United States Department of Agriculture

STANDARDS FOR AERIAL SUPERVISION OPERATIONS

Forest Service

March 2019

Signatures and Approval

Prepared By: **WALTER BUNT**
Digitally signed by WALTER BUNT
Date: 2019.03.21 11:30:24 -07'00'

WALTER W. BUNT, National Aerial Supervision Program Manager (Acting), WO

Reviewed By: **PHILLIP KETEL**
Digitally signed by PHILLIP KETEL
Date: 2019.04.25 13:03:59 -06'00'

PHILIP C. KETEL, Regional Aviation Officer, RAO Council, R1

Reviewed By:
Digitally signed by PAUL LINSE
Date: 2019.04.24 08:11:52 -06'00'

PAUL LINSE, Branch Chief, Aviation Operations, WO

Reviewed By: **AARON SCHOOLCRAFT**
Digitally signed by AARON SCHOOLCRAFT
Date: 2019.05.07 07:39:11 -07'00'

AARON SCHOOLCRAFT, Branch Chief, Aviation Strategic Plans, WO

Reviewed By: **MARY VERRY**
Digitally signed by MARY VERRY
Date: 2019.05.21 11:34:57 -07'00'

MARY VERRY, Branch Chief, Pilot and Flight Crew Standardization, WO

Reviewed By:
Digitally signed by JOHN NELSON
Date: 2019.05.28 06:28:25 -06'00'

JOHN NELSON, Branch Chief, Airworthiness, WO

Reviewed By: **JOHN HAMILTON**
Digitally signed by JOHN HAMILTON
Date: 2019.05.28 07:29:21 -04'00'

KENT HAMILTON, Branch Chief, Aviation Safety Management System, WO

Reviewed By: **TONYA RYMER**
Digitally signed by TONYA RYMER
Date: 2019.04.25 09:53:57 -04'00'

TONYA RYMER, Branch Chief, Aviation Business Operations, WO

Approved By: **JEFFERY POWER**
Digitally signed by JEFFERY POWER
Date: 2019.06.07 10:21:28 -04'00'

JEFFERY POWER, Assistant Director, Aviation, WO

Introduction

The objective of this plan is to identify standardized processes and procedures for utilization by aerial supervision staff, supervisors, specialists, and managers for planning and administering aerial supervision operations. The National Aerial Supervision Operations Plan connects contract requirements with policy for all aspects of aerial supervision.

NOTE: This plan should be used as a reference to guide aerial supervision operations and is not inclusive of all policy, procedures and regulations. Regional programs should add specific information to this plan to guide operational standards of supporting agency and interagency partners conducting aerial supervision on behalf of the USFS.

Scope

The aerial supervision program is a three part operation consisting of management, personnel and aircraft. These resources, when combined, support a multi-faceted interagency all hazard response for federal, state, and local wildland firefighting agencies in the protection of communities, infrastructure and natural resource value from destructive wildfires.

Aerial Supervision personnel include Helicopter Coordinator (HLCO), Air Tactical Group Supervisor (ATGS), Leadplane Pilot (LPIL) and Air Tactical Supervisors (AITS).

The USFS will use Exclusive Use (EU) contracted or agency-owned aerial supervision aircraft first and Call When Needed (CWN) aerial supervision aircraft second. EU aerial supervision and agency-owned resources consists of the following; Turbine Aero Commander, KA-200, KA-90 and AH1 Cobra aircraft. The CWN Light Fixed Wing (LFW) fleet ranges from turbine aircraft to single reciprocating engine aircraft and not all LFW are capable of meeting the requirements of 3 VHF FM and 3 VHF-AM radios, pressurization and payload/speed requirements to perform the aerial supervision mission on a programmatic level. Careful planning when ordering and filling requests should be given as to place the right resource in the right location based on aircraft performance in support of ongoing and anticipated events.

Resource mobilization is the responsibility of the Geographic Area Coordination Centers (GACC) through consultation with the National Interagency Coordination Center (NICC) based on national priority, incident, preparedness, severity, and level of needs. Leadplanes and ASM's are a "national resource" in terms of mobilization and utilization. High demand, limited availability and unique status drive mobilization in support of the national airtanker fleet. The HLCO position is being phased into the EU Helicopter fleet and focused development will continue to strengthen and enhanced aerial supervision.

Authority

Aerial supervision operations require standards in terms of regulations, manuals, guides, contracts 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 *(reference; FSM 1110.8 - Exhibit 01 Degree of Compliance or Restriction in Directives).* All aviation operations shall comply with the applicable provisions of:

> Title 14 Code of Federal Regulations (14 CFR). Parts 91, 135 and 137.
> FS Manual (FSM – 5700)

FS Handbook (FSH - 5709.16)
NWCG Standards for Airtanker Base Operations
FS Fire and Aviation Management Qualifications Guide (FSH - 5109.17)
Interagency Standards for Fire and Fire Aviation Operations (Redbook)
Interagency Aerial Supervision Guide (IASG current version)
Interagency Helicopter Operations Guide (IHOG current version)
National Interagency Mobilization Guide
FS Procurement Documents (contracts, contract modifications, Blanket Purchase Agreements)
Interagency Single Engine Airtanker Guide
USFS Aerial Fire Retardant Implementation Guide

NOTE: When the aircraft and flight crews are performing exclusive operations (not in unified command) for agencies where policy may differ, the most restrictive agency's policies, guidance, and standard operating procedures shall be followed.

Program Management

The Aerial Supervision Program is managed by the National Aerial Supervision Program Manager. Additional programmatic and operational oversight shall be provided by:

- ☑ Regional Aviation Officer
- ☑ Designated Regional Aerial Supervision Program Manager
- ☑ Designated Forest/Unit Aviation Officers
- ☑ Regional Supervisory Pilot/Fixed Wing Inspector Pilot
- ☑ National Fixed Wing Coordinator
- ☑ GACC ATGS Coordinator *(Appendix 1)*
- ☑ Incident AOBD/OPSC/IC

These positions coordinate operational and strategic movement of national shared aerial supervision resources and Exclusive Use ATGS Aircraft with the National/Geographic Area Coordination Centers to optimize response efficiency and effectiveness.

The Washington Office, in cooperation with Regional Office Aviation Staff continue to adapt and develop operations and equipment to ensure a stable, efficient and safe program. This is accomplished with quality assurance review of the current management approach for effectiveness to include program funding, permanent positions, contract specifications, contract length, facilities, specialized training, placement of resources, and operations.

Aerial Supervision Operations

The Interagency Aerial Supervision Guide IASG (PMS-505) is the policy document that guides the program for the USFS and will be updated on a triennial basis. The aerial supervision mission is focused on airspace management during wildfire suppression activities and the facilitation of aircraft on various tasks including dropping retardant/water/supplies in support of ground firefighters to contain/control new, emerging and existing fires.

When assigned to large fires the aerial supervision resources work directly or indirectly for the Air Operations Branch Director (AOBD), Operations Section Chief, and Incident Commander. To insure seamless operational integrity aerial supervisors will work with AOBD, Operations or IC to establish known briefing/debriefing schedules daily. It is necessary to communicate prior/post flight operations to

quickly confirm priorities and perform a rapid after action review. At times, such as multiple large fires in close proximity or a large fire with predicted increased IA activity near, conditions require a geographic air tactical conference call each day to cover strategic priorities and share pertinent information. Every effort should be made to establish and participate on these calls when duty day limitations are not compromised. *(Appendix 2)*

NOTE: Communication between aerial supervisors and the AOBD, Operations or IC are critical for the aerial supervisors to be aware of incident objectives, incident priorities and planning cycles. Aerial supervisors can provided essential intelligence for next day operations, but must maintain communications to do so.

USDA Forest Service, Aerial Supervision Program

Functional Group	Qualified	Trainees	Annual Trainee Certification
Helicopter Coordinator	29	28	3
Air Tactical Group Supervisor	232	104	6
Air Tactical Supervisor	24	9	2
Leadplane Pilot*	17	3	.5
HAT Aerial Supervision Programs**	10	3	4
TOTALS	**312**	**147**	**15.5**

IQCS Data and GACC Representative Reports

*Includes Contractors, ** Human Aiding Technology (HAT) FireWatch and NightWatch aerial supervision programs

Retardant Use Considerations

During initial attack (IA) aviators will prioritize actions on sound firefighting tactics to include establishing and working from an anchor point, flanking the fire, pinching the shoulders and head and provide structure defense while using natural and manmade barriers in combination with aerial dispensed water/retardant to maintain efficiency with time and resources providing firefighters with the best chance to complete their tactics. All retardant use on national forest system lands will adhere to the USFS Aerial Fire Retardant Implementation Guide.

IA Considerations;

☑ Are tactics commensurate to values at risk? Life / Infrastructure / Water / Wildlife
☑ Is this an initial attack with known objectives?
☑ Will ground resources be on scene during this burn period?
☑ Can retardant be applied safely?
☑ Are weather, fuel types and terrain conducive to fixed/rotor wing retardant delivery?
☑ Do you have the right amount of resources to accomplish the tactic?
☑ Is the ground clear and are ground forces in direct and constant communication with aircraft?

During extended attack (EA) aerial supervisors must gain and maintain situational awareness through agency websites, airbase briefings and inflight briefings to understand incident objectives and priorities. When incident objectives are determined to be ineffective aerial supervisors will offer a plan that will minimize impacts to the inclusive operational plan.

EA Considerations;

☑ Was previous retardant strategy use effective?
☑ Are adequate ground and air resources ready to engage?
☑ Are there conflicting priorities for aircraft limiting the success of the strategy/tactic?

☑ What would work best fixed wing or rotor wing delivery?
☑ Is mission focused on unreasonable expectations? What would you change?

These considerations are to assist aviators and ground based resources in formulating strategy and tactics that will meet incident objectives and limit inefficient operations therefore increasing safety. It is strongly encouraged that Incident Management Teams (IMT), Aviation Resources, Aviation Leadership and GACC conduct aviation tactical calls before and during high activity thresholds.

Airspace

It is common for fire operations to be conducted in and near controlled airspace. Incidents may occur In Class B airspace and multiple Class C airspace airports in the wildland urban interface. These fires may require negotiations with ATC for aircraft routing.

Establish Temporary Flight Restrictions (TFR) early during complex initial attacks, remembering that TFR's do not pertain to aircraft that have legal access to include; Medevac, Law Enforcement (LE), Media, VFR airport traffic, IFR traffic cleared by the FAA. During large fire operations ensure TFR remains adequate by coordinating with AOBD, ASGS, Dispatch, and FAO/UAO. When known LE activity is occurring near/within incident airspace insure LE is briefed and aware of incident procedures and frequencies.

Approach can be used to flight follow (FF) while in route to the fires and can provide VFR FF as well as IFR routing, making it safer and more efficient getting to a fire without having to worry about self-routing over, under or around various airspaces (restricted areas, MOA's, airports, etc.).

☑ When operating near large population bases, expect a large concentration of high tension power lines, general aviation and unmanned aircraft systems (UAS)
☑ With coastal and desert influence, there can be strong localized winds and turbulence. The canyons and passes can funnel very strong winds that create hazardous situations for aircraft
☑ Certain areas of the country have large concentrations of military, airline and general aviation air traffic. This makes it all the more important to stay heads out and practice "see and avoid"
☑ Certain areas present visibility issues due to marine layers, haze, and smoke. It is not uncommon to have VFR conditions over the fire and IFR conditions coming back into an airport. It is important to consider these possible situations when planning for fuel reserves and which airport you will be recovering to

Hazards

Aerial firefighting presents many hazards and risks associated with the dynamic nature of operations in the fire environment. Safety of personnel and aircraft is the first priority on all wildland fire incidents. The incident airspace environment demands a significant level of situational awareness. Multiple hazards associated with the flight environment can overwhelm aviators, causing the loss of situational awareness, possibly leading to more complex proximity to risk which can increase mishap potential. Aerial supervisors and pilots must continually monitor the situation to gauge operational tempo, environmental conditions, and complexity of the incident and adjust operations as necessary. Common hazards include but are not limited to:

☑ Airspace congestion/aircraft proximity/co-altitude
☑ Low visibility
☑ Hazardous/masking terrain
☑ Initial low level flight profiles

7

☑ Weather/wind shift
☑ Insufficient aerial supervision
☑ Lack of communication
☑ Communication blocking
☑ Sense of urgency
☑ Birds
☑ Drones/UAS
☑ Mission focus based on unreasonable expectations

An Operational Mission Checklist (OMC) shall be used prior to every mission to mitigate risks and hazards to the lowest acceptable level and make risk informed decisions. The OMC will be documented and retained by aerial supervisor. *(Appendix 3)*

Approved Cooperator Aircraft

The USFS partners with several interagency cooperators who perform aerial supervision missions. It is important to maintain training and response implementation standards when not restricted by agency policy to maintain predictable operating environments for the hundreds or aircraft that support operations within the regions on an annual basis.

Aircraft procured/owned by cooperating agencies (state, local, and International) may be utilized on federally managed fires only when federal cooperative agreements are in place. *(Appendix 4)*

Law enforcement agencies have aviation programs that can and do impact firefighting operations. The FTA does not pertain to other aircraft that have legal access within a TFR (Medevac, Law Enforcement, Media, VFR airport traffic, IFR traffic cleared by the FAA).

Although not an agency, accredited media organizations utilize helicopters for reporting and are sent to fires routinely. Most of these aircraft have powerful camera lenses and are content to be cleared in above the FTA to collect video footage of the fire activities. It is good practice to designate a media helicopter as a point of contact for the whole group. The FTA does not pertain to other aircraft that have legal access within a TFR (Medevac, Law Enforcement, Media, VFR airport traffic, IFR traffic cleared by the FAA).

Local cooperators with aviation programs may initially be operating on incidents with their own agency frequencies while federal and state aircraft on the same incident may be working on different frequencies. It is important for aerial supervision to have all incident aircraft operating on the appropriate frequencies.

Aerial Supervision Proficiency

Aerial Supervision pilots will maintain accordance with the specified contract in which they are performing under. Agency pilots must maintain currency based on the following;

Recurrent	Make & Model- preceding 60-days	10 hr.

Each Pilot-in-Command will pass an evaluation ride from an agency inspector pilot (not to exceed 2-hours) in make and model over mountainous or typical terrain annually.

NOTE: LPIL evaluations are given during the annual Leadplane/ASM training conducted as part of the National Aerial Supervision Training Academy, this evaluation meets the requirements of aerial supervision pilot currency.

Proficiency flights can be used to ensure the aerial supervision crew(s), aircraft and equipment are operational and proficient. ATGS/Pilots who have not flown a mission within the past 14 days may perform these flights (up to one hour). The host GACC will provide a job code to charge these flight to and coordination with the local ECC and GACC will occur before flights. Prior to these flights aircrews will ensure the OMC is complete. Proficiency flights should include the following tasks:

- ☑ Crew mission briefing
- ☑ Perform preflight walk around
- ☑ Preflight checklist as requested by pilot
- ☑ Power up and operate all radios/GPS
- ☑ Initiate standard flight following procedures
- ☑ Communicate terrain avoidance measures with pilot
- ☑ Assess elevation(s) of simulated FTA
- ☑ Assess aerial hazards in the simulated FTA
- ☑ Perform Standard Calls in the Blind (IASG)
- ☑ Conduct AAR
- ☑ Document training flight narrative in Daily Diary

All aerial supervisors will remain current as defined in the IASG. Every three years each qualified individual will pass an evaluation from a qualified Evaluator/Final Evaluator. This can be done on an actual incident or a simulated incident with a minimum moderate complexity of 2 fixed wing and 2 rotor wing aircraft all working on the fire at the same time. Evaluations will be documented using the Standard Evaluation Form in the IASG. *(Appendix 5)*

Flight Hours and Duty Limitations

All flight time, regardless of how or where performed, shall be reported by each flight crewmember and used to administer flight hour and duty time computations. Flight time to and from the assigned base as a flight crewmember (commuting) shall be reported and counted toward limitations if it is flown on a duty day. Flight time includes, but is not limited to: military flight time; charter; flight instruction; 14 CFR Part 61.56 flight review; flight examinations by FAA designees; any flight time for which a flight crewmember is compensated; or any other flight time of a commercial nature whether compensated or not. For further information see the assigned contract and the Interagency Standards for Fire and Aviation Management: Chapter 16; Pages 324 through 326 "Phase Duty Limitations"
https://www.nifc.gov/PUBLICATIONS/redbook/2018/RedBookAll.pdf

If mandatory days off (MDO) need to be adjusted by the National Fixed Wing Coordinator or the National Aerial Supervision Program manager to meet a national availability need, they will coordinate with the affected pilot, their supervisor and the regional aerial supervision program manager and/or regional aviation officer.

At the request of the GACC, flight crew members may RON in place for their mandatory days off for one set of days off and must return to their home unit upon their next set of days off.

NOTE: Regardless of these policies when a pilot or aircrew member feels fatigued flight crews will work directly with the assigned unit to mitigate this issue.

Aerial Supervision Positions

Helicopter Coordinator

The Helicopter Coordinator (HLCO) directs and evaluates tactical/logistical helicopter operations in support of all hazard incidents. A HLCO can increase the capability of an ATGS by managing helicopters over an incident and maintaining a safer flight environment through identifying hazards, establishing helicopter routes and patterns and reduce overall individual communications between ATGS and resources. The HLCO is a great initial attack resource and may provide sole aerial supervision on an incident where only helicopters are assigned. When an ATGS is assigned to the incident the HLCO is a subordinate position.

The USFS is using focused development to increase capabilities of the HLCO program within each region. This effort will reduce the dependence of fixed wing aerial supervision aircraft when only helicopters are assigned to incidents and increase strategic capabilities for Initial Attack. We anticipate the missions and flight hours to increase for the HLCO program which will add reduced workloads to the ATGS over the next several years.

2019 USFS Helicopter Coordinator Qualifications by Region

Region	HLCO	HLCO T	Qualified Target
1	0	1	TBD*
2	0	0	TBD
3	0	0	TBD
4	0	0	TBD
5	24	18	35
6	5	9	TBD
8	0	0	TBD
9	0	0	TBD
10	0	0	TBD
WO	0	0	1**
Total	29	28	TBD

*To Be Determined by Region / **Denotes Program Management*

Air Tactical Group Supervisor

A strategic approach using historical fire data and aircraft performance was used to establish permanent air attack bases centered on unit acceptance in support of an inclusive geographic mobility plan for each GACC. *(Appendix 6)*

USFS Exclusive Use Resources

Region/Forest	Aircraft Base	ATGS Assigned
ID-NCF	Grangeville, ID	1
MT-HLN	Helena, MT	1
CO-BJC	Jeffco, CO	1
AZ-TNF	Mesa, AZ	1
ID-BOI	Boise, ID	1
ID-PAF	McCall, ID	1
CA-KNF	Montague, CA	2
CA-LNF	Chester, CA	2
CA-TNF	Grass Valley, CA	1
CA-SNF	Fresno, CA	2
CA-LPF	Santa Maria, CA	2
CA-BDF	San Bernardino, CA	2
CA-OSC	Lancaster, CA (NightWatch)	2
CA-OSC	San Bernardino, CA (Regional)	1

CA-ONC	Redding, CA (Regional)	2
CA-ONC	Redding, CA (FireWatch)	2
CA-ONC	Redding, CA (FireWatch)	2
OR-RRF	Medford, OR	1
OR-FWF	Klamath Fall, OR	1
OR-DEF	Redmond, OR	1
OR-WWF	La Grande, OR	1
WA-OWF	Wenatchee, WA	1
TOTAL	**22**	**31**

DATGS Roles and Responsibilities

The emergence of the Dual ATGS Single Aircraft Operation (DATGS) began in 1972 when nationally there were two AM and two FM frequencies that were used for a national effort regarding aviation operations. These two positions were the Air Attack Boss and the Air Traffic Boss who worked together through early CRM to ensure safety and efficiency of operations. The DATGS concept increases safety and efficiency of the mission by reducing errors and missed calls over emerging or complex incidents through division of workload.

When there are two qualified ATGS's onboard working in the DATGS configuration, there is the requirement to maintain a primary/tactical ATGS to eliminate any confusion and to maintain continuity during the mission. The primary/tactical ATGS sits in the co-pilot seat and is the mission commander. The **primary/tactical ATGS** in the dual role will be responsible to perform all or most of the following duties during the mission;

- ☑ Coordinate and direct the actions of the ATGS pilot to position the aircraft at the desired location.
- ☑ Direct all aircraft within the FTA associated with the suppression effort.
- ☑ Provide all clearances to in/out bound aircraft, provide tactical briefings and provide for mission safety of incident aircraft.
- ☑ Develop and execute tactics to meet the needs of ground resources.
- ☑ Monitor all incident frequencies, give priority to FM Air Tactics, AM Rotor Air to Air, tactical Air to Ground and any Air to Air Briefing frequencies.

The **Secondary ATGS** has the duties of maintaining situational awareness of the ongoing tactical mission and maintains communications with the incident dispatch center, command traffic, air tanker base, maintains flight following, and any overflow radio traffic that the tactical ATGS delegates. The secondary ATGS can implement information technology, prepare airspace planning and assist the tactical ATGS with suggestions to the mission in general. The **Secondary ATGS** will perform the following duties;

- ☑ Coordinate with the dispatch center or incident ordering point to place or cancel orders, provide incident updates and make recommendations.
- ☑ Coordinate with airtanker bases and helibases.
- ☑ During initial or extended attack, provide mapping products to incident commanders and supporting personnel.
- ☑ During large fires, assist in providing information to AOBD and incident GIS personnel.
- ☑ Monitor all frequencies and assist the tactical ATGS by responding to any command air-to-ground radio traffic or communication/frequency tasks delegated to the secondary ATGS from the primary ATGS.

DATGS operations requires the use of CRM to enhance situational awareness, flexibility, adaptability, event and mission analysis, decision making, assertiveness and communication. With the addition of a

qualified ATGS to the platform mission safety is improved and mission efficiency is increased by the reduction in workload for the single ATGS. While the duties and responsibilities described above are suggested guidelines, the entire crew must have clear understanding of their roles and responsibilities of each other to be successful.

Program Managers, Permanent Full Time ATGS, Host Unit Roles and Responsibilities

It is expected that host forests and permanent aerial supervision staff, to include FAO/UAO's as assigned, establish and maintain the following minimum program elements;

- ☑ Maintain a minimum of two ATGS qualified personnel to staff assigned EU ATGS platforms
- ☑ Provide Staffing for CWN aircraft used to supplement strategic capabilities of EU resources
- ☑ Instruct at the regionally sponsored RT-378 Air Tactical Group Supervisor Refresher course
- ☑ Instruct at the National Aerial Supervision Academy or California Aerial Supervision Academy
- ☑ Ensure unit ATGS personnel, to include AD's maintain records identified in the IASG and submit annually to regional program managers.
- ☑ Recruit agency employees into aerial supervision positions and maintain mentorship of trainees
- ☑ Maintain a minimum of one Level 3 COR to support the EU Contract
- ☑ Staff aircraft during the MAP (Mandatory Availability Period) or any extension thereof with qualified agency or interagency ATGS.
- ☑ Maintain availability to respond within 15 minutes of receiving Dispatch Form between 0900 and 1800 unless requested to be available outside of this standard
- ☑ Perform all functions of a COR as designated by the CO
- ☑ Attend Contractor annual refresher training to speak to pilots about agency updates, fire specific information, FTA, and contract expectations (contract pre-work) annually or as invited
- ☑ Attend agency and interagency annual refresher training to speak to ATGS about agency updates, fire specific information, FTA, and program changes annually or as invited
- ☑ Maintain standard records by fiscal year for aircraft and personnel utilization and submit to regional office by OCT 31 annually.
- ☑ Attend IMT Meetings (preseason and AAR) to determine best practices and mitigate operational issues.
- ☑ Perform as an ATGS evaluator and final evaluator as designated by the RAO.
- ☑ When qualified assist in the establishment, recruitment and sustainment of a HLCO program.

Leadplane Pilot and Air Tactical Supervisor

A qualified and current Lead Plane Pilot (LPIL) and Air Tactical Supervisor (AITS) make up an Aerial Supervision Module (ASM). When all regionally hosted resources are committed, the GACC works with NICC to increase capacity before and during high fire occurrence. The RAO or designee maintains all LPIL records and ensures refresher courses are attended in accordance with the IASG.

The regionally designated Aerial Supervision Program Manager (ASPM) is responsible for managing AITS personnel for regionally hosted Leadplanes. The ASPM works with the GACC(s) and Supervisory LPIL to establish a staffing schedule to meet the needs of the region. The ASPM maintains all AITS records, submits annual regional accomplishments to the NASPM and ensures refresher courses are attended in accordance with the IASG.

USFS Leadplane Regional Location, Aircraft and Qualified Pilots

Location	# Aircraft	# Qualified Pilots
Missoula, MT	3	3
Jeffco, CO	1	1
Albuquerque, NM	1	1
Ogden, UT	2	2
Redding, CA	3	3
Redmond, OR	3	2
Lawrenceville, GA	1	1
Boise, ID	1	2
TOTAL		15

The USFS regions will maintain LPIL/AITS qualified personnel, as approved by the WO. These programs will consist of qualified, evaluator and final evaluator(s) in support of the WO program. The RAO/LPIL/ASPM establish and maintain the following program within their region;

- ☑ Ensure LPIL submits flight data every 12 days.
- ☑ Ensure daily availability reporting is utilized and resources' available are known by GACC/NICC/National FW Coordinator/National ASPM.
- ☑ Ensure schedule is provided to GACC identifying availability for the next 14 days.
- ☑ Leadplane status will be in one of the three following categories; Unavailable, Available Local, Available National. Due to Leadplanes being national shared resources when Leadplanes are assigned in ROSS as "local/GACC only" they must continue to support closest resource protocols contained within the National/Regional Mobilization guides even when they cross GACC boundaries. Leadplanes in a "local status" shall return to their designated home base at the end of their shift.
- ☑ Ensure priority AITS staffing is given to the Contract LPIL, if activated.
- ☑ Ensure ABS is submitted accurately by the 1st and the 15th of each month
- ☑ Ensure employees attend the national aerial supervision meeting(s) (Annually)
- ☑ Participate on conference calls when available
- ☑ Instruct at the regional interagency sponsored RT-378 Air Tactical Group Supervisor refresher course (Annually)
- ☑ Participate at the NASTA (Annually)
- ☑ ASPM ensures AITS personnel, to include AD's, maintain mission records identified in the IASG and submit annually
- ☑ Maintain availability to respond within 15 minutes of receiving the Standard Dispatch Form between 0900 and 1800 unless requested to be available outside these standard hours
- ☑ Provide observations flights for regional ATGS(s) who have written approval from their unit *(Appendix 7)*

Aerial Supervision Training

Each region shall develop an Aerial Supervision Recruitment/Commitment Plan *(Appendix 8)* to be used in the recruitment, training and sustaining of the aerial supervision program. Training considerations;

- ☑ The ideal environment for ATGS/AITS training is initial attack and emerging incidents that require an aggressive fire suppression response. Large fire support with a complex aircraft environment is also desirable. Fires that are "monitor fires" or low complexity are not a good fit for training outside of initial foundational skill building (usually done in the academy).
- ☑ The ideal environment for HLCO training is extended attack and large fire support when incident complexities require the full expansion of the aviation ICS organization. There is also benefit to using HLCO's when only helicopters will be dispatched to the incident.
- ☑ When fire threat is elevated in specific geographic areas then the platforms should be moved to that location before and during the event to decrease response times.
- ☑ All EU Contracted Aerial Supervision aircraft are considered "Training Platforms" and will condition trainees to the point of a final evaluation, after which ASPM will coordinate with the appropriate Final Evaluator(s) for final taskbook recommendation for certification.

Human Aiding Technology Enhanced Aerial Supervision

The USFS operates two government-owned Bell 209 (AH-1F) de-militarized Cobra helicopters converted into ICS type one aerial supervision platforms. Both WCF helicopters will complete depreciation cycles in 2023 (20 years). Missions include aerial supervision (HLCO/ATGS) and fire intelligence relay during all hazard initial attack, and extended attack incidents.

The NightWatch program consists of one contractor-owned and operated Beechcraft King Air 200/C-12 Fixed wing aircraft exclusively contracted to the USFS (option years through 2019). This night flying aerial supervision resource provides fire intelligence relay during initial attack, and extended attack incidents within Operations Southern California GACC.

The following goals have been established for these programs to determine suitability for expansion of technologies into contracted/agency owned aircraft which will enhance the aerial supervision mission.

Program Goals

FY2019	Develop standard use and training process for wave relay system between aviation and ground resources in support of incident objectives. Establish a secure network that distributes information to incident command personnel and coordination centers.
FY2020	Develop business plan to acquire Intelligence, Surveillance and Reconnaissance (ISR) aircraft. Identify existing technologies to be added to agency owned, leased, or contracted aviation resources.
FY2021	Finalize Contract standards for Fixed Wing Air Tactical Platforms and Lead Plane enhancements. Begin conversion/rebuild of agency owned ISR aircraft obtaining proper airworthiness. Identify existing technologies to be added to agency owned, leased, or contracted aviation resources.
FY2022	Add ISR aircraft to existing fleet. Identify existing technologies to be added to agency owned, leased, or contracted aviation resources.

USFS Aerial Supervision Aircraft

Aircraft: Aero Commander 680/690 **Max Speed:** 313 MPH **Range:** 1500 Miles **Mission:** ATGS Contracts **Key Points:** High Wing, Turbine, Pressurized	
Aircraft: Aero Commander 500/500S **Max Speed:** 215 MPH **Range:** 1000 Miles **Mission:** ATGS CWN **Key Points:** Normally Aspirated/Turbo Reciprocating engine, non-pressurized, High Wing	
Aircraft: King Air 200 **Max Speed:** 355 MPH **Range:** 2000 Miles **Mission:** ASM/Leadplane and ATGS Contracts **Key Points:** Turbine Pressurized Low Wing	
Aircraft: King Air 90 **Max Speed:** 310 MPH **Range:** 1400 **Mission:** ASM/ Leadplane and ATGS Contracts **Key Points:** Turbine Pressurized Low Wing	
Aircraft: Bell 209Cobra / Type 2 Standard Category Helicopters **Speed:** 130 -170 MPH **Range:** 290 -350 Miles **Mission:** HLCO/ATGS/Tactical Intel **Key Points:** FMV, Moving Map, MPU5 Network	
Aircraft: Standard Category Helicopter Type 3 **Max Speed:** 150-170 MPH **Range:** 370-490 Miles **Mission:** HLCO/ATGS **Key Points:** Priority is to establish 2 HLCO per aircraft.	

Contract Administration

All aerial supervision aircraft under contract with the FS shall adhere to the specifications contained within the signed contract and subsequent modifications. Any concerns, requests, or proposed deviations to contract specifications shall be vetted through the assigned Contracting Officer (CO) and designated Contracting Officers Representative(s) (COR). All use will be documented on a daily diary form and submitted to the appropriate COR. *(Appendix 9)*

COR certification information regarding training requirements, external training opportunities, and the Federal Acquisition Institute Training Application System (FAITAS) is located at: http://fsweb.wo.fs.fed.us/aqm2/wo/pros/cor.php

Optional use aircraft activations are processed by the Contracting Officer (CO) at the request of the RAO or designee. The following process is used to activate aircraft during the optional use periods:

- ☑ The requesting GACC will place request(s) for aircraft to the NICC
- ☑ The NICC will notify the NASPM or National Fixed-wing Coordinator (FWC) of the order.
- ☑ The NASPM/FWC will notify the CO of request(s)
- ☑ The CO or designated representative will determine the availability of aircraft and will notify the regional inspector(s) and pilot inspectors if needed.
- ☑ The CO will request the aircraft from the appropriate vendor and process applicable contract modification.
- ☑ The CO or designated representative will notify the NICC/GACC of the contract item to be activated

NOTE: Need for aerial supervision aircraft should be anticipated through use of Predictive Services at least 24-48 hours in advance. Prepositioning of aircraft requires a job code for flight costs and other miscellaneous contract costs.

Aircraft Inspection and Approval

Each year prior to use of aerial supervision aircraft on Forest Service contracts, the Forest Service will conduct pre-use inspections of aircraft for compliance with the contract specifications and conditions. Pre-use inspection shall be scheduled by the Contractor with the appropriate Forest Service airworthiness or pilot inspector to occur approximately 30 days prior to the MAP. Aircraft inspections may be conducted by the DOI Office of Aviation Services when work schedules preclude availability of Forest Service inspectors. When the aircraft has met contract inspection criteria it will be issued an interagency aircraft approval card. Once carded the aircraft is available to operate as specified in the contract. The cards are valid through the expiration date and can only be changed by the appropriate Forest Service airworthiness inspector.

Pilot Evaluation and Approval

Interagency Pilot Inspectors will verify that Contractor pilots meet the experience and qualification requirements of their respective contracts. Contractor pilots shall pass a flight evaluation at the discretion of the inspector pilot and Contracting Officer in accordance with the Interagency Airplane Pilot Practical Test Standards Guide, and in accordance with current contracts. The government retains the right to have a flight evaluation conducted at any time. Prior to using any CWN aircraft the LFW Inspection form *(Appendix 10)* will be used to document acceptance of the resource by the government to perform the ordered work. Agency employees are not allowed on aircraft which do not possess a current Forest Service or Department of Interior Airworthiness Inspection nor fly with a pilot who does not possess a current pilot card issued by the USFS or DOI.

Aircraft Return to Contract Availability

Below are the proper procedures to follow once an aircraft is determined to be unavailable, the Pilot annotates the discrepancy within the Aircraft Flight Log. The Pilot and agency aerial supervisor must initiate the following communication:

- ☑ Notify contractor Director of Maintenance of the discrepancy
- ☑ Notify the Forest Service Regional Aviation Maintenance Inspector (AMI) for the region the aircraft is assigned.
- ☑ Notify the COR that the aircraft is "Unavailable"
- ☑ Maintenance action is taken by the contractor to correct the discrepancy
- ☑ The AMI monitors progress of contractor's maintenance action
- ☑ The aircraft is approved for "Returned to Service" in accordance with 14 CFR by the contractor's maintenance personnel and the maintenance log is signed off
- ☑ Once the aircraft is approved for "Return to Service" by the contractor, the AMI approves the aircraft to "Return to Contract Availability"
- ☑ The COR documents and tracks "Unavailability"
- ☑ Once all the above steps are complete, the aircraft is "returned to contract availability" and notifications to dispatch are made.

Conduct and Ethics

All aerial supervision personnel employed or contracted by the Forest Service are accountable to the incident and public for their actions. Professional conduct is expected at all times and is measured through accountability, respect, leadership, communication and the sustainment of program integrity. Personnel will conduct all operations with the highest regard to safety and within the boundaries of policy and/or the contract. Personnel will only perform those missions in which they are qualified, trained, and equipped.

Communications

Lines of communications are established to keep all parties informed of pending or potential issues that may arise. Agency personnel and aircraft crew or company representative are responsible for:

- ☑ Resolving problems/issues at the lowest level possible.
- ☑ Early and proactive communication to anticipate issues or problems that could be a safety issue or affect the availability of an aircraft.
- ☑ Notify the Contracting Officer Representative (COR), with all contract compliance questions and/or concerns, major maintenance or mechanical issues, disputes, etc.
- ☑ The COR will notify the Contracting Officer and the Regional/National Aerial Supervision Program Manager if the concerns or issues are outside the scope of his/her letter of delegation.
- ☑ Notify the appropriate personnel such as maintenance inspectors, inspector pilots, regional aviation safety managers, operations specialists, etc. depending on the nature of the issue.
- ☑ Notify the appropriate dispatch center of aircraft status, i.e. available/unavailable.

Safety Management System

The foundation of SMS consists of four components: Policy, Risk Management, Assurance, and Safety Promotion. When fully implemented, SMS provides and promotes a positive safety culture – a culture that is informed, flexible, learning, just, and one which fosters reporting that captures the operational knowledge and experience of employees.

Operating at the "lowest risk practicable" is the number one priority for all fire and aviation operations to include projects. Aviation operations shall utilize the Aviation Safety Management System (ASMS) guide. The ASMS guide should be utilized by all aviation personnel to meet or exceed aviation industry best practices and standards for safety. This can be found in its entirety at: FS_SMS_Guide_2014.pdf. Mission specific Aviation Operational Risk Assessments can be found at: http://www.fs.fed.us/fire/av_safety/

SAFECOM Reporting

The purpose of the SAFECOM is to report any condition, act, maintenance problem, or circumstance with personnel or the aircraft that has the potential to cause an aviation-related mishap. A SAFECOM report will be filled out any time the pilot or base personnel feel the problem has the potential to cause an aviation-related mishap. These reports will be submitted to the Unit Aviation Officer for review and processing. Submission of a SAFECOM is never a substitution for on-the-spot correction of a hazard or safety concern.

Risk Refusal

Every individual (government and contracted employees) has the right and obligation to report safety problems affecting his or her safety and has the right to contribute ideas to correct the hazard. In return, supervisors are expected to give these concerns and ideas serious consideration. When an individual feels an assignment is unsafe, he or she also has the obligation to identify, to the degree possible, safe alternatives for completing that assignment. Turning down an assignment is one possible outcome of managing risk. In aviation, the pilot in command (PIC) of the aircraft has the final authority to fly or not to fly the mission.

NOTE: Any threat, implied or otherwise regarding release from assignment, adverse contract action or reassignment based on refusing risk shall be reported to Regional/State and National Aviation Safety Managers.

A "turn down" is a situation where an individual has determined he or she cannot undertake an assignment as given and is unable to negotiate an alternative solution. The turn down of an assignment must be based on assessment of risks and the ability of the individual or organization to control or mitigate those risks. Individuals may turn down an assignment because of safety reasons when:

- ☑ There is a violation of regulations, aviation policy or safe aviation practices;
- ☑ Communication issues are present;
- ☑ Airspace congestion or inadequate management;
- ☑ Aircraft capabilities, performance and/or limitations;
- ☑ Environmental conditions make the work unsafe; or
- ☑ Pilot and crew lack the necessary qualifications or experience.

Individuals will directly inform the requestor that they are turning down the assignment as given. The most appropriate means of documented turn down criteria is using the Twelve Standard Aviation Questions That Shout "Watch Out" shown below.

> **Twelve Standard Aviation Questions That Shout "Watch Out!"**
> 1. Is this flight necessary?
> 2. Who is in charge?
> 3. Are all hazards identified and have you made them known?
> 4. Should you stop the operation on the flight due to change in conditions?
>   □Communications □Weather □Confusion
>   □Turbulence □Personnel □Conflicting Priorities
> 5. Is there a better way to do it?
> 6. Are you driven by an overwhelming sense of urgency?
>
> NFES 1129 (1998)
>
> 7. Can you justify your actions?
> 8. Are there other aircraft in the area?
> 9. Do you have an escape route?
> 10 Are any rules being broken?
> 11. Are communications getting tense?
> 12. Are you deviating from the assigned operations of flight?
>
> Anyone can refuse or curtail a flight when an unsafe condition may exist. Never let undue pressure (expressed or implied) influence your judgement or decisions. Avoid mistakes, don't hurry!
>
> NFES 1129 (1998)

If the assignment has been turned down previously and the requestor asks another resource to perform the assignment, he or she is responsible to inform the new resource that the assignment had been turned down and the reasons why. The refusal and additional request will be documented with any pertinent instructions. Furthermore, personnel need to realize that a "turn down" does not stop the completion of the assigned operation. The "turn down" protocol is an integral element that improves the effective management of risk, for it provides timely identification of hazards within the chain of command, raises risk awareness for both leaders and subordinates, and promotes accountability.

Tactical Mission Ordering Procedures

Aircraft shall be dispatched using a standard Aircraft Dispatch Form *(Appendix 11).* ROSS order forms are not to be used for tactical missions. ROSS orders will need to be provided to aviation resources for contract administrative records.

Mobilization and Repositioning

The three documents listed below will be referenced when mobilizing and repositioning of aircraft:

☑ The National Interagency Mobilization Guide (NFES 2092), Chapter 50 Aircraft
  o https://www.nifc.gov/nicc/mobguide/
☑ National Strategy for Managing ASM/Leadplane NMAC Correspondence (2014-11)
  o https://www.nifc.gov/nicc/administrative/nmac/
☑ Geographic Interagency Mobilization Guides

Exclusive use aircraft will be mobilized prior to CWN aircraft. If CWN aircraft are ordered, they will be released once an exclusive use aircraft is available to replace the CWN aircraft. When EU aircraft are outside of the contract mandatory availability period (MAP) the agency will exercise the optional use clause and replace CWN aircraft as soon as practical when such aircraft are available.

When using CWN or out of region aircraft every effort is made to place CWN at one of the permanent EU bases. This is to ensure adequate in brief, dispatching and support is available to enhance strategic capabilities. The exception to this is for Large Fire Support when aircraft are specifically working for an IMT.

Flight Following

Aircraft involved in "mission flights", are required to flight follow. The two acceptable methods of mission flight following are Agency Radio Check-In and Automated Flight Following (AFF). Assigned dispatch will handle local flight-following responsibilities, unless otherwise specified. If agency flight following cannot be established or maintained, or radio communications cannot be established or maintained between other aerial resources, or ground personnel, the flight will be terminated. For further information see the National Mobilization Guide or Interagency Standards for Fire and Aviation Management.

Appendices

Appendix 1	GACC ATGS Coordinator Letter
Appendix 2	Aviation Tactical Call Template
Appendix 3	Operational Mission Checklist
Appendix 4	Cooperator Letter(s)
Appendix 5	Standard Evaluation Form ATGS/HLCO
Appendix 6	Base Maps and IA Response
Appendix 7	Agency Administrator Approval Letter
Appendix 8	Aerial Supervision Recruitment Commitment Plan
Appendix 9	CWN Daily Diary Form
Appendix 10	LFW Pre-use Inspection Form
Appendix 11	Standard Dispatch Form

Appendix 1　　　　GACC ATGS Coordinator Letter

To Be Added By Region

Appendix 2   Aviation Tactical Call Template *(example)*

Aviation Tactical Call
0730 Conference Call
888-844-9904
Passcode –
Host –

Date:

"The primary purpose of this call is to share information. If problems are identified during the course of the call, they will be resolved at the end of the call or at an agreed upon time. Time management is an important consideration for this call."

PRIORITY	CONTACTS	CRITICAL NEEDS	NOTES
1	**Incident:** OPSC: AOBD: ASGS: HLCO:	Incident Operational Priorities #1 #2 #3	
2	**Incident:** OPSC: AOBD: ASGS: HLCO:	Incident Operational Priorities #1 #2 #3	
3	**Incident:** OPSC: AOBD: ASGS: HLCO:	Incident Operational Priorities #1 #2 #3	
4	**Incident:** OPSC: AOBD: ASGS: HLCO:	Incident Operational Priorities #1 #2 #3	
GACC IA AIRCRAFT		Type 3 Heli: Type 2 Heli: Type 1 Heli: SEAT/MEAT: LAT: VLAT:	

Coordinators

Aircraft Coordinator –
Frequency Coordinator –
Airspace Coordinator –

Tactical Supervision

CALL SIGN	NAME	LOCATION, DUTY DAY, ASSIGNMENT, NOTES
EU-AA-		
EU-AA-		
CWN-AA-		
L-		
B-		

BIN ITEMS:

NEXT CALL:

Appendix 3   Operational Mission Checklist (OMC)

AERIAL SUPERVISION OPERATIONAL MISSION CHECKLIST (OMC)

DATE:		TIME:		SUNSET:	
PILOT:			MANAGER:		
MISSION:		LOCATION:		TIME:	

	GO	NO-GO
AIRCRAFT PREFLIGHT COMPLETE		
WEATHER BRIEFING/MINIMUMS MET		
PILOT AND CREW FIT FOR DUTY		
REVIEW DISPATCH INFO (STANDARD DISPATCH FORM)		
REVIEWED PERTINENT MAPS / HAZARD MAPS		
ALTERNATE LANDING SITE/AIRPORT IDENTIFIED		
MISSION BRIEF (THE PLAN)		
PPE APPROPRIATE FOR MISSION		

ENGAGEMENT CRITERIA TO BE ASSESSED CONTINUALLY	
	LIVES ARE OR WILL BE THREATENED
	STRUCTURES ARE OR WILL BE THREATENED
	RESOURCES OF SIGNIFICANT ECONOMICAL VALUE ARE OR WILL BE THREATENED
	EXCESSIVLEY HIGH SUPRESSION COST WILL BE PREVENTED
	ENOUGH RESOURCES ASSIGNED TO COMPLETE ASSIGNED OBJECTIVES
	ESTABLISHED/CONSISTANT COMMUNICATIONS WITH THE GROUND

To be used for each mission as a briefing and engagement tool

Appendix 4   Cooperator Letters

To Be Added By Region

Appendix 5   Standard Evaluation Form ATGS/HLCO

Name:		Date:					# Missions this Incident:
Trainee: Y N		Evaluation Flight: Y N					Total Missions to Date (logbook):
Incident Name:							FT This Mission:
Incident Location:							Total FT to Date (logbook):
Incident Complexity: ____Type 1 _____Type 2 _____Type 3 _____Initial Attack_Prescribed Fire ____Other (all risk)							
Airspace Complexity Elements: ____ TFR ____ WUI ____ MOA/SUA ____ ATC							
# of Aircraft Assigned _____ Helicopters _____ Airtankers _____ Lead/ASM/HLCO _____ Other							

Evaluation Elements (see below):	1	2	3	4	N/	Remarks
Pre -Mission Procedures						
En Route Procedures/Communication						
FTA Entry						
Determine FTA Altitudes						
Determine Hazards						
Confirm Objectives and Priorities						
Initial Briefing						
Tactical Briefing/Target Description						
Line Clearance (AC and Ground)						
Departure Briefing						
Separation (vertical, horizontal)						
Transition Routes						
IP/Holding Areas						
Checkpoints/Fences						
Helicopter Routes						
Coordination with Ground Personnel						
Provide Fire information/Sizeup						
Recommend Strategies/Tactics						
Provide Safety Oversight						
Coordination with Dispatch						
Emergencies (Aircraft, Medevac, IWI)						
Post Mission (debrief, log, payment)						
Safety						
Span of Control Mitigation						
Situational Awareness						
Risk Management						
CRM (Info/task sharing w/pilot)						
FW/RW Mission Prioritization						
Aerial Supervision Transition Briefing						
Frequency Management						
Brevity						

Focus Areas – Next Mission:
Evaluation Flight Result: ____Pass ____Fail
Instructor/Check Airman: Date:
Trainee/ATGS: Date:

Evaluation Elements

4	None	No assistance required or deficiency noted.
3	Minor	Non-Critical deviations are noted, but the outcome of the event/objective was never in doubt.
2	Moderate	Coaching was required and the outcome of the event/objective was in doubt.
1	Significant	Frequent coaching was required. The outcome of the event was in doubt and safety was compromised or the individual failed to accomplish the critical task.
NA	Task/procedure not applicable to this mission.	

Evaluation Requirements: Six elements (bold text and shading) have been identified as mission critical and require a rating of 4 in order to pass the evaluation flight. All other elements require a minimum rating of 3 in order to pass the evaluation flight. Scores of 1 or 2 require remarks.

Appendix 6   Regional Base Maps and Response Zones

To Be Added By Region

Appendix 7   Agency Administrator Approval Letter *(example)*

United States Department of Agriculture	Forest Service	FOREST	ADDRESS PHONE FAX

Month Day, Year

Subject: Authorization to participate on operational flights

To: ATGS NAME

Ref: 5700 Interagency Standards for Fire and Fire Aviation Operations, NFES 2724 Interagency Aerial Supervision Guide, NFES 2544, Aviation Risk Management Workbook

As an Exclusive Use Air Tactical Group Supervisor, this letter provides authorization for you to fly as a passenger on U. S. Forest Service Aerial Supervision Modules and/or Lead Planes for the purpose of training. This approval is dependent on concurrence with the Pilot in Command and Qualified ATS to increase your understanding of their mission and increase your understanding of workloads and resource ability.

Attached is the Risk Assessment for lead plane/ASM operations in which we discussed. All flights will be documented in your Aerial Supervision Log Book.

This authorization is valid until suspended, revoked, or you terminate your USFS Federal Service with the NAME National Forest.

/s/ NAME
Forest Supervisor
NAME National Forest

Cc: FOREST STAFF,

Appendix 8   Aerial Supervision Recruitment Commitment Plan

To Be Added By Region

Appendix 9   Daily Diary Form *(example)*

2018 Light Fixed Wing Daily Status Report (CWN)

CONTRACT NUMBER	DESIGNATED BASE	ATGS / ATGS Trainee			DATE	
CONTRACTOR	**CURRENT LOCATION**	**6 SHIFTS**	**5 SHIFTS**	**4 SHIFTS**	**3 SHIFTS**	**2 SHIFTS**
AIRCRAFT MAKE	**PREFLIGHT?**	**LAST SHIFT**	**CUMULATIVE HOURS**		**REMAINING UNTIL 36/6**	
			0.0		36.0	
AIRCRAFT MODEL	**NEXT MAINTENANCE**	**SBY RATE**			**ON SHIFT**	
		FT RATE			**OFF SHIFT**	
AIRCRAFT N NUMBER	**CURRENT HOBBS**	**MAX GROSS WEIGHT**		**SINGLE ENGINE R.O.C.**		
PILOT NAME	**FT UNTIL Maintenance**	**CURRENT LOAD**		**TAKE OFF DISTANCE**		
	0.0					

FIRE INCIDENT NAME, NUMBER	P-CODE / OVER-RIDE	BEGIN	END	CODE	TOTAL	COST
				SBY	0.0	$0.00
				FT	0.0	$0.00
				SBY	0.0	$0.00
				FT	0.0	$0.00
				SBY	0.00	$0.00
				FT	0.0	$0.00
				SBY	0.00	$0.00
				FT	0.0	$0.00
				SBY	0.00	$0.00

R.O.N (City and State)		OTHER CHARGES		
TOTAL STANDBY (ABS STANDBY SHOULD EQUAL THIS NUMBER)			0.0	$0.00
TOTAL FLIGHT TIME (ABS FLIGHT TIME SHOULD EQUAL THIS NUMBER)			0.0	$0.00
TOTAL PAID DUTY DAY (SHOULD BE 14 HOURS or LESS)			0.0	
TOTAL DAILY COST				$0.00

PILOTS LAST DAY OFF	
MAINTENANCE	
SAFECOM	
SHIFT BRIEF TOPICS	

NARRATIVE REPORT	
FIRE / MISSIONS	
ISSUES ENCOUNTERED	
PERDIEM CITY / COUNTY	
POST FLIGHT COMPLETE, SQUAWKS TO MECHANIC	
ATGS and PILOT Reviewed for Accuracy	

This form is to be filled out each day and submitted to the

Appendix 10   LFW Pre-use Inspection Form

LIGHT FIXED WING PRE-USE INSPECTION					
Date:		Hiring Agency:		Standby Rate	$
Departure Base:		Working Base:		Flight Rate	$
Start Hobbs:		Arrive Hobbs:		Additional Pilot?	◯ Y / N ◯
Make		Model		Tail Number	
Contract #		Item		Operator	

AIRCRAFT AUTHORIZED USE					
Passengers		Fire Recon		Approved MEL		Other	
Cargo		Air Attack (type)		Auto Pilot		Other	
Resource Recon		Back Country Airstrip		Other		Other	

PILOT					
First Name		Last Name		Issuing Agency	
Card Expires		Contract Numbers			

PILOT AUTHORIZED OPERATIONS							
VFR	SEL		MEL		SES		MES	
IFR	ME	SE Turbine		SE Piston		SP / Auto		w/SIC	

PILOT AUTHORIZED MISSIONS			
Low Level (below 500' AGL)		Air Tactical	
Resource Reconnaissance		Mountainous Terrain	
Category IV Airstrip		Airtanker PIC	
Smokejumper PIC		Airtanker Initial Attack	
Smokejumper SIC		Airtanker SIC	
Para cargo		SEAT-Level:	
Unprepared Landing Site		Infrared Operations	
Point to Point		Other:	
Other:		Other:	

AIRCRAFT EQUIPMENT (CONSULT CONTRACT)			
Seatbelts and Harnesses		Skin and Exterior	
Required FM Radios		Windows	
Required AM Radios		Doors	
Required Mixer Box		Upholstery	
Auxiliary Radio Adapter		Cargo Compartment	
GPS		Wheels/Tires	
Lights		Cowling/Caps/Leaks	
Survival Kit		Current Aeronautical Charts	
First Aid Kit		Contract	
Oxygen		Anti-Theft Security Measures	

ADDITIONAL CONTRACT ITEM (Prices)			
Item:	$	Item:	$
Item:	$	Item:	$
Item:	$	Item:	$

AIRCRAFT ACCEPTANCE	
50/100-Hour, progressive, or other approved inspection program up to date?	
Any entries indicating damage to aircraft	
Turbine engine performance trend analysis available	
Weight and balance complete	
Aircraft empty weight	
Aircraft mission equipped weight	
Single engine performance	
Take off distance	
Landing distance	

Flight Manager (ATGS)	Pilot

Appendix 11   Standard Dispatch Form

To Be Added By Region