.fed.us/fire/av_safety/risk_management/ARMW%20Individual%20Files/ARM_2011W.pdf

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

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

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

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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.

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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.

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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.

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

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

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5.6 Flight Planning

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

5.7 Flight Following

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

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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.

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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.

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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 (FSM 5716.44- Exhibit 01).

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5.12 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.

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5.13 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

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5.14 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

5.14.1 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/.

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5.15 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.

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5.16 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

5.16.2 Airtanker Bases

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

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5.17 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).

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5.18 Aerial Firefighting Use and Effectiveness (AFUE) Study Aviation Operations

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

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

AFUE Study ground resources preposition based on Predictive Services' National 7-Day Significant Fire Potential outlooks and current and expected fire activity. The Study then self-dispatches to wildfire incidents based on a combination of its dynamic data collection priorities and aviation resources ordered to specific wildfires.

Data collected from this Study and from other sources will eventually be utilized to inform decisions that determine the composition of the federal interagency aircraft fleet that supports the management of wildland fire. The AFUE Final Report is available at https://www.fs.usda.gov/sites/default/files/2020-08/08242020_afue_final_report.pdf

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.

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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.

5.22 Water Scooper Operations

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

5.23 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).

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.

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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.

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

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.

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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 point-to-point and FWFM Special-Use mission flights. Additional training required by FHP and the FWFM Special-Use Aerial Survey Observer Task Book are available at www.fs.fed.us/foresthealth/aviation/training.shtml. All aerial reconnaissance and photography mission flights shall utilize a qualified FWFM Special-Use for fixed wing and qualified Helicopter Manager for rotor wing. Agency personnel are not permitted on board restricted category aerial application aircraft and full PPE is required for aerial application pilots operating low level.

6.0 Aviation Training

6.1 Aviation Training for All Flight Activities and Positions

Aviation training is essential to aircraft pilots (both contract and employee), aviation users, supervisors, and managers to ensure that they are knowledgeable of the inherent hazards of aviation operations. The Forest Service Aviation Training Program is a “fire” and “non-fire” system. The National Wildland Coordinating Group PMS 310-1 and Forest Service Fire and Aviation Qualifications Guide directs the fire qualifications (FSH 5109.17), while the Interagency Aviation Training Guide regulates the “non-fire” qualifications. Personnel serving in NWCG positions need only meet the qualification and currency requirements required in Forest Service Fire and Aviation Qualifications Guide / National Wildland Coordinating Group PMS 310-1 or other interagency guidance as appropriate (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.

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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

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6.3 Instructor Standards

Aviation trainers provide specialized training in many aviation job skills, e.g., helitack, aerial attack, SEAT management, air tanker base management, aerial ignition, rappel, and helicopter management. The Interagency Aviation Training (IAT) guide identifies position training requirements for non-fire aviation functions. Specialized training courses can be accessed on the IAT website.

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

Regional Supplement

Placeholder.

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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 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

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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.

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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.

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6.7 IAT/NWCG Crosswalk

The IAT/NWCG Crosswalk table is available in IAT.org.

The positions listed in the NWCG / Forest Service Fire and Aviation Qualifications Guide Qualifications column will crosswalk into the non-fire IAT Resource Qualifications.

If individuals do not meet the NWCG / Forest Service Fire and Aviation Qualifications Guide Qualifications (above), they shall follow the training requirements found in the IAT Guide in order to conduct/oversee non-fire resource aviation operations. Additional information on IAT/NWCG training can be found on FSH 5709.16 chapters 30 and 60.,

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Forest Supplement

Placeholder.

6.8 Aviation Contracting Officer Representative (COR) Requirements

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

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6.9 Crew Resource Management (CRM) Training

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

7.0 Airspace Coordination

7.1 Interagency Airspace Coordination

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

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 co+mmon boundary, care should be taken to ensure safe separation and communication of responding aircraft. Boundary Plans should be prepared that focus on a 10 NM wide "neutral airspace" corridor for mutual or exchanged initial attack area's or zones.

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.

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Placeholder.

7.6 Airspace De-confliction

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

De-confliction can be accomplished through the following measures:

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

Regional Supplement

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7.7 Airspace Conflicts

Aviation personnel have a responsibility to identify and notify the Domestic Event Network (DEN) and report conflicts and incidents through the Interagency SAFECOM (Safety Communication) System to assist in the resolution of airspace conflicts. Notification to the DEN should be timely and by phone at: 504-422-4423 /4424/ 4425/. 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.

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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.

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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

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Placeholder.

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8.2 FS Facilities Security Self Assessments

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.

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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

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Placeholder.

8.4 General Aviation Security Awareness Programs

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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.

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Placeholder.

8.6 TSA Commercial Airport Security

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

9.0 Aviation Facilities

9.1 General

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

Regional Supplement

Placeholder.

Forest Supplement

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

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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.

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Forest Supplement

Placeholder.

9.8 Funding

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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 Interagency Incident Business Management Handbook.

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.

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Forest Supplement

Placeholder.

10.0 Appendix

10.1 Sample Letter of Cooperator Approval

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10.2 Cooperator Approval Guide

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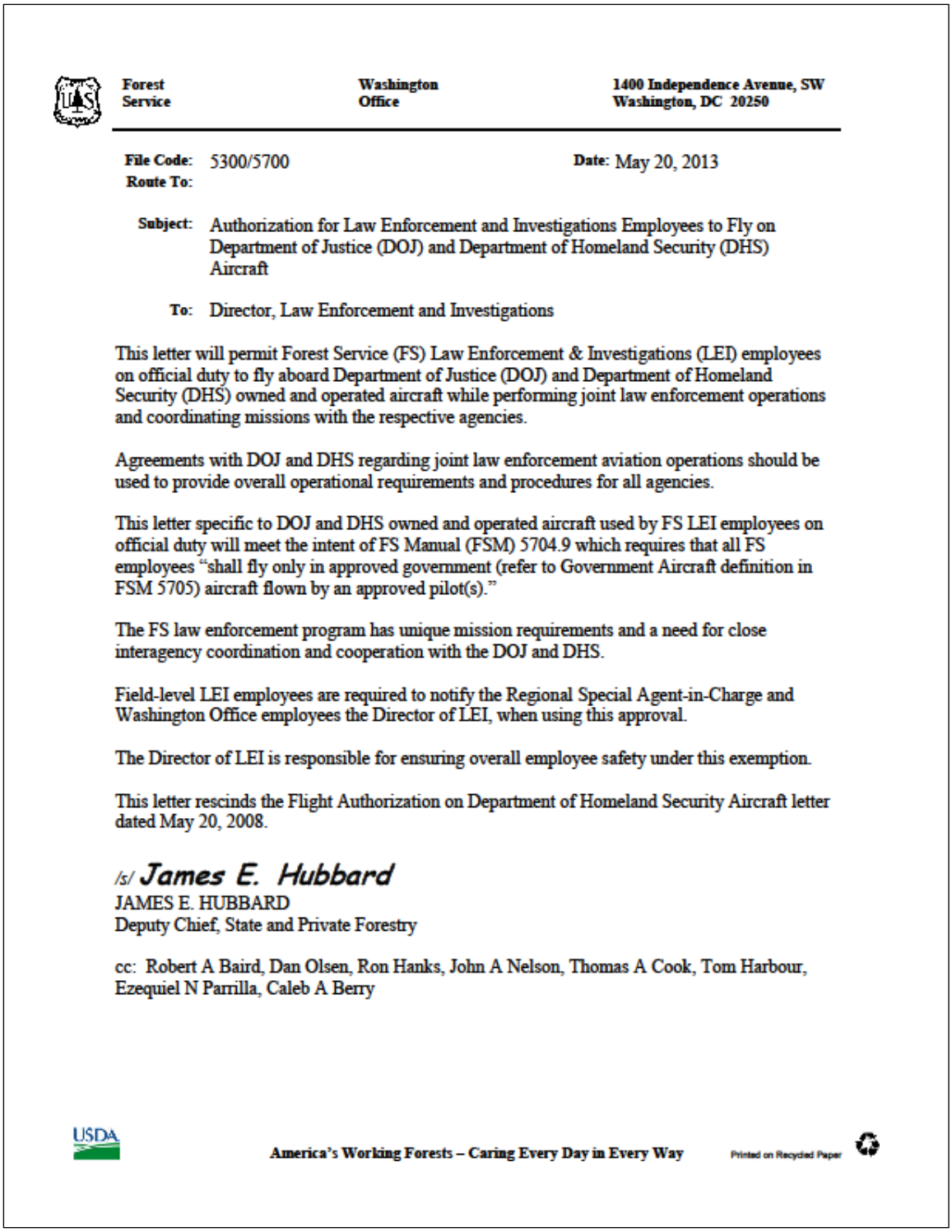
10.3 Authorization for Law Enforcement and Investigations Employees to Fly on Department of Justice (DOJ) and Department of Homeland Security (DHS) Aircraft



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

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

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

To: Director, Law Enforcement and Investigations

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

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

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

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

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

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

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

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

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

USDA

America's Working Forests – Caring Every Day in Every Way

Printed on Recycled Paper

10.4 Fixed Wing Aircraft Passenger Manifest Form

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10.5 Project Proposal Template

Note: The template begins on the following page.

United States Department of Agriculture

USDA Forest Service
Fire & Aviation Management
Aviation Division

PROJECT or PROGRAM or ISSUE PROPOSAL NAME

Forest Service **Month 20XX**

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?

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

2.2 Background

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

2.3 Challenges

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

2.4 Objective(s)

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

2.5 Deliverables

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

3.0 Proposed Method

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

3.1 Requirements

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

3.2 Technology

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

3.3 Implementation Method

Describe your methodology for implementation, including best practices.

3.4 Risk and Quality Assurance

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

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

4.0 Expected Project Results

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

4.1 Performance Measures

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

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

5.0 Action Plan and Timeline

Develop a draft action plan for the project.

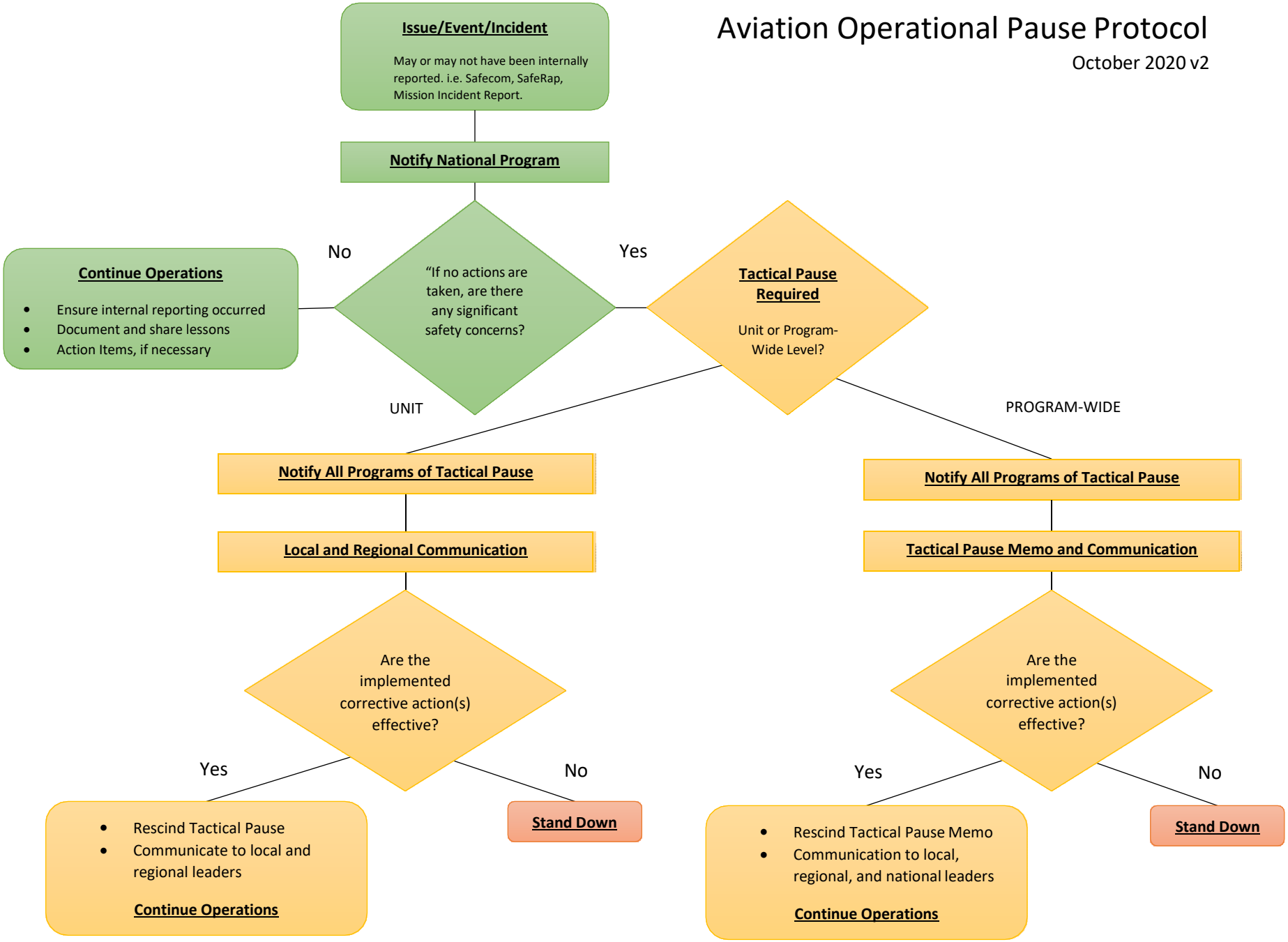
Action Steps What will be done?	**Responsibilities** Who is the lead?	**Deadline** By when? (mm/dd/yy)	**Resources** Resources available? Resources needed (financial, human, political & other)?	**Potential barriers** Individuals or organizations? Mitigation?	**Communications Plan** Who is involved? What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

10.6 Program Tactical Pause, Stand Down, or Shutdown Protocols

Note: The Protocols begin on the following page.

Aviation Operational Pause Protocol

October 2020 v2



Intent: The flowchart provides a process for aviation program managers to apply a standardized response allowing time and space, flexibility, and communication for unintended events or incidents, depending on the severity, to determine the best course of action to promote resolution.

Tactical Pause- A deliberate break in the operation that allows an organization to regroup.

Authority to Implement and Rescind: Program Manager

Notification Methods: (1) Unit Level: Email to local and regional managers and leadership (2) Program-Wide: "Initial Notification of Mission Incident Requiring System Management" Memo to local, regional, and national leadership

Minimum Notification List: All Program-Wide Managers, Local and Unit Dispatches and Duty Officers, Regional Fire Director, Aviation Officer, and Aviation Safety Manager

Common characteristics of a Tactical Pause may include:

- Generally shorter in duration
- Industry may be involved for solutions
- Programmatic (Internal) Process
- Can be at the Unit level and/or programmatic issues, but are more likely to be local in nature

Stand Down- A suspension from an alert state or state of readiness.

Authority to Implement and Rescind: Assistant Director-Aviation, with Branch Chiefs' concurrence

Notification Method: Letter

Minimum Notification List: All Program-Wide Managers, Regional and Nation Coordination Centers, Regional Fire Directors, Aviation Officers, and Aviation Safety Managers, National Aviation Branch Chiefs and National Fire Directors

Common characteristics of a Stand Down may include:

- Generally extended duration
- Industry is often involved for solutions
- External parties and leadership are aware of the issues and the status of the program
- Can be at the Unit level and/or programmatic issues, but are more likely to be programmatic

Shut Down- The cessation or long-term suspension of an operation or program.

Authority to Implement and Rescind: Deputy Chief, State and Private Forestry United States Forest Service

Notification Method: Letter

Minimum Notification List: All Program-Wide Managers, Regional and Nation Coordination Centers, Regional Fire Directors, Aviation Officers, and Aviation Safety Managers, National Aviation Branch Chiefs and National Fire Directors

Common characteristics of a Shut Down may include:

- Long duration
- Reevaluation of associated risks and implementation of programmatic mitigations
- Event resulting in, or potential to cause, major system damage or catastrophic outcome

DELIBERATIVE, PRE-DECISIONAL, FOR INTERNAL COORDINATION ONLY

Topic: Mission Safety Risk Management Pause Process
Date: October 15, 2020

Contact: John Kent Hamilton, U.S. Department of Agriculture Forest Service, Branch Chief – Aviation Safety Management System,
Phone: 801-349-0929
Email: john,k,hamilton@usda.gov

Issue Summary: There exists no constant methodology, process or vocabulary for pausing operations.

Background: On September 10th and October 14th meetings were convened with aviation mission subject matter experts to discuss a consistent process for pausing operations as related to safety risk management. Time was spent defining the reporting mechanisms, trend identification and considerations for informing leadership. It was decided that three levels of operational stoppage exist with associated caveats:

Tactical Pause- A deliberate break in the operation that allows an organization to regroup.

Authority to Implement and Rescind: Program Manager

Notification Methods: (1) Unit Level: Email to local and regional managers and leadership (2) Program-Wide: "Initial Notification of Mission Incident Requiring System Management" Memo to local, regional, and national leadership

Minimum Notification List: All Program-Wide Managers, Local and Unit Dispatches and Duty Officers, Regional Fire Director, Aviation Officer, and Aviation Safety Manager

Common characteristics of a Tactical Pause may include:

- Generally shorter in duration
- Industry may be involved for solutions
- Programmatic (Internal) Process
- Can be at the Unit level and/or programmatic issues, but are more likely to be local in nature

Stand Down- A suspension from an alert state or state of readiness.

Authority to implement and rescind: Assistant Director – Aviation with Aviation Branch Chief concurrence.

Notification Method: Letter

Minimum Notification List: All Program-Wide Managers, Regional and Nation Coordination Centers, Regional Fire Directors, Aviation Officers, and Aviation Safety Managers, National Aviation Branch Chiefs and National Fire Directors

Common characteristics of a Stand Down may include:

- Generally extended duration
- External parties and leadership are aware of the issues and the status of the program

- Industry is often involved for solutions
- Can be at the Unit level and/or programmatic issues, but are more likely to be programmatic

Shut Down- The cessation or long-term suspension of an operation or program.

Authority to Implement and Rescind: Deputy Chief, State and Private Forestry, United States Forest Service

Notification Method: Letter

Minimum Notification List: All Program-Wide Managers, Regional and Nation Coordination Centers, Regional Fire Directors, Aviation Officers, and Aviation Safety Managers, National Aviation Branch Chiefs and National Fire Directors

Common characteristics of a Shut Down may include:

- Long duration
- Event resulting in, or potential to cause, major system damage or catastrophic outcome
- Reevaluation of associated risks and implementation of programmatic mitigations

Recommendation: Review the attached documents for discussion, amendment and/or adoption.

Initial Notification of Mission Incident Requiring System Management

To: Director – Fire and Aviation Management

From: (Choose)

Program Lead (name/ program)

Branch Chief (name/ Branch)

Assistant Director (name/ Directorship)

Date:

Source of notification: Mission Incident Worksheet/ SAFECOM/ Other:

Statement of concern:

[description of the issue]

Management Strategy Initiated:

- ⌋ Mission Tactical Pause – notification only, Mission internal management.

  Anticipated duration: _____

- ⌋ Mission Stand-down – Formal return to mission availability document required.

  POC(s):

- ⌋ Mission Shutdown – Deputy Chief's level direction, formal stoppage and return to mission availability document.

  POC(S):

Resumption of Mission Operations

Level of Management

- ⌋ Mission Tactical Pause – Total duration_____Email notifications for information only (See Mission Tactical Pause email template below).

- ⌋ Mission Stand-down – Formal documentation of process required (See Mission Stand-down template below).

- ⌋ Mission Shutdown – Deputy Chief, State and Private Forestry level concurrence and commensurate documentation required.

Mission Tactical Pause Email template

To:

Cc:

From: [original POC]

Subject: For situational awareness only – Resumption [Mission] Operations.

This is a notification that the "Tactical Pause" initiated for [Mission] operations has been rescinded. The risk was evaluated and did not warrant further action. The Tactical Pause lasted [duration].

For questions contact [POC]

Mission Stand-down Resumption of Mission Template

Forest Service **Washington Office** **1400 Independence Avenue, SW**
Washington, D.C. 20250

File Code: 5700 **Date:**
Route To:

Subject: National [program name] Program – Resumption of Mission

To: Regional Fire Directors, Regional Aviation Officers, and Regional Aviation Safety Managers

On [date], [description of triggering event]. As such, a Mission Stand-down was initiated. The following information represent the mitigations that return operations to a level of risk that is as low as reasonably practicable for the mission (elaborate on all that apply):

Personnel

Equipment

Mission

Management/Policy

Environment

For questions or more information on this matter, please contact Paul Linse at (202) 557-1545 or email paul.linse@usda.gov.

PATRICIA A. GRANTHAM
Acting Director

cc: Frank Hahnenberg, Paul Linse, John Nelson, Chris Niccoli, Aaron Schoolcraft, Abe Fandrich, Kent Hamilton, Tonya Rymer, Ezequiel Parrilla, Eric Bush