



2014  
**Colorado Firefighting  
AIR CORPS**  
Aviation Plan





# Colorado Firefighting Air Corps Aviation Plan

---

## LEADER'S INTENT

The purpose of this Colorado Firefighting Air Corps Aviation Plan interim aviation plan is to ensure the safe, effective, and efficient stand up of the Colorado Aerial Firefighting Air Corps (CFAC), while simultaneously setting the stage for program flexibility, growth and stability in the years to come.

### **Safety as the first constraint**

Standing up a new program is always challenging and risks associated with doing things in a new way must be aggressively mitigated. Therefore, safety is our first constraint in all operations. No plan can address every contingency in an environment as fluid and dynamic as aerial firefighting. Where existing plans, policies, and procedures are found to be inadequate for addressing a new situation, every employee, contractor, or others associated with executing any part of this plan, are expected to exercise sound judgment and default to safe parameters of operations.

### **Effectiveness and efficiency through preserving early detection and initial attack resources**

The primary intent of the CFAC is to provide early detection and aggressive initial attack of wildfires. Other missions, including large fire operations, can be supported so long as it does not compromise this primary mission requirement.

As we begin operation of the CFAC, it will be essential to capture every lesson learned to continuously improve this program. Toward that end, I welcome all questions, comments, and ideas for improvement as we evolve this program to its full potential.



Paul L. Cooke, Director  
Division of Fire Prevention and Control

Colorado Department of Public Safety  
Division of Fire Prevention and Control  
Paul L. Cooke, Director  
690 Kipling Street, Suite 2000  
Denver, CO 80215  
(303) 239-4600  
FAX (303) 239-5887

# Colorado Firefighting Air Corps Aviation Plan

---

## TABLE OF CONTENTS

<b>1.0</b>	<b><i>COLORADO FIREFIGHTING AIR CORPS (CFAC) AVIATION PLAN 5</i></b>
1.1	Purpose 5
1.2	Mission Statement 5
1.3	Colorado's Wildfire Management Goals (from the 2014 Wildfire Preparedness Plan) 5
1.4	CFAC Aircraft Management Strategy 6
1.5	Authority 6
1.6	Policy 6
<b>2.0</b>	<b><i>CFAC AVIATION MANAGEMENT ORGANIZATION 8</i></b>
2.1	Colorado Firefighting Air Corps Interim Organization Chart 8
2.2	DFPC Director 10
2.3	Chief, Wildland Fire Management Section 10
2.4	Deputy Chief of Wildland Fire Planning and Aviation 10
2.5	Aviation Safety Manager 11
2.6	Aviation Specialist 11
2.7	Deputy Chief of Operations 12
2.8	DFPC Duty Officer 12
2.9	Fire Management Officers (FMOs) 12
2.10	Aircraft Manager 13
2.11	Aircrew Members 13
2.12	Passengers 13
<b>3.0</b>	<b><i>ADMINISTRATIVE REQUIREMENTS 14</i></b>
3.1	General 14
3.2	Reporting and Documentation Requirements 14
3.3	CFAC Aviation Plan 14
3.4	Aircrew Orientation Briefing Package 14
3.5	Land Use Policy for Aviation Activities 14
3.6	Fire Chemicals Aerial Application in Waterways 14
3.7	Fire Exclusive Use Aircraft Contracts 15
3.8	Contractor Evaluations 15
3.9	Cooperator Aircraft 15
3.10	VIP Flights 15
3.11	Search and Rescue (SAR) Flights 15
3.12	National Guard and United States Military Aircraft Flights 15
3.13	Dispatching - Flight Requests 15
3.14	Aircraft Flight Service Ordering 15
3.15	Inter-agency Agreements (IAA) 16
3.16	Aircraft Payment Systems 16
3.17	Fund Codes 16
3.18	Aviation Program Reviews 16
<b>4.0</b>	<b><i>SAFETY 17</i></b>
4.1	General 17
4.2	Safety Management Systems (SMS) 17

# Colorado Firefighting Air Corps Aviation Plan

---

- 4.3 Safety Policy 17
- 4.4 Aircraft Incident/Accident Investigation Process 17
- 4.5 Aviation Safety and Technical Assistance Team (ASTAT) 17
- 4.6 Aviation Safety Communiqué (SAFECOM) and CFAC Aviation Hazard Report 17
- 4.7 Program Evaluations, Aviation Reviews, Aviation Safety Audits 18
- 4.8 Lessons Learned 18

## **5.0 OPERATIONAL POLICY 19**

- 5.1 General 19
- 5.2 Policy, Operational Guides and Handbooks 19
- 5.4 DFPC Employees on Non-approved Aircraft 19
- 5.5 Flight Plans 19
- 5.6 Flight Following 19
- 5.7 Sterile Cockpit Procedures 19
- 5.8 Radio Frequency Management/Communications 19
- 5.9 Overdue, Missing or Downed Aircraft 20
- 5.10 Mishap Response 20
- 5.11 Transportation of Hazardous Materials 20
- 5.12 Search and Rescue (SAR) 20
- 5.13 Large Airtanker (LAT), Very Large Airtanker (VLAT) 20
- 5.14 SEAT Operations 20
- 5.15 Helicopter Operations 20
- 5.16 Aerial Ignition 20
- 5.17 Light Fixed Wing Operations 21

## **6.0 CFAC AVIATION TRAINING 22**

- 6.1 General 22
- 6.2 Fire Training and Qualifications 22
- 6.3 NWCG to IAT Crosswalk 22

## **7.0 AIRSPACE COORDINATION 23**

- 7.1 Interagency Airspace Coordination 23
- 7.2 Fire Traffic Area (FTA) 23
- 7.3 Temporary Flight Restriction (TFR) 23
- 7.4 Aircraft Transponder Code (Firefighting) 23

## **8.0 AVIATION SECURITY – AIRCRAFT 24**

- 8.1 Aviation Security Policy 24
- 8.2 General Aviation Security Awareness Program 24
- 8.3 Cooperator's Aircraft Security 24
- 8.4 Aircraft Physical Security Requirements 24

## **Appendices 25**

### **Appendix 1 – Colorado Firefighting Air Corps Aviation Organization Directory 25**

# Colorado Firefighting Air Corps Aviation Plan

---

## **1.0 COLORADO FIREFIGHTING AIR CORPS (CFAC) AVIATION PLAN**

### **1.1 Purpose**

This plan sets forth policy, procedures, and guidance to implement an aviation management program for Colorado Division of Fire Prevention and Control (DFPC) CFAC. The purpose is to clarify and standardize aviation management procedures for all CFAC operations.

### **1.2 Mission Statement**

The CFAC Aviation Program provides for safe and efficient aviation services to meet DFPC's wildfire management goal. Utilization of technology, sound aviation management practices, and highly trained and motivated personnel will reduce risk, loss, waste, and expenditures. The key to achieving DFPC's goal is developing the capability to detect fires earlier, locate them faster, provide the local Incident Commander with data needed to make informed decisions regarding suppression strategy, and then dispatch the appropriate aviation suppression resources expeditiously.

### **1.3 Colorado's Wildfire Management Goals (from the 2014 Wildfire Preparedness Plan)**

Suppression costs escalate significantly as fire size increases. A wildland fire becomes a local emergency before it evolves into a State, then regional, then national incident. Colorado's wildfire management program should continue to hold, as a high priority, the strengthening of first response firefighting forces to safely and effectively suppress wildland fires.

Fast and aggressive initial attack on new fires (for fires where full suppression efforts are the appropriate management response) can reduce the number of mega fires that may burn hundreds of homes and cost the taxpayers tens of millions of dollars in suppression costs. The safety of firefighters and the public will continue to be the first priority in all fire management activity.

**DFPC's goal for wildfire management is to keep all wildfires with values at risk smaller than 100 acres and to suppress all fires in Wildland Urban Interface (WUI) areas at less than ten acres, 98% of the time.**

#### **1.3.1 Enabling Goals**

Because DFPC's role is primarily to support local and county firefighting organizations, in order to achieve this wildfire management goal, accomplishment of the following enabling goals will be necessary:

1. Generate an incident assessment for every fire within 60 minutes of report or detection.
2. Deliver the appropriate aviation suppression resources to every fire within 60 minutes of the request.

Aviation assets will be strategically located based on preparedness levels, interagency situational awareness of fire activity, weather, National Fire Danger Rating System (NFDRS) indices, location of other aerial assets, etc.

# Colorado Firefighting Air Corps Aviation Plan

---

## **1.4 CFAC Aircraft Management Strategy**

During initial implementation of the new Colorado Firefighting Air Corps (CFAC), DFPC will make use of existing interagency policies and processes to provide a safe and efficient operation. Existing local, state, and national agreements will be used, when appropriate, and CFAC resources will be assigned and dispatched utilizing existing authorities, processes, and lines of communication.

CFAC fire aircraft shall be used for the primary purpose of initial attack, to include the following:

- Placement of resources and prioritization of missions based on predicted fire activity, risk modeling, and active incidents.
- Early detection and size-up.
- Rapid response to new fire starts and emerging fire incidents.
- Efficient and appropriate use of resources.
- Integration of real-time fire information with statewide information management tools.

The aircraft are intended primarily for initial attack within the state of Colorado. Utilization of the aircraft for non-initial attack operations within the state is at the discretion of the Deputy Chief of Operations. Assignment of CFAC aircraft outside of the state for fire or non-fire projects requires approval from the Chief of the Wildland Fire Management Section. The movement of aircraft within the state should be based on established priorities and anticipated critical fire weather and approved by the Deputy Chief of Operations.

## **1.5 Authority**

This operational plan implements, in part, the direction provided in C.R.S. 24-33.5-1228 concerning aerial firefighting efforts through the Division of Fire Prevention and Control in the Department of Public Safety.

## **1.6 Policy**

This Plan will provide guidance and direction to employees and cooperators of the DFPC concerning CFAC aviation operations. When the terms “shall” and “must” appear in this document, compliance with that direction is mandatory. When terms such as “may” and “should” are used, compliance is optional, but the guidance is considered recommended as Best Practices.

DFPC has adopted several interagency aviation guides to be used in operations as Recommended Best Practices. The following guides are hereby incorporated by reference:

- *Interagency Helicopter Operations Guide (IHOG)*
- *Interagency Single Engine Airtanker Operations Guide (ISOG)*
- *Incident Response Pocket Guide (IRPG), Jan. 2014, Aviation Section (Blue Pages)*
- *Interagency Standards for Fire and Fire Aviation Operations 2013*
- *Interagency Aerial Supervision Guide (IASG)*
- *Interagency Aerial Ignition Guide (IAIG)*

## Colorado Firefighting Air Corps Aviation Plan

---

- *Interagency Airspace Coordination Guide*
- *Interagency Aviation Mishap Response Guide*
- *Interagency Aviation Training Guide (IATG)*
- *Interagency Aviation Transport of Hazardous Materials Guide*
- *2010 National Association of State Foresters (NASF) Cooperators Aviation Standards For Interagency Fire*
- *Wildland Fire Qualification System Guide, PMS 310-1, Oct. 2013*
- *Interagency Airplane Pilot Practical Test Standards*
- *Interagency Helicopter Pilot Practical Test Standards*

Aviation personnel shall meet National Wildfire Coordinating Group (NWCG) Standards for the aviation positions they fill. These position qualifications are found in the current *Wildland Fire Qualification System Guide, PMS 310-1*.

Pilots shall meet the experience and qualification requirements outlined in the *NASF Cooperators Aviation Standards For Interagency Fire*. Pilots shall be evaluated and approved (carded) by an Interagency Inspector Pilot to Federal Interagency Practical Test Standards (IPTTS) – Areas of Operation standards for the Special Use Authorization applicable to the missions assigned and/or approved (See Chapter 5 of this Plan for Special Use Operations).

All CFAC aircraft shall be inspected and approved (carded) to NASF Cooperators Aviation Standards For Interagency Fire by an Interagency Aviation Safety – Airworthiness Inspector (Maintenance Inspector).

# Colorado Firefighting Air Corps Aviation Plan

---

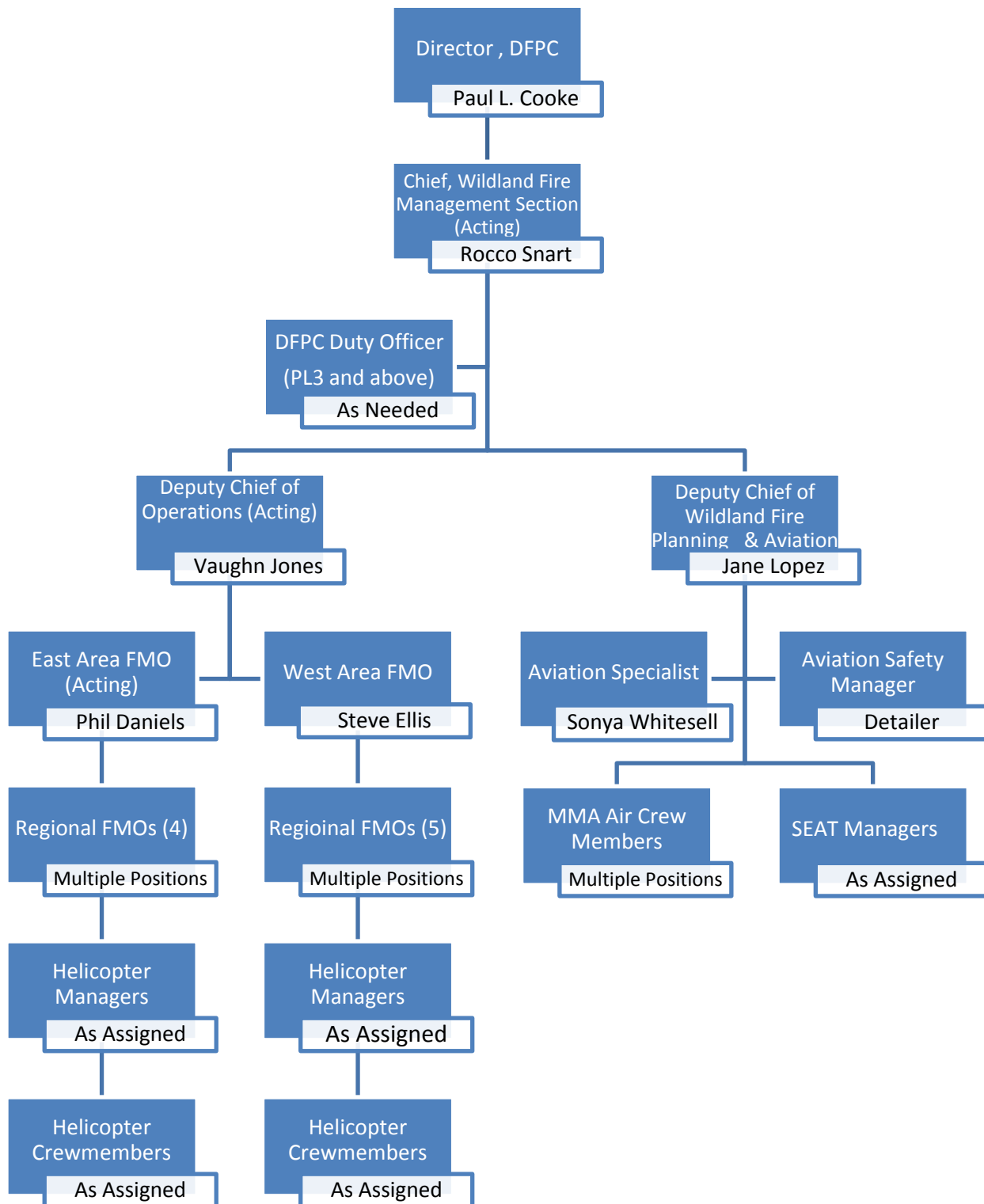
## **2.0 CFAC AVIATION MANAGEMENT ORGANIZATION**

### **2.1 Colorado Firefighting Air Corps Interim Organization Chart**



# Colorado Firefighting Air Corps Aviation Plan

---



# Colorado Firefighting Air Corps Aviation Plan

---

## **2.2 DFPC Director**

The Director has overall responsibility for the state aviation program, which is delegated to the Deputy Chief, Wildland Fire Planning and Aviation through the Chief, Wildland Fire Management Section. Specific responsibilities include, but are not limited to, the following:

- Disseminate aviation policy and information.
- Promote the *CFAC Aviation Safety Management System (SMS)*.
- Assign a liaison for any CFAC aviation incident/accident investigation.
- Ensure adequate aviation management staff and funding.

## **2.3 Chief, Wildland Fire Management Section**

The Chief, Wildland Fire Management Section, supervises the Deputy Chief of Wildland Fire Planning and Aviation and the Deputy Chief of Operations, and has the authority to prioritize allocation and pre-positioning of fire aircraft assigned within the state.

## **2.4 Deputy Chief of Wildland Fire Planning and Aviation**

The Deputy Chief of Wildland Fire Planning and Aviation supervises the Aviation Safety Manager, Aviation Specialist, SEAT Manager and MMA positions. Primary responsibilities include administration of the State's Fire Aviation Program. The Deputy Chief manages the fire aviation program in Colorado, developing the objectives, budget, and agreements for the program and oversees the management of fixed wing resources. The Deputy Chief serves as the focal point for the state aviation program by providing technical and management expertise regarding the use of aviation resources.

Aviation management authorities and responsibilities include:

- Managing the statewide aviation program, and coordinating daily aviation operations with the Deputy Chief of Operations.
- Ensuring unsafe aviation management activities are corrected and appropriately documented in both external and internal reporting systems.
- Serves as a member of the Rocky Mountain Area Aviation Committee, which is chartered under the Rocky Mountain Coordinating Group (RMCG). Serves as an alternate DFPC representative to the RMA Tactical Operations Group.
- Serves as a Contracting Officer Representative for CFAC exclusive use aircraft.
- Ensure contracts, inspections, carding and certifications for aircraft are completed and meeting DFPC and required interagency standards.
- Ensure qualifications and capabilities of all DFPC aircraft.
- Coordinates State Office flight requests with the appropriate Dispatch Center.
- Coordinates VIP flights.
- Review requests to use fixed wing aircraft for resource projects.

# Colorado Firefighting Air Corps Aviation Plan

---

- Serves as the statewide point of contact for airspace coordination issues. Coordinates with the USFS/DOI National Airspace Program Manager, Colorado National Guard – Colorado Department of Transportation, Division of Aeronautics.

## **2.5 Aviation Safety Manager**

The Aviation Safety Manager serves as the focal point for the CFAC Safety Management System (SMS) by providing leadership, management, and training in aviation safety and risk management.

The Aviation Safety Manager has functional responsibilities in the following areas:

- Conducting or coordinating SMS-based assurance checks of aviation programs and activities under CFAC operational control.
- Establishing and managing the operator hazard identification and tracking system.
- Developing and maintaining a safety awareness program.
- Monitoring industry flight safety concerns which may have an impact on operations.
- Developing and maintaining the CFAC emergency response plan.
- Analyzing hazard reports and other identified safety concerns and making recommendations on appropriate mitigation.
- Investigating and reporting on incidents/accidents and making recommendations on mitigation or modifications to the safety management system.
- Making recommendations to the Deputy Chief of Wildland Fire Planning and Aviation on matters pertaining to the safety management system.
- Conducting periodic evaluations of the safety management system and reporting the results to management.
- Monitoring the response and measuring the results of safety initiatives.

## **2.6 Aviation Specialist**

The Aviation Specialist assists the Deputy Chief of Wildfire Planning and Aviation in the administration of the State's Fire Aviation Program. Primary responsibilities are in the same program areas as the Deputy Chief of Wildfire Planning and Aviation. The Aviation Specialist may serve as an alternate in the Deputy Chief's absence.

Primary focus areas include:

- Directing the statewide aviation program.
- Correcting unsafe aviation management activities.
- Serves as a Contracting Officer Representative for CFAC exclusive use aircraft.
- Coordinates State Office flight requests with the appropriate Dispatch Center.
- Coordinates VIP flights.
- Serves as the statewide point of contact for airspace coordination issues. Coordinates with

# Colorado Firefighting Air Corps Aviation Plan

---

the USFS/DOI National Airspace Program Manager, Colorado National Guard – Colorado Department of Transportation, Division of Aeronautics.

## **2.7 Deputy Chief of Operations**

The Deputy Chief of Operations supervises the Area and Regional FMOs and has the authority to allocate and pre-position fire aircraft assigned within the state. Primary responsibilities include the daily management of all DFPC field and suppression operations.

The Deputy Chief has the following responsibilities:

- Managing statewide fire operations, and coordinating daily aviation operations with the Deputy Chief of Operations.
- Ensure availability of aviation resources.
- Ensure qualifications and capabilities of all DFPC personnel (employees and detailers)
- Ensure pilot and aircraft capabilities meet mission objectives.
- Gather, update, and apply situational information relevant to air operations.
- Ensure the safety, welfare, and accountability of assigned personnel.
- Gather, analyze, and validate information pertinent to the operation and make recommendations for setting priorities.
- Review and approve requests to use fixed wing aircraft for resource projects.

## **2.8 DFPC Duty Officer**

The DFPC Duty Officer is a functional position that may be filled at higher levels of fire activity or when the Chief, Wildland Fire Management Section is unavailable for extended periods of time. Generally, the Duty Officer will be an assignment filled by other members of the DFPC organization on an as needed/as available basis. The person filling this role provides assistance to the Deputy Chief of Operations and may serve as the Alternate Deputy Chief of Operations responsible for daily management of DFPC wildfire operations.

The DFPC Duty Officer may be delegated any of the following responsibilities:

- Ensure availability, qualifications, and capabilities of aviation resources.
- Ensure pilot and aircraft capabilities meet mission objectives.
- Gather, update, and apply situational information relevant to air operations.
- Ensure the safety, welfare, and accountability of assigned personnel.
- Gather, analyze, and validate information pertinent to the operation and make recommendations for setting priorities.

## **2.9 Fire Management Officers (FMOs)**

DFPC has 9 Regional Fire Management Officers (FMOs) to cover the State's All-Hazard Regions, with 2 Area FMO positions serving in supervisory and backfill roles. Wildland fire management



# Colorado Firefighting Air Corps Aviation Plan

---

service, support, and programs are implemented and delivered to counties and fire districts primarily through the FMOs.

FMOs have the following responsibilities:

- Provide immediate field response to requests for assistance with wildfires.
- Hosting, staffing, supporting, providing daily management, and dispatch coordination of all CFAC aircraft assigned to their unit.

## **2.10 Aircraft Manager**

The Aircraft Managers include helicopter and single engine air tanker (SEAT) positions. Each Manager shall comply with his/her appropriate DFPC and interagency operations guide(s). Aircraft Managers coordinate projects using aircraft with the Area FMOs.

## **2.11 Aircrew Members**

Aircrew Members are classified for aviation operations as those person who are trained and qualified to perform an active mission function during the flight on an aircraft under CFAC operational control. Aircrew members are not classified as passengers. Typical aircrew members include, but are not limited to:

- Aerial supervision – Air Tactical Group Supervisor (ATGS).
- Helitack (manager and crew).
- Designated observers (fire detection, fire reconnaissance).
- Electronic Sensor Operator.

## **2.12 Passengers**

Any person aboard on aircraft who does not perform the function of an aircrew member is considered a passenger.

# Colorado Firefighting Air Corps Aviation Plan

---

## **3.0 ADMINISTRATIVE REQUIREMENTS**

### **3.1 General**

This section establishes management responsibilities and procedures for administration of the CFAC aviation program.

### **3.2 Reporting and Documentation Requirements**

The Deputy Chief of Wildland Fire Planning, Aviation Specialist and contract requirements will determine and distribute reporting and documentation requirements for each aircraft type and mission.

### **3.3 CFAC Aviation Plan**

Through 2016, the CFAC Aviation Plan will be updated annually at a minimum. At the discretion of the Director, this review period may be changed when it is determined that the role, functions, and responsibilities are solidly in place and the program is mature. This plan will be issued by DFPC and disseminated to the appropriate field departments and other operational personnel.

### **3.4 Aircrew Orientation Briefing Package**

The Deputy Chief of Operations will develop and distribute a basic Incoming Resource Briefing Guide to which the Regional FMOs can attach pertinent information about their region. The basic guide will be supplemented with briefing guides and information specific to each region. Regional FMOs are responsible for providing visiting pilots and aircrews with a briefing. The orientation briefing package serves as a source of information about local administrative and operational procedures (copy of the aviation plan, frequency sheets, flight hazard maps, fire behavior information, recommended lodging/dining list, maps, etc.).

### **3.5 Land Use Policy for Aviation Activities**

Regulation of aviation activities on state and private land is described in resource management plans. Requests by private or other governmental entities to conduct aviation activities are addressed by the various management plans and/or use agreement protocols.

### **3.6 Fire Chemicals Aerial Application in Waterways**

**Any time** there is a deliberate or accidental aerial application of fire retardants and suppressants (gels and foams) in waterways or inside the 300 foot buffer zone [on federal lands], a report to the Deputy Chief of Wildland Fire Planning and Aviation of the application is required. The *2009 Policy for Aerial Delivery of Retardant or Foam near Waterways* defines waterway as: “Any body of water, including lakes, rivers, streams and ponds whether or not they contain aquatic life”.

The responsibility of notifying resource managers is the CFAC Aviation Manager.

- The responsibility to submit the Fire Chemicals Report is the Deputy Chief of Wildland Fire Planning and Aviation or designated position.

# Colorado Firefighting Air Corps Aviation Plan

---

- References: *Interagency Standards for Fire and Fire Aviation Operations, chapter 12.*
- The US Forest Service has new avoidance areas for any aerial fire retardant application. Dispatch Centers should have maps of the local USFS avoidance areas. A link to the Environmental Impact Statement and the USFS Record of Decision is at: *USFS Aerial Application of Retardant.*

## **3.7 Fire Exclusive Use Aircraft Contracts**

The Deputy Chief of Wildland Fire Planning and Aviation serves as the Contracting Officers Representative (COR) for all CFAC exclusive use aviation contracts.

## **3.8 Contractor Evaluations**

The Contractor Performance Evaluation form is to be used for the contractor performance evaluation. The completed form is to be routed to the Aircraft Manager, who will route a copy to the Contracting Officer. End of season performance evaluations will be completed by the aircraft manager and submitted to the Deputy Chief of Wildland Planning and Aviation.

## **3.9 Cooperator Aircraft**

This plan does not impact current use of cooperator aircraft. Existing protocols for use of federal, other state, or local government agency or military aircraft will continue under existing interagency and state processes.

## **3.10 VIP Flights**

Aircraft may be used to transport passengers to meetings or to conduct other administrative duties. These flights are requested through the **Deputy Chief of Wildland Fire Planning and Aviation** and must be approved by the Director.

## **3.11 Search and Rescue (SAR) Flights**

RESERVED.

## **3.12 National Guard and United States Military Aircraft Flights**

RESERVED.

## **3.13 Dispatching - Flight Requests**

The Interagency Zone Dispatch Centers will be utilized for resource ordering and dispatching of CFAC aircraft under guidance to be developed and coordinated between the Deputy Chief of Operations and dispatch centers. The Resource Ordering and Status System (ROSS) and WildCAD systems will be used based on Regional and individual Zone Dispatch Center procedures.

## **3.14 Aircraft Flight Service Ordering**

Only positions approved by the Director are authorized to order aircraft from the aviation contracts.

## Colorado Firefighting Air Corps Aviation Plan

---

### **3.15 Inter-agency Agreements (IAA)**

All aircraft services procured by CFAC through another agency will be conducted under an Interagency Agreement.

### **3.16 Aircraft Payment Systems**

Aircraft payment systems will follow state contract requirements and existing interagency agreements.

### **3.17 Fund Codes**

DFPC staff will create a CFAC budget on a State of Colorado fiscal year basis, which will incorporate funding and operational costs for the CFAC program. The Deputy Chief of Operations and Deputy Chief of Wildland Fire Planning and Aviation will coordinate with the Rocky Mountain Area Coordination center to develop support codes for CFAC aircraft.

### **3.18 Aviation Program Reviews**

Periodic aviation program reviews will be conducted at the direction and discretion of the Director, but will occur at least annually from 2014 to 2016, at which time the period may be expanded.



## **4.0 SAFETY**

### **4.1 General**

The CFAC aviation safety program is nested in the overall fire safety effort and modeled after the Federal Aviation Administration (FAA), International Civil Aviation Organization (ICAO), and International Standard for Business Aircraft Operations (IS-BAO) Safety Management Systems (SMS) elements. CFAC manages safety risks related to its operations to as low a level as reasonably practicable. All identified safety hazards will be analyzed and, where possible, eliminated or mitigated. Mitigation is developed, implemented, and tracked to verify that the level of the associated risks is acceptable.

### **4.2 Safety Management Systems (SMS)**

Safety Management Systems is an evolutionary development of the traditional flight safety program that significantly enhances the safety of an aviation operation. A successfully developed and implemented SMS ensures that safety is a core value in the CFAC organization and that safety is integrated into all management systems including operations, maintenance, finance, and human resource management. CFAC uses an SMS to ensure consistently safe and efficient air operations. The CFAC SMS Manual is the primary resource describing the CFAC SMS components.

### **4.3 Safety Policy**

The purpose of the safety policy is to ensure that safety is managed proactively and effectively. This is done by obtaining consistent and optimal aircraft and human performance, identifying hazards and managing the associated safety risks specific to CFAC operations, actively seeking feedback from those involved in the operation, and improving safety management activities.

### **4.4 Aircraft Incident/Accident Investigation Process**

The CFAC incident or accident investigation process is covered in its entirety in the CFAC SMS Manual.

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

Aviation Safety and Technical Assistance Teams enhance safe, efficient, and effective aviation operations. An ASTAT provides assistance to unit and aviation managers, flight crews, and incident management teams for increasing, ongoing or declining incident aviation activity. The Rocky Mountain Area Mobilization Guide details ordering procedures. Coordinate with the Aviation Safety Manager for facilitation of ASTAT requests.

### **4.6 Aviation Safety Communiqué (SAFECOM) and CFAC Aviation Hazard Report**

Aviation operations under Colorado operational control that have reportable events will be reviewed at the Deputy Chief of Wildfire Planning and Aviation level. SAFECOMs are reportable by anyone who witnesses, or has specific knowledge of, an event. Reports should be sent to the Deputy Chief. SAFECOM events for CFAC aircraft/aircrews that occur under other operational control should send a courtesy copy to the Deputy Chief.

## Colorado Firefighting Air Corps Aviation Plan

---

- SAFECOMs can be reported several ways, in order of preference:
  - a. Through the *SAFECOM web site* at [www.safecom.gov](http://www.safecom.gov);
  - b. By phone 1-888-4MISHAP (note that charges apply and DOI approval is needed prior to using this option);
  - c. Paper form that is faxed or mailed to the Deputy Chief at (970) 491-3445.
- Events that are significant in their potential to be accidents are generally classified as Incidents with Potential (IWP).
- IWP's will be reported immediately to the Deputy Chief of Wildfire Planning and Aviation. The Deputy Chief will inform the Deputy Chief of Operations, Wildland Fire Management Section Chief, and the DFPC Director.

### **4.7 Program Evaluations, Aviation Reviews, Aviation Safety Audits**

As previously stated in Paragraph 3.18, periodic aviation program reviews will be conducted at the direction and discretion of the Director, but occur at least annually from 2014 to 2016, at which time the period may be expanded. Aviation *Safety Audits* can be directed or accomplished by either the Deputy Chief of Wildfire Planning and Aviation or Aviation Safety Manager at their discretion at any time to ensure the safety of operations.

### **4.8 Lessons Learned**

Anyone can submit aviation lessons learned from After Action Reviews (AAR's) or events to the Deputy Chief of Wildfire Planning and Aviation. The Deputy Chief will coordinate development of the lessons learned document and disseminate.

# Colorado Firefighting Air Corps Aviation Plan

---

## **5.0 OPERATIONAL POLICY**

### **5.1 General**

Colorado's wildland fire management program depends upon aggressive initial attack and response in order to keep fires that threaten lives, property, or natural resources small. CFAC is a key component and a critical resource in accomplishing this. Operational use of CFAC resources must be anchored to the principles of safety, initial attack, quick response with appropriate resources, and ensuring suppression resources are being used to their maximum effectiveness.

### **5.2 Policy, Operational Guides and Handbooks**

See Chapter 1.6 of this plan for a list of CFAC aviation policy documents.

### **5.4 DFPC Employees on Non-approved Aircraft**

DFPC employees must obtain approval from their Deputy Chief before boarding a non-approved aircraft.

### **5.5 Flight Plans**

All flights require the pilot to file a flight plan with the appropriate FAA facility or Dispatch.

### **5.6 Flight Following**

There are two types of Agency flight following: Automated Flight Following (AFF), and Radio Check-in. AFF is the preferred method of agency flight following. For a description of AFF and Radio Check-in Flight following, see the *Rocky Mountain Geographic Area Mobilization Guide, Chapter 20, Agency Flight Plans and Flight Following*.

### **5.7 Sterile Cockpit Procedures**

Sterile cockpit rules apply within a 5-mile radius of the airport. The flight crew will perform no radio or cockpit communication during that time that is not directly related to safe flight of the aircraft from taxi to 5 miles out, and from 5 miles out until clearing the active runway. This would consist of reading checklists, communication with Air Traffic Control (ATC), Flight Service Stations, Unicom, or other aircraft with the intent of ensuring separation or complying with ATC requirements.

### **5.8 Radio Frequency Management/Communications**

DFPC personnel, equipment and aircraft utilize established radio frequencies through a series of interagency agreements and operating plans. The designated Rocky Mountain Area Air-to-Ground and Air-to-Air frequencies are distributed to all DFPC operational personnel by the Deputy Chief of Operations on an annual basis. These frequencies will be provided to pilots, aircraft managers, and crewmembers at their Regional in-brief. Local tactical and operational frequencies can be found in County Annual Operating Plans (AOPs) and Interagency Dispatch Zone Briefing Guides.

## **5.9 Overdue, Missing or Downed Aircraft**

See *Interagency Aviation Mishap Response Guide*.

## **5.10 Mishap Response**

The [\*Interagency Aviation Mishap Response Guide and Checklist\*](#) is available on the OAS web site and through the fire cache system.

In the event of a missing aircraft or known accident under CFAC operational control or an event involving a CFAC aircraft and/or aircrew, immediately notify (in order of immediate availability):

1. DFPC Director
2. Chief, Wildland Fire Management Section
3. Deputy Chief of Wildfire Planning & Aviation

## **5.11 Transportation of Hazardous Materials**

DFPC is requesting approval for use of the Interagency Aviation Transport of Hazardous Materials Guide and accompanying exemption. Until this exemption is approved, CFAC aircraft are not allowed to carry hazardous materials on point-to-point flights.

## **5.12 Search and Rescue (SAR)**

As firefighter and public safety are the first responsibility of the CFAC, Search and Rescue operations are authorized in coordination with appropriate agencies conducting SAR operations. Existing safety protocols and operational restrictions are not to be compromised in any SAR operation.

## **5.13 Large Airtanker (LAT), Very Large Airtanker (VLAT)**

Large Airtankers and Very Large Airtankers are coordinated nationally through the GACC. The [\*Rocky Mountain Geographic Area Mobilization Guide\*](#) describes ordering procedures.

## **5.14 SEAT Operations**

See *Interagency Single Engine Airtanker Operations Guide (ISOG)* and *2013 Colorado Interagency Single Engine Air Tanker Operations Plan*.

## **5.15 Helicopter Operations**

See *Interagency Helicopter Operations Guide (IHOG)*.

## **5.16 Aerial Ignition**

See *Interagency Aerial Ignition Guide (IAIG)*.



## **5.17 Light Fixed Wing Operations**

CFAC may employ Light Fixed Wing aircraft in any of the following roles:

- Dedicated Aerial Fire Detection Aircraft.
- Fire Reconnaissance.
- Dedicated Air Tactical Group Supervisor (ATGS) Platforms (See Interagency Aerial Supervision Guide (IASG) as applicable to the ATGS role).
- Multi Mission Aircraft.

### **5.17.1 Multi Mission Aircraft – Aerial Supervision**

Multi Mission Aircraft (MMA) are equipped with modern sensing, processing, and communication systems to allow for the gathering and dissemination of real-time wildfire information. The multi-mission aircraft are integrated into the state's wildfire information management system to allow all data to be immediately available to wildfire managers across the state.

When available, MMAs **may** be tasked to perform aerial supervision by providing assistance to Incident Commanders (IC) regarding fire behavior, weather monitoring, assisting crews with access, operational mapping, and communication links.

The sensing, information management, and communications equipment on board the MMAs enable them to function in the following roles:

- New start detection and location.
- Geospatial product generation.
  - Real-time fire perimeter generation.
  - Real-time intensity location identification.
  - Communication relay and gateway.
- Retardant monitoring.
  - Drop accuracy and retardant effectiveness.
- Incident status reporting.
- Evacuation monitoring.
- Safety overwatch and response.
- Prescribed burn monitoring and escape detection.
- Fire behavior surveillance.
- Firefighter and supply transport.

MMA pilots are required to:

- Hold a Commercial or Airline Transport Pilot (ATP) Certificate with appropriate rating and a valid Class I or Class II FAA Medical Certificate;
- Have completed A-110 Hazardous Materials within the last 36 months; and

## Colorado Firefighting Air Corps Aviation Plan

---

- Be carded for Precision Resource/Recon and Mountain Special Use Authorizations in accordance with the Federal Interagency Practical Test Standards (IPTTS) – Areas of Operation standards.

When MMA are performing aerial supervision missions, Leadplane and ASM functions (see IASG) are not authorized.

### **6.0 CFAC AVIATION TRAINING**

#### **6.1 General**

Aviation training is essential to ensure that CFAC maintains a safe and efficient aviation operation. Aviation users, supervisors, and managers need to make certain that they and their employees are knowledgeable of the inherent hazards of aviation operations and have been provided the necessary skills and training to be successful conducting aviation operations.

#### **6.2 Fire Training and Qualifications**

The National Wildfire Coordinating Group (NWCG) prescribes fire and fire aviation qualifications. Personnel serving in NWCG positions shall meet the qualification and currency requirements in the *Wildland Fire Qualification System Guide* (NWCG PMS 310-1).

#### **6.3 NWCG to IAT Crosswalk**

See **S Course Equivalency for IAT Modules** in the Interagency Aviation Training Guide found at [https://www.iat.gov/docs/IAT\\_Guide\\_2014\\_0331.pdf](https://www.iat.gov/docs/IAT_Guide_2014_0331.pdf).

## **7.0 AIRSPACE COORDINATION**

### **7.1 Interagency Airspace Coordination**

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

### **7.2 Fire Traffic Area (FTA)**

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

### **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. Ordering procedures, coordination protocol and exceptions are outlined in [Chapter 6](#) of the [Interagency Airspace Coordination Guide](#).

### **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.

## **8.0 AVIATION SECURITY – AIRCRAFT**

### **8.1 Aviation Security Policy**

The Contractor is responsible for the security of their aircraft, vehicles, and associated equipment used in the support of CFAC contracts. Any aircraft used under CFAC contracts shall be physically secured and disabled by the contractor whenever the aircraft is unattended. State owned aircraft will comply with all state and local security protocols.

### **8.2 General Aviation Security Awareness Program**

The Department of Homeland Security (DHS) TSA implemented a national toll-free hotline that the general aviation (GA) community can use to report any “out-of-the-ordinary” event or activity at airports. The hotline is operated by the National Response Center and centralizes reporting to the appropriate local, state and federal agencies.

To report any suspicious activity at your airport- Call (866) GA-SECURE (866) 427-3287.

### **8.3 Cooperator’s Aircraft Security**

Military or government agency cooperator aircraft under CFAC operational control shall adhere to their department-specific aircraft security policies.

### **8.4 Aircraft Physical Security Requirements**

Security devices may consist of any combination of anti-theft devices attached to the aircraft for the sole purpose of locking flight controls, aircraft power, or directional ground movement. Pilots and aircrews must be diligent in pre-flight procedures to prevent engine start up with security measures in place. These may include any combination of the following:

- Locking hanger doors.
- Keyed Magneto, starter, or master switch.
- Hidden battery cut-off switches.
- Throttle, mixture/fuel, fuel cut-off locks.
- Control surface gust-locks; propeller locks (chain, cable, mechanical) – (airplane only).
- Locking wheel, chock or aircraft tie downs.
- “Club-type” devices for control yoke.

## Colorado Firefighting Air Corps Aviation Plan

---

### Appendices

#### Appendix 1 – Colorado Firefighting Air Corps Aviation Organization Directory

<b>Position</b>	<b>Name</b>	<b>E-Mail</b>	<b>Office Phone</b>
DFPC Director	Paul Cooke	<a href="mailto:Paul.Cooke@state.co.us">Paul.Cooke@state.co.us</a>	(303) 239-4600
Chief, Wildland Fire Management Section	Rocco Snart (Acting)	<a href="mailto:Rocco.Snart@state.co.us">Rocco.Snart@state.co.us</a>	(303) 239-4600
Deputy Chief of Wildfire Planning & Aviation	Jane Lopez	<a href="mailto:Jane.Lopez@state.co.us">Jane.Lopez@state.co.us</a>	(970) 491-8624
Aviation Specialist	Sonya Whitesell	<a href="mailto:Sonya.Whitesell@state.co.us">Sonya.Whitesell@state.co.us</a>	(970) 224-4144
Aviation Safety Manager	2014 Detailers	Multiple	Multiple
Deputy Chief of Operations	Vaughn Jones (Acting)	<a href="mailto:Vaughn.Jones@state.co.us">Vaughn.Jones@state.co.us</a>	(303) 239-3851
East Area FMO	Phil Daniels (Acting)	<a href="mailto:Phil.Daniels@state.co.us">Phil.Daniels@state.co.us</a>	(720) 315-4240
Regional FMO - Northeast	Matt Branch	<a href="mailto:Wilson.Branch@state.co.us">Wilson.Branch@state.co.us</a>	(970) 776-6335
Regional FMO North Central	Kirk Will	<a href="mailto:Kirk.Will@state.co.us">Kirk.Will@state.co.us</a>	(720) 556-5100
Regional FMO South Central	Brenda Wasielewski	<a href="mailto:Brenda.Wasielewski@state.co.us">Brenda.Wasielewski@state.co.us</a>	(719) 963-7838
Regional FMO South & Southeast	Joe Lobiondo	<a href="mailto:Joseph.Lobiondo@state.co.us">Joseph.Lobiondo@state.co.us</a>	(719) 466-3341
West Area FMO	Steve Ellis	<a href="mailto:Stevend.Ellis@state.co.us">Stevend.Ellis@state.co.us</a>	(970) 964-4746
Regional FMO Northwest	Sam Parsons	<a href="mailto:Samuel.Parsons@state.co.us">Samuel.Parsons@state.co.us</a>	(720) 556-4247
Regional FMO Colorado River	Dave Toelle	<a href="mailto:Dave.Toelle@state.co.us">Dave.Toelle@state.co.us</a>	(970) 989-3475
Regional FMO West	Luke Odom	<a href="mailto:Luke.Odom@state.co.us">Luke.Odom@state.co.us</a>	(970) 773-4259
Regional FMO Southwest	Ryan McCulley	<a href="mailto:Ryan.McCulley@state.co.us">Ryan.McCulley@state.co.us</a>	(970) 765-6279
Regional FMO San Luis Valley	Phil Daniels	<a href="mailto:Phil.Daniels@state.co.us">Phil.Daniels@state.co.us</a>	(720) 315-4240