



**United States Department of Agriculture  
Forest Service  
Pacific Southwest Region**

## *FireWatch*

# *Aerial Supervision/Remote Sensing Aviation Management Plan*

June 2009





# FireWatch Aviation Management Plan

## FOREWORD

This document supplements the USDA-Forest Service (FS), *National Aviation Management Plan*. Information presented in this document is a critical component of the Pacific Southwest (R5) Region Aviation Program.

Questions regarding this plan should be directed to the FireWatch Program Coordinator. The FireWatch Program Coordinator retains the original signature copy and electronic version of this plan.

**Prepared By: /S/John Liston 06/18/2009**  
John Liston Date  
FireWatch Program Coordinator

**Reviewed By: /S/Stan Kubota 06/18/2009**  
Stan Kubota Date  
Contracting Officer's Representative

**Reviewed By: /S/John Browning 06/19/2009**  
John Browning Date  
Contractor's Representative

**Approved By: /S/Dennis Hulbert 06/22/2009**  
Dennis Hulbert Date  
Regional Aviation Officer

# FireWatch Aviation Management Plan

September 25, 2008

Subject: Revision 1 to the Firewatch Aviation Management Plan  
dated June 2008

To: All Firewatch program personnel

The Firewatch Aviation Management Plan is revised with the attached page.

Remove the original page 20 and replace with Revision 1 page 20. The arrow (s) in the margin points to the area (s) that is/are revised.

Background:

1. Due to misinterpretations of the meaning of "maintenance test flight" (MTF) and the personnel authorized to perform the MTF, the affected paragraphs have been amplified to differentiate between the purpose of the MTF and functional checks (limited test flights) following minor repairs, and the personnel authorized to perform the flight or operational check actions required.
2. Retirement of the SZ Regional Aviation Maintenance Inspector required removal of the position designation and replaces it with Regional Aviation Maintenance Inspector designation.
3. Replacement of Firewatch Instructor Pilot Jim Ramage with John Blumm in Appendix 15.
4. Addition of Appendix 16 – 18.

*/John Liston/*  
JOHN LISTON  
Firewatch Program Coordinator

# FireWatch Aviation Management Plan

## Table of Contents

<b>FOREWORD</b> .....	3
Chapter 1 .....	7
FireWatch Program - General .....	7
Chapter 2 .....	15
Aviation Procedures and Information .....	15
Chapter 3 .....	20
Aircraft Maintenance .....	20
Chapter 4 .....	24
Training .....	24
Appendix #1 .....	28
FireWatch Organization Chart .....	29
Appendix #2 .....	30
<b>Pilot/ATGS Mission Briefing</b> .....	30
Appendix #3 .....	31
<b>Pilot/ATGS Mission Debriefing</b> .....	31
Appendix #4 .....	33
<b>Required Forms and Data</b> .....	33
Appendix #5 .....	34
<b>GIS Van Inventory List</b> .....	34
Appendix #6 .....	37
<b>Mechanic Truck Equipment Compliment</b> .....	37
Appendix #7 .....	38
<b>FireWatch Master Contact List</b> .....	38

# FireWatch Aviation Management Plan

Appendix # 8.....	41
<b>Platform Development Test</b> .....	41
Appendix #9.....	43
<b>Helicopter Closed Circuit Refueling Plan</b> .....	43
Appendix #10.....	45
<b>Security Plan for FireWatch Helicopters</b> .....	45
Appendix #11.....	46
<b>Mailing lists</b> .....	46
Appendix #12.....	47
<b>Survival Kit Aeronautical</b> .....	47
Appendix #13.....	48
<b>Firewatch Helicopter Weekly Status Report</b> .....	48
Appendix 14.....	49
<b>Firewatch Helicopter Minimum Equipment List</b> .....	49
Appendix #15.....	50
<b>Firewatch Instructor Pilots</b> .....	49
Appendix #16.....	50
<b>Front Seat Training Outline</b> .....	50
Appendix #17.....	52
<b>FireWatch Cobra Training Documentation</b> .....	52
Appendix #18.....	53
<b>FireWatch Cobra ATGS Mission Checklist</b> .....	53

# FireWatch Aviation Management Plan

## Chapter 1

### FireWatch Program - General

- 1) **PURPOSE:** The purpose of the plan is to identify FireWatch program management goals, objectives, and activities, and to provide strategic and operational guidance to each organizational level as appropriate. This plan is supplemental to the *National Aviation Management Plan* (FSM 5704.3 and 5711) and the *Pacific Southwest Region Aviation Management Plan*.

USDA Forest Service contract AG-91S8-C-06-0040 dated 03/28/2006 with associated modifications is the binding contract between the government and DynCorp International. The contract includes the scope, personnel qualifications, equipment specifications, performance requirements, and many of the standards required for successful operation of the FireWatch program. A copy of the contract should be available to all employees associated with the performance of the FireWatch program.

- 2) **OBJECTIVES:**
  - a) To provide emphasis on aviation safety.
  - b) To provide an expansion for program guidance, but not a replacement for aviation management directives.
  - c) To describe FireWatch aerial supervision and remote sensing programs and activities.
  - d) To provide strategic and operational direction for FireWatch activities.
- 3) **MISSION STATEMENT:** The FireWatch Program is dedicated to coordinating and supervising aerial activities over incidents while enhancing firefighter safety, efficiency, and effectiveness of incident operations.
- 4) **PROGRAM OVERVIEW:**
  - a) The Fire Watch Program utilizes two Bell 209 helicopters, owned by the U.S. Forest Service, equipped with specialized equipment for intelligence-gathering, mapping, command, and control. The aircraft is equipped with avionics to perform aerial supervisory missions equal to, or above the National Standard Type 1 Air Tactical Group Supervisor (ATGS) platform as recognized in the National ATGS Platform typing in the National Mobilization Guide.

# FireWatch Aviation Management Plan

- b) This is a developmental application of an aircraft and associated equipment for aerial supervisory and intelligence gathering purposes. Not all applications for use of this aircraft are discovered. Approval for uses not addressed in this document must be obtained from the Pacific Southwest Regional Aviation Officer. Operations over foreign airspace will require State Department approval. Evaluations of the aircraft's suitability for each mission will be documented on the FireWatch Mission Report Form (Appendix #3), in the comments section.
- c) The aircraft has a total communications capability of seven radios including; three VHF AM radios, of which one is integrated into a Garmin model 530 GPS, three VHF FM radios within an NAT model TH-450 transceiver, and an integrated auxiliary FM radio provision. The aircraft has a Traffic Collision Avoidance Display (TCAD) to enhance situational awareness in congested airspace. The TCAD information can be displayed on the integrated Avalex map and the Garmin 530.
- d) The FLIR Systems Star Safire III Turret is equipped with multiple infrared sensors, 3CCD color camera, laser range finder, laser illuminator, and spotter scope. The FLIR Turret is integrated to work with a computerized mapping program (Avalex system) that can display street, topographic and aeronautical maps. Maps can be edited to show points of interest and calculate distances and area. On top of the aircraft is a second fixed infrared sensor (Max-Viz) that recovers images in the 8-12 micron wavelength range vs. the 3-5 micron mid-wave range of the turret mount.
- e) The aircraft is equipped with a multi-channel microwave transmitter capable of down linking real time color or infrared sensor images and cockpit audio to a portable microwave receiver. A portable microwave receiver will be carried on the aircraft, for delivery to personnel on an incident. This will supplement the Data Recovery Van when in route to an incident.
- f) The Data Recovery Van is equipped with a microwave receiver and directional antennae, flat screen video display, VCR recorder, and DVD recorder. This vehicle will accompany the helicopter and serve as the remote receptor of data to an incident command organization.
- g) There are currently two FireWatch units operating within the USFS Pacific Southwest Region designated as:
  - i) Helicopter/Air Attack 507 based at Redding, CA
  - ii) Helicopter/Air Attack 509 based at Lancaster, CA

# FireWatch Aviation Management Plan

- 5) ORGANIZATION AND STAFFING: (consult the FireWatch Organizational Chart in appendix #1 and the FireWatch Master Contact List in appendix #7 for listing of staff)
- a) Regional Aviation Officer (RAO): Responsible for the leadership, management, and direction of the FireWatch program, including coordination of aviation activities with other staffs, agencies, and groups within the USFS. The RAO communicates institutional values and level of acceptable risk to those managing FireWatch aviation operations. The activities of the RAO are meant to unify the efforts of FireWatch aviation experts and develop a team approach in achieving safety goals and objectives while providing aviation support to the Forests and Cooperators. RAO responsibilities include:
- i) Monitor the FireWatch program planning and qualifications of both USFS and contractor personnel involved in FireWatch operations.
  - ii) Ensure specialized aviation training is provided to FireWatch personnel.
  - iii) Ensure the FireWatch program is accomplished within Departmental, Agency, and Unit directives and guidelines.
  - iv) Conduct periodic evaluations and site visits of FireWatch activities to ensure goals and standardization are attained.
  - v) Represent FireWatch program issues and products at Regional and National assemblies and relay feedback to the program coordinator.
  - vi) Ensure funding and personnel support is provided to cover requirements outside of Working Capital Fund programs.
- b) USFS FireWatch Program Coordinator: Responsible for the direction, leadership, and oversight of the FireWatch program at the unit level. Program Coordinator responsibilities include:
- i) Coordinate personnel, maintenance, parts, and logistics requirements with the USFS and DynCorp FireWatch Program Managers.
  - ii) Ensure adequate space and equipment is available to support the FireWatch program.
  - iii) Complete and accomplish required updates to the FireWatch Aviation Management Plan.







































































































