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Interagency Airtanker Base Operations Guide

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INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Signatures

Signatures

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

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INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Chapter 1

Introduction

January 2000

I. Introduction

A. Objectives. The objectives of this guide are to:

1. Define and standardize national, interagency operating procedures at all Airtanker Bases to ensure safe and efficient operations.

2. Through standardization, facilitate the exchange of personnel from other agencies during periods of high fire activity.

3. Provide a common, interagency approach in the Government's contract related responsibilities.

4. Provide checklists, orientation outlines, and special instructions for both contractor employees (pilots, mechanics) and Government employees at Airtanker Bases.

5. Provide a framework within which each Airtanker base can provide supplemental, site-specific guidance.

B. Authority. The Interagency Airtanker Base Operations Guide is sponsored by the National Wildfire Coordinating Group (NWCG). If they wish, individual agencies may incorporate the guide by reference into their manual directives system.

C. Revisions. Revisions are the responsibility, by the charter, the National Aviation Officer (FS/BLM) and the Interagency Airtanker Base Operations Guide Steering Committee. The Steering Committee shall be responsible for maintaining the content of the Airtanker Base Operations Guide in accordance with current and accepted standards of interagency procedures. The committee shall solicit changes from field managers, review, and revise the Guide, facilitate the publication and implementation of the Guide, and maintain communication with appropriate national and state agency program managers for concurrence with proposed changes.

During years when the Airtanker Base Managers do not meet, suggestions for revision will be circulated for comment among State, Area, Regional, and Geographic Area representatives and submitted to the committee for review and approval by national and State aviation program leaders.

D. Distribution. The guide and annual revisions are ordered through the Great Basin Cache at the National Interagency Fire Center (NIFC).

National Interagency Fire Center
Attention: Great Basin Cache Supply Office
3833 S. Development Avenue
Boise , ID 83705
NFES # 2271

E. Base Supplements

1. Local Airtanker Base Operations Guide Supplement.

a. Each Airtanker Base shall develop and annually update an Airtanker Base Operations Guide Supplement. The Supplement should not repeat policy and procedures contained in this guide, but should provide local, operational procedures and information.

b. To achieve the objectives of standardization and of non-local personnel to provide support during periods of high activity, the general outline of this guide should be followed where possible. Appendix H provides a sample of a local area supplement.

2. **Pilot Orientation Briefing.** The Base Supplement can also be employed as part of a Pilot Briefing and Orientation Guide for both home-base and transient aircrews, that is developed geographically.

F. Interagency Airtanker Base Directory. The Interagency Airtanker Base Directory is updated and published annually by the USDA Forest Service, National Aviation Office, 3833 S. Development Avenue, Boise, ID 83705. Internet Address: http://www.fs.fed.us/fire/aviation/basedir.html.

G. Interagency Retardant Base Planning Guide. This guide is updated and published by te USDA Forest Service. NFES 1259.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Chapter 2

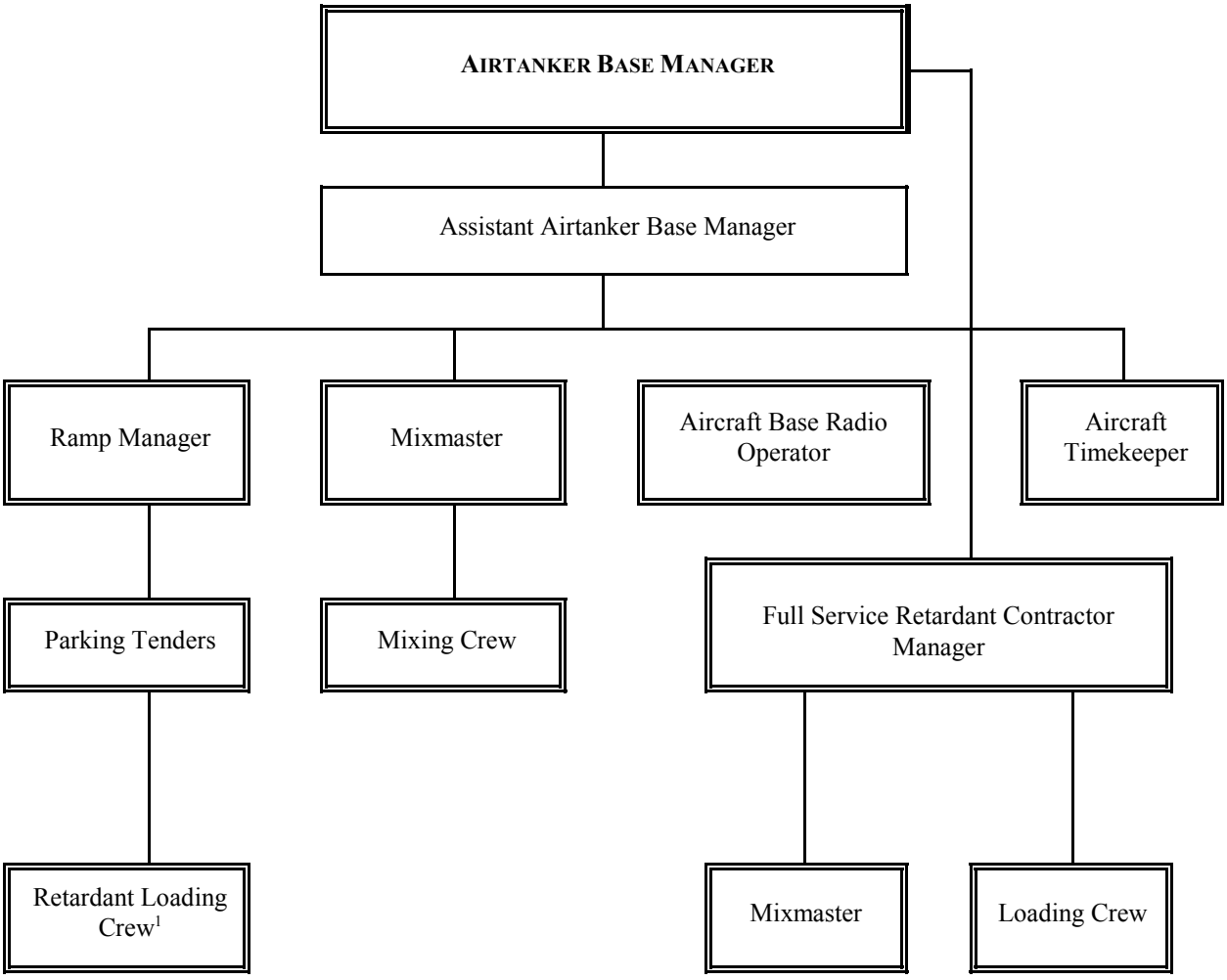
Personnel

II. Personnel

A. General

1. Each individual working at an Airtanker base shall receive general training in Base Operations and specific training for the position(s) to which each is assigned. Chapter 2, Personnel, outlines recommended training. A generic Table of Organization for Airtanker base staffing is illustrated below in Exhibit 2-1. This is the recommended staffing level for Airtanker bases.

Exhibit 2-1: Airtanker Base Table Of Organization



2. At many Airtanker bases, one individual may be assigned to more than one position in the base organization. This does not relieve the managing agency from ensuring that the individual is both trained and qualified to fill position(s) to which he/she is assigned. It is also imperative that fire managers anticipate the need for and request additional personnel during periods of high activity and/or complexity.

[1] May be one and the same as Mixing Crew, but supervision changes. The Mixmaster supervises the Mixing Crew during mixing operations. Once the Crew commences loading operations, supervision is by the Parking Tender.

3. Forest Service bases shall have an Assistant Airtanker Base Manager to cover and assist the Airtanker Base Manager when they are on days off, sick, or away from base. Under the Deputy concept the assistant may serve with full authority as the Acting Manager when they are qualified (Red Carded ATBM) and accepted by the agency in the capacity in which they serve. This also applies to reload and temporary bases when active. (See Airtanker Base Manager Duties and Responsibilities).

B. Airtanker Base Personnel: Duties and Responsibilities.

1. **Airtanker Base Manager.** The duties and responsibilities of the Airtanker Base Manager are as follows.

   a. Ensures that base planning documents (Interagency Airtanker Base Operations Guide, Base Supplement, Pilot Briefing and Orientation Guide, Reference Library) are updated as necessary.

   b. Ensures all subordinate positions at the Base are filled as required or when needed by trained, qualified individuals; if base is approved for hot-loading of Airtanker, ensures that all personnel have been trained in those procedures; documents all training received/given to base personnel; identifies training deficiencies to management and/or accomplishes training to correct deficiencies.

   c. Conducts daily or more frequent briefings with pilots, other contract personnel, and government employees assigned to the base.

   d. Ensures that all administrative forms and reports are completed according to instructions in Chapter 3, Forms, Reports, and Administrative Procedures.

   e. Maintains accurate information on all aircraft and aircrews assigned to the base.

   f. Coordinates all Airtanker flights with local Dispatcher, the Air Tactical Group Supervisor, Airtanker Coordinator, and/or the Air Support Group Supervisor; obtains daily or more frequent briefings from one or all of these positions regarding mission priorities, quality of retardant, problems, etc.

   g. Ensures the maintenance and readiness of all ground facilities, supplies, and services required at the base; ensures pilot and aircraft needs are met.

   h. Is responsible for regulating the movement of all aircraft, motor vehicles, and personnel on the base.

   i. Maintains time and use records on aircraft, equipment, retardant, and personnel assigned to the base according to the requirements in Chapter 3, Forms, Reports, and Administrative Procedures. Provides aircraft use and cost information upon request.

   j. Is thoroughly familiar with and enforces all safety requirements of the operation. Is responsible for the maintenance and update of the Base's Safety, Crash-Rescue, and Incident/Accident Action Plans. Annually receives aerial hazard maps from UAO. Submits agency Incident/Accident Reports in a timely manner through identified channels.

   k. Is thoroughly familiar with aircraft, retardant, and base operation contracts in order to act as contract "observer" or "field" project inspector when required.

   l. Serves as liaison with airport management.

   m. Coordinates with Incident Management Team Air Operations staff as necessary (start-up times, costs, etc.).

n. In conjunction with the agency representative, establishes and maintains safety plans, plant safety and follows the Occupational Health and Safety Administration Regulations as they pertain to Federal and State entities.

o. Ensures retardant supply meets or exceeds demand.

2. Mixmaster. The duties and responsibilities of the Mixmaster are as follows.

a. Reports to the Airtanker Base Manager, who provides daily or more frequent briefings.

b. Supervises the Mixing Crew during mixing operations (see important note under Mixing Crew duties and responsibilities).

c. Ensures chemical fire retardants and suppressants are provided to Airtanker(s) at the rate specified and for the expected duration.

d. Checks all accessory equipment such as valves, hoses, pumps, and tanks.

e. Takes immediate steps to obtain personnel and equipment to perform operations safely and efficiently.

f. Plans the specific layout of the plant to conduct operations; is responsible for the cleanliness of the plant area.

g. Maintains quality control program for the retardant; supervises the retardant mixing crew in setting up, pumping, and maintaining the retardant; ensures adequate supply of pre-mixed and/or stored retardant.

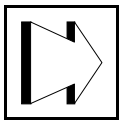
h. Logs and reports gallons loaded to the Aircraft Timekeeper. Maintains retardant and equipment records.

i. Ensures the safety and welfare of personnel working around the plant; trains retardant crew in emergency crash-rescue plan and base safety procedures; reports all hazards and incidents/accidents immediately to the Airtanker Base Manager.

j. Maintains records of all equipment, replacement parts, catalogs, technical manuals, and Material Safety Data Sheets (MSDS).

k. Ensures Occupational Heath and Safety Administration (OSHA) regulations for plant safety are in place and are monitored.

3. Mixing Crew. The duties and responsibilities of the Mixing Crew are as follows.



Important Note: **The Mixing Crew may in fact be one and the same as the Retardant Loading Crew. The Mixmaster supervises the Mixing Crew during mixing operations.**

a. Reports to the Mixmaster during mixing operations, who provides daily or more frequent briefings.

b. Mixes retardant.

c. Maintains all retardant equipment.

d. Tests retardant for quality.

e. Are trained and knowledgeable in emergency crash-rescue and base safety procedures; reports all hazards and incidents/accidents immediately to supervisor.

4. Ramp Manager. The duties and responsibilities of the Ramp Manager are as follows.

a. Reports to the Airtanker Base Manager, who provides daily or more frequent briefings.

b. Supervises the Parking Tender(s).

c. Briefs pilots and fuel contractors on parking areas, movement on the ramp, etc.

d. Coordinates all movement on the ramp of Airtankers, lead planes, other aircraft, vehicles, and personnel. Is responsible for maintaining the safety of ramp operations. If base is approved for hot-loading of Airtankers, ensures that all personnel have been trained in those procedures;

e. Establishes emergency ramp procedures, trains personnel in these procedures, and ensures that all personnel working on or around the ramp are also trained and knowledgeable in them. Ensures that safety hazards are reported and corrective action taken. Reports all hazards and incidents/accidents immediately to supervisor.

f. Establishes fueling areas, loading pits, repair areas, overnight parking areas, day(s)-off parking areas, and general parking areas. Ensures map detailing these areas is posted prominently.

g. Is responsible for the cleanliness of the ramp; ensures all fuel and retardant spills are promptly cleaned according to established environmental and/or hazardous materials procedures. Monitors and ensures the safety of all fueling operations by requiring fuellers to adhere to established regulations and procedures (see Chapter 4, Base Facilities, Operations, and Dispatch).

5. Parking Tender. The duties and responsibilities of the Parking Tender are as follows.

a. Reports to the Ramp Manager, who provides daily or more frequent briefings.

b. Directs all movement, within assigned area (pit), of all aircraft, vehicles, and personnel.

c. Verifies Airtanker loading restrictions for each aircraft in consultation with the captain.

d. Supervises the retardant loading crew in loading retardant into Airtanker. If base is approved for retardant hot-loading, is trained in hot-loading and ensures mixing crew follows appropriate procedures.

e. Is trained and knowledgeable in the use of both hand signals (see Appendix A) and radio communications and procedures in order to direct Airtanker to their loading and parking areas safely. Maintains constant visual or audio communication with pilot(s). Has final responsibility for clearing the aircraft for taxi.

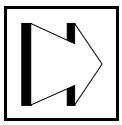
f. Observes and ensures the safety of both retardant loading and fueling operations. Keeps pit(s) clear of all non-essential personnel and vehicles. Directs retardant loading crew in maintaining the

cleanliness of the ramp. Is directly responsible for ensuring that personnel stay clear of propellers, and that propellers are not damaged by foreign objects on the ramp.

g. Is trained in and knowledgeable of emergency crash-rescue/base safety procedures and the use of required personal protective equipment, chock blocks, fire extinguishers, etc. Reports all hazards, incidents, and accidents to the Ramp Manager; ensures that corrective action is taken.

h. Relays pilots' needs (retardant, fuel, meals, rest, etc.) to appropriate personnel.

6. Retardant Loading Crew. The duties and responsibilities of the Retardant Loading Crew are as follows.



***Important Note*: The Retardant Loading Crew may in fact be one and the same as the Mixing Crew. If the same individuals, the Mixmaster supervises the Mixing Crew during mixing operations. Once the loading operation commences, supervision is by the Parking Tender.**

a. Reports to the Mixmaster, who provides daily or more frequent briefings.

b. Loads retardant into Airtanker; reports gallons loaded to Mixmaster after each load. If base is approved for retardant hot-loading, are trained in hot-loading procedures.

c. Keeps ramp clean from all spilled retardant.

d. Knows the load limitation of the Airtanker and ensures it is not exceeded.

e. Is trained and knowledgeable in emergency crash-rescue and base safety procedures. Reports all hazards and incidents/accidents immediately to supervisor.

7. Aircraft Base Radio Operator. (All referenced forms are discussed fully in Chapter 3, Forms, Reports, and Administrative Procedures.) The duties and responsibilities of the Aircraft Base Radio Operator are as follows.

a. Reports to the Airtanker Base Manager, who provides daily or more frequent briefings.

b. Establishes communications needs at base and ensures communications equipment is maintained and in working order. Verifies radio frequencies on a daily basis with the Base Manager.

c. Answers the telephone and radio; receives and relays orders for dispatch of tactical aircraft using the Form ATB-3 Incident Information: Tactical Fixed-Wing. Relays messages, and logs all calls.

d. Maintains communications with aircraft assigned to the base until takeoff and after landing. Notifies the Airtanker Base Manager immediately of any overdue or missing aircraft.

e. Notifies the Ramp Manager of incoming Airtanker.

f. Maintains a log of all aircraft takeoffs and landings, Estimated Times of Arrival (ETAs) and Estimated Times of Departure (ETDs).

g. Establishes and enforces proper radio use procedures.

h. Is trained and knowledgeable in emergency procedures and incident/accident action plan; reports all hazards, incidents, and accidents immediately to supervisor.

8. Aircraft Timekeeper. (All referenced forms are discussed fully in Chapter 3, Forms, Reports, and Administrative Procedures.) The duties and responsibilities of the Aircraft Timekeeper are as follows.

a. Reports to the Airtanker Base Manager, who provides daily or more frequent briefings.

b. Obtains information for all aircraft assigned overnight from Form ATB-2, Tactical Fixed-Wing Information Sheet. Distributes information (flight/load limits, etc.) to Airtanker base personnel.

c. Records on/off times on Form ATB-4, Individual Airtanker Flight Record, or other appropriate form utilized at the base.

d. Ensures landing fees are properly documented on Form ATB-6, Fixed-Wing Base Landing Fee Record, or other appropriate form utilized at the base.

e. Ensures retardant use is properly documented on Form ATB-7, Daily Retardant Use Record, or other appropriate form utilized at the base.

f. Records all timekeeping information for each Airtanker using Form ATB-8, Airtanker Base Log, or other appropriate form utilized at the base.

g. Enters Airtanker Base Log information to agency flight use reports for home-base Airtanker; relays information from Base Log to transient Airtanker' home bases. Is responsible for coding aircraft and retardant use to the proper incident(s) using appropriate agency coding.

h. For incidents to which a Type I or II Incident Management Team has been assigned, summarizes tactical aircraft use on Form ATB-9, Incident Fixed-Wing Base Daily Use and Cost Summary. Relays this information to the incident's air operations staff. Completes the Summary upon request from other incidents.

i. Ensures Aircraft Contract Daily Diary information is noted after each operational period for home-base Airtanker, and passed on to the COR/RI for completion of the Daily Diary..

j. Completes other required agency reports as necessary.

C. **Training**. With the exception of Mixmaster training, there is no identified training for the positions at an Airtanker base. Until national interagency requirements can be developed, the training identified in Chart II-1 on the next page is recommended.

Chart 2-1: Recommended Training For Airtanker Base Personnel

	Airtanker Base Manager	Mixmaster	Mixing Crew	Retardant Loader	Ramp Manager	Parking Tender	Radio Operator	Aircraft Timekeeper
S-130 Basic Firefighter	X	X			X			
I-100 Introduction to ICS			X	X				
I-200 Basic ICS	X	X			X	X	X	X
S-260 Fire Business Mgmt	X							X
S-270 Basic Air Operations	X	X			X	X	X	X
Fixed-Wing Base Manager[2]	X				X	X		
Basic Fixed-Wing Safety (OAS)	X	X	X	X	X	X		
Airtanker Types & Capabilities	X	X	X	X	X	X	X	X
Basic First Aid	X	X			X	X		
Basic Supervision	X	X			X			
Mixmaster[2]	X	X		X	X			
Interagency Aviation Management & Safety	X				X			
Air Base Radio Operator	X						X	X
COR/PI Contract Administration	X							
Fire Ext Training	X	X	X	X	X	X		
Hazardous Material Training	X	X			X			

Please Note: Assistant Airtanker Base Manager is expected to meet same training requirements as Airtanker Base Manager.

[2] Locally developed training.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Chapter 3

Forms, Reports and Administration Procedures

III. Forms, Reports and Administrative Procedures.

A. Introduction. This chapter provides standardized Airtanker Base operations forms. Standardization helps to implement common procedures to meet safety, efficiency, fiscal management, and contract administration objectives. Common forms also provide a common basis for training development and presentation.

B. Applicability. Some of the forms in this chapter are required and are to be utilized uniformly by Airtanker Base Managers. The rationale for the required forms is to achieve standardization of operations and information throughout the Airtanker Base system. Others forms are optional, and alternative formats may be employed. The basis for the optional forms is that these are primarily internal formats; standardization is therefore not considered essential.

These forms cover a broad range of contract administration and operational requirements relating to the management of an Airtanker Base and Airtankers. The use and applicability of other contracting forms such as Contract Instruction, Notice to Proceed, etc., are discussed in agency contract administration guides.

Chart 3-1 on the following pages contains a summary listing of the ATB-series forms, with information such as the NFES number, whether a form is optional or mandatory, and responsibility for completion and routing. The Airtanker Base Manager can use the chart as a quick-reference guide to form requirements.

The pages following Chart 3-1 provide specific information on the purpose, applicability, completion responsibility, instructions for completion, sources for inputs, and routing requirements.

It is recommended that Airtanker Base Managers obtain sets of all forms so that they may respond to different management requirements encountered.[3]

When a format other than that described in the guide is utilized (i.e., forms that are optional), the Airtanker Base Manager should ensure that the alternative form furnishes the necessary information. Every effort should be made to utilize the forms and reports described in this chapter.

[3] Until such time as new forms are officially approved, copies should be reproduced locally. See Forms Package at the end of the guide for camera-ready copies.

Chart 3 - 1: Summary of Airtanker Base Forms and Reports

Requirements for Completion & Submission of Airtanker Base Management Forms

Form Name	Purpose	REQ OR OPT	NFES # IATBOG #	Individual Responsible for Completion	Frequency	Remarks
Airtanker Base Information Sheet	To provide information on each Airtanker base for inclusion in the Interagency Airtanker Base Directory.	Req	ATB-1	Airtanker Base Manager	Updated at end of each season.	Forwarded to Regional, State, or Area Aviation Management for review and routing to project leader USFS Washington Office November 1 annually. Required in Boise to go to print on 12/1.
Tactical Fixed-wing Information Sheet	To provide Airtanker Base Managers with information concerning both home-base, but primarily transient pilots and aircraft.	Req	ATB-2	Airtanker Base Manager	Immediately after contract start. Multiple copies to Pilots for distribution to ATB Manager when away from home base.	To be completed for all contract and agency-owned tactical aircraft (Airtankers, air tactical, lead planes, jumpships) at the start of the season. It should also be completed for transient aircraft and crews remaining overnight who have not furnished the Airtanker Base Manager with a precompleted copy.
Incident Information: Tactical Fixed-wing	To allow the Airtanker Base Manager to document information relayed by Dispatch off ICS 259-1, Resource Order-Aircraft, and to allow copies to be distributed to tactical aircraft pilots.	Req	ATB-3	Airtanker Base Manager (usually by Radio Operator or Aircraft Timekeeper)	Upon dispatch of tactical fixed-wing aircraft.	Information enclosed in thick boxes must be relayed to the pilot or aircraft manager prior to entry into the area of operations. Resource order form is acceptable.
Airtanker Crew Flight Record	To allow the Airtanker pilot to document on/off times for later reconciliation with the Airtanker Base Manager's record for eventual entry onto the agency flight payment document.	Opt	ATB-3a	Airtanker Pilot	Each time aircraft is on/off. Diverts to other incidents.	This form is the last part of the multiple-part set of Form ATB-3 Flight Resource Order: Tactical Fixed-Wing
Individual Airtanker Flight Record	To document departure and arrival times (on/off). The form is hard card-stock for entry of on/off times in automatic time-punch clocks. The form may also be completed manually in its entirety. This information is key to maintaining accurate flight time and dispatch/reaction time records.	Opt	ATB-4	Airtanker Base Manager (usually by Aircraft Timekeeper)	Each time aircraft is on/off.	One Flight Record is to be completed for each Airtanker operating to and from the base.
Pilot Flight Time/duty Day Cumulative Log	To provide the Airtanker Base Manager with a means of tracking pilot duty day and flight time, thus ensuring that limitations are not exceeded.	Req	ATB-5	Airtanker Base Manager (usually by Aircraft Timekeeper)	Daily at end of operations.	

Form Name	Purpose	REQ OR OPT	NFES # IATBOG #	Individual Responsible for Completion	Frequency	Remarks
Fixed-wing Base Landing Fee Record	To summarize landings made by air- tankers and is used to support payment made to airports by the Government.	Opt	ATB-6	Airtanker Base Manager (usually by Aircraft Timekeeper)	Each landing.	Form should be completed from information contained on Individual Airtanker Flight Record and/or the Airtanker Base Log, and/or flight payment documents.
Retardant Use Record	To document use of retardant on various agencies' fires for later reimbursement (if applicable) and for year-end use summaries.	Req	ATB-7	Airtanker Base Manager (usually by Mixmaster)	Each load of retardant.	Information is obtained from the Individual Airtanker Flight Record and/or Airtanker Base Log, and from automatic metering devices.
Airtanker Base Log	To provide a summary of all Airtanker/pilot duty day, availability/unavailability, flight time, retardant use, and applicable cost-coding for later entry to flight and retardant payment documents. It also provides information for the Contract Daily Diary. Additionally, it can also be used to complete the Incident Fixed-Wing Base Daily Use and Cost Summary for individual fires.	Req	ATB-8	Airtanker Base Manager (usually by Radio Operator or Aircraft Timekeeper)	As events (dispatches, takeoffs/landings, loading of retardant, etc.) occur.	Its use is optional, provided that other documentation (Individual Airtanker Flight Record, Individual Airtanker Duty Day/Availability Record) are completed in its place.
Incident Fixed-wing Base Daily Use and Cost Summary	To fulfill reporting requirements of the Air Operations Branch on incidents to which a Type I or II Incident Management Team has been assigned.	Req	ATB-9	Airtanker Base Manager (usually by Aircraft Timekeeper)	Nightly when base has been supporting a Type I or II Incident Management Team, or as requested.	Flight Time costs are available off the Tactical Fixed-Wing Information Sheet(s) submitted by transient Airtanker pilots. Actual use is available of Form ATB-4, Individual Airtanker Flight Record.
Airtanker Base Readiness Evaluation	To identify and correct any safety or operational deficiencies related to the Airtanker base or crew.	Opt[4]	NA	Regional, Area, or State Aviation Management	Annually	Completed for all contract Airtankers and crews stationed at permanent Airtanker Bases.
Agency Flight Payment Record	To document flight and other charges for payment to the vendor, or to document utilization of agency-owned aircraft.	Req	OAS-23, or FS 6500-122, or State Agency format.	Airtanker Base Manager or Agency Pilot	Daily	See Appendices B and C for completion instructions for federal agencies.

[4] May be required by individual agency manual direction.

C. Airtanker Base Information Sheet (ATB-1). (See Exhibit 3-1)

1. **Purpose.** The purpose is to provide information on each Airtanker Base for inclusion in the Interagency Airtanker Base Directory.

2. **Applicability.** This form is required due to the need to standardize information provided for the Interagency Airtanker Base Directory. It must be completed for each Airtanker Base.

3. **Responsibility and Instructions for Completion.** Refer to Exhibit 3-1. The Airtanker Base Manager is responsible for updating the information as necessary, with routing as indicated in 4 below.

   Base Name and Identifier: The name of the Airtanker Base, and the FAA designator for the airport as identified in the Airport/Facility Directory.

   Geographic Area and Forest Service Region: The Geographic Area (refer to the National Situation Report for Geographic Area), in which the base and Forest Service Region is located. Also, Operating Agency.

   Base Address: Mailing and a physical address.

   County for FTR and RON: County or city, if applicable, in which the base resides under the Federal Travel Regulations Guide for overnight per diem rate.

   Location on Field: Quadrant, on airfield where Airtanker Base is physically located.

   Base Operations: Phone number at the airport.

   Dispatch Office: Controlling Agency dispatch phones.

   Manager: Airbase Manager's name and phone number.

   COR: Contracting Officers Representative's name and phone and/or fax number.

   Agency Contact Frequency: Agency FM radio frequency.

   Airtanker Base Frequency: VHF ramp radio frequency.

   Large Airtanker Operations Authorized: Is a large Airtanker operation plan in place?

   Single Engine Airtanker Operations Authorized: Is a single engine Airtanker operation plan in place?

   Hot Reloading Program Authorized: Is an approved agency plan in place? Indicate if Hot Reloading is approved. Enter aircraft for which Hot Loading is approved under "Remarks."

   Runway Weight Limits - Single: Maximum gross weight rating in thousands of pounds as specified by the FAA for the airport for aircraft with single main gear.

   Runway Weight Limits - Dual: Maximum gross weight rating in thousands of pounds as specified by the FAA for the airport for aircraft with dual main gear. (The same as dual tandem, i.e., C-130).

Overload Agreements: When Airtanker gross weights exceed the weight rating for a particular airport requiring Airtanker operations, the controlling agency may make agreements with the airport authority to operate at higher weights. The agency will then have the responsibility for damage liability, relieving the vendor of this liability.

Pit Total: Number of loading pits.

Parking Total: Number of aircraft that can be parked on site.

Known Hazards: As appropriate.

Remarks: As appropriate.

Limitations by Aircraft. Indicate any limitations by specific aircraft.

Emergency Equipment. Indicate emergency equipment is available and stationed at the airport. If some distance away, indicate such under "Remarks."

Radio Frequency. Dispatch Office with ordering responsibility for base's Airtankers. Specify the Dispatch Office's primary radio frequency.

4. **Routing and Filing.** An updated copy will be forwarded annually to Regional, State, or Area aviation management by November 1 for review and routing to the agency's Washington Office (for State Bases, send to State Office). These revisions are then forwarded by January 1 to the aviation management staff, USDA-FS, NIFC, for inclusion in the annual revision to the Interagency Airtanker Base Directory.

5. **Posting.** None.

6. **Related Forms.**

   # Airtanker limitations are listed from information on the Allowable Takeoff Performance Chart.

Exhibit 3-1: Example of Form ATB-1
Airtanker Base Information Sheet - Base Name & FAA Identifier

Base Name & FAA Identifier Geographic Region and FS Region			
Base Address Fax Number E-Mail Address County for Federal Travel Regulation			
BASE LOCATION ON FIELD - N, S, E, W, QUADRANT			
Base Operations		Phone Number at Airport	
Dispatch Office		Controlling Dispatch	
Manager		Airtanker Base Manager	
COR		Contracting Officers Rep	
Agency Contact Frequency		Agency FM Frequency	
Airtanker Base Frequency		Base VHF Frequency	
Large Airtanker Operations Authorized?		Large AT Ops plan in place	
SEAT Operations Authorized?		SEAT Ops plan in place	
Hot Reloading Program Authorized?		Agency Approved plan in place	
Single and Dual Overweight Information. This section lists the agency overweight agreement limits - or - if the agency does not have an agreement, the published Airport Facility directory (NOAH/FAA) runway bearing strength.			
Runway Weight Limits Single	**Runway Weight Limits Dual**	**Pit Total**	**Parking Total**
Known Hazards: Self Explanatory			
Remarks: Self Explanatory			
Rev Date:		**UPDATES OR CORRECTIONS**	

D. Tactical Fixed-Wing Information Sheet (ATB-2). (See Exhibit 3-2.)

1. **Purpose**. The purpose is to provide Airtanker Base Managers with information concerning transient pilots and aircraft.

2. **Applicability**. The form is required because of the need to standardize information provided on a national basis. It is to be completed for all contract and agency-owned tactical aircraft (Airtankers, air tactical, lead planes, jumpships) at the start of the season. It should also be completed for transient aircraft and crews remaining overnight who have not furnished the Airtanker Base Manager with a pre-completed copy.

3. **Responsibility and Instructions for Completion**. Refer to Exhibit 3-3. Airtanker Base Managers are responsible for completing the information not enclosed in heavily-lined boxes on the form, at the start of the season for the home-based aircraft. The pre-work conference for an Airtanker is an appropriate time to gather the information, complete the multiple copies required, and distribute to the flight crews.

   Home-based flight crews will be supplied with copies of the completed form. They should be instructed to furnish a copy to the Airtanker Base Manager upon arrival at an alternate base. Transient flight crews remaining overnight who have not furnished the Manager with a pre-completed form will be asked to complete a form; information is then relayed to the local Dispatcher. Depending upon local policy, it may then be relayed to the Geographic Coordination Center (GACC).

   Blocks not specified are self-explanatory. The information enclosed in heavily-lined boxed changes with each dispatch, and should be completed by the flight crew upon arrival at a base to which the aircraft is temporarily assigned.

   Top Box.

   Incident Name/Incident/Project Order Number/Request Number. When assigned to alternate bases, pilots enter Incident Name, Incident/Project Order Number, and Request Number Information off Form ATB-3, Flight Resource Order: Tactical Fixed-Wing.

   Arrival Loaded/Empty/From. Indicate whether Airtanker arrived empty or loaded, and the base from which the aircraft arrived. This allows the Airtanker Base Manager to reconcile retardant use and bill appropriately.

   Bottom Box.

   Current Tach Reading. Enter the current tachometer reading, and the tachometer times at which 50- and 100-hour inspections will be due.

   Name(s)/Duty Day/Flight Time Information. Enter information as specified.

4. **Routing and Filing.** Information sheets on transient aircraft should be relayed to the local Dispatcher. Depending upon local policy, it may be relayed to the Zone or Area Coordination Center. It may also be effective for sending Airtanker Base to fax a copy to a base receiving its Airtanker.

5. **Posting**. None.

6. **Related Forms.**

   +Pilot Flight Time/Duty Day Cumulative Log (Form ATB-5).

Exhibit 3 - 2: Example of Form ATB-2
Tactical Fixed-Wing Information Sheet

Interagency Airtanker Base Operations Guide Tactical Fixed Wing Information Sheet		Contract #	
		Item #	

Order Information

Date		Make/Model	
Order No.		N	
Request No.		T	

Aircraft Information

Type				**Arrived**
[ ] Airtanker	[ ] Lead Plane	[ ] Air Tactical	[ ] Other	[ ] Loaded [ ] Unloaded

Reg Number	Cruise Speed	Fuel Type	Gross Weight	Contract Load	Pax Seats

Other Capabilities/Avionics/Comments:	

Contract Information

Contractor		COR	
Phone		COR Phone	
Home Base		COR Fax	
Agency		COR Email	

Cost Information

Daily Avail		Flight Hour Rate	
Hour Av.		No. of Crew	
Ext. Av. Pilots		Subsistence	
Ext Av		Other Costs	

Tach Readings

Current Tach Reading		50 Hour Due		100 Hour Due

Flight Crew Information

	Name	Duty Day	Normal Hours	Days Off	Cumulative Flight Time Last 5 Days
Pilot					
Co-Pilot					
Engineer					
Mechanic					
Other					
Other					

If RON, Pilots/Mechanics Prefer:	[ ] 1 Room with number of beds [ ] Single Rooms [ ] Male [ ] Female [ ] Smoking [ ] Non Smoking

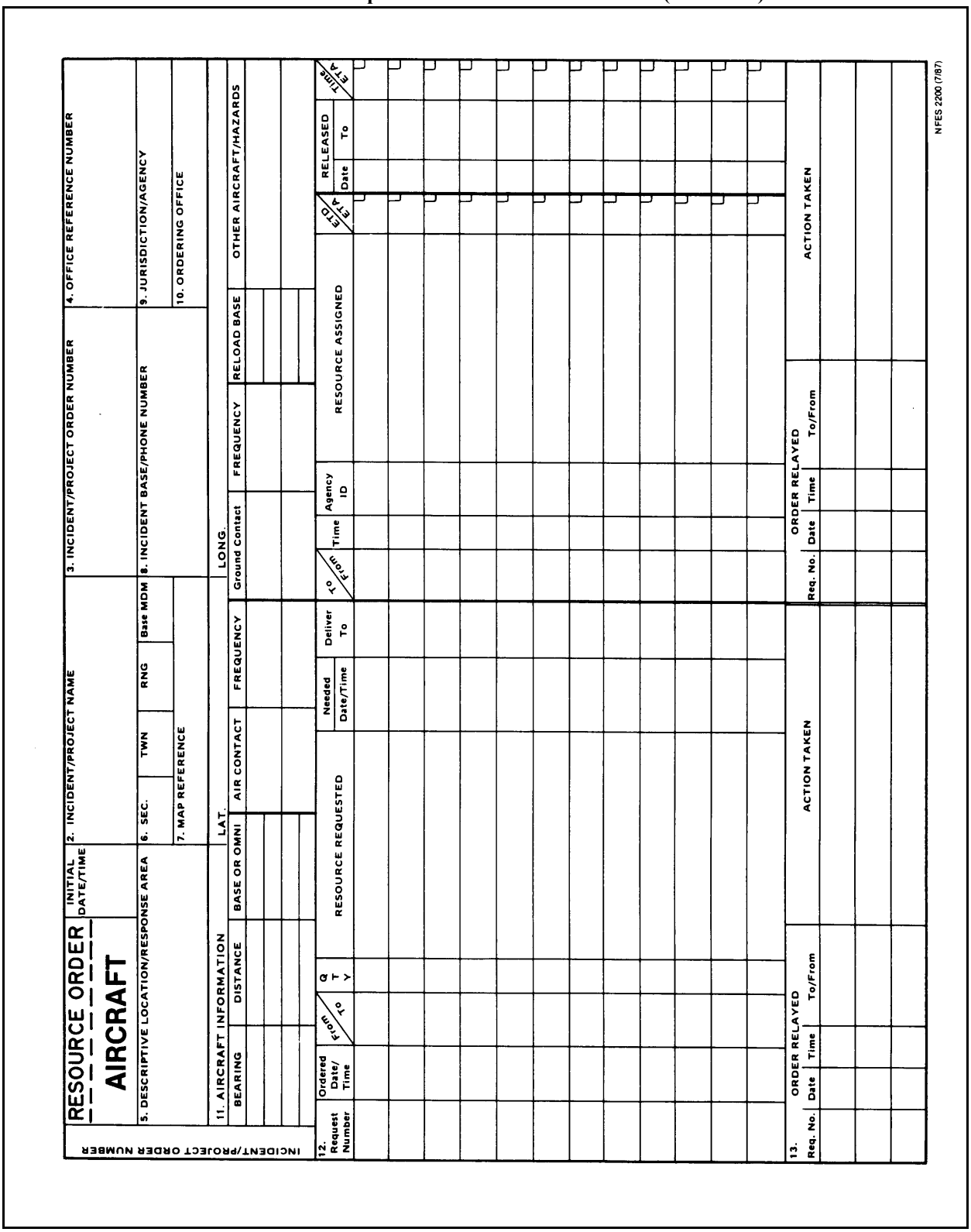
Crew Preferences and Remarks:

4. ICS 259-1 Aircraft Resource Order. (See Exhibit 3-4.)

a. Purpose. The purpose is to document orders and information for incident resources, including aircraft.

b. Applicability. The form is completed by Dispatch Offices and relayed to Airtanker Bases, who document the information on Form ATB-3, Incident Information: Tactical Fixed-Wing. Block numbers on both of the forms are the same.

Exhibit 3-4: Example of a Resource Order-Aircraft (ICS 259-1)



5. Incident Information: Tactical Fixed-Wing (ATB-3). (See Exhibit 3-3)

a. Purpose. The purpose is to allow the Airtanker Base Manager to document information relayed by Dispatch off ICS 259-1, Resource Order - Aircraft, and to allow copies to be distributed to tactical aircraft pilots.

b. Applicability. The form is optional, but should be used due to the need to standardize aircraft safety information. A completed copy of the resource order is acceptable as a substitute. It is to be completed for all Airtanker, Lead Plane and Air Tactical Missions. Additional information not specified on the Resource Order Form (e.g., airspace information) should also be provided. If not available at the time of order, Dispatch is required to furnish it prior to the entry of the aircraft into the area of operations (see Interagency Airspace Coordination Guide).

c. Responsibility and Instruction for Completion. See Exhibit 3-5. The Dispatcher is responsible for relaying the information on the Flight Resource Order: Tactical Fixed Wing to the Airtanker Base Manager at the time Despatch orders are received. Pilots should be furnished with blank manifold copies for those situations where Dispatch information is transmitted by radio during taxi or after takeoff.

1. **Order #**: Enter exactly as received from ordering Dispatch office.

2. **P#, BLM#, OTHER**: If USFS incident, use assigned P Number. If BLM incident, fill in BLM number. Any other agency incidents will be appropriate fire number in **OTHER**.

d. Aircraft Information:

1. **Latitude/Longitude**. Critical information for dispatch of aircraft. Unless a developed airport is the destination, aircraft will not enter the area of operations until this information has been obtained.

2. **Bearing/Distance/VOR**. At least one reference must be plotted, in the event that Loran or GPS should malfunction.

3. **Reload Base**. Enter the reload base for Airtankers.

4. **Air and Ground Contacts/Frequencies**. If incident is unmanned, ordering dispatch office frequency is given. Air contact and frequency is critical if other aircraft are assigned.

5. **Other A/C**. Enter the designators of all other aircraft known to have been dispatched.

6. **Hazards**. For local dispatches, Dispatcher and Airtanker Base Manager should provide this information off Aerial Hazard Map or the Computer Aided Aviation Hazard Information System (CAHIS). Otherwise, it is obtained from the ordering dispatch.

e. Routing and Filing. White original is kept by the Airtanker Base. Other copies are given to Air Tactical Group Supervisor, Lead Plane and Airtanker pilots.

f. Posting. None.

g. Related Forms.

1. ICS 259-1 Resource Order - Aircraft

Exhibit 3 - 5: Example for Form ATB -3
Incident Information: Tactical Fixed-Wing

Incident Information			
Tactical Fixed-Wing			
Dark Lined Boxes MUST be Completed Before Aircraft Release			
Incident Name		Date	Time
Order Number		P # or Agency Billing Number	
Descriptive Location			
Response Area	Altimeter Setting	Base Meridian	
Latitude			
Longitude			
Bearing	Distance	From	Reload
Air Contact		Frequency	
Ground Contact		Frequency	
Other A/C			
Hazards			

Request Numbers					
A	1	A	4	A	8
A	2	A	5	A	9
A	3	A	6	A	0
A	4	A	7		

6. Airtanker Crew Flight Record (ATB-3a). (See Exhibit 3-6)

a. Purpose. The purpose is to allow the Airtanker captain to document on/off times for later reconciliation with the Airtanker Base Manager's record for eventual entry onto the agency flight payment document.

b. Applicability. The form is optional, though Airtanker pilots should establish some format for reconciling Airtanker on/off times recorded on Form ATB-4, Individual Airtanker Flight Record. It should be completed for all Airtanker missions.

c. Responsibility and Instructions for Completion. See Exhibit 3-6. The Airtanker pilot is responsible for completing the form. Airtanker pilots record on/off time for later reconciliation with Airtanker base logs.

d. Routing and Filing. None required.

e. Posting. None.

f. Related Forms.

1. Form ATB-4 Individual Airtanker Flight Record.

2. FS 6500-122 Flight Use Report or USDI OAS-23 Aircraft Use Report.

Exhibit 3-6: Example of Form ATB - 3A
Airtanker Crew's Flight Record

Crew Flight Time Log		
On		On
Off		Off
On		On
Off		Off
On		On
Off		Off
On		On
Off		Off
On		On
Off		Off
On		On
Off		Off
On		On
Off		Off
On		On
Off		Off

7. Individual Airtanker Flight Record (ATB-4). (See Exhibit 3-7.)

1. **Purpose.** The purpose is to document departure and arrival times (on/off). The form is cardstock for entry of on/off times in automatic time-punch clocks. The form may also be completed manually in its entirety. This information is key to maintaining accurate flight time and dispatch/reaction time records.

2. **Applicability.** The form is optional due to the differing size requirements for various models of automatic time clocks. However, some format for tracking the information on the form must be established to ensure accurate completion of flight payment documents.

   One Flight Record is to be completed for each Airtanker operating to and from the base. Times are reconciled at the end of each operational period with those maintained by the aircrew (see Airtanker Pilot's Flight Record, Exhibit 3-6).

3. **Responsibility and Instructions for Completion.** See Exhibit 3-7. The Airtanker Base Manager is responsible for ensuring completion of the form. This task is usually delegated to the Aircraft Timekeeper or Radio Operator.

   The form is completed only for loads originating from the Airtanker Base. If the aircraft reloads elsewhere, only departure information is documented (upon return of Airtanker crews, times are reconciled with those on the Airtanker Pilot's Flight Record and communications with other bases). The form is to be completed as follows (blocks not specified are self-explanatory):

   Aircraft Order Number. If using a sequential numbering system for aircraft flights, enter the next number here.

   Flight Rate. Obtained from most current Schedule of Items and entered for all Airtankers. It is utilized to calculate flight costs after multiplying with flight times.

   Incident/Project Order Number. Enter this information from Block 3 on the Resource Order.

   Agency Fire Number. Provide other-agency support fire numbers as appropriate. Obtain from Block 2a on the Resource Order.

   Gallons-Cost/Gallon. Enter number of gallons loaded and cost per gallon of the retardant. This information is entered later to the Airtanker Base Log and agency flight payment documents.

   Airport Identifier From/To. Enter departure base and return base. The only time this is not the home Airtanker Base is when reload is at another base.

   Time Flown Elapse/Accum. This block is completed after both the On and Off Times have been punched by the timekeeping clock. "Elapse" is total flight time for this line entry (load). "Accum" is accumulated time on the Airtanker from the first "Off" time for that date.

4. **Routing and Filing.** The form is retained as part of the contract file for home-base Airtankers. Cards for transient aircrews should be kept separately in the event questions arise at a later date. If transient aircrews to not return to the base, times are relayed to the appropriate base for reconciliation with the pilot's record. No actual routing of the card is necessary.

5. **Posting.** Forms for active Airtankers are posted in the base's Dispatch Office or contained in resource order files.

6. **Related Forms.**

- Airtanker Crew's Flight Record (ATB-3a)
- FS-6500-122 Flight Use Report or USDI OAS-23 Aircraft Use Report

Exhibit 3-7: Example of Form ATB-4 - Individual Airtanker Flight Record

Interagency Airtanker Base Operations Guide						**Tanker No.**
Individual Airtanker Flight Record Card						**Make & Model**
Airtanker Base and Agency Name						
Order No.	**Incident Project #**	**Gallons**	**Airport Idenity**	**Time Flown**		**Date and Time**
Hourly Flight Rate	**Agency Fire No.**	**Cost - Gallon**	**From - To**	**Elapse Hours** (Hundredths)	**Cumulative Hours** (Hundredths)	**On and Off**
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
						On
$						Off
Remarks:						

8. Individual Airtanker Duty Day and Availability Record (ATB-4a). (See Exhibit 3-8.)

a. Purpose. The purpose is to document duty day and availability times. The form is on the reverse of Form ATB-4 (Test), Individual Airtanker Flight Record. This information is key to maintaining accurate flight time and dispatch/reaction records.

b. Applicability. The form is optional. However, some format for tracking the information on the form must be established to ensure accurate completion of flight payment documents.

One Record is to be completed for each Airtanker operating to and from the base, both home-base and transient Airtankers. Times are reconciled at the end of each operational period with those maintained by the aircrew.

c. Responsibility and Instructions for Completion. See Exhibit 3-8. The Airtanker Base Manager is responsible for ensuring completion of the form. This task is usually delegated to the Aircraft Timekeeper or Radio Operator.

Completion is self-explanatory. An entry should be made each time the aircraft becomes available, or returns to availability from unavailable status.

d. Routing and Filing. The form is retained as part of the contract file for home-base Airtankers. Cards for transient aircrews should be kept separately in the event questions arise at a later date. If transient aircrews do not return to the base, times are relayed to the appropriate base for reconciliation with pilots' record. No actual routing of the card is necessary.

e. Posting. Forms for active Airtankers are posted in the base's Dispatch Office or contained in resource order file racks.

f. Related Forms.

FS 6500-122 Flight Use Report or USDI OAS-23 Aircraft Use Report

Exhibit 3-8: Example of Form ATB-4a
Individual Airtanker Duty Day and Availability Record

Interagency Airtanker Base Operations Guide	Tanker No.
Individual Airtanker Duty Day and Availability Record	
	Make & Model
Airtanker Base and Agency Name	

Date	Location	On Duty	Off Duty	Total Avail	Total EA	Total UA	Remarks

Remarks:

9. Crew Duty Day/Flight Time Cumulative Log (ATB-5). (See Exhibit 3-9.)

a. Purpose. The purpose is to provide the Airtanker Base Manager with a means of tracking the flight crews' duty day and flight time, thus ensuring that limitations are not exceeded.

b. Applicability. This form is required for all Airtanker pilots.

c. Responsibility and Instructions for Completion. Refer to Exhibit 3-9. The Airtanker Base Manager is responsible for making entries to the form on a daily basis for the period of the contract.

Completion is self-explanatory.

d. Routing and Filing. No routing is necessary. Completed Logs become part of the Contract File.

e. Posting. None.

f. Related Forms.

#	Form	ATB-4	Individual Airtanker Flight Record
#	Form	ATB-4a	Individual Airtanker Duty Day and Availability Record
#	Form	ATB-8	Airtanker Base Log

Exhibit 3 - 9: Example of Form ATB-5
Crew Flight Time/Duty Day Cumulative Log

Crew Flight Time/Duty Day Cumulative Log

Contract #	Pilot Name	Aircraft FAA #	Make/Model

Information From Last Log	Last Date(s) Off Duty	Cumulative Flight Hours Last 5 Consecutive Days on Duty

Insert Dates of Next 7 Days in Boxes at Right							
Actually On-Duty (Including Preflight)							
Add 14 Hours for Maximum Duty Day							
*Must Be Off-Duty at (On-Duty + 14 HRS)							
Actual Off-Duty Time (Including Debriefing)							
Add 10 Hours Mandatory Rest							
*Earliest Pilot Can Be On-Duty Tomorrow							
Cumulative Flight Time Previous 5 Days							
*Total Flight Time Today							
*Total Flight Time Last 6 Days (Including Today)							
Insert Dates of Next 7 Days in Boxes at Right							
Actually On-Duty (Including Preflight)							
Add 14 Hours for Maximum Duty Day							
*Must Be Off-Duty at (On-Duty + 14 HRS)							
Actual Off-Duty Time (Including Debriefing)							
Add 10 Hours Mandatory Rest							
*Earliest Pilot Can Be On-Duty Tomorrow							
Cumulative Flight Time Previous 5 Days							
*Total Flight Time Today							
*Total Flight Time Last 6 Days (Including Today)							

Flight Time	Duty Day	Rest	Days Off	Additional
8 Hours (Federal) 7 Hours (CDF)	14 Hours	10 Hours	2 in 14	A maximum of 42 hours flight time may be flown during any consecutive six-day period. When a pilot acquires 36 more more flight hours in a consecutive six-day period, the pilot will be given the following 24 hour period off duty for rest, or in the conti

(**Editor Notes:** under additional, change to: A maximum of 42 hours flight time or less may be flown during any consecutive six day period. When a pilot acquires 36 more flight hours in a consecutive six day period, the pilot will be given the following 24 hour period off duty for rest or .....").

10. Fixed-Wing Base Landing Fee Record (ATB-6). (See Exhibit 3-10.)

a. Purpose. The purpose is to summarize landings made by Airtankers and is used to support payment made to airports by the Government.

b. Applicability. This form is required. Base personnel must establish a format for tracking the information on the form in order to ensure accurate completion of flight payment documents or payments made to an airport authority.

There are three methods by which an airport authority may be reimbursed for Airtanker landing fees:

1. The authority directly bills the Vendor, and the Vendor is reimbursed by the Government via the agency flight payment document; or,

2. The authority directly bills the government, and the Government directly reimburses the Airport Authority; or,

3. The Government can establish a reimbursement vehicle such as a Blanket Purchasing Agreement (BPA).

4. Regardless of the method, the form should be completed as a record furnished to the airport authority. Information is obtained from the Individual Airtanker Flight Record and/or the Airtanker Base Log.

c. Responsibility and Instructions for Completion. Refer to Exhibit 3-10. The Airtanker Base Manager is responsible for ensuring the form is completed on an established basis (daily, weekly, etc.)

The form should be completed from information contained on the Individual Airtanker Flight Record and /or the Airtanker Base Log, and/or flight payment documents. The form is to be completed as follows (blocks not specified are self-explanatory):

Incident Order Number. Enter the number obtained from the Aircraft Resource Order (NFES 2200, Salmon Color), Block 3.

Billing Code. Enter the Management Code that the Incident is being charged to, usually a p-code, for the Forest Service. If operating with another agency's Airtankers on a reimbursable basis, Airtanker Base Manager must obtain a fire number that is compatible with that agency's financial coding system. If these numbers are obtained prior to relay of information back to the aircraft's home base, flight payment documents can be completed accurately and timely. This number is Block 2a on the Flight Resource Order.

Number of Landings. Landings may be documented individually or summarized.

Cost/Landing. Enter the appropriate rate, for the listed aircraft. This information is obtained from the airport authority and is usually a flat rate charged per 1000 pounds of the contract operating weight. (See lower right corner of form, for standard weights used to calculate this information).

Total. Enter the result of multiplying the number of landings by the rate per landing.

Signature. The Airtanker Base Manager verifies the figures and signs in the Approving Agency Official block.

d. Routing and Filing. Original is retained for the Base files. One copy is routed to the airport authority for billing purposes. One copy is retained for the contract file. For reimbursable fires, a copy may be routed to the benefitting agency for reconciliation of billings.

e. Posting. None.

f. Related Forms.

a. FS 6500-122 Flight Use Report or USDI OAS-23 Aircraft Use Report (if landing fees are being reimbursed on these documents).

Exhibit 3-10: Example Form ATB-6
Fixed Wing Base Landing Fee Record

Interagency Airtanker Base Operations Guide

Fixed Wing Base Landing Fee Record

Airtanker Base Name and Agency	Contact #	
	Payment #	
	Page #	

Date	Incident Order #	Billing Code	A/C No.	No. of Landings	Cost of Landing	Total Cost

Accounting Summary			Aircraft Rates		
#	Agency Billing Code	Amount	Aircraft Rates @:		1000 lbs
1			S2T	25000 lbs	
2			PB4Y	57500 lbs	
3			DC-4	65000 lbs	
4			SP2H	62000 lbs	
5			P2V	73000 lbs	
6			DC-6	80000 lbs	
7			P3A	98000 lbs	
8			DC-7	110000 lbs	
9			C130	108600 lbs	
10			KC-97	127000 lbs	
	Total				

Signature and Title		Date
Approving Agency Office:		
Vendor or Agent:		

11. Retardant Use Record (ATB-7). (See Exhibit 3-11)

a. Purpose. The purpose is to document use of retardant on various agencies' fires for later reimbursement (if applicable) and for year-end use summaries.

b. Applicability. The form is required due to the need to standardize the method by which retardant use is recorded. The form summarizes retardant use and is used to support billings made to other agencies by the agency with the retardant contract. It is completed for all use of retardant at the Airtanker base. Information is obtained from the individual Airtanker Flight Record and/or Airtanker Base Log, and from mass flow meters.

c. Responsibility and Instructions for Completion. Refer to Exhibit 3-11. The Airtanker Base Manager is responsible for ensuring completion of the form, as well as for routing to provide documentation of billings. The Mixmaster usually completes the form.

The form is to be completed as follows (blocks not specified are self explanatory).

Incident Order Number. Enter the number obtained from the Aircraft Resource Order (NFES 2200, Salmon Color), Block 3.

Billing Code. Enter the Management Code that the incident is being charged to, usually a p-code, for the Forest Service. If operating with another agency's Airtankers on a reimbursable basis, Airtanker Base Managers must obtain a fire number that is compatible with that agency's financial coding system. If these numbers are obtained prior to relay of information back to the aircrafts home base, flight payment documents can be completed accurately and timely. This number is Block 2a on the Flight Resource Order.

Refractometer. If available, enter the refractometer reading of the mixed retardant, as reported by the Mixmaster.

Pounds/Gallons of Retardant. Pounds/Gallons may be totaled for each separate incident/project order number or they may be entered by individual load.

Totals. Space is provided to document cumulative totals by agency.

d. Routing and Filing. Original becomes part of the Airtanker Base file. Depending upon which agency is responsible for paying the retardant company and for billing reimbursable costs back to benefitting agencies, copies are routed appropriately to support billings and payments.

e. Posting. None

f. Related Forms.

- Form ATB-4 Individual Airtanker Flight Record
- Form ATB-8 Airtanker Base Log

Exhibit 3-11: Example of Form ATB-7
Retardant Use Record

Interagency Airtanker Base Operations Guide

Retardant Use Record

Airtanker Base Name and Agency	Date	
	Page	
	Name	

Load #	Time	Tanker No.	Incident Order #	Billing Code	Spec. Grav.	Refr.	LBS.	GAL.	Sheet Total	Comments

Summary

Agency	Loads	Gallons	Comments
Grand Total			

12. Individual Airtanker Flight Log (ATB-8) and Continuations Sheet (ATB-8a). See Exhibits 3-12 and 3-13)

a. Purpose: The purpose of this form is to document the daily mission activity of a single resource operating from an Airtanker Base. The form provides contract information incident flight times and costs, and pertinent daily information for the Contracting Officers' representative. The form is used by the generating base for tracking cumulative flight times and daily availability, for generating landing fee payments and retardant use summaries. The form is reported to the Airtanker home base to generate agency contracting documents.

b. Applicability: The form is required to standardize the information reporting procedures between bases.

c. Responsibility and Instructions for Completion. The Airtanker Base Manager is responsible for ensuring completion of the form this task is often delegated to the aircraft timekeeper or radio operator.

The form is completed only for loads originating from the Airtanker Base. If the aircraft is reloaded elsewhere, all the departure information is documented upon return of the Airtanker crew. Times are reconciled with those on the Airtanker pilots' flight record and through communications with other bases. The form is to be completed as follows, blocks not specified are self explanatory.

The form is in a standard spreadsheet format. The top portion of the form contains contract information and information regarding the generating base. The middle portion of the form records individual mission data, and relates roughly to the format of agency contract payment documents. A summary area records additional time and cost information. The bottom of the form contains a "remarks" area to forward to the COR.

Incident: Is the incident name.

Order No: Is the resource order number generated by the requesting agency.

Pay Code: Is the management code or fire number obtained from Block 3a on the flight request order/tactical fixed wing.

Availability: Record beginning and ending duty times such as: 0900 - 1800 and cost.

Unavailable: Record times of unavailability such as: 1335 - 1455 and cost.

Extended Standby: Record extended standby times such as: 1800 - 1900 and cost.

RON: Record the cost for overnight.

Exhibit 3-12: Example of Form ATB- 8
Airtanker Base Log

Interagency Airtanker Base Operations Guide **Individual Aircraft Flight Log**				**Airtanker**	
Based At		Contractor		Date	
Day Off		Pilot		Model	
COR		Copilot		Available Rate	
Phone		Engineer		Flight Rate	
Fax		Mechanic		Contract Gallons	
E-Mail		Reg. Number			

Leg	Incident	Order #	Pay Code	From	To	Off	On	Time	Accum.	Cost	Gallons	Rate	Retardant Cost

Available		Flight Time				Flight Cost	
Unavailable		Retardant Gallons				Retardant Cost	
Extended Standby		Landings		@		Landing Fees	
RON		Other				Total Cost	

Remarks for Diary	
Maintenance Performed	
Other Aircraft on Base	

Exhibit 3 - 13: Example of Form ATB - 8a
Airtanker Base Log - Continuation Sheet

Interagency Airtanker Base Operations Guide

Airtanker Base Log - Continuation Sheet

Airtanker Base Name and Agency	Date	
	Page	
	Of	

Tanker Number	Base		Flight Time			Billing		Retard Type	Gallons			Remarks
	From	To	Off	On	Total	Agency No.	Other #		Off	On	Dropped	
Previous Page Total for This Day												
Cumulative Total for Today												

13. Incident Daily Use and Cost Summary (ATB-9). (See Exhibit 3-14.)

a. Purpose. The purpose of the form is to fulfill reporting requirements of the Air Operations Branch Director on incidents to which a Type I or II Incident Management Team has been assigned and for agency cost computation.

b. Applicability. The completed form should be provided to the Air Operations Branch Director whenever a Type I or II Incident Management Team has been assigned to a fire being supported by the Airtanker Base. Additionally this form should be transmitted (faxed) to the responsible unit or Ranger District for fire cost computation.

c. Responsibility and Instructions for Completion. Refer to Exhibit 3-14. The Airtanker Base Manager is responsible for ensuring completion of the form, usually by the Aircraft Timekeeper.

NOTE: District personnel must fill out the Fire Report FS-5100-29 which includes the costs of aircraft and retardant. Bases will fax the costs to the District which the fire occurred on ***each night*** at closing ***except*** when a team is assigned to the incident. Then the cost summary is faxed to them and not the District.

Additional fax copies should go to the Dispatch Office or Area as required.

Flight Time costs are available off the Tactical Fixed-Wing Information Sheet(s) submitted by transient Airtanker pilots. Form ATB-4, Individual Airtanker Flight Record, provides actual use totals.

d. Routing and Filing. At the end of each day, the information must be transmitted to the Air Operations Branch at the incident, or using Ranger District if a team is not assigned. The Airtanker Base will retain a file copy.

e. Posting. None.

f. Related Forms.

Form ATB-4 Individual Airtanker Flight Record

Form ATB-8 Individual Airtanker Flight Log

Form ATB-2 Tactical Fixed-Wing Information Sheet

Form ATB-6 Fixed-Wing Base Landing Fee Record

Form ATB-7 Retardant Use Record

Exhibit 3-14: Example of Form ATB-9
Incident Fixed-Wing Base Daily Use and Cost Summary

Interagency Airtanker Base Operations Guide

Incident Daily Use and Cost Summary

Airtanker Base Name and Agency				Date	
				Incident Name	
Base Contact:		Phone		Order Number	

Incident Contact	Phone	Fax	Billing Code

A/C	Type	No. of Trips	Landing Fees	Hours	Flight Rate	Flight Costs	Retardant Gallons	Foam Gallons	Extended Standby	RON	A/C Total
Totals											

Additional Costs				Total Costs
Gallons of Retardant Dropped		Cost of Retardant per Gallon		
Gallons of Foam Dropped		Cost of Foam per Gallon		
Extended Standby Total Hours		Rate		
Crew RON (total)		Rate		
Severity Availability (if applicable)				
Miscellaneous Costs: Tie Down, Parking, etc.				
Total Cost for this Operational Period				

Notes

14. Agency Flight Payment Documents.

a. FS 6500-122 Flight Use Report and USDI OAS-23 Aircraft Use Report. (See Appendices B and C for an example of these reports.)

1. Purpose. These forms start the payment process for the appropriate agency contracting the aircraft. Their purposes are as follows:

a. Provide fiscal unit (USFS or OAS) with records of use for a particular aircraft upon which payment is based;

b. Provide aviation management with a record of use for long-term use/cost analysis;

c. Provide the vendor with a signed copy documenting use of the vendor's aircraft.

2. Applicability. The form is completed daily for each home base Airtanker. Each pilot will check it for accuracy and sign it, either daily and/or upon return from base(s) to which the aircraft has been temporarily assigned. For transient aircraft, the Airtanker Base Manager will call the home Airtanker Base Manager with the information. Information to include:

a. Flight start/stop times, to/from locations, and gallons carried for each flight.

b. On duty/off duty times, including periods of extended standby.

c. Incident/accidents and periods of unavailability (if applicable) and time of return to service (including return-to-service time on tanker day(s)-off).

3. Responsibility and Instructions for Completion. The Airtanker Base Manager is responsible for ensuring completion of the form, usually by the Aircraft Timekeeper.

Forms are completed according to agency instructions. Instructions for the Forest Service form are found in Appendix B. Instructions for the OAS forms are found in Appendix C.

4. Routing and Filing. Completed forms are routed on a scheduled basis to the unit with responsibility for payment. Copies are retained as part of the COR's contract file. Forest Service only: Information is transferred to the Aircraft Use/Payment Summary (see Exhibit 3-14).

5. Posting. None.

6. Related Forms.

Form ATB-8 Individual Airtanker Flight Log

Form ATB-4 Individual Airtanker Flight Record

Form ATB-2 (Test) Tactical Fixed-Wing Information Sheet

b. Aircraft Use and Payment Summary - Forest Service (FS 6300-49).
(See Exhibits 3-15 and 3-16).

1. Purpose. The purpose of the form is to provide a monthly payment summary of costs incurred during the month and a running total of costs-to-date on Forest Service contracts.

2. Applicability. The form is completed for all aircraft contracts.

3. Responsibility and Instructions for Completion. Refer to Exhibits 3 -15 and 3 -16. The COR is responsible for completion of the form. If the Airtanker Base Manager is not the COR, this responsibility may be delegated to the Airtanker Base Manager.

Follow agency instructions. (The form may be automatically generated via the AMIS system, provided that FS 6500-122s for the applicable period have been entered to AMIS in a timely manner.)

4. Routing and Filing. One copy is routed to the Contracting Officer. One copy is routed to administration for payment. One copy is retained for the contract file.

5. Posting. None.

6. Related Forms.

FS 6500-122 Flight Use Report

Exhibit 3-15: Example of FS - 6300-49
Aircraft Use/Payment Summary (Page 1)

USDA - Forest Service

CUMULATIVE USE/PAYMENT SUMMARY
(Reference FSH 6308.11)

1. Forest/Unit	2. Base	3. Aircraft No.	4. Contract No., bid item
5. Contractor		6. Inclusive dates this payment period	

7. Availability Earnings

a. Mandatory Period	_____	Hours	At $ _____	Total $	_____
b. Pre/Post	_____	Hours	At $ _____	Total $	_____
c. Optional Period	_____	Hours	At $ _____	Total $	_____
d. Extended Standby	_____	Hours	At $ _____	Total $	_____
e. Unavailable	_____	Hours			

8. Flight Hour Earnings

Number of Hours	_____	At $ _____	Total $	_____

9. Overnight Allowances for this period

No. Crew-nights	_____	At $ _____	Total $	_____

10. Other Contract Allowances for this period

Service Truck	_____	Miles	At $ _____	Total $	_____
	_____		_____	Total $	_____

11. Deductions this period
(excluding time discount)

_____	-$	_____
_____	-$	_____

12. TOTAL PAYMENTS THIS INVOICE ..... -$

13. Summary of Accumlated Totals to Date	Previous Total Hours	Previous Total Dollars	This Period Hours	This Period Dollars	Total to Date HOURS	Total to Date DOLLARS
a. AVAILABILITY (7)						
b. EXTENDED STANDBY (7)						
c. UNAVAILABILITY (7)						
d. FLIGHT (8)						
e. OVERNIGHT (9)						
f. MISC. ALLOWANCE (10)						
g. MISC. DEDUCTIONS (11)						

14. GROSS TOTAL PAID TO DATE ..... $

15. Approved for the United States of America Contracting Officer Representative (Signature/Date)	16. Approved for the Contractor Signature and Date (Optional)

Previous edition is obsolete (over) **FS-6300-49 (3/1994)**

Exhibit 3-16: Example of FS 6300-49 Aircraft Use/Payment Summary (Page 2)

17. Mo.	18. Day	19. Avail.	20. Extended Standby			21. Flight Hour Information					22. Gal Retard	23. RON	24. Remarks
			Hours	Rate	Total	USFS	Other	Fuel Price	Flight Rate Per Hr	Total			
			(a)	(b)	©	(a)	(b)	©	(d)	(e)			
25. Total													

26. Summary — Location — Hours Flown — Flight Amount — Gallons Retard

Region ______________________________ ______________

Other ______________________________ ______________

Total ______________________________ ______________

15. Aircraft Contract Daily Diary. (See Exhibit 3-17.) (The use and applicability of other contracting

forms such as Contract Instruction, Notice To Proceed, etc. are discussed in agency contract administration guides).

a. Purpose. The purpose of the form is to provide daily documentation of contract administration.

b. Applicability. The form is required for all home Airtankers assigned to the base. All significant occurrences, deficiencies, actions by contractor or government, etc. should be documented at the time of occurrence. Any problems with the vendor's aircrew or aircraft should be recorded, no matter how insignificant.

c. Responsibility and Instructions for Completion. Refer to Exhibit 3-17. The Airtanker Base Manager completes the form on a daily basis. If nothing of significance has occurred, an entry to that effect should be made.

It is essential that the COR/PI documents any problem, no matter how insignificant, encountered operationally or with the aircraft or contractor personnel. Blocks not specified are self-explanatory.

Block 16. Work Order Issued. Document any orders issued, such as suspension of work due to unavailability, removal of aircraft from service, etc.

Block 17. Hazard/Incident Reports Issued. A copy is attached to the diary. The COR/PI must send the original through normal channels.

Block 18. Materials Furnished To Job Site. Document any materials, who furnished them, and how long they were used that day. Such materials might include retardants or foam furnished by the contractor for later reimbursement, fuel furnished by the government, etc.

Block 19. List Equipment on Site. List any equipment not required by the contract which was furnished, who furnished it, and how long it was used. Such equipment might include government radios as temporary replacement for contractor-furnished equipment, helicopter buckets, etc.

Block 20. Maintenance Performed. With pilots' assistance, document any maintenance performed on the aircraft. Document reasons for unavailability.

Block 21. Narrative Report. Document any problems, no matter how insignificant, encountered either operationally or with contractor equipment or personnel. If nothing of significance happened, make an entry to that effect. Describe work government employees performed; **do not leave blank.**

Block 22. Miscellaneous Costs. Document any additional costs for which the government may be liable. These might include rental cars or airline tickets obtained by the contractor to effect pilot changes, costs in high-rate areas for subsistence, etc.

d. Routing and Filing. Forms should be submitted in conjunction with flight payment documents. Routing is indicated on the bottom of the form and is as follows:

White - Project Inspector (PI in DOI) or Contracting Officer's Representative (COR in USDA-FS)

Yellow - Contracting Officer

Pink - Local Air Officer (USDA-FS) or State/Area Air Officer (in DOI).

e. Posting. None.

f. Related Forms.

FS 6500-122 Flight Use Report or USDI OAS-23 Aircraft Use Report

Exhibit 3-17: Aircraft Contract Daily Diary

CONTRACT #: PAGE of
ITEM #: **AIRCRAFT CONTRACT DAILY DIARY** DATE:

1. CONTRACTOR:			2. DESIGNATED BASE:		
3. A/C FAA #/MAKE & MODEL:			4. CURRENT AIRCRAFT LOCATION:		
5. GOVT. REPRESENTATIVE ON SITE:			6. CONTRACTOR REPRESENTATIVE ON SITE:		
7. PILOT(S) ON DUTY:		REGULAR RELIEF	8. MECHANICS ON DUTY:		REGULAR RELIEF
9. DRIVER ON DUTY:		REGULAR RELIEF	10. WEATHER:		
11. FUEL PRICE:			12. OTHER AIRCRAFT BASE:		

Document Aircraft Availability, Pilot/Mechanic/Driver Extended Availability, Subsistence, Service Truck Miles, and other charges as applicable on agency fight payment document;
DOCUMENT UNAVAILABILITY IN BLOCK 15 BELOW

13. LIST MATERIALS FURNISHED TO JOB SITE (Furnished By: G = Govt; C = Contractor; S = Subcontractor)			14. LIST EQUIPMENT ON SITE (Furnished By: G = Govt; C = Contractor; S = Subcontractor)		
ITEM	HOURS USED	FURNISHED BY	ITEM	HOURS USED	FURNISHED BY

15. MAINTENANCE PERFORMED, POWER TREND ANALYSIS COMPLETED, REASONS FOR ANY UNAVAILABILITY:

16. NARRATIVE REPORT (Include problems encountered, official visits or inspections, etc. Attach additional sheets as necessary):

17. MISCELLANEOUS COSTS (eg: Rental Cars, Airline Tickets Bought By the Contractor for Which the Govt. Will Be Charged):

18. GOVT REPRESENTATIVE NAME/TITLE (Print):	**GOVT. REPRESENTATIVE NAME (Sign)**	**Date:**

DISTRIBUTION ORIGINAL: IT (DOI) OR cor (FS) :CO/ACO :AIR OFFICER - LOCAL (FS)OR STATE/AREA (DOI)

16. **Hazard, Incident, Maintenance Deficiency, and Accident Forms.** These forms will be completed for each accident/incident, regardless of how minor. Circumstances of the Hazard, Incident, Incident with Potential, Accident, and Maintenance Deficiency should be discussed with the pilot and the appropriate agency form initiated (See Appendix D) and dated with copies to the pilot and vendor. Others copies will be distributed in accordance with the agencies policy. Remember that the agency with operational control at the time of the occurrence is responsible for reporting and submitting reports, using its agency forms.

    a. **USDA-Forest Service/USDI-Office of Aircraft Services SAFECOM Report** (See Exhibit 3-18).

        1. **Purpose.** The purpose of the form is to collect and transmit information concerning incidents and accidents from the local level through the Region/State to the Washington Office.

        2. **Applicability.** The combined form will be completed for all incidents, incidents with potential, and accidents, involving personnel and aircraft as defined in Appendix D.

        3. **Responsibility and Instructions for Completion.** Refer to Exhibit 3 -18. It is the responsibility of any individual who observes or who is involved in an aviation incident, incident with potential, or an accident, to report the occurrence within 48 hours to their supervisor. The Local Aviation Manager is responsible for completion and forwarding of the actual report.

            Completion is self-explanatory. However, do not omit observers' recommendations for corrections, or corrective action taken.

        4. **Routing and Filing.** Regions/States will immediately report all aviation accidents, incidents, or incidents with potential to the appropriate National Aviation Safety Office by telephone.

        5. **Posting.** Reports are posted via electronic means to all users. (See Appendix D).

        6. **Related Forms**. None.

Exhibit 3 - 18: SAFECOM

SAFECOMS

For Actual Document Go to the Internet: http://205.173.2.4/safecom/entry.asp

Home Offices Directory Library Safecoms Mishaps Traning Links News

This form is used to report any condition, observance, act, maintenance problem, or circumstance which has the potential to cause an aviation-related mishap. Submitting a Safecom is not a substitute for on-the-spot correction(s).

SAFECOMS

Reported By *(Optional)*

Name
Phone — *Office*
Organization — Other
Date — *mm/dd/yy*

EVENT

Date *mm/dd/yy* | Local Time *24 hour clock* | Injuries? | Damage

Location | State

Airport/City, Lat/Long, or Fire Name

Agency Involved | Other

MISSION

Type | Other

Procurement | Other

Persons Onboard | Special Use? | Hazardous Materials Onboard?

Departure Point | Destination

SAFECOM Page Two

AIRCRAFT

Tail Number		Manufacturer		Model	
Owner/Operator			Pilot		

NARRATIVE ***(Please provide a brief explanation of the event).***

SAFECOM Page Three

CORRECTIVE ACTIONS			
Submit Instructions: Please review and correct entries, then select a **Send to Region.** To print this safecom for your records, use the **Print** button on your web browser. Once you have completed these steps, press the **Submit** button.			
Clear Form	**Send to Region:**		Submit

b. Initial Report of an Aircraft Mishap (OAS-77/FS 5700-28). (See Exhibit 3-23.)

1. **Purpose.** The purpose of the form is to collect and transmit information concerning an accident from the local level to the Office of Aircraft Services, Forest Service. Aviation Safety Office (ASO) (Boise), and to agencies National Offices.

2. **Applicability.** The form is to be completed for all aircraft which have met with an accident or have been declared "missing" (See Appendix D). If it is uncertain whether accident criteria are met, the form will be submitted.

3. **Responsibility and Instructions for Completion.** Refer to Exhibit 3-23. The dispatcher or other Fire and Aviation Management staff is responsible for immediate completion and submission of the form.

   Completion is self-explanatory. Do not delay notification if some items are missing.

4. **Routing and Filing.** The form is immediately routed to the State or Area Office of the appropriate DOI agency or Regional Office, who in turn immediately transmits to OAS or ASO (Boise) and the appropriate National Office.

5. **Posting**. Reports are posted by OAS and the Forest Service Aviation Safety Office only, via electronic means to all users.

6. **Related Forms.** None.

7. **Other Forms.** Other forms that the Airtanker Base Manager may have occasion to use and should be familiar with, include the Rental Equipment Use Record (OF-297), the Emergency Equipment Use Invoice (OF-286), and the Emergency Firefighter Time Report (OF-288). Instructions on the purpose, applicability, completion and routing may be found in NWCG Handbook 2, Interagency Fire Business Management Handbook, a copy of which should be maintained at each Airtanker Base.

Exhibit 3-19: Aircraft Mishap (OAS-77/FS/5700-28).

Interagency Airtanker Base Operations Guide

Initial Report of Aircraft Mishap

Airtanker Base and Agency Name	

If the aircraft mishap involves ***damage*** or ***injury***, notify the appropriate DOI or USDA-FS Aviation Safety Office (ASO) ***Immediately*** by the most expeditious means available.

DOI - USDA-FS 24 Hour Aircraft Accident Reporting Hot Line: 1-888-4Mishap or 1-888-464-7427

1	Name of Person Making this Report			Title		
	Phone		Location			
2	Mishap Date		Time			
	Location					
	Nearest Airport		Hospital		Phone	
3	Brief Description of Mishap					

4				Injuries
		Occupants	Employed By	Yes / No
	Pilot			
	Copilot			
	Passenger			
	Passenger			
	Passenger			
	Passenger			
	Passenger			
	Passenger			

5	Type Aircraft		No:
	Owner/Operator		Phone:
	Damage	[ ] Yes [ ] No	
6	Other Agencies Involved		
7	Local Actions Taken - Planned		

2. Contract Administration (Federal Contracted Airtankers)

a. Introduction. Administration of the contract is a joint responsibility of the requesting unit and the office with contracting authority, with the ultimate responsibility vested in the Contracting Officer**.** Administrative functions are generally delegated to a local level.

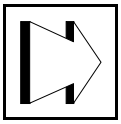
One party to any government aircraft contract will be the United States of America, the sovereign political entity on behalf of which the contract is entered into. Contracts for aircraft and services for state agencies most likely list the state as political entity.

All persons involved in making and administering U.S. Government contracts act solely as agents of the United States, commonly called Contracting Officers (CO's), and have the only authority delegated to them.

Base personnel must be familiar with the National Airtanker Contract, as well as the National Retardant Contract as applicable to Airtanker base operations. Copies of these contracts should be maintained in the base Reference Library (See Chapter 5). Airtanker bases which utilize California Department of Forestry and Fire Protection (CDF) aircraft or any other state entity contracting aircraft services, should maintain a current copy of that contract.

The Airtanker Base Manager is responsible for reviewing the contract with the pilot of each Federal and State transient Airtanker assigned to the base. The Manager must be familiar with the contract as there may be conditions or modification items unique to a particular contractor or aircraft which differs from standard contract provisions.

All Airtanker base personnel must understand that only the Administrative Contracting Officer or Contracting Officer, may alter the terms and conditions of the contract. In addition, government employees must understand that the contractor and company employees are bound only by the conditions as outlined in the contract.



The Contractor is bound only to the contract.

Refer to the current Interagency Airtanker Base Directory, NFES 2537 for COR contact information.

Personnel administering contracts within their delegated authority should document all actions taken with respect to the contract. The Aircraft Contract Daily Diary (see Exhibit 3-17) can be used to provide this information. In addition, the other forms whose use is outlined in the preceding section (Chapter 3 C item **17- Other Forms)** will provide an Airtanker Base Manager with the means to maintain an accurate record of Airtanker base operations.

Each federal agency (USDI-OAS and USDA-FS) has a Contract Administration Guide which explains the use of various forms employed in contract administration by each agency. These guides should be part of each airbase reference library and kept current. In addition, appropriate State Contract Guides should be included in the reference library.

b. Types of Contracts. Exclusive-use contracts are those awarded for a specific time period (e.g., 30-day, 90 days etc.), and during which the government has exclusive use of the Airtanker. States may have similar exclusive use type contracts or agreements which are unique to that entity. Consult with the appropriate state contract specialist for assistance. In addition, during periods of high incident activity Airtankers from provinces in Canada may be used within the United States. Contacts for these contracts may be found in the "National Interagency Mobilization Guide," NFES 2092.

c. Authority of Government Personnel. Before any person takes an action on behalf of the United

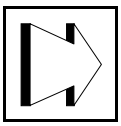
States, they need to ascertain whether authority to act has been delegated to them in writing. Consult with state agency representatives for their policy on contract administration.

d. Disputes with Vendors. Disputes that cannot be readily resolved at the local level by the Project Inspector and/or COR will be referred to the Administrative Contracting Officer or Contracting Officer. Documentation of the resolution or actions taken in any dispute is important to assure that the interests of the government are maintained.

5. Generic Duties and Responsibilities.

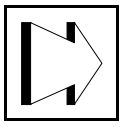
a. Contracting Officer (CO) or Administrative Contracting Officer (ACO). The Contracting Officer is responsible for all contracting actions including contracting procedures, contract legality with existing laws, regulations, contract administration, and termination. The CO may delegate certain contract administration functions. In the contract administration function, decisions on claims and disputes are final, appealable only to the Board of Contract Appeals or Court of Claims. Consult with state agency representatives for assistance with state contracts.

1. Assignment and/or Location. The Contracting Officer, (USDI/USDA) for all Federal Airtanker Contracts is located in Boise Idaho. USDI Administrative Contract Officers for lower 48 based Airtankers are located at Boise, Idaho. USDI-OAS Alaska Airtanker contracts are administered by the Administrative Contracting Officer in Anchorage. USDA-FS Administrative Contracting Officers are usually located at the Regional Office. Refer to the current " Interagency Aviation Technical Assistance Directory", NFES 2512, for additional information.



The CO or ACO is the only individual who may modify or change a contract provision.

2. Contracting Officer's Technical Representative (COTR). The Contracting Officer's Technical Representative (COTR) is directly responsible to the Contracting Officer for assuring compliance with the technical provisions of the contract.. The COTR conducts initial inspections and approves the Vendor's equipment, facilities, and personnel prior to, and periodically during the performance period.



The COTR may discuss changes or modifications in equipment or other requirements of the contract, but may not commit the Government to such changes, modifications, or adjustments without going through the Administrative Contracting Officer or Contracting Officer.

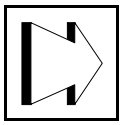
3. Assignment and/or Location. The COTR's for USDI/USDA for the lower 48 states based Airtankers are located in Boise Idaho. The COTR for USDI Alaska based Airtankers is located in Anchorage. Refer to the "Interagency Aviation Technical Directory", NFES 2512 for contacts and telephone numbers. Consult with state agency representatives for personnel responsible for technical assistance regarding state aircraft.

4. Interagency Technical Assistance. Generally speaking COTR's from both USDI-OAS and USDA-FS can assist with technical support for both agencies, particularly when dealing with maintenance issues and inspections.

e. Contracting Officers Representative (COR USDI-OAS/USDA-FS). The Contracting Officers Representative (COR) is directly responsible to the Administrative Contracting Officer (ACO) or Contracting Officer (CO) for monitoring contract performance. The COR is primarily responsible for assuring compliance with the provisions of the contract. The COR maintains communications with the vendor concerning day-to-day operation, though this may be further delegated to the Project Inspector (see below). ***The COR may represent the ACO or CO in making minor allowances which do not modify the price, or other provisions of the contract***. The COR is responsible for verifying the work performed upon which payment is based. Refer to the "Interagency Airtanker Base Directory," NFES 2537 for specific personnel and telephone numbers. Consult with state agency representatives for personnel that may be assigned this responsibility.

1. Contract File The Contracting Officers Representative should maintain a contract file. This file should consist, at a minimum of the following:

- A copy of the contract, with all contract modifications
- Delegations of authority
- A bid price summary that specifies contract costs for all pay items
- Copies of flight payment documents
- Copies of all contract daily diaries
- Correspondence from or to the CO/ ACO/ PI and the vendor



The COR may recommend to the ACO or CO proposed changes and adjustments to the contract in order to meet the demands of the work project. The COR may discuss changes or modifications in equipment or other requirements of the contract, but may not commit the Government to such changes, modifications, or adjustments without going through the Administrative Contracting Officer or Contracting Officer.

2. Assignment and/or Location.

a. U.S. Department of Agriculture-Forest Service. For Airtanker contracts, the Contracting Officers Representative is usually either the Forest Aviation Officer or the Airtanker Base Manager.

b. U.S. Department of Interior. For all Airtanker contracts, and unless otherwise stated by agreement, the Contracting Officers Representative (COR) is assigned at the Bureau's or Office's option. For example, the State Aviation Manager in the Bureau of Land Management is usually the COR.

f. Project Inspector (PI). The Project Inspector (PI) is designated by the COR to assist in implementing the COR's instructions as required. Responsibilities of the PI generally include:

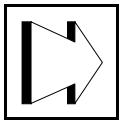
1. Verifying services performed by the vendor:

2. Ensure vendor's compliance with the contractor specifications and provisions.

3. Discussing daily work assignments and ordering service within the contract provisions.

4. Discussing problems which occur with the vendor and recommending proposed solutions to the COR.

5. Maintain Daily Diary (see Exhibit 3-17) with documentation of his/her administration of the contact. Any problems of a serious nature are brought immediately to the attention of the COR.



The PI may recommend to the COR changes or adjustments to meet the demands of the work project. The COR may discuss changes of modifications in equipment or other requirements of the contract, but may not commit the Government to any changes or modifications without going thru the Administrative Contracting Officer or Contracting Officer.

3. Assignment and/or Location.

a. U.S. Department of Agriculture- Forest Service. For all Airtanker contracts, the Project Inspector is usually assigned at the local (Forest or District) level to the Forest Aviation Officer, Airbase Manager, or Assistant Airbase Manager.

b. U.S. Department of Interior. For all Airtanker contracts, and unless otherwise stated by agreement, the Project Inspector is assigned at the Bureau's or Office's option. For example, the District Aviation Manager in the Bureau of Land Management is usually assigned Project Inspectors duties. These may also be delegated to the Airtanker Base Manager for day-to-day administration.

c. The Contract Project Inspector (PI). As a rule, the PI is the Airtanker Base Manager. The Airtanker Base Manager also acts as the on site PI for all Airtankers assigned to their base regardless of whether they are home base tankers or transient.

Chart 3-2 U.S. Department of Agriculture-Forest Service Contract Administration Table of Organization

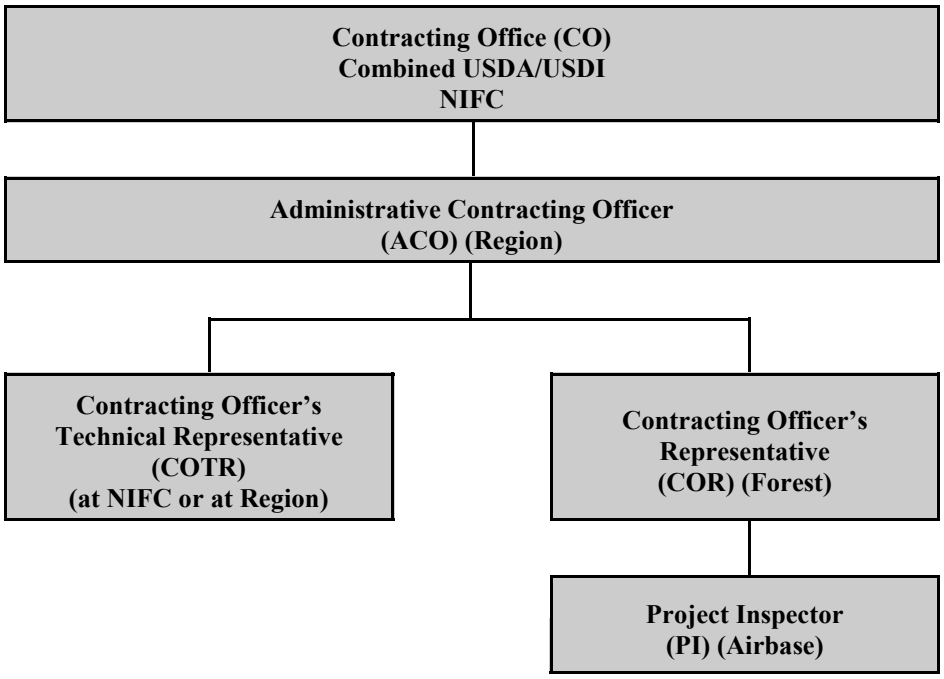
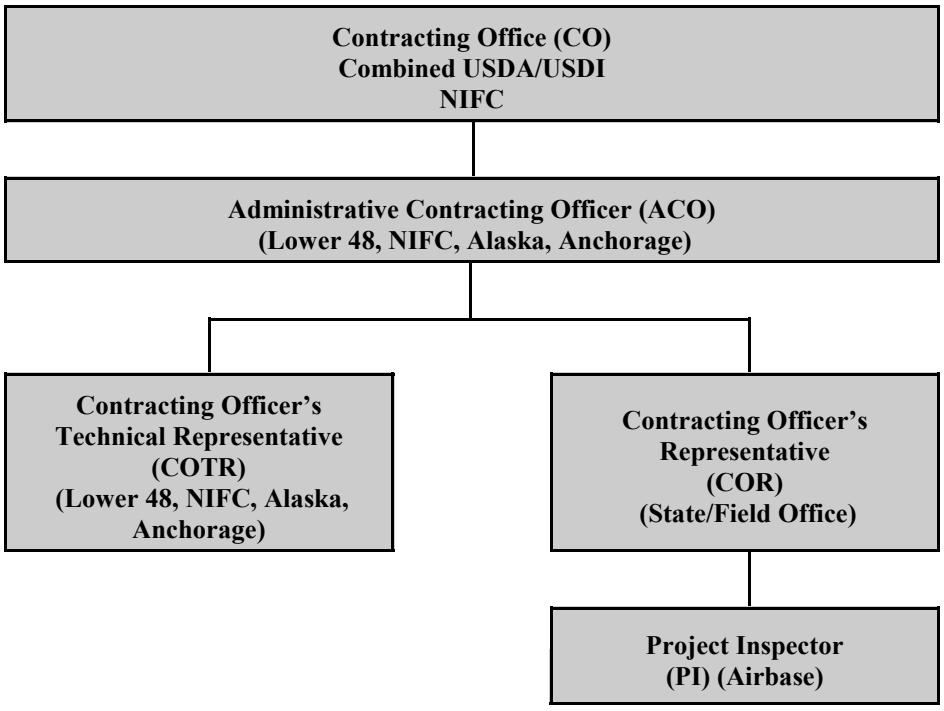


Chart 3-3 U.S. Department of the Interior Contract Administration

Table of Organization



6. **Administrative Payment Forms and Instructions.** The proper completion of flight payment documents (e.g., OAS-23, USDA 6500-122) is critical to the correct and timely payment of vendors. In addition, close attention should be paid to the processes and procedures outlined in this Chapter and the Appendices listed below. This information provides the means for agencies to meet the statutory requirements and federal policy of OMB Circular A-123 "Internal Control Review" and OMB Circular A-126, "Improving the Management and Use of Aircraft." Consult with state agency representatives for the appropriate payment forms and instructions for their contract aircraft.

   a. **USDA-FS/FS 6500-122 Flight Use Record Instructions for Completion**. See Appendix B.

   b. **USDI OAS-23 Aircraft Use Report and OAS- AR-59 Fuel and Oil Issue Record Instructions for Completion.** See Appendix C**.**

   c. **Other U.S. Department of the Interior Agencies**. Other USDI agencies may utilize the generic OAS instructions found in Appendix C.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Chapter 4

Base Facilities, Operations and Dispatch

January 2000

IV. Base Facilities, Operations, and Dispatch

A. Facilities. Airtanker Base Managers and other subject matter experts should be consulted concerning any construction of new facilities or improvements to existing ones. Refer to the "Interagency Retardant Base Planning Guide," NFES 1259 for additional information.

1. Minimum Equipment Needs. Appendix E contains a list of minimumly required and recommended at an Airtanker Base, as well as a recommended list of spare parts.

2. Communications

a. Plan. A Communication Plan shall be displayed prominently at each Base. All home Base and transient aircrews shall be briefed on communications procedures as contained in each Base's supplement to this Guide. Airbase Managers are responsible for assuring that the information is current.

b. Frequencies. A separate channel on an appropriate and authorized frequency shall be established for communications with tactical aircraft both on the ramp and inbound/outbound. Agency radio nets and air net radio shall be in service at each Airtanker Base. Frequency 123.975 MHz has been established as the standard national Airtanker Base operating frequency, through at least 2001. However, due to local restrictions the airbase frequency may differ from the national standard. The correct frequencies for each airbase and administering agency can be found in NFES 2537, Interagency Airtanker Base Directory, which is updated annually. Airbase Managers are responsible for assuring that frequency information is correct in the Directory.

c. Telephones. Commercial telephones shall be in service at each Airtanker Base. Primary Airtanker Bases (i.e., non-reload) must have a minimum of two (2) telephone lines. Reload Bases used on an occasional basis must have a minimum of one (1) telephone; however, local management should have a contingency plan for the timely expansion of phone capability during periods of heavy use.

d. Audio System. An outside system (public address type) shall be provided at each Base.

e. Ramp Communications. The Ramp Manager and Parking Tender(s) must be furnished with communication head sets (push to talk or voice activated) with which they can communicate both directly with pilots and with the Airbase Radio Operator on the local VHF- AM or VHF-FM frequency. These headsets shall be part of the Base's OSHA Hearing Conservation Plan. (See Chapter 5, Safety).

3. Lighting. Lighting shall be provided as necessary for normal base operations-off loading, mixing sight maintenance etc. Contractors will provide their own lighting kits and generator for night time aircraft maintenance.

4. Electrical System. The electrical system at the Base must provide adequate electrical power and outlets to meet both routine and emergency (power failure) needs.

5. OSHA and Hazmat Requirements. Agency Unit Administrators are responsible for assuring that facilities meet local/state/federal laws pertaining to workplace safety for employees and do not impact the welfare of the surrounding community. Airbase Managers are responsible for implementing safe work practices, procuring equipment, training, and right to know procedures for employees and contractors. Adherence to OSHA and Hazmat regulations can be complex. Airbase Managers can utilize various sources to assist them in meeting regulations such as internal agency personnel trained in OSHA/Hazmat compliance, private consultants, and regulating agencies can provide assistance on request. In addition, there are commercial sources that provide compliance information, training materials, and equipment that meet regulations. Refer to Appendix K for information that pertains to OSHA/Hazmat compliance.

6. **Safety Equipment.** Refer to Chapter 5 for safety equipment requirements.

7. **Flight Crew Accommodations and Facilities**.

   a. **Transportation and Lodging.**

      1. When transient aircrew(s) remain overnight, the Airtanker Base Manager shall arrange for transportation and lodging. Since lodging and meals (excepting situation noted below) will be paid by the flight crew, the Base Manager will coordinate arrangements for the flight crew.

      2. Vendor flight crews can be transported via government owned vehicles to and from lodging and eating facilities. POV's shall not be used to transport crew and vendor personnel. Contractor Personnel may not drive US Government owned, leased, or rented vehicles. Consult with agency Incident Administrative Coordinators for specific policy or clarification.

   b. **Standby.** Although it is impossible to establish a standard requirement for the size and type of facilities, adequate standby facilities for aircrews must be provided. Recommended standards are indicated in Appendix G, Air Attack Base Evaluation. Airbase Managers should also have a contingency plan (rental trailer, etc) that allows for expansion of the standby area during periods of high fire activity.

   c. **Food and Drink.** The following is federal interagency policy per contractual agreement. Consult with state agency manuals or directives for their respective policy.

      1. Home Based Airtanker crews are expected to provide their own lunches during regular daily Base activity (except as provided below).

      2. During days of high fire activity when the Agency deems it necessary to sustain operations, adequate meals and drink refreshments will be provided to Airtanker Crews, mechanics, and contract mixing/loading crews at the Agency's expense. Air Base Managers must ensure that the flight crew(s) have an opportunity to eat, which can include an authorized break.

8. **Reference Library.** In addition to the latest update of this Guide, each Airtanker Base should have a Reference Library that includes the following recommended publications. NFES Numbers are provided for ease of ordering through the National Fire Cache System. Airbase Managers are responsible for maintaining the most current versions of any of the documents listed. The most current Federal manuals and handbooks are the electronic versions maintained by the National Offices of the respective agency. They can be accessed thru internal mail systems or the Internet.

   NOTE: These are recommended and are to be used as appropriate by or for each individual base.

   a. Aviation Management Manuals and Handbooks (all cooperators)
   b. Contract Administration Manual or Guide for appropriate agency
   c. Interagency Incident Fire Business Management Handbook NFES 2160
   d. Health and Safety Codes for appropriate agency
   e. Federal National Airtanker Contract
   f. Call-When-Needed Fixed Wing Contracts
   g. National Long Term Retardant Contract
   h. Interagency Airtanker, Helicopter, Large Transport, and Smoke jumper Information NFES 2277 (http://fsweb.wo.fs.fed.us/agm/fire_aviation_information/misc/yellowb-pdf)
   i. Interagency Airtanker Base Directory NFES 2537 (http://www.fs.fed.us/fire/aviation/basedir.html)
   j. Interagency Single Engine Airtanker Operations Guide NFES 1844
   k. Interagency Single Engine Airtanker Forms Package NFES 1413
   l. Interagency Aviation Technical Assistance Directory NFES 2512

(http://www.aviation.fs.fed.us) (Library)

m. Interagency Retardant Base Planning Guide NFES 1259
n. National Interagency Mobilization Guide NFES 2092
o. Interagency Communications Frequency Guide NFES 0969
p. Fireline Handbook NFES 0065
q. Interagency Transport of Hazardous Materials Guide NFES 1068
r. Interagency Lead Plane Operations Guide
s. Lot Acceptance and Quality Assurance, and Field Quality Control for Retardant Chemicals NFES 1245
t. Interagency Call-When-Needed Helicopter Contract NFES 2168
u. Interagency Airspace Coordinating Guide
v. Interagency Aviation Pocket User Guides NFES 1373 (Maintain multiple copies for use for Chief of Party CWN Administrative Flights originating from Airbases).
w. Five Steps to Safe Flight Card NFES 1399 (Maintain multiple copies for CWN Administrative Flights originating from Airbases)
x. National Road Atlas
y. National /Regional/State/Unit Aviation Plans
z. USDA Forest Service MAFFS Guide
aa. Military Use Handbook NFES 2175
bb. Geographic Area Mobilization and local Plans from appropriate agencies
cc. Local Preattack/Dispatch/Flight Hazard Maps
dd. Incident/Accident (Aircraft Emergency Response) Action Plan
ee. Aviation Fuel Handling Handbook USDI 351 DM 1
ff. Standard for Aircraft Fuel Servicing NFPA 407
gg. Airport/Facility Directory, U.S. Department of Commerce, F.A.A.
hh. Federal Aviation Regulations and Aeronautical Information Manual
ii. Training Course Material (including applicable videos)
jj. OSHA Field Guide, Manual and Handbooks
kk. Interagency Helicopter Operations Guide (NFES 1885). Forms (NFES 1887)
ll. Lessons Learned in Forest Service. Aviation NFES 1216, Part I, NFES 2576, Part II (Video)
mm. Personal Protective Equipment, NFES 2574 (Video)
nn. 10 Principles of Retardant Application Cards, NFES 2048
oo. Twelve Standard Aviation Questions that Shot Watch Out Cards, NFES 1129
pp. Winds, Wires, and Weight, NFES 1211 (Video)
qq. Aircraft Identification Guide, NFES 2393
rr. First Air Treatment Guide

B. Operations.

1. General. Good communications, daily briefings, on-the-job training, and a demonstrated concern for safety are key factors in ensuring the safety and efficiency of Airtanker base operations. The following operational procedures must be followed at all Airtanker bases.

2. Environmental Concerns.

a. Base Operations. Agencies operating or who contract for the operation of retardant plants are responsible for ensuring compliance with local, state, and federal regulations pertaining to hazardous material spillage containment and disposal. These regulations can be found through your local State, Federal EPA or OSHA Agencies. The local dispatch facility can provide this information. This information should be identified/documented by dispatch and relayed to the Airtanker Base when Airtankers are dispatched to local unit fires.

b. Retardant Dropping in Sensitive Areas. These areas should be clearly marked on base dispatch maps. The Dispatcher should also relay this information at time of dispatch. Before applying fire retardant and in order to avoid contamination, pilots shall review the locations of:

- # Any domestic water supply intakes
- # Fish hatcheries
- # Noise abatement or noise-sensitive areas
- # Other sensitive areas

3. Retardant Operations.

a. References. Retardant operations shall be governed by those standard operating requirements and procedures found in:

- # Lot Acceptance, Quality Assurance, and Field Quality Control for Fire Retardant Chemicals, (NWCG Publication, PMS-444-1, April 1995, National Interagency Fire Center, NFES #1245)
- # NWCG Airtanker Base Planning Guide, (NWCG Publication PMS-440-1, March 1995, National Interagency Fire Center, NFES #1259)
- # Local Airtanker Base Supplements
- # Fire Retardant Standard Mixing System, Forest Service, San Dimas Technology & Development Center, August 1999

b. Retardant Testing. Follow direction given in Lot Acceptance, Quality Assurance, and Field Quality Control for Fire Retardant Chemicals.

4. Parking.

a. Parking areas for home-base aircraft shall be discussed and determined at the pre-work conference. The Airtanker Base Manager shall assign the designated parking areas and shall ensure a map is posted showing these locations.

b. Provisions should be made with local authorities to obtain adequate parking space to accommodate additional aircraft during periods of heavy fire activity. Parking for out-of-service or days-off Airtankers should also be identified.

c. It is recommended that, where possible, nose wheel and/or left main gear markings should be painted in loading positions for longest aircraft commonly in use. FAA standards for markings on the ramp shall be adopted. Regardless of whether markings are painted, the Parking Tender shall use standard hand signals (see Exhibit A-1) to park aircraft.

d. The Parking Tender shall wear a high-visibility vest at all times when working on the ramp.

5. Preflight Checks. At the beginning of each duty day, the flight crew is expected to conduct checks as appropriate for their aircraft. In California, CDF (California Division of Forestry) pilots may be required to start engines at the beginning of each day. In addition, the following shall be checked:

- # Radios and frequencies
- # Loran and/or GPS equipment (calibration)

6. Loading.

a. The Loading Crew, Ramp Manager, and Parking Tender(s) are the <u>only personnel permitted</u> on the ramp during aircraft operations.

b. During loading and fueling operations, and prior to taxi, a visual safety check is to be conducted by

mixing, loading, and parking personnel.

c. Fueling crews shall be permitted on the ramp only prior to or after loading operations. The two operations, loading and fueling, **shall not** be accomplished simultaneously.

d. The Retardant Loading Crew shall wear hearing protection, eye protection, and high-visibility clothing. This clothing should contrast with the color of the Parking Tender's vest. Shoes with non-skid soles may be worn. Hard hats are at local unit option.

e. Loading aircraft with engines running shall NOT be permitted except when all personnel involved have been trained in the procedures contained in Appendix F, "Retardant Hot Loading Procedures."

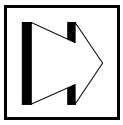
7. Fueling[5]. The Airtanker Base Manager will ensure that all aircraft fueling operations comply with NFPA 407, Standard for Aircraft Fuel Servicing.

a. Visual Safety Check. During loading and fueling operations, and prior to taxi, a visual safety check of the Airtanker is to be conducted by loading and parking personnel.

b. Simultaneous Loading and Fueling. The simultaneous fueling and loading of aircraft is prohibited. One operation must be fully completed before the other operation commences because of the possibility of static electricity build-up. Fixed Base Operators and other fuellers should be made aware of this restriction prior to the season start. This policy shall not be altered in any manner by any Geographic Area or Airtanker base.

c. Obtaining Fuel Services. The Airtanker Base Manager shall work with the Vendor, airport officials, fixed-base operators, and local distributors to ensure the best possible fueling services are being provided at the lowest cost to the Government. Managers should perform contingency planning for extreme, high-activity situations.

d. High-Density Operations. If working large numbers of aircraft, consider alternate bases for reloading/refueling some aircraft. This will avoid congestion and resultant delays.

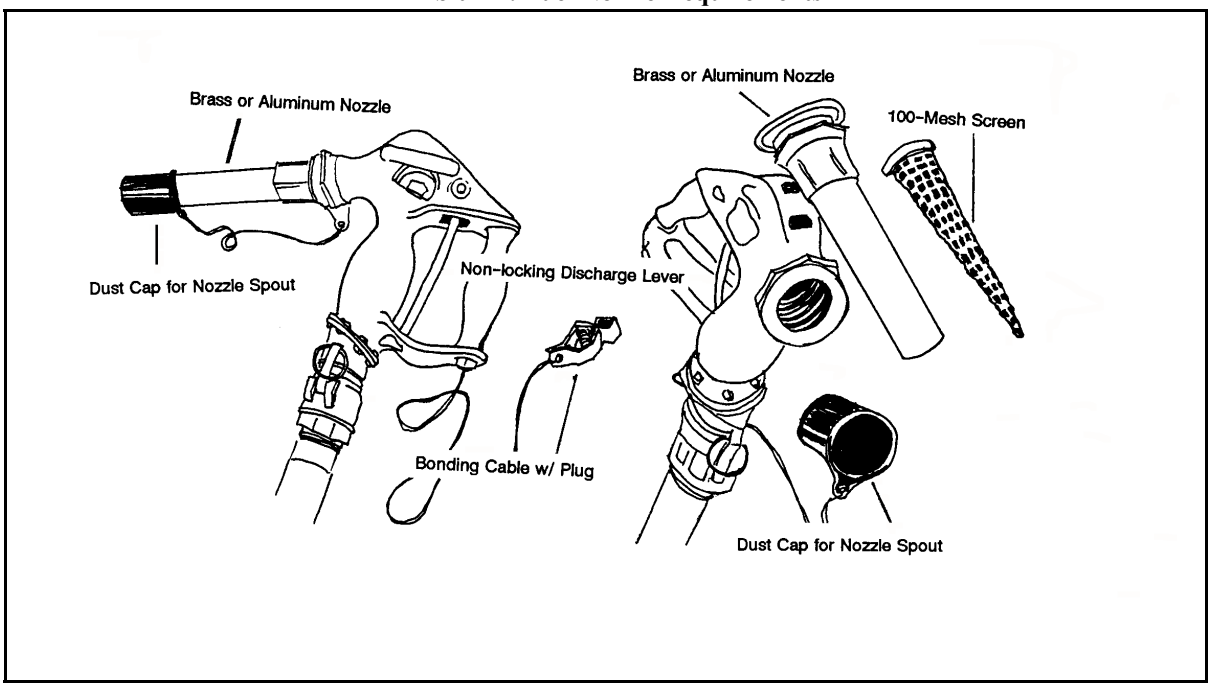


WARNING: **Static electricity builds up on an aircraft as the aircraft moves through the air. Static electricity also builds up on the refueling equipment when the fuel is pumped through the hoses. The aircraft, fuel nozzle, and pump assembly must be bonded to prevent sparks and explosions. Static electricity buildup is greater in cold, dry air than in warm, moist air.**

e. Bonding Procedure. Bonding procedures shall be enforced by all personnel. Bonding involved connecting two or more metallic objects together by means of a conductor that equalizes the electrostatic potential between the objects. Bonding aircraft to the fuel nozzle, prior to removing the fuel cap, is a required safe practice.

[5] Excellent material on fueling operations is contained in "Aircraft Rescue and Fire Fighting," 3rd Edition, International Fire Service Training Association, Oklahoma State University, 1992. This publication should be part of the Airtanker Base Reference Library.

Exhibit 4-1: Fuel Nozzle Requirements



f. Wash-Down of Ramp. The Ramp Manager should ensure, on a daily or as needed basis, that all oil, fuel, and other material is washed from ramp areas according to environmental requirements and constraints. Use of an aviation-grade detergent for "cutting" oil is recommended. Flight crews should assist the Ramp Manager during slow periods.

8. Starting The Aircraft. Except in an emergency, pilots shall not start aircraft engines without the supervision of a Parking Tender.

9. Releasing the Aircraft.

a. The Parking Tender is responsible for releasing the aircraft.

b. Before releasing aircraft, Parking Tender shall ensure Retardant Load Crew Member has installed tank cap and overflow plug and has pulled loading hose completely clear of ramp.

c. Loader, if functioning also as Parking Tender, shall then go to designated location in view of Command pilot, signal "Start Engines", and wave the aircraft off.

10. Miscellaneous.

a. Vehicles.

Vehicles in the ramp/pit area must be kept to the minimum necessary for the operation.

The Airtanker Base Manager shall determine which vehicles are allowed on the ramp. When required by airport and or Agency, all vehicles shall display a ramp pass issued by the Airtanker Base Manager or his/her representative.

b. Visitors.

Before being allowed onto the ramp, visitors must obtain permission from the Airtanker Base Manager or his/her representative and be given a safety briefing. Visitors shall be escorted by agency or contractor personnel. Where airport security requires, visitors will be provided a clip-on Visitor Ramp Pass.

Visitors will be provided appropriate safety equipment, including hearing protection.

If possible, members of the press shall be escorted by a Public Affairs Officer.

Visitors will remain clear of parking ramps, aircraft, pits, and retardant plant when loading operations are being conducted.

Visitors and the public, while visiting the base to observe operations, shall be directed to and confined to a designated public view area.

C. Dispatch Procedures.

1. **Pre-Dispatch Briefings and Orientation.** Each Regional or State Airtanker Base Supplement should address the areas outlined in Appendix H. The Airtanker Base Manager is responsible for covering these areas of safety during the pre-work conference for home-base Airtanker crews. Appendix L should be reviewed in morning briefings with transient fight crews.

2. **Dispatch/Reaction Times.** The standard 15-minute reaction times as specified in most contracts which begins ***AFTER*** the loading process has been completed will not apply for delays caused by local air traffic, planning for extended dispatches, flights to be made under Instrument Flight Rules (IFR), and other causes beyond the pilot's control.

3. **Standard Flight Resource Order Information.** Upon initial dispatch, tactical aircraft crews (air-tanker, lead plane, and air attack pilots) should be provided with the information on Form ATB-3, Incident Information Resource Order: Tactical Fixed-Wing (see Chapter 3). The use of this form is recommended. If the completed form cannot be physically given to the pilot, information may be provided via radio during taxi or after takeoff.

   The dispatch office will provide this information to the Airtanker Base Manager or Radio Operator. Procedures should be reviewed with Dispatch *prior to the start of each fire season*. Numbers on the form correspond to the numbers on the Resource Order form, NFES 2200. See Chapter 3 for additional information.

4. **Communications.**

   a. Appropriate frequencies will be monitored and used for initial dispatch, and for contact with Airtankers, Airtanker bases, lead planes, air attack, Incident Commanders and dispatchers.

   b. When dispatched to an incident, Airtankers shall maintain radio contact at all times with either the Airtanker Coordinator, Air Tactical Group Supervisor, Airtanker Base, or Dispatcher.

   c. Information on the base's Aircraft Communications Plan should be fully discussed at pre-dispatch briefings. Frequencies in use shall be clearly posted for both Dispatcher and pilot reference.

   d. Except in the event of an emergency, retardant shall not be dropped unless communications can be established with personnel in the vicinity of the drop area. This does not apply to un-staffed portions of an incident.

5. **Dispatch Rotation and Priority.** To ensure a fair and equitable rotation of Airtankers, the following policy has been created, and will be adhered to by all Airtanker Bases.

   a. Airtankers normally assigned to the tanker base (home-base) shall be first out each day, including those returning from day(s) off. Thereafter, all other Airtankers will be dispatched in rotation, except when:

      1. The next Airtanker in rotation has an operating restriction at the new base,

      2. A demonstrated benefit to the agency would be realized by changing the rotation. Reasons for interruption of the normal rotation will be communicated to all aircrews.

      3. States determine that state-operated Airtankers will be dispatched to initial-attack fires, except for federal incidents.

   b. Transient aircraft coming on after day(s) off shall go to the end of the rotation.

   c. Additional Airtankers brought on to supplement the regular Airtanker fleet shall fall into rotation after contract air tankers each day. This applies to Airtankers, foreign or domestic, hired or operationally employed outside the Agency's contract.

6. **Airtanker Dispatch Limitations**. To reduce the hazards of Airtanker retardant drops in the early morning and late afternoon hours, comply with the limitations on times when Airtankers may drop retardants on fires. The following limitations apply to the time the aircraft arrives over the fire to conduct the drop, not to the time the aircraft is dispatched from a base. Dispatchers and Airtanker Base Managers, in consultation with Airtanker Coordinators or Air Tactical Group Supervisors, are mutually responsible for ensuring these limitations are not exceeded. The following shall apply (refer to Chart IV-1):

   a. Limitations. Normally, Airtankers shall be dispatched to arrive over a fire not earlier than 30 minutes after official sunrise and not later than 30 minutes before official sunset.

   b. Exceptions. Airtankers may arrive over a fire as early as 30 minutes prior to official sunrise and may drop as late as 30 minutes after official sunset provided that a qualified Air Tactical Group Supervisor (ATGS), Airtanker Coordinator (ATC) or Lead Plane Pilot, is on the scene.

      1. Has determined with concurrence with Pilot-in-command, that visibility and other safety factors are suitable for dropping retardant; and,

      2. Notifies the appropriate dispatcher of this determination.

   c. Determination of Official Sunrise, Start up, Cut off, and Sunset Times. Each Airtanker Base and Dispatch Office shall have tables showing the official sunrise, start up, cut off, and sunset times at those locations.

   d. Determinations for Airtanker Dispatch. For Airtanker dispatch, use the official sunrise, start up, cut off, and sunset times of the Airtanker Base nearest the fire and comply with the limitations in the preceding paragraphs.

   e. Internet Address: http://aa.usno.navy.mil/aa/data

Chart 4-1: Aerial Supervision Limitations

30 Minutes Prior to Sunrise	Until	**30 Minutes after Sunrise**	**30 Minutes after Sunrise to 30 Minutes Prior to Sunset**	**30 Minutes Prior to Sunset**	Until	**30 Minutes after Sunset**
Air Tactical Supervisor or Airtanker Coordinator Required			Normal Agency Policy on Supervision Applies	Air Tactical Supervisor or Airtanker Coordinator Required		

D. Single Engine Airtanker (SEAT) Procedures. For all SEAT operations, refer to the Interagency Single Engine Airtanker Base Operations Guide, NFES #1844 dated April 1999. Refer to Appendix I for additional guidance on the use of these aircraft. These procedures are approved for use by USDA-FS and USDI agencies. State agencies shall adhere to their own specific operating plans.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Chapter 5

Safety

January 2000

V. SAFETY. Airtanker base and Airtanker safety is a cooperative effort between pilots, mechanics, fixed base operators, other contract personnel, and government employees assigned to the base. Safety is also an individual responsibility for which each person is accountable. In no circumstance will safety be compromised.

A. Pre-work Conferences. Pre-work conferences are an excellent forum in which to discuss safety and initiate safe teamwork with vendor and agency pilots.

1. All Airtanker crew members should attend contract pre-work conferences and briefings. (Contract only requires Pilot-in-command.)

2. All pertinent base personnel who would benefit should attend the Airtanker Contract Pre-work Meeting.

3. The Interagency Airtanker Base Operations Guide and the local base supplement should be addressed in depth.

4. All air tactical procedures shall be reviewed.

B. Airtanker Base Evaluations. All Airtanker bases should be evaluated on at least a biennial basis using the Airtanker Base Readiness Evaluation (see Appendix G).

1. Use of the Evaluation. The Airtanker Base Readiness Evaluation is used for both pre-season and as-needed (spot) evaluations of Airtanker bases. The results of the inspection should be reviewed with the local fire staff of the agency(ies) operating the Airtanker base. Deficiencies in training should be corrected within a reasonable time frame. Deficiencies in critical areas of safety must be corrected immediately. Evaluations will be provided to Forest, State and Regional Offices for review and line officer accountability.

2. Evaluation Team. Where possible, the evaluation team should be interagency in nature. Technical specialists with expertise in the areas of retardant operations and airtankers should be part of the team.

C. Aerial Hazard Maps. Each Airtanker base shall have an aeronautical chart noting "Known Aerial Hazards" within its zone of influence posted prominently for use by aircrews.

1. The map shall be updated annually and as needed, with last revision date indicated on the map.

2. The Hazard Map shall include the following:

   # Power lines and Towers. If aeronautical charts are being used (e.g., Sectionals) then these hazards should be highlighted on these charts.

   # Wires and Power lines not marked on standard aeronautical charts.

   # Military Training Routes (MTRs) and Special-Use Airspace.

   # Identifiable areas of extreme turbulence

   # Other Known Hazards

   # A key identifying type of hazard; date of the map's last revision.

3. The Airtanker Base Manager is responsible to ensure that briefings for all assigned crews, home-base and transient, concerning local known hazards are completed daily.

D. Airspace Coordination. Airtanker Base Managers and pilots shall ensure that operations are conducted in accordance with the Interagency Airspace Coordination Guide, a current copy of which must be maintained at each base. Refer to this guide for procedures, duties, and responsibilities. Many bases are now using the IAMS Computer-Aided Aviation Hazard Information System to generate both dispatch, hazard and airspace information. This is permissible, provided the data has been updated from the Internet.

E. Crash-Rescue Planning and Equipment.

1. Aircraft Incident/Accident (Emergency Response) Action Plans.

a. Each base shall develop and annually update an Incident/Accident Action Plan. Local airfield and community capability to respond to aircraft accidents and/or fuel fires should be built into the plan.

b. The Plan shall be prominently posted in the Airtanker base dispatch office.

c. Airtanker base personnel shall be familiar with and trained in the plan's use in the event of an emergency on or off the airfield.

2. Crash-Rescue Equipment.

a. Fire Extinguishers. Each base will have one aircraft-type CO_2 extinguisher (minimum 20 pound) located at each loading port, as well as at the identified aircraft fueling location.

NOTE: NFPA 407 and the IA ATB Planning Guide list guidelines in extinguisher capacity requirements.

1. Base personnel shall have knowledge of and training in the use of fire extinguishers for aircraft fires.

2. Base personnel should remember that it is beyond their capability and training to extinguish more than the very smallest of fires. The capability and knowledge to activate trained emergency-response personnel quickly should be a top training priority.

3. Most Airtankers have an on-board fire extinguishing system which should be able to handle most engine fires. An external fire extinguisher should never be used on an engine fire while the engine is turning, as the engine will blow out an exhaust stack fire when it is restarted. The Ramp Manager should signal the pilot that a fire has occurred, standby with portable fire extinguisher, and utilize it only upon pilot request and at his/her direction.

b. Local Crash-Rescue Organization. Local crash-rescue equipment and procedures for activation shall be included in the Incident/Accident Action Plan and in the Local Base Supplement. The Plan should also address the responsibility and chain-of-command in the event of an on-field accident or fueling mishap.

1. Supplemental crash rescue equipment, if not available on the airfield, should be ordered through the dispatch system during periods of high activity. Local military airbases are an excellent source.

c. Ramp Procedures.

(1) Fire lanes shall remain clear for fire and rescue vehicles.

(2) Ramp spills shall be cleaned up immediately. The aircraft should be shut down, the situation evaluated, and appropriate action taken.

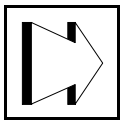
F. Hazard, Incident, And Accident Reporting. (See Appendix C and D).

1. All occurrences shall be reported promptly per notification requirements (see Chapter 3).

2. Definitions of and the process for reporting of aircraft accidents, incidents, or hazards are outlined in FSM 5720 and USDI DM 350-354. Examples of reporting forms are in Chapter 3 of the guide.

3. Airtanker base personnel must remember that the hazard, incident, or accident is officially reported by the agency with operational control of the aircraft at the time of the occurrence.

4. There are situations when the agency with operational control of the incident and incident aircraft may not be aware that an incident or malfunction has occurred.



Example: Nevada BLM Airtanker flies on a USDA-FS incident in California, makes a successful drop, but develops an engine malfunction when returning for another load. Since the USDA-FS had operation control at the time of the aircraft incident, the report should be filed by the USDA-FS utilizing the SAFECOM reporting form.

However, the Forest Service may not be aware that a malfunction occurred, since it was reported upon arrival back to a BLM Airtanker Base. In this case, the BLM Nevada Airtanker Base Manager gathers the information using the SAFECOM form and routes it to the appropriate Forest Service office.

5. If doubt exists as to whether or not an occurrence should be classified as an aircraft incident or accident, treat it as an accident. The final determination shall be made by the appropriate agency aviation safety officer.

G. Proficiency Flights. In order to maintain airplane readiness for flight and crew proficiency, during operation under the contract, the government may order flights in accordance with Forest Service Handbook 5709.16. The Handbook will be made available to the Contractor, for reference at the Airtanker Base. These flights, when authorized by the government, will be paid as ordered flights.

1. USDA-FS and USDI. FSH 5109.16.35.7. Airtanker Flight Crew Proficiency Flights. Airtanker Pilots-in-command, co-pilots, and flight engineers (when applicable), shall maintain flight crew readiness and proficiency requirements and must fly a minimum of 20 minutes during any 15-day period. Ferry time, training, or fire-related flying may count toward meeting this requirement.

2. Other Agencies: Proficiency flights shall be performed IAW agency policy and contracts.

3. Flights: All flights should be under the direction of a qualified observer in accordance with each agency's policy. The following operations may be included in the proficiency flight:

Minimum of 3 drops from different directions in an area designated by the managing agency

A minimum of one takeoff and landing

Applicable emergency procedures

Instrument proficiency (IFR approaches should be considered during proficiency flights when the

airport has published approach plates

H. Dropping On or Near Congested Areas. USFS policy and exemptions require a Lead Plane when dropping on or near congested areas. Exemptions granted to agencies by the Federal Aviation Administration should be fully covered during the prework conference(s) and pilot briefings at each Airtanker Base.

I. Landing With Full or Partial Load. Reference the contracting agency's Airtanker contract and Base Supplements.

J. Base Safety Requirements. Base requirements should be covered extensively during the inspection process. OSHA "General Duty Clause" standards will be followed in all cases. These include but are not limited to:

1. A permanent ladder and safety railings shall be on all walkways on tanks.

2. Skid-proof paint shall be applied to all walkways on tanks.

3. Pump shafts shall have guards.

4. All electrical equipment shall be properly grounded.

5. Cautionary signs (no smoking, hazardous area, no entry, etc.) shall be posted in appropriate places on the base and ramp.

6. Wash retardant off the ramp area as soon as possible after the aircraft has been loaded.

7. Eyewash and emergency shower facilities must be provided. It must be located in proximity to mixing and loading operations.

K. Personal Protective Equipment. It is the Airtanker Base Manager's responsibility to train personnel in use of protective equipment. If respirators are used at a base, then an OSHA Respirator Plan must be in place.

1. Ramp Personnel. Personnel working on the ramp shall wear ear and eye protection, as well as high-visibility clothing differing in color from that of the Parking Tender. Footwear with non-skid soles should be worn. Use of hard hats is at the option of the local unit.

2. Parking Tender. In addition, the Parking Tender shall wear a high-visibility vest.

3. Audio Levels. Audio levels in the base dispatch office and other office areas should be evaluated. If OSHA standards are exceeded, additional protective measures must be taken. See Hearing Safety at Airtanker Bases, USDA Forest Service, Technology and Development Center, San Dimas, California, 5700 Aviation September 1999 9957-1205 SDTDC.

Chart 5-1 Audio Levels

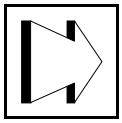
Source of Sound and Noise	Level (dB)
Whispered Voice	20-30
Urban Home, Average Office	40-60
Average Male Conversation	60-65
Noisy Office, Low Traffic Street	60-80
Jet Transports (Cabins)	60-88
Small Propeller Plane (Cockpit)	70-90
Public Address (PA) Systems	90-100
Busy City Street	80-100
Single Rotor Helicopter (Cockpit)	80-102
Power Lawn Mower, Chainsaw	100-110
Snowmobile, Thunder	110-120
Rock Concert	115-120
Jet Engine (Proximity)	130-160

Noise Level (dBA)	Exposure Limit (hour per day)
90	8
92	6
95	4
97	3
100	2
102	1.5
105	1
110	.5
115	.25

L. Fuel Spills.[6] The information in this section is consistent with National Fire Protection Association (NFPA) Publication 407-90, " Aircraft Fuel Servicing."

Fuel spills are often the result of improper or careless operation of fueling equipment and lack of preventive maintenance of the fueling equipment. Self-discipline on the part of every person responsible for fueling is required to prevent fuel spillage. Personnel shall follow the guidelines listed below.

Procedures for handling fuel spills are subject to the regulations and procedures established by the authority having jurisdiction.



NOTE: Report all spills immediately; do not attempt to hide the fact that a spill occurred. There are severe civil and criminal penalties if a spill is not reported promptly.

Every fuel spill involves several variables: the size of the spill, terrain, equipment, weather conditions, flammable liquid, aircraft occupancy, and emergency equipment and personnel available. Therefore, each incident may be somewhat unique, but certain general principles apply in all cases.

1. Prevention.

a. Devote full attention to the fueling operation.

b. Never leave any fuel nozzle unattended.

c. Never tie or wedge the nozzle trigger in an open position.

d. Frequently check the amount of fuel in the tank to prevent overfilling.

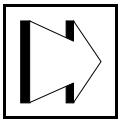
e. Pumps, hand- or power-operated, shall be used when aircraft are fueled from drums. Pouring or gravity flow shall not be permitted.

f. Kinks and short loops in fueling hose should be avoided.

g. At remote refueling locations using portable fueling equipment, sandbags should be used to elevate the fittings to facilitate pre-operational checks and detection of fuel leaks.

h. At remote refueling locations using portable fueling equipment, construct a berm around the fuel bladder to contain fuel in case of rupture for both temporary and semi-permanent systems.

2. Mitigation and Procedures In The Event Of A Spill. If a fuel leak develops or a fuel spill occurs during aircraft servicing, initiate the following emergency procedures without delay:



WARNING: During any spill or leak, extreme caution must be exercised to avoid actions that could provide ignition sources for the fuel vapors.

[6] Parts of this section are paraphrased from Aircraft Rescue and Fire Fighting, 3rd Edition, International Fire Service Training Association, Oklahoma State University, 1992. Permission to reprint is on file.

a. Maintain, keep current, and post a spill contingency plan (the procedures outlined below, with the addition of local, specific material, will suffice).

b. If the leak continues or the spill is a large one, all nonessential personnel should leave the area immediately until the hazard is neutralized, repairs are made, and the area is safe.

c. Alert the airport fire crews or follow established emergency procedures applicable to a remote fueling operation.

d. Stop the flow of fuel and the fueling operation immediately upon discovering leakage or spillage:

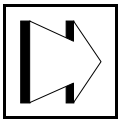
   1. If fuel is leaking or spilling from a fuel servicing hose or equipment, the emergency fuel shutoff valve must be actuated immediately.

   2. If the fuel is leaking or spilling from an aircraft at the filler opening, vent line, or tank seam, fuel delivery must be stopped immediately.

e. In addition, all electrical power to the aircraft should be shut down, and the aircraft should be evacuated.

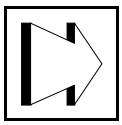
f. Before the aircraft is put back into service, it must be thoroughly checked for damage and for flammable vapors that may have entered concealed wing or fuselage areas.

g. Small spills involving an area less than 18 inches in any plane dimension normally involve minor danger. However, personnel manning fire extinguishers during start-up procedures should stand by until the aircraft departs the area of the spill because engine exhaust could ignite the spill. These spills contain such a small amount of fuel that they may be absorbed, picked up, and placed in an approved container.



Danger: Never operate an electric truck or cart (golf cart) near a fueling operation or fuel spill. The speed controller can be an ignition source.

h. Other small or medium static spills - not over 10 feet in any dimension nor over 50 square feet in area - a fire watch should be posted. The fire watch should have one or more fire extinguishers with at least a 20:BC rating. Local regulations and procedures must be followed, but in most cases absorbent materials or emulsion compounds should be used to absorb the spilled fuel, especially if aviation gasoline (AvGas) or low flash point fuels are involved. The contaminated absorbent should be picked up and placed in an approved container to await disposal.



NOTE: Aircraft fuels will damage some types of ramp surfaces, so spilled fuel should be contained and picked up as quickly as possible.

i. Large spills - over 10 feet in any dimension or over 50 square feet in area - or smaller spills continuing to enlarge should be handled by the fire department, or if in a remote location, by a ground engine. Anyone in the area of a large spill should move upwind of the spill at once.

j. All fuel spills occurring as a result of a collision should be blanketed with foam to prevent ignition and to prevent damage to the aircraft or other exposures.

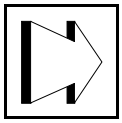
3. **Fuel Spillage On Personnel.** If the fuel handlers' clothing becomes soaked with fuel, the individual should:

   # The individual affected should leave the refueling area immediately.

   # The act of removing clothing creates static electricity. Wet the clothes with water before removing. If water is not available, they should hold onto a grounded grounding rod to prevent sparks when they remove their clothes.

   # Wash fuel off skin with soap and water as soon as possible.

   # Seek medical attention immediately.



WARNING: Entering a warm room wearing fuel-soaked clothing can be dangerous. Chances of a fire starting because of static electricity are increased.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix A

Discussion of Hand Signals for Airtanker Base Ramp Operations

January 2000

Appendix A: Discussion of Hand Signals for Airtanker Base Ramp Operations

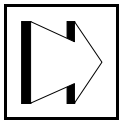
The Parking Tender is an essential position on the ramp. The proper taxiing of aircraft by hand signals at an Airtanker base is a critical element of safety and efficiency. If done properly it provides personnel and aircraft safety on the ramp, ease of ground operations of all types of equipment on the ramp, and keeps radio frequencies clear for emergency traffic.

All Airtanker base personnel whose job description requires, or who may be required to taxi aircraft due to fluctuating personnel demands during operations, must be proficient at taxi direction signals. It is equally important that taxi signals be standard at all Airtanker bases since pilots understand the same signals. Hand signals universally understood by pilots are those used by the military. There is a tendency to "personalize" signals. However, this must be avoided since it leads to confusion, especially with pilots from other bases. See Exhibit A-1 for a depiction of all standard hand signals.

Parking Tenders should be equipped appropriately for recognizability and safety. Chapter 5 specifies required personal protective equipment. Additional insert-in-ear plugs are also recommended for all those working around the ramp, since a radio headset/microphone may not be sufficient hearing protection from the noise levels generated by some turbine aircraft.

Due to the loss of depth perception at night, these signals should be the same for day and night taxiing, with the addition of lighted wands for night operations.

Make sure your signals are clear at all times. When one wishes to expedite the movement of an aircraft, one should speed up the motions described above. However, the movement of aircraft in close quarters usually dictates that an aircraft be moved slowly since they are hard to stop. Remember, until a pilot knows the difference between your "slow" and "fast" motions, keep motions slow and apply this to all pilots.



If in doubt as to pilot's intentions or understanding of your signals, or if the pilot does not follow your directions, stop the aircraft in position. If the pilot is unsure about your directions, he/she will stop the aircraft in position.

Communicate Through Accurate, Visible Hand Signals.

EXHIBIT A-1: AIRTANKER BASE RAMP OPERATIONS HAND SIGNALS

Park Facing Me

When aircraft needs to be directed to a particular parking spot, such as a loading pit or overnight parking spot, the Parking Tender will be stationed so that he/she faces the aircraft's final intended parking position, indicating such as by pointing straight up to straight down with both arms at full extension slowly in the vertical plane towards the front of one's body.

If necessary, look over one's shoulder to ensure the pilot is continually proceeding to the parking spot and to maintain eye contact.

When taxiing aircraft, it is important that the Parking Tender establish and maintain eye contact with the pilot. One must remember that as a "tall" aircraft approaches the parking tender, that person passes below the cockpit horizon. Move back as the aircraft gets closer so that eye contact is maintained.

Two Parking Tenders During Towing, Congested Operations, Etc.

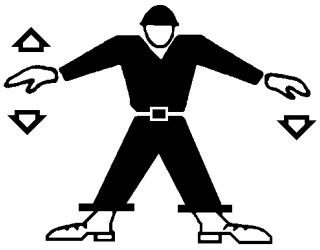
Use of an additional Parking Tender to guide an aircraft to the parking spot is highly recommended when there is considerable moving traffic, a crowded ramp, extensive taxiing is required, visibility is restricted, this is the first visit for the aircraft at the particular base, or a towing operation is being conducted.

Moving An Aircraft Straight Ahead

COME AHEAD

The hand signal for moving an aircraft straight ahead is the raising and lowering of both hands in the vertical plane at the same time, arms bending at the elbows, upper arms held parallel to the ground and pointed from the sides of one's body.

Slowing An Aircraft Down



SLOW DOWN

Slowing an aircraft's speed is done by moving one's hands up and down slowly, from shoulder height to hip height, palms held downwards, until the aircraft is moving slowly enough for one to safely direct. At night, palms held downwards are difficult to see, so one must point the wands towards the ground while performing this signal.

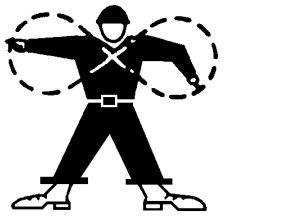
Hot Brakes

HOT BRAKES
Fans face - Points to brake

Occasionally, quick stops on the runway and/or fast taxiing to the ramp result in hot brakes which are indicated by brake squeal, smoke from the main landing gear wheel assembly, or flames in the same area. The last two indications dictate that this aircraft not be moved into the pit if there is a possibility of the aircraft being disabled in the pit.

Instead, direct the aircraft to a clear parking area. If the aircraft is to be taxied into the pit, be alert to fire and tire explosion danger. Indicate to the pilot the hot brake condition by pointing a hand/wand at the hot brake and fanning one's nose with the other hand/wand.

Brake (or Engine) Fire



ENGINE / BRAKE FIRE
Describes a large figure eight with one hand and points to the fire with the other hand

If the condition worsens and a fire results, point a hand or wand at the now burning brake assembly and wave large, quick figure "8" motions in front of one's chest. Be alert to any emergency. Stop the aircraft in position if necessary. Note that this indication is the same for any fire.

Taxi or parking guidelines delineating the normal path to a spot should be painted on the ramp. This is not always possible, requiring that the Parking Tender be able to turn the aircraft with hand signals. The signal for a turn is pointing with one hand/wand to one main landing gear wheel and moving the other hand/wand, arm bending at the elbow, upper arm held horizontally and to one's side, slowly in the vertical plane.

Turn Left

To turn the aircraft left, point to the left main landing gear wheel with the right arm and move the left hand as described above.

Turn Right

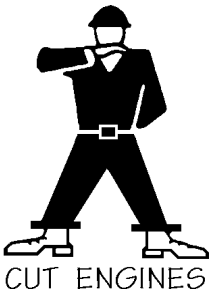
To turn the aircraft right, point to the right main landing gear wheel with the left arm and move the right arm as described above.

Emergency Stop
And Normal Stop

Normal Stop is indicated by crossed hands/wands, over head.

Emergency Stop, should this be necessary, is indicated by the stop signal moved rapidly up and down in front of one's face and shoulders. At night, crossed wands means stop. If the aircraft does not respond to the emergency stop signal, **EVACUATE** the immediate area expeditiously.

Cut Engines



Upon stopping the aircraft in the desired spot, indicate to the pilot that he may shut down the engines by "cutting one's throat" with one hand/wand, the other hand/wand held behind one's back.

Insert Chocks

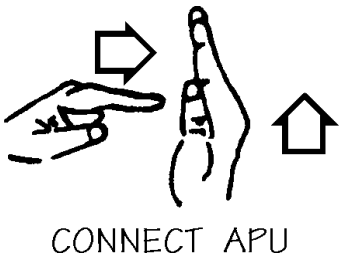
Also indicate at this time that chocks are now or soon to be inserted under the wheels by moving the closed fist with thumb extended (hitchhiking signal)/wand pointing towards one's hips at hip height.

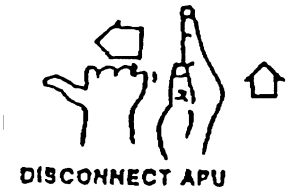
All Clear

The "ALL CLEAR" signal will indicate to the pilot that the area is clear. Raise the right hand and hold steady above and out from the head.

Connect APU

When starting aircraft, an auxiliary power unit (APU) is sometimes required. To indicate APU connection, one points repeatedly with an index finger to a raised, flat palm of the other hand until the pilot acknowledges.





To indicate an APU disconnect at the end of the start sequence, one uses a fist with extended thumb (the hitchhiking signal) moving away from the raised, flat palm of the other hand. At night, pointing one wand and held vertically will be used for each respective signal.

Start Engines

The indicator to start engines is made by raising one hand above one's head at full extension and moving it in small circles slowly. The other arm is positioned behind one's back. At night a lighted wand will be raised and moved in small circles, the second wand held behind one's back. pilots will acknowledge with a blinking taxi light or flashlight from the cockpit and starting will commence. To indicate clearance to start a particular engine, one points to an engine (it does not matter which one since the pilot will choose) and waves the other hand in small circles. The waving arm will be bent at the elbow, upper arm held horizontally and to the side of one's body. Add wand at night.

START ENGINE
Point to Engine to be started

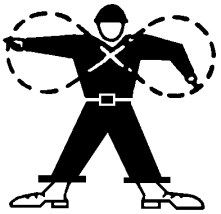
Fuel Flowing From Drain

FUEL FLOWS FROM THE DRAIN

During the start procedure for an engine, there is always a possibility of the pilot over-priming an engine. This is indicated by raw fuel dripping/flowing from the blower case drain. It is difficult to see this fuel drain in some aircraft and the Parking Tender should report this condition to the pilot by pointing a hand/wand at the dripping engine and holding one's nose or pointing a wand at one's nose with the other hand. Once the fuel drip stops or the engine starts, one will proceed to the next engine start.

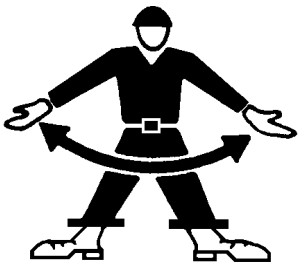
Engine Fire

In the event of an engine fire in the exhaust stacks or on the ground during start, one will indicate such by pointing with one hand/wand to the fire and wave the other hand/wand in large figure "8" motions in front of one's chest. Keep this motion going until the fire is out or ground emergency equipment is present and has extinguished the fire.



ENGINE FIRE
Describes a large figure eight with one hand and points to the fire with the other hand

Pull Chocks



PULL CHOCKS

Once all engines are started and taxi is to commence, the Parking Tender indicates to the pilot that the chocks are pulled by slowly moving fists with thumbs extended (hitchhiking signal) or wands pointed away from the body at hip height. Arms should be held straight and the motion emphasized away from the body. The pilot should acknowledge this signal with a nod or blinking light. Commence appropriate directional and taxi signal(s).

Once the aircraft is out of the pit and out of the Parking Tender's area of responsibility, point with both hands/wands to a clear area ahead of the aircraft using wide arm motions indicating such.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix B

Instructions for Completion of FS 6500-122 Flight Use Reports for USDA-FS Contracted Airtankers

January 2000

Appendix B:
Exhibit B - 1 Instructions for Completion of FS 6500-122
Flight Use Reports for USDA-FS Contracted Air Tankers

INSTRUCTIONS

1. INVOICE NUMBER	2. DATE OF FLIGHT	3. CONTRACT NUMBER - ITEM NO.	4. A/C REGISTRATION #	5. VENDOR NAME
1234567	/ /			

6 LEG NUMBER	7 USER UNIT	8 USER CODE	9 PROJECT, FIRE, FLIGHT, OR RESOURCE ORDER NAME OR NUMBER	10 FAA IDENTIFIER FROM	10 FAA IDENTIFIER TO	11 MISSION CODE	12 PAY CODE	13 PILOT NAME(S)	14 PASSENGERS AND OTHER CREWMEMBERS	15 CARGO TYPE P, S, C, OR L	16 CARGO LBS.	17 RETARDANT P, W, S OR L	18 RETARDANT GALLONS	19 METER TYPE	20 TIME OR METER READING START	20 TIME OR METER READING STOP	21 ELAPSED TIME, HOURS AND HUNDREDTHS	22 RATE	23 LEG TOTAL
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

24. ACCOUNTING SUMMARY					
NFC FUND CODE	UNIT	MANAGEMENT CODE	FY	BUDGET CODE	AMOUNT
				2541	
				2541	
				2541	
				2541	
				2541	
				2541	

25. REMARKS

		USER UNIT	MISSION CODE	PAY CODE		
26	OVERNIGHT CHARGES			ON	LOCATION	NO OF PEOPLE
27	SERVICE TRUCK CHARGES			ST	MILES	
28	OTHER CHARGES +			CH	DESCRIBE	
29	OTHER CREDITS -			CR	DESCRIBE	
30					SUBTOTAL	
31	EXCISE TAX			TX	(PAX OR CARGO OVER 6,000 LBS CERTIFIECATED WEIGHT)	
				32	**TOTAL OF ALL CHARGES**	

32. NAME OF GOVERNMENT OFFICIAL (PLEASE PRINT)

PHONE NUMBER

34. I CERTIFY THAT THE SERVICES LISTED ABOVE HAVE BEEN RECEIVED --SIGNATURE AND TITLE OF FOREST SERVICE OFFICIAL	35. I CERTIFY THAT THE SERVICES LISTED ABOVE HAVE BEEN PROVIDED - SIGNATURE AND TITLE OF VENDOR AGENT

USDA-FOREST SERVICE FLIGHT REPORT FS-6500-122 (08/95) PREVIOUS EDITION OF THIS FORM IS OBSOLETE

Instruction Invoice Key

1. **Invoice Number:** Self-explanatory.

2. **Date of Flight:** Format: MM/DD/YYYY

3. **Contract Number:** Enter the ***Complete*** contract, or rental agreement number as appropriate. Also enter ITEM NO. if applicable.

4. **A/C Registration Number:** Enter ***All*** letters and numbers of the aircraft registration. i.e. N 1 23D, XBDAH, CFCRC. DO NOT include spaces or hyphens.

5. **Vendor Name:** Enter the company name of the vendor as shown on the contract or rental agreement. Use USDA Forest Service for agency-owned aircraft.

6. **Leg Number:** Action line numbers 1-10.

7. **User Unit:** Enter the FS unit code, or non-FS agency code, of the unit or agency USING THE AIRCRAFT. See coding instructions for list.

8. **User Code:** Enter the two-digit user code from the coding instructions that identifies the administrative unit/ function at the aircraft.

9. **Project, Fire, Flight, or Resource Order Name or Number:** Enter a project, fire, flight, or resource order number or name that corresponds to the use on that leg.

10. **FAA Identifier:** Enter the FAA airport identifier; examples: Boise = BOI, Roosevelt helibase = Z58. **Use FIR for landings on fires, HLB for unlisted helibases, HSP for non-fire unlisted helispots, and BCS for unlisted airstrips.** (4 characters are allowed if needed.)

11. **Mission Code:** Enter the two-digit code that best describes the use of the aircraft. (See coding instructions.) Example: For an airtanker on standby, enter 10 in mission code block, and S13 in pay code block.

12. **Pay Code:** Enter the two-digit code that best describes the purpose of the charges; i.e. NA (non-availability) with a mission code (block 11) of 12 for helitack operations. See list of codes in coding instructions.

13. **Pilot Name(s):** Enter the last name, first name of the PIC, Co-Pilot/IP if any.

14. **Passengers and Other Crewmembers:** Enter the number of passengers, and other nonpilot crewmembers, exclusive of pilot(s) listed in block 13.

15. **Cargo Type:** Enter type of cargo transported; P = Paracargo, S = Slingload (less than 50 lt. line), L = Long Line (more than 50 ft. line), C = All Other.

16. **Cargo Lbs.:** Enter the number of pounds of cargo delivered.

17. **Retardant:** Enter the appropriate letter indicating the type used; F = Foam, W = Water, L = Liquid Based, S Solid Based.

18. **Retardant Gallons:** Enter the gallons delivered by the aircraft.

19. **Meter Type:** Enter C for clock, or H for hour meter.

20. **Time or Meter Reading:** Enter the start and stop time of the activity being recorded (flight time, duty day, extended standby, etc.). Only two digits on left side of decimal are required, the entire hour meter reading is NOT required; (example: enter 41.2 if meter reads 5341.2). Regardless of elapsed time (block 21) being recorded in hours & hundredths, if hour meter used records in hours and tenths, only one digit on right side of decimal is required in this block. Use 24-hr. clock for clock time entries; (example: If time is 6:15 PM, enter 1815 in start/stop time block).

21. **Elapsed Time:** Enter the elapsed time in hours and hundredths for any "time" entry, regardless of the meter type or activity. If CLOCK time, see conversion table in coding instructions. If HOUR METER, enter whole hours and two digits on right side of decimal (example: 2.3 hours would be entered as 2.30 hours). When, for payment purposes, fractions of an hour are rounded to the next full hour, enter the whole hour, not the fraction.

22. **Rate:** Enter the rate as appropriate. For extended standby, or like situations, when two or more crewmembers are paid, increase the rate to reflect the additional crewmembers. Example: 3 crewmembers are authorized ES for 1 hour, rate per crewmember is $25.00/ HR., enter $75.00 in the rate block.

23. **Leg Total:** Enter the sum of charges for each line.

24. **Accounting Summary:** Enter the NFC fund code, unit, management code, fiscal year, budget object code, and total applicable charges. (The FS budget object code for aviation operations is 2541 and would normally be used for all charges recorded on this form.).

25. **Remarks:** Use this block to clarify or document any entry on the form. Attach additional sheets if necessary.

    Note: When entries are made in blocks 26-29, and 31, a USER UNIT, and MISSION CODE must be entered. Assign a USER UNIT that used or required the service corresponding to these charges. Assign a MISSION CODE that corresponds to the most significant activity for the day.

26. **Overnight Charges:** Enter USER UNIT, MISSION CODE, location, number of people, rate, and total.

27. **Service Truck Charges:** Enter USER UNIT, MISSION CODE, miles driven, rate, and total.

28. **Other Charges:** Enter USER UNIT, MISSION CODE, describe the additional charge, enter rate, and total. Use the remarks block or attachments as necessary.

29. **Other Credits:** Enter USER UNIT, MISSION CODE, describe the credit, enter rate, and total. Use the remarks block as necessary.

30. **Subtotal:** Enter total of all charges in column 23, above this line.

31. **Excise Tax:** This applies only to aircraft over 6,000 lbs. maximum certificated takeoff weight, carrying passengers or cargo, and operating to or from public airports. It does NOT apply to airtanker or helicopter flights where fire retardants/chemicals are being carried. When applicable, enter an amount equal to 10% of line 30 if the majority of applicable flights were for passenger transport, or 6.5% if majority were cargo flights. Assign a USER UNIT, MISSION CODE, and total.

32. **Total of All Charges:** Enter total of lines 30 and 31. This total should correspond to the total of all amounts listed in Block 24, accounting summary.

33. **Name/unit/phone No.:** PRINT the name, home unit, and phone number of the government official completing the form.

34. **Govt. Official's Signature Block.**

35. **Vendor / Vendor's Agent Signature Block.**

User Unit Codes

BLOCK 7 - USER UNIT CODE:

If Forest Service, enter the standard organizational code for the Region and unit from attached list.

Example: 0402 for Boise National Forest.
0312 for Tonto National Forest.

If Non-Forest Service Unit, enter organization code from attached list.

STATE CODES

Alabama	AL	Montana	MT
Alaska	AK	Nebraska	NE
Arizona	AZ	Nevada	NV
Arkansas	AR	New Hampshire	NH
California	CA	New Jersey	NJ
Colorado	CO	New Mexico	NM
Connecticut	CT	New York	NY
Delaware	DE	N. Carolina	NC
Dist of Col	DC	N. Dakota	ND
Florida	FL	Ohio	OH
Georgia	GA	Oklahoma	OK
Hawaii	HI	Oregon	OR
Idaho	ID	Pennsylvania	PA
Illinois	IL	Rhode Island	Rl
Indiana	IN	S. Carolina	SC
Iowa	IA	S. Dakota	SD
Kansas	KS	Tennessee	TN
Kentucky	KY	Texas	TX
Louisiana	LA	Utah	UT
Maine	ME	Vermont	VT
Maryland	MD	Virginia	VA
Massachusetts	MA	Washington	WA
Michigan	MI	West Virginia	WV
Minnesota	MN	Wisconsin	W1
Mississippi	MS	Wyoming	WY
Missouri	MO		

OTHER NON-FOREST SERVICE

Alabama Forestry Commission	AFC
Alaska Division of Forestry	ADF
AZ State Land Development	ALD
Florida Div. of Forestry	FDF
Idaho Department of Lands	IDL
Minnesota Div. of Forestry	MDF
Montana Division of Forestry	MTDF
Nevada Division of Forestry	NDF
New Mexico F&R Division	NMFR
Oregon Department of Forestry	ODF
S. Carolina Forestry Comm	SCFC
Washington DNR	WDNR
Texas Forest Service	TFS
Wyoming State Forestry Div	WSF
California Dpt. of Forestry	CDF
CA-Kern County	CAKC
CA-Los Angeles	CALAC
CA-Orange County	CAOC
CA-San Diego County	CASDC
CA-Ventura County	CAVC
Puerto Rico	PR

Department of Agriculture	USDA
Department of Energy	DOE
Environmental Protection Agency	EPA
Federal Aviation Administration	FAA
Department of the Interior	DOI
Office of Aircraft Services	DOIOAS

Bureau of Indian Affairs	**BIA**
BIA-Aberdeen Area Office	BIAA
BIA-Albuquerque Area Office	BIAAB
BIA-Billings Area Off ice	BIAB
BIA-Eastern Area Office	BIAE
BIA-Juneau Area Off ice	BIAJ
BIA-Minneapolis Area Office	BIAMN
BIA-Muskogee Area Office	BIAM
BIA-Navajo Area Office	BIAN
BIA-Phoenix Area Office	BIAPX
BIA-Portland Area Office	BIAP
BIA-Sacramento Area Office	BIAS

Bureau of Land Management	**BLM**
BLM-Alaska State Off ice	BLMAK
BLM-Arizona State Office	BLMAZ
BLM-California State Office	BLMCA
BLM/Colorado State Off ice	BLMCO
BLM-Eastern States Office	BLME
BLM-Idaho State Office	BLMID
BLM-Montana State office	BLMMT
BLM-Nevada State Office	BLMNV
BLM-New Mexico State Office	BLMNM
BLM-Oregon State Off ice	BLMOR
BLM-Utah State Office	BLMUT
BLM-Wyoming State Office	BLMWY

Department of Defense	**DOD**
DOD-Air Force	USAF
DOD-Army	DODA
DOD-Marine Corps	LISIVIC
DOD-Navy	DODN

Fish and Wildlife Service	**FWS**
FWS-Region 1 Reg Office	FWSR1
FWS-Region 2 Reg Office	FWSR2
FWS-Region 3 Reg Office	FWSR3
FWS-Region 4 Reg Office	FWSR4
FWS-Region 5 Reg Office	FWSR5
FWS-Region 6 Reg Office	FWSR6
FWS-Region 7 Reg Office	FWSR7

National Park Service	**INIPS**
NPS-Mid-Atlantic Region	NPSMA
NPS-Midwest Regional Office	NPSMW
NPS-N. Atlantic Reg Office	NPSNA
NPS-Pacific Northwest Region	NPSPN
NPS-Rocky Mountain Reg Off	NPSRM
NPS-Southwest Region	NPSSW

BLOCK 8 - USER CODE

01	Aviation and Fire Management
02	Administrative Management
03	Administrative Services
04	Civil Rights
05	Computer Services
06	Engineering
07	Experiment Stations
08	Fiscal and Accounting Management
09	Forest Pest Management
10	Human Resource Management
11	Lands
12	Land Management Planning
13	Law Enforcement
14	Mineral and Geology
15	Office of General Council
16	Office of Information
17	Personnel Management
18	Program Planning and Budget
19	Range Management
20	Recreation Management
21	Regional Forester/Forest Supervisor
22	State and Private Forestry
23	Timber Management
24	Watershed and Air Management
25	Wildlife and Fisheries
26	Other Agency or Cooperator
27	Other (explain in remarks block)

BLOCK 11 - MISSION CODE

AVIATION MANAGEMENT ACTIVITIES

01	Aircraft, Pilot, Unit Inspections
02	Pilot Training
03	Aircraft Maintenance
04	Reserved

FIRE SUPPRESSION ACTIVITIES

05	Personnel Transport, Fire Suppression
06	Reconnaissance (flights for gathering intelligence)
07	Detection (flights for detecting wildfires)
08	Air Attack Operations
09	Leadplane Operations
10	Retardant/Water/Foam Delivery
11	Smokejumper Operations
12	Helitack Operations
13	Rappeller Operations
14	Equipment/Supply Transport Operations
15	Infrared Imagery Operations
16	Aerial Ignition Operations
17	Other, Fire Suppression

OTHER ACTIVITIES

18	Personnel Transport, Administrative
19	Survey/Observation
20	Ferry - Use for time spent repositioning aircraft for mission readiness.
21	Wildlife/Animal Count
22	Search and Rescue
23	Law Enforcement/Investigation
24	Research
25	Air Quality Monitoring
26	Fire Management
27	Prescribed Burning (Including delivery of retardant/ water/foam)
28	Spray Projects
29	Cargo Transport, other than FIR E.
30	Aerial Photography, normal activities.
31	Infrared Imagery, normal activities.
32	Aerial Ignition, normal activities.
33	Accident Investigation
34	Other, normal activities
35	Reserved
36	Reserved
37	Reserved
38	Reserved
39	Training - Other than Pilot
40	Seed and Fertilization
41	Medivac

BLOCK 12 - PAY CODE

AV	Availability
JC	Job Contract
CH	Other Charges
NA	Non-Availability
CN	Cancel Dispatch
NF	Other Non-Flight
CR	Other Credit
ON	Overnight
DO	Mandatory Day Off
SB	Standby
ES	Extended Standby
SP	Special Passengers
FT	Flight Time
ST	Service Truck
GU	Guarantee
TX	Taxes

BLOCK 21 - ELAPSED TIME.

Minutes to hundredth conversion

(Formula used to convert is: "Minutes" divided by 60)

MINUTE = 1001

1 =.02	11 =.18	21 =.35	31 =.52	41 =.68	51 =.85
2 = .03	12 = .20	22 = .37	32 = .53	42 = .70	52 = .87
3 = .05	13 =.22	23 = .38	33 = .55	43 = .72	53 =.88
4 =.07	14 = .23	24 = .40	34 = .57	44 =33	54 = .90
5 = .08	15 =.25	25 =.42	35 = .58	45 = .75	55 =.92
6=10	16 = .27	26 = .43	36 = .60	46 = .77	56 = .93
7=.12	17 =.28	27 = .45	37 = .62	47 = .78	57 = .95
8 =.13	18 =.30	28 = .47	38 = .63	48 =.80	58 = .97
9 =.15	19 = .32	29 = .48	39 = .65	49 =.82	59 =.98
10 =.17	20 = .33	30 = .50	40 = .67	50 = .83	60 =1.00

Chart B-1: Chart for FS 6500 122 Flight Use Reports

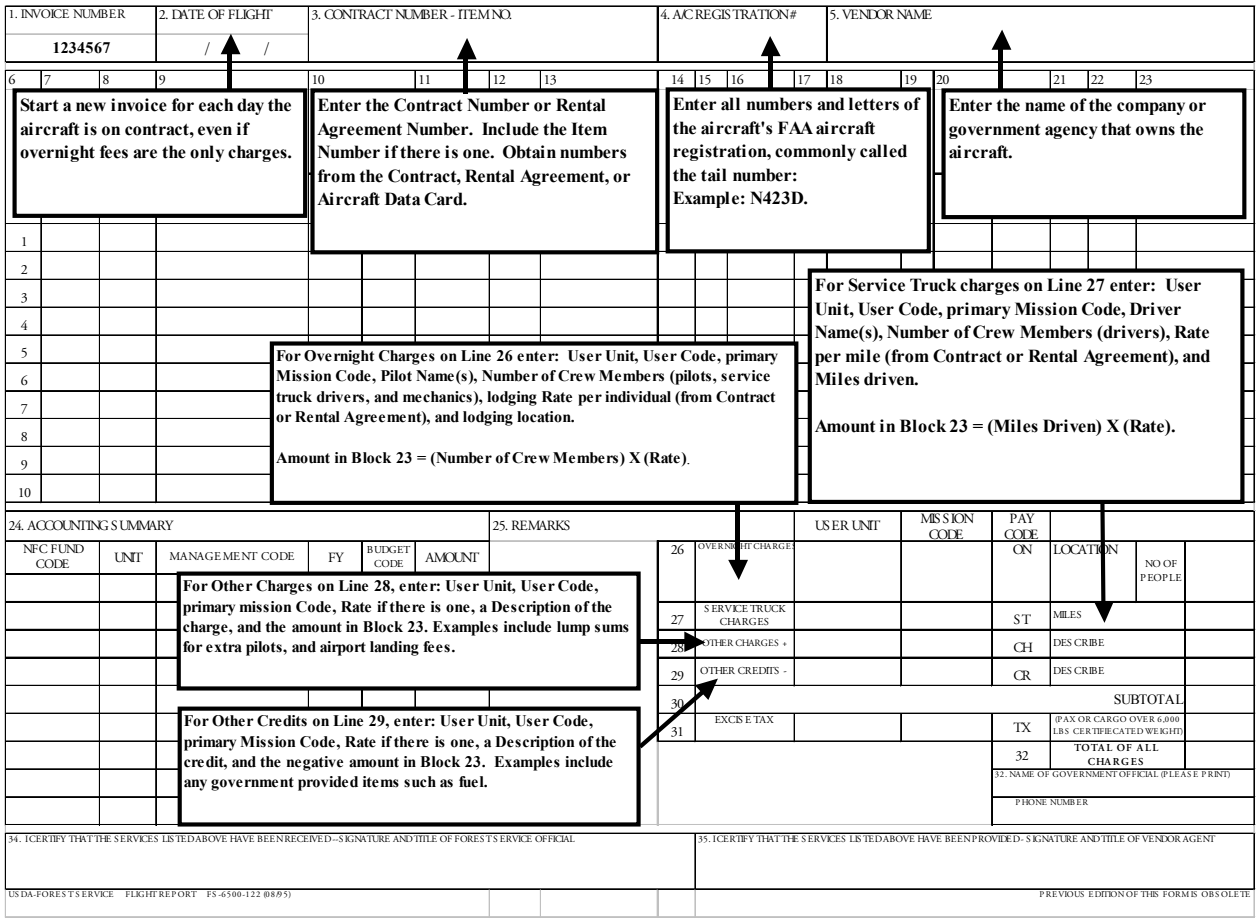


Chart for FS 6500 122 Flight Use Reports

1. INVOICE NUMBER	2. DATE OF FLIGHT	3. CONTRACT NUMBER - ITEM NO.	4. A/C REGISTRATION #	5. VENDOR NAME
1234567	/ /			

6	7	8
LEG NUMBER	USER UNIT	
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

NFC FUND CODE

Enter the code for the Forest Service Unit that is using the aircraft in Block 7

Region 1		**Region 4**		**Region 6**		**Region 9**	
Beaverhead National Forest	0102	Ashley National Forest	0401	Deschutes National Forest	0601	Chequamegon National Forest	0902
Bitterroot National Forest	0103	Boise National Forest	0402	Fremont National Forest	0602	Chippewa National Forest	0903
Idaho Panhandle Nail Forests	0104	Bridger-Teton N.F.	0403	Gifford Pinchot National Forest	0603	Huron-Manistee National Forest	0904
Clearwater National Forest	0105	Caribou National Forest	0405	Malheur National Forest	0604	Mark Twain National Forest	0905
Custer National Forest	0108	Challis National Forest	0406	Mt. Baker-Snoqualmie National Forest	0605	Nicolet National Forest	0906
Deerlodge National Forest	0109	Dixie National Forest	0407	Mt. Hood National Forest	0606	Ottawa National Forest	0907
Flathead National Forest	0110	Fishlake National Forest	0408	Ochoco National Forest	0607	Shawnee National Forest	0908
Gallatin National Forest	0111	Humboldt National Forest	0409	Okanogan National Forest	0608	Superior National Forest	0909
Helena National Forest	0112	Manti-LaSal National Forest	0410	Olympic National Forest	0609	Hiawatha National Forest	0910
Kootenai National Forest	0114	Payette National Forest	0412	Rogue River National Forest	0610	Hoosier National Forest	0912
Lewis &Clark National Forest	0115	Salmon National Forest	0413	Siskiyou National Forest	0611	Wayne National Forest	0914
Lolo National Forest	0116	Sawtooth National Forest	0414	Siuslaw National Forest	0612	Allegheny National Forest	0919
Nezperce National Forest	0117	Targhee National Forest	0415	Umatilla National Forest	0614	Green Mountain National Forest	0920
Northern Region Regional Office	01	Toiyabe National Forest	0417	Umpqua National Forest	0615	Monongahela National Forest	0921
		Uinta National Forest	0418	Wallowa-Whitman National Forest	0616	White Mountain National Forest	0922
Region 2		Wasatch Cache National Forest	0419	Wenatchee National Forest	0617	Eastern Region Regional Office	09
Bighorn National Forest	0202	Intermountain Regional Office	04	Willamette National Forest	0618		
Black Hills National Forest	0203			Winema National Forest	0620	**Region 10**	
Gr Mesa, Unc &Gunn Nat For	0204	**Region 5**		Colville National Forest	0621	Tongass N.F., Stikine Area	1002
Medicine Bow National Forest	0206	Angeles National Forest	0501	Pacific Northwest Regional Office	06	Tongass N.F., Chatham Area	1003
Nebraska National Forest	0207	Cleveland National Forest	0502			Chugach National Forest	1004
Rio Grande National Forest	0209	Eldorado National Forest	0503	**Region 8**		Alaska Region Regional Office	10
Arapaho &Roosevelt Natl For	0210	Inyo National Forest	0504	National Forests In Alabama	0801		
Routt National Forest	0211	Klamath National Forest	0505	Daniel Boone National Forest	0802	**Region 13 (Washington Office)**	
Pike &San Isabel N.F.	0212	Lassen National Forest	0506	Chattahoochee-Oconee National Forest	0803	WO	1301
San Juan National Forest	0213	Los Padres National Forest	0507	Cherokee National Forest	0804	WO Boise	1302
Shoshone National Forest	0214	Mendocino National Forest	0508	National Forests In Florida	0805		
White River National Forest	0215	Modoc National Forest	0509	Kisatchie National Forest	0806	**Other FS Units**	
Rocky Mountain Reg Regional Office	02	Six Rivers National Forest	0510	National Forests In Miss	0807	Sta Dir, Intermountain Station	22
		Plumas National Forest	0511	George Washington Natl Forest	0808	Dir, NC Forest Exp Stn	23
Region 3		San Bernadino National Forest	0512	Ouachita National Forest	0809	NE Forest Experiment Stations	24
Apache-Sitgreaves Natl Forests	0301	Sequoia National Forest	0513	Ozark-St. Francis National Forest	0810	Pacific Northwest Res Sta	26
Carson National Forest	0302	Shasta-Trinity National Forest	0514	National Forests In North Carolina	0811	Dir Pac SW Forest Rng Exprmnt	27
Cibola National Forest	0303	Sierra National Forest	0515	Fran Marion &Sumter National Forest	0812	Rocky Mountain For &Rge Stn	28
Coconino National Forest	0304	Stanislaus National Forest	0516	National Forests in Texas	0813	Sta Dir, SE For Exp Station	29
Coronado National Forest	0305	Tahoe National Forest	0517	Jefferson National Forest	0814	Dir Southern Frst Expmnt Stat	30
Gila National Forest	0306	Lake Tahoe Basin Mgmt Unit	0519	Caribbean NF &S &PP Prg	0816	Forest Products Laboratory	32
Kaibab National Forest	0307	Northern Zone Coordination Center	051455	Southern Region Regional Office	08	NE Area, State &Private	42
Lincoln National Forest	0308	Southern Zone Coordination Center	05010023				
Prescott National Forest	0309	Pacific Southwest Regional Office	05				
Santa Fe National Forest	0310						
Tonto National Forest	0312						
Southwestern Reg	03						

Chart for FS 6500 122 Flight Use Reports

1. INVOICE NUMBER	2. DATE OF FLIGHT	3. CONTRACT NUMBER - ITEM NO.	4. A/C REGISTRATION #	5. VENDOR NAME
1234567	/ /			

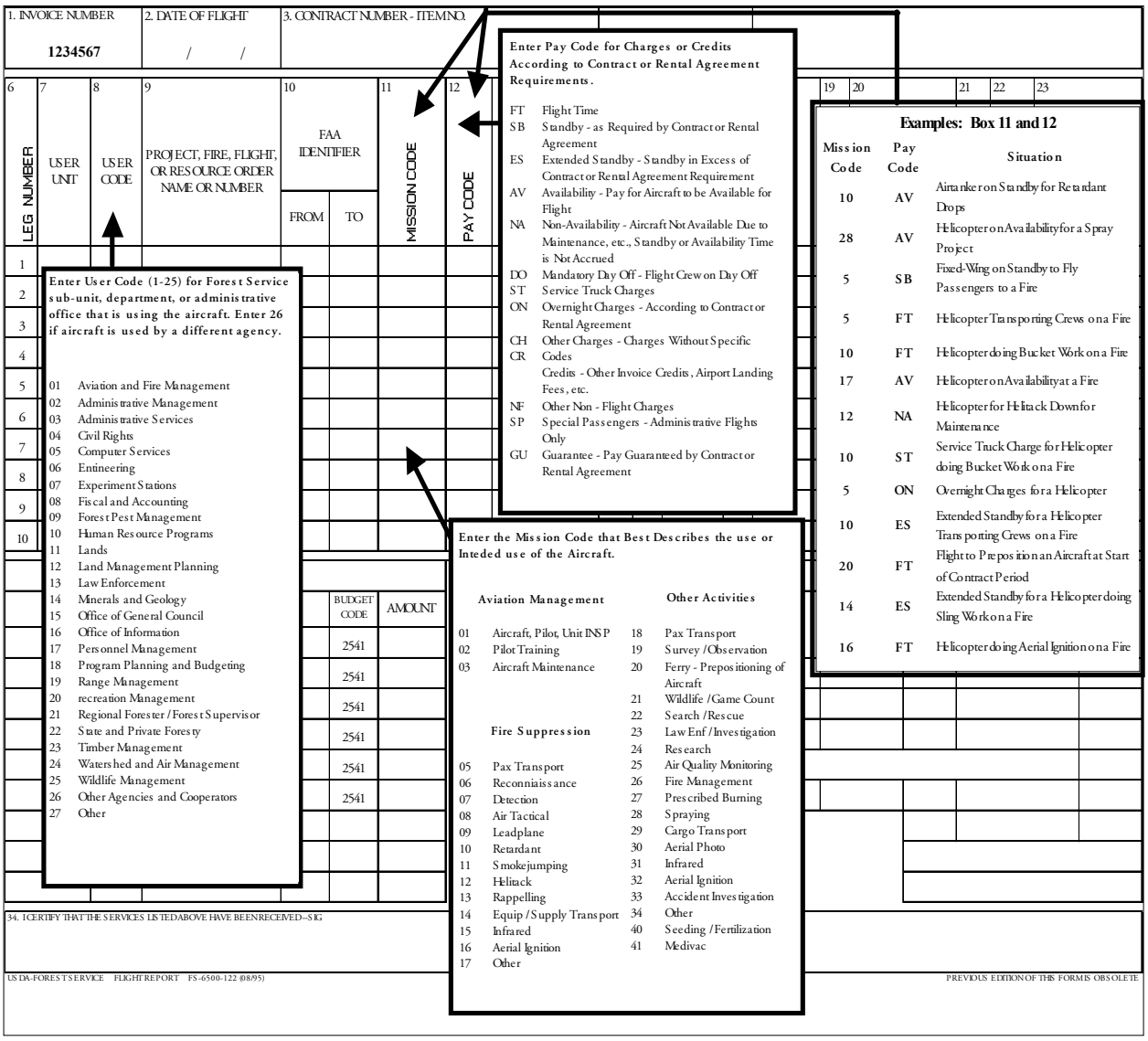
6	7	8	22	23
LEG NUMBER	USER UNIT			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Enter the Code of the Non Forest Service Agency Using the Aircraft in Block 7

Alabama	AL	Montana	MT	Oregon Department of Forestry	ODF	BLM-Utah State Office	BLMUT
Alaska	AK	Nebraska	NE	S. Carolina Forestry Comm.	SCFC	BLM-Wyoming State Office	BLMWY
Arizona	AZ	Nevada	NV	Washington DNR	WDNR		
Arkansas	AR	New Hampshire	NH	Texas Forest Service	TFS	Department of Defense	DOD
California	CA	New Jersey	NJ	Wyoming State Forestry Div	WSF	DOD-Air Force	USAF
Colorado	Co	New Mexico	NM	California Dpt. of Forestry	CDF	DOD-Army	DODA
Connecticut	CT	New York	NY	CA-Kern County	CAKC	DOD-Marine Corps	USIVIC
Delaware	DE	N. Carolina	NC	CA-Los Angeles	CALAC	DOD-Navy	DODN
Dist of Col	DC	N. Dakota	ND	CA-Orange County	CAOC		
Florida	FL	Ohio	OH	CA-Riverside	CARC	Fish and Wildlife Service	FWS
Georgia	GA	Oklahoma	OK	CA-San Diego County	CASDC	FWS-Region 1 Reg Office	FWSR1
Hawaii	HI	Oregon	OR	CA-Ventura County	CAVC	FWS-Region 2 Reg Office	FWSR2
Idaho	ID	Pennsylvania	PA	Puerto Rico	PR	FWS-Region 3 Reg Office	FWSR3
Illinois	IL	Rhode Island	RI			FWS-Region 4 Reg Office	FWSR4
Indiana	IN	S. Carolina	SC	Department of Agriculture	USDA	FWS-Region 5 Reg Office	FWSR5
Iowa	IA	S. Dakota	SD	Department of Energy	DOE	FWS-Region 6 Reg Office	FWSR6
Kansas	KS	Tennessee	TN	Environmental Protection Agency	EPA	FWS-Region 7 Reg Office	FWSR7
Kentucky	KY	Texas	TX	Federal Aviation Administration	FAA		
Louisiana	LA	Utah	UT	Department of the Interior	DOI	National Park Service	NPS
Maine	ME	Vermont	VT	Office of Aircraft Services	DOIOAS	NPS-Mid-Atlantic Region	NPSMA
Maryland	MD	Virginia	VA			NPS-Midwest Regional Office	NPSMW
Massachusetts	MA	Washington	WA	Bureau of Indian Affairs	BIA	NPS-N. Atlantic Reg Office	NPSNA
Michigan	MI	West Virginia	WV	BIA-Aberdeen Area Office	BIAA	NPS-Pacific Northwest Region	NPSPN
Minnesota	MN	Wisconsin	WI	BIA-Albuquerque Area Office	BIAAB	NPS-Rocky Mountain Reg Off	NPSRM
Mississippi	MS	Wyoming	WY	BIA-Billings Area Office	BIAB	NPS-Southwest Region	NPSSW
Missouri	MO			BIA-Eastern Area Office	BIAE		
				BIA-Juneau Area Office	BIN		
				BIA-Minneapolis Area Office	BIAMN		
				BIA-Muskogee Area Office	BIAM		
				BIA-Navajo Area Office	BIAN		
				BIA-Phoenix Area Office	BIAPX		
				BIA-Portland Area Office	BIAP		
				BIA-Sacramento Area Office	BIAS		
				Bureau of Land Management	BLM		
Alabama Forestry Commission			AFC	BLM-Alaska State Office	BLMAK		
Alaska Division of Forestry			ADF	BLM-Arizona State Office	BLMAZ		
AZ State Land Development			ALD	BLM-California State Office	BLMCA		
Florida Div. of Forestry			FDF	BLMColorado State Office	BLMCO		
Idaho Department of Lands			IDL	BLM-Eastern States Office	BLME		
Minnesota Div. of Forestry			MDF	BLM-Idaho State Office	BLMID		
Montana Division of Forestry			MTDF	BLM-Montana State office	BLMMT		
Nevada Division of Forestry			NDF	BLM-Nevada State Office	BLMNV		
New Mexico F&R Division			NMFR	BLM-New Mexico State Office	BLMNM		
				BLM-Oregon State Office	BLMOR		

USDA-FOREST SERVICE FLIGHT REPORT FS-6500-122 (8/95) PREVIOUS EDITION OF THIS FORM IS OBSOLETE

Chart for FS 6500 122 Flight Use Reports



1. INVOICE NUMBER: 1234567
2. DATE OF FLIGHT: / /
3. CONTRACT NUMBER - ITEM NO.

6 LEG NUMBER	7 USER UNIT	8 USER CODE	9 PROJECT, FIRE, FLIGHT, OR RESOURCE ORDER NAME OR NUMBER	10 FAA IDENTIFIER FROM	10 FAA IDENTIFIER TO	11 MISSION CODE	12 PAY CODE	19	20	21	22	23
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												

BUDGET CODE	AMOUNT
2541	
2541	
2541	
2541	
2541	
2541	

34. I CERTIFY THAT THE SERVICES LISTED ABOVE HAVE BEEN RECEIVED--SIG

USDA-FOREST SERVICE FLIGHT REPORT FS-6500-122 (08/95) PREVIOUS EDITION OF THIS FORM IS OBSOLETE

Enter User Code (1-25) for Forest Service sub-unit, department, or administrative office that is using the aircraft. Enter 26 if aircraft is used by a different agency.

01	Aviation and Fire Management
02	Administrative Management
03	Administrative Services
04	Civil Rights
05	Computer Services
06	Entineering
07	Experiment Stations
08	Fiscal and Accounting
09	Forest Pest Management
10	Human Resource Programs
11	Lands
12	Land Management Planning
13	Law Enforcement
14	Minerals and Geology
15	Office of General Council
16	Office of Information
17	Personnel Management
18	Program Planning and Budgeting
19	Range Management
20	recreation Management
21	Regional Forester / Forest Supervisor
22	State and Private Foresty
23	Timber Management
24	Watershed and Air Management
25	Wildlife Management
26	Other Agencies and Cooperators
27	Other

Enter Pay Code for Charges or Credits According to Contract or Rental Agreement Requirements.

FT	Flight Time
SB	Standby - as Required by Contract or Rental Agreement
ES	Extended Standby - Standby in Excess of Contract or Rental Agreement Requirement
AV	Availability - Pay for Aircraft to be Available for Flight
NA	Non-Availability - Aircraft Not Available Due to Maintenance, etc., Standby or Availability Time is Not Accrued
DO	Mandatory Day Off - Flight Crew on Day Off
ST	Service Truck Charges
ON	Overnight Charges - According to Contract or Rental Agreement
CH	Other Charges - Charges Without Specific Codes
CR	Credits - Other Invoice Credits, Airport Landing Fees, etc.
NF	Other Non - Flight Charges
SP	Special Passengers - Administrative Flights Only
GU	Guarantee - Pay Guaranteed by Contract or Rental Agreement

Enter the Mission Code that Best Describes the use or Inteded use of the Aircraft.

Aviation Management

01	Aircraft, Pilot, Unit INSP
02	Pilot Training
03	Aircraft Maintenance

Fire Suppression

05	Pax Transport
06	Reconniaissance
07	Detection
08	Air Tactical
09	Leadplane
10	Retardant
11	Smokejumping
12	Helitack
13	Rappelling
14	Equip / Supply Transport
15	Infrared
16	Aerial Ignition
17	Other

Other Activities

18	Pax Transport
19	Survey / Observation
20	Ferry - Prepositioning of Aircraft
21	Wildlife / Game Count
22	Search / Rescue
23	Law Enf / Investigation
24	Research
25	Air Quality Monitoring
26	Fire Management
27	Prescribed Burning
28	Spraying
29	Cargo Transport
30	Aerial Photo
31	Infrared
32	Aerial Ignition
33	Accident Investigation
34	Other
40	Seeding / Fertilization
41	Medivac

Examples: Box 11 and 12

Mission Code	Pay Code	Situation
10	AV	Airtanker on Standby for Retardant Drops
28	AV	Helicopter on Availability for a Spray Project
5	SB	Fixed-Wing on Standby to Fly Passengers to a Fire
5	FT	Helicopter Transporting Crews on a Fire
10	FT	Helicopter doing Bucket Work on a Fire
17	AV	Helicopter on Availability at a Fire
12	NA	Helicopter for Helitack Down for Maintenance
10	ST	Service Truck Charge for Helicopter doing Bucket Work on a Fire
5	ON	Overnight Charges for a Helicopter
10	ES	Extended Standby for a Helicopter Transporting Crews on a Fire
20	FT	Flight to Preposition an Aircraft at Start of Contract Period
14	ES	Extended Standby for a Helicopter doing Sling Work on a Fire
16	FT	Helicopter doing Aerial Ignition on a Fire

Chart for FS 6500 122 Flight Use Reports

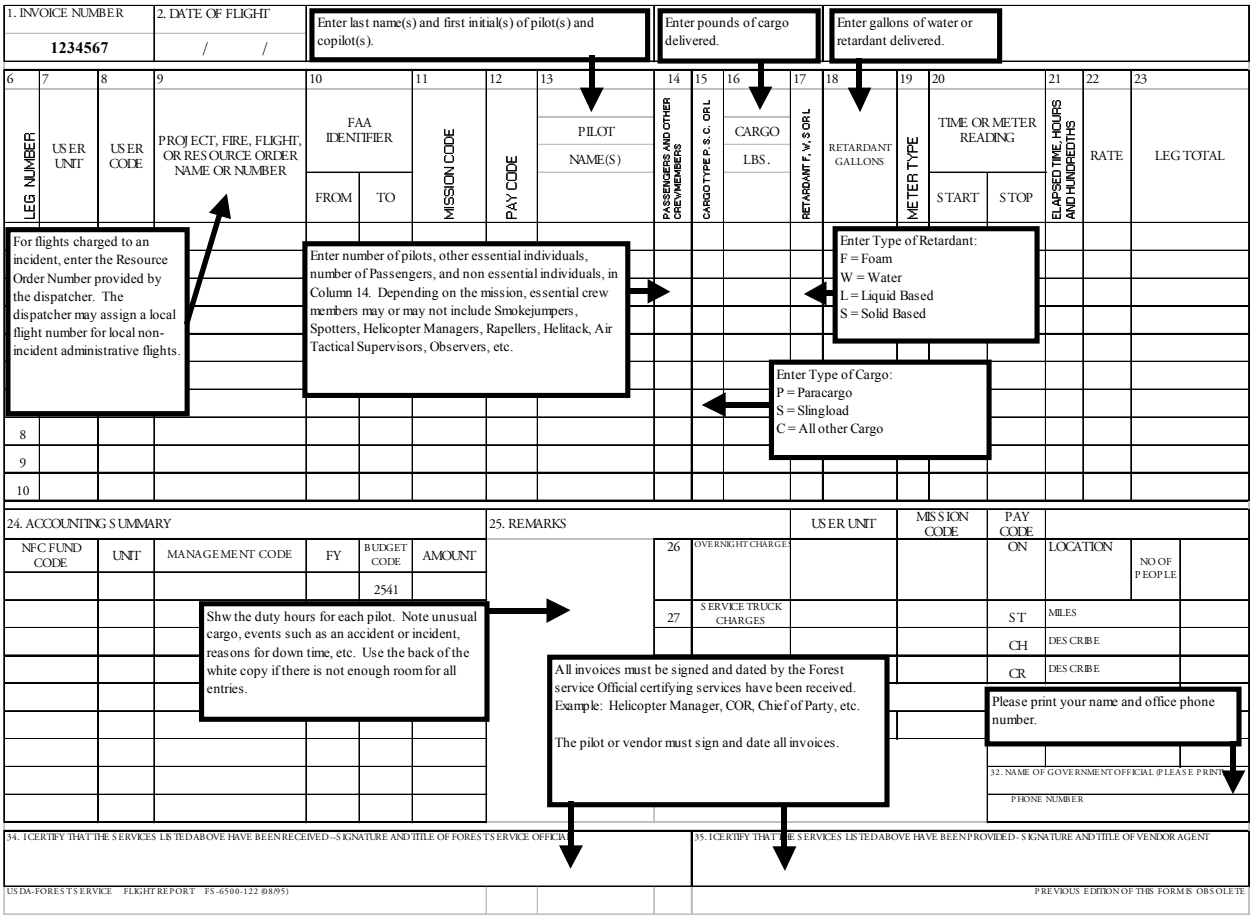
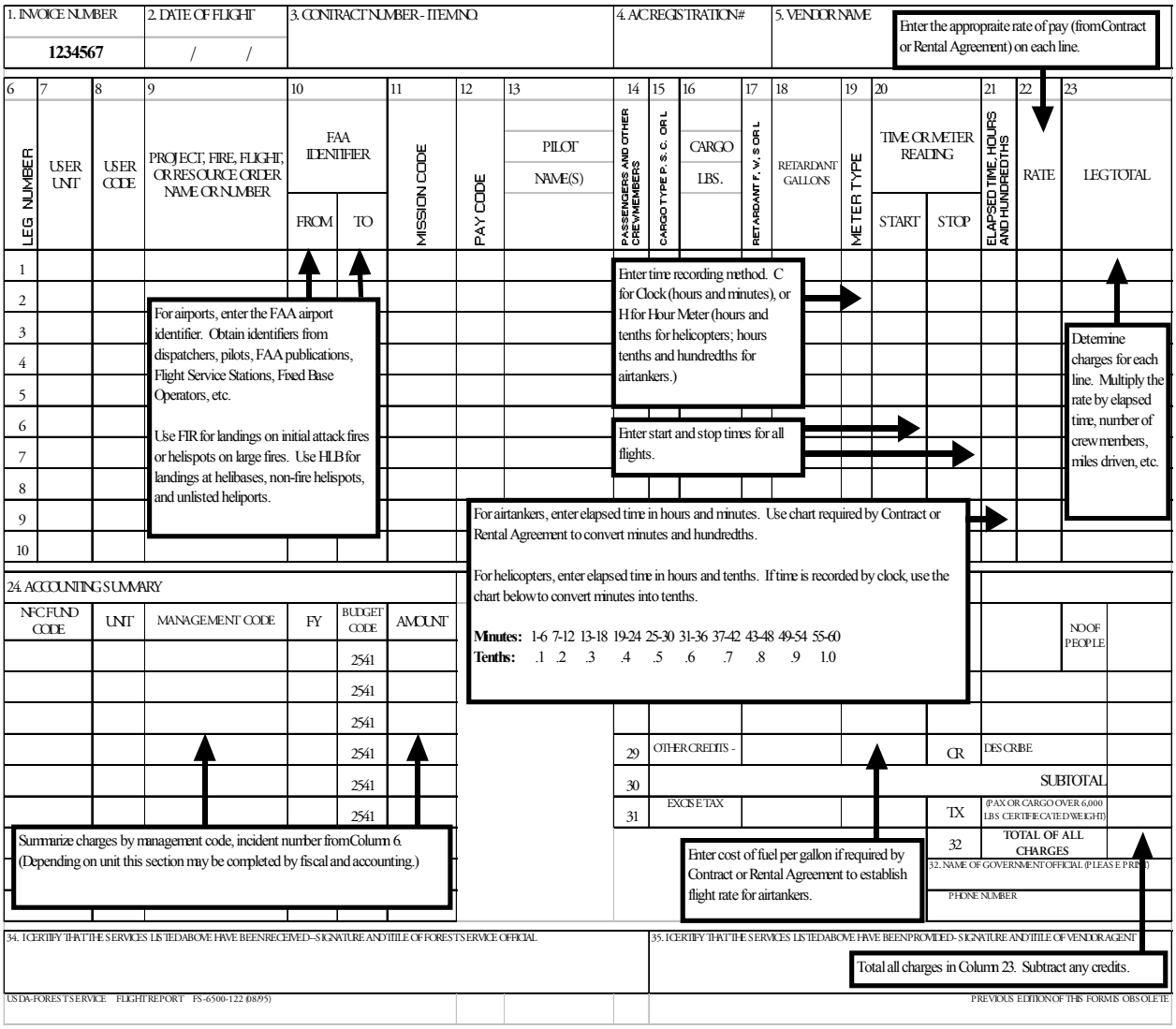


Chart for FS 6500 122 Flight Use Reports



INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix C

Instructions for Completion of OAS-23 Aircraft Use Reports for Airtankers Operated for DOI

January 2000

Appendix C: Instructions for Completion of OAS-23 Aircraft Use Reports For Airtankers Operated for DOI

A. Generic OAS and Specific BLM Instructions. BLM personnel should follow the generic instructions depicted on Exhibit C-1, with the following exceptions and additions:

Do not record any of the 3-series Use Codes (Local Fire Suppression). Always use the 2-series use codes for Interagency Fire Suppression.

Do not write out any non-flight time entries (e.g., Per Diem, Hourly Availability, etc.) under the FAA Identifier and Start/Stop Time columns. If appropriate, enter the FAA Identifier for where the charges were incurred (e.g., RNO for per diem incurred in Reno). For non-flight time entries, no entry is made under Start/Stop.

For water, retardant, or foam drops, enter the number of gallons, not pounds, under the Cargo column. All other cargo is entered in pounds.

For entries under From and To under the FAA Identifier column where there is no identifier (i.e., a fire or project site), enter FIR for fire and PRJ for project.

The OAS-23 database will accept a four digit character FAA Identifier (i.e., BLM 4-Character Fire or Project Number).

See instructions below for proper entry procedures of Billee Code, Organization or Charge Code Symbols, and Agency Order No.

For air tankers, log flight time under Start/Stop in 24-hour clock time. For Flight Time, Start Time is the time at which the aircraft commences its takeoff roll. Stop Time is the time at which the aircraft comes to a complete stop in its parking area ("in the blocks"). Form ATB-4, "Individual Airtanker Flight Record," is the source document for these entries.

For air tankers, log availability periods in 24-hour clock time. Form ATB-4a, "Individual Airtanker Duty Day and Availability Record," is the source document for these entries. Periods of availability include time during which flight is performed.

Log periods of unavailability in 24-hour clock time. Form ATB-4a, "Individual Airtanker Duty Day and Availability Record," is the source document for these entries. Note that for hourly availability contracts, periods of availability/unavailability should be continuous over the period of the day. See example.

 # Elapsed Time or Quantity. Record quantities for all pay items according to the following:

Flight Time (FT). The difference between the Start and Stop times in hours and minutes is converted to hours/hundredths using the conversion chart below.

Chart C-1: Daily Availability Conversion Chart (Minutes to Hundredths)

MIN	100th	MIN	100th	MIN	100th	MIN	100th	MIN	100th	MIN	100th
1	.02	11	.18	21	.35	31	.52	41	.68	51	.85
2	.03	12	.20	22	.37	32	.53	42	.70	52	.87
3	.05	13	.22	23	.38	33	.55	43	.72	53	.88
4	.07	14	.23	24	.40	34	.57	44	.73	54	.90
5	.08	15	.25	25	.42	35	.58	45	.75	55	.92
6	.10	16	.27	26	.43	36	.60	46	.77	56	.93
7	.12	17	.28	27	.45	37	.62	47	.78	57	.95
8	.13	18	.30	28	.47	38	.63	48	.80	58	.97
9	.15	19	.32	29	.48	39	.65	49	.82	59	.98
10	.17	20	.33	30	.50	40	.67	50	.83	60	1.00

Daily Availability (AV). Enter 1.00 for each day of full availability. See instructions below for entering unavailability. AV may not exceed 1.0 for the day. The combination of UA (Unavailability) and AV (Availability) must total and cannot exceed 1.0. The key is to add up unavailability, and subtract from 1.0, not add up availability.

Hourly Availability (AH). Hourly Availability is measured in hours/full and may be entered as a single line charge for the day, provided that no unavailability is incurred. Use 24-hour clock time. Under hourly availability, Airtanker availability is for the first 9 hours of the day (including 1 hour paid lunch).

Unavailability (UA). Record times of unavailability under Start/Stop and total the unavailability, enter amount under Elapsed Time or Quantity, and enter Pay Code **UA**. Document unavailable times under Remarks (Block 24) and on the Contract Daily Diary (including reasons for unavailability).

Daily Availability Contracts. (See Exhibit C-1.) If periods of unavailability are not even hours, or are split among different, non-continuous periods of unavailability, consult the contract. Usually, accumulated unavailability for the day is totaled in hours and minutes, rounded up to the nearest full hour. UA is then entered in tenths in the following format: 00 40, with OAS Pay Item **UA** assigned. No charge code is entered. Unavailability may not exceed 1.0, even though the aircraft may have been unavailable throughout the 14-hour duty day. If the aircraft is unavailable during the base 9 hours, but then becomes available, only 0.8 UA is deducted, regardless of whether the aircraft flew missions beyond the base period.

Hourly Availability Contracts. (See Exhibit C-2.) If the aircraft becomes unavailable, record actual availability to nearest minutes and hours, start record of unavailability as a line entry, with OAS Pay Item Code of **UA**. See example below. If aircraft returns to available status, continue recording AH. Hourly Availability, plus any unavailability, must total 9.0 for a day.

Exhibit C-1: Generic Instructions for Completion of OAS-23 Aircraft Use Reports

AIRCRAFT USE REPORT
OAS-23
INSTRUCTIONS

OAS-23 (09/91)	**AIRCRAFT USE REPORT**	U.S. DEPARTMENT OF THE INTERIOR OFFICE OF AIRCRAFT SERVICES	**RED IS FOR OAS USE ONLY** RECEIVED DATE	123456
PLEASE PRINT CLEARLY AS THIS FORM IS USED AS AN INPUT DOCUMENT TO AN AUTOMATED SYSTEM		PO BOX 15428 BOISE, ID 83715-5428 208-387-5781	4837 AIRCRAFT DRIVE ANCHORAGE, AK 99502-1052 907-271-3700/3935	

COMPANY NAME & ADDRESS	CONTRACT/BOA NO.	ITEM NO.	AIRCRAFT MAKE & MODEL	PILOT NAME (PIC)	SERV.	AGMT. NO	AC CONTROL NO.
	AIRCRAFT DESIGNATED BASE (City/St.)		AIRCRAFT FAA REGISTRATION NO	PILOT NAME (2ND PIC)	AGENCY ORDER NO.		
TELEPHONE NO.	HIRED (Date & Time)		RELEASED (Date & Time)	OTHER CREW MEMBER			

	DATE			FAA IDENTIFIER		START	STOP	ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD		PILOT INITIAL	BILLEE CODE	USE CODE	USER ORGANIZATION AND CHARGE CODES	SIGNED RECEIVED	TAX CODE
	M	D	Y	FROM	TO					PAX	CARGO						
1	•	•						•									
2	•	•						•									
3	•	•						•									
4	•	•						•									
5	•	•						•									
6	•	•						•									
7	•	•						•									
8	•	•						•									
9	•	•						•									
10	•	•						•									

Other Charges/Credits (Add attachements if necessary)

I certify that the above record of services is correct and no payment has been received.		I certify that the above services were received.	AGENCY TELEPHONE NO. ( ) FTS ( ) COMM	AGENCY
SIGNATURE OF CONTRACTOR/AGENT/PILOT →		SIGNATURE OF AUTHORIZED GOVERNMENT REPRESENTATIVE →		AGENCY ADDRESS
NAME	DATE	NAME (Print)	DATE	

Exhibit C-1a: Generic OAS Instructions For Completion of OAS-23 Aircraft Use Reports (Cont.)

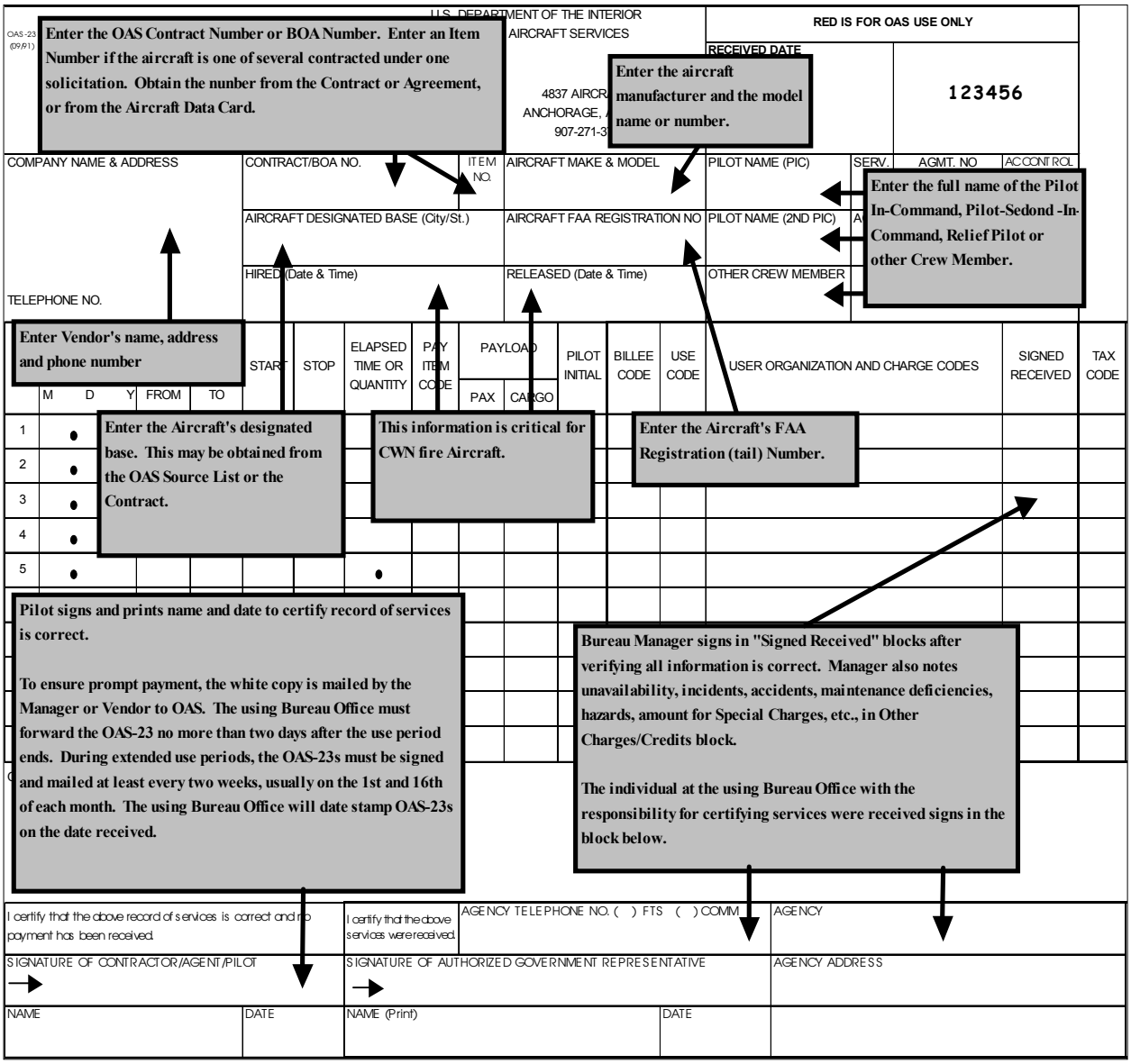
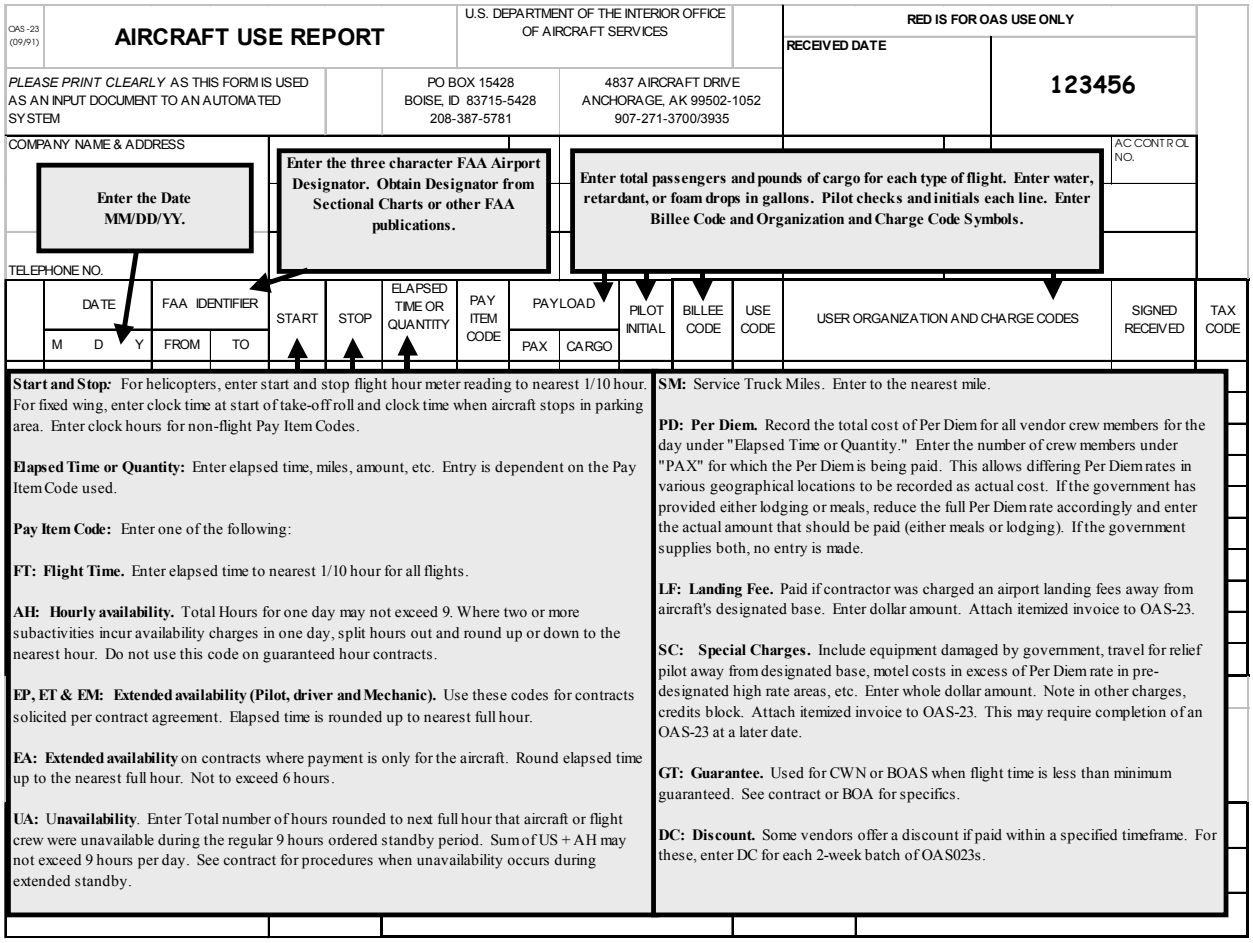


Exhibit C-1b: Generic OAS Instructions For Completion of OAS-23 Aircraft Use Reports (Cont.)



OAS-23 (09/91)

AIRCRAFT USE REPORT

U.S. DEPARTMENT OF THE INTERIOR OFFICE OF AIRCRAFT SERVICES

PLEASE PRINT CLEARLY AS THIS FORM IS USED AS AN INPUT DOCUMENT TO AN AUTOMATED SYSTEM

PO BOX 15428
BOISE, ID 83715-5428
208-387-5781

4837 AIRCRAFT DRIVE
ANCHORAGE, AK 99502-1052
907-271-3700/3935

RED IS FOR OAS USE ONLY

RECEIVED DATE

123456

COMPANY NAME & ADDRESS

AC CONTROL NO.

Enter the Date MM/DD/YY.

Enter the three character FAA Airport Designator. Obtain Designator from Sectional Charts or other FAA publications.

Enter total passengers and pounds of cargo for each type of flight. Enter water, retardant, or foam drops in gallons. Pilot checks and initials each line. Enter Billee Code and Organization and Charge Code Symbols.

TELEPHONE NO.

DATE			FAA IDENTIFIER		START	STOP	ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD		PILOT INITIAL	BILLEE CODE	USE CODE	USER ORGANIZATION AND CHARGE CODES	SIGNED RECEIVED	TAX CODE
M	D	Y	FROM	TO					PAX	CARGO						

Start and Stop: For helicopters, enter start and stop flight hour meter reading to nearest 1/10 hour. For fixed wing, enter clock time at start of take-off roll and clock time when aircraft stops in parking area. Enter clock hours for non-flight Pay Item Codes.

Elapsed Time or Quantity: Enter elapsed time, miles, amount, etc. Entry is dependent on the Pay Item Code used.

Pay Item Code: Enter one of the following:

FT: Flight Time. Enter elapsed time to nearest 1/10 hour for all flights.

AH: Hourly availability. Total Hours for one day may not exceed 9. Where two or more subactivities incur availability charges in one day, split hours out and round up or down to the nearest hour. Do not use this code on guaranteed hour contracts.

EP, ET & EM: Extended availability (Pilot, driver and Mechanic). Use these codes for contracts solicited per contract agreement. Elapsed time is rounded up to nearest full hour.

EA: Extended availability on contracts where payment is only for the aircraft. Round elapsed time up to the nearest full hour. Not to exceed 6 hours.

UA: Unavailability. Enter Total number of hours rounded to next full hour that aircraft or flight crew were unavailable during the regular 9 hours ordered standby period. Sum of US + AH may not exceed 9 hours per day. See contract for procedures when unavailability occurs during extended standby.

SM: Service Truck Miles. Enter to the nearest mile.

PD: Per Diem. Record the total cost of Per Diem for all vendor crew members for the day under "Elapsed Time or Quantity." Enter the number of crew members under "PAX" for which the Per Diem is being paid. This allows differing Per Diem rates in various geographical locations to be recorded as actual cost. If the government has provided either lodging or meals, reduce the full Per Diem rate accordingly and enter the actual amount that should be paid (either meals or lodging). If the government supplies both, no entry is made.

LF: Landing Fee. Paid if contractor was charged an airport landing fees away from aircraft's designated base. Enter dollar amount. Attach itemized invoice to OAS-23.

SC: Special Charges. Include equipment damaged by government, travel for relief pilot away from designated base, motel costs in excess of Per Diem rate in pre-designated high rate areas, etc. Enter whole dollar amount. Note in other charges, credits block. Attach itemized invoice to OAS-23. This may require completion of an OAS-23 at a later date.

GT: Guarantee. Used for CWN or BOAS when flight time is less than minimum guaranteed. See contract or BOA for specifics.

DC: Discount. Some vendors offer a discount if paid within a specified timeframe. For these, enter DC for each 2-week batch of OAS023s.

Exhibit C-1c: Generic OAS Instructions For Completion of OAS-23 Aircraft Use Reports (Cont.)

OAS-23 (09/91)	**AIRCRAFT USE REPORT**	U.S. DEPARTMENT OF THE INTERIOR OFFICE OF AIRCRAFT SERVICES	**RED IS FOR OAS USE ONLY**
			RECEIVED DATE
PLEASE PRINT CLEARLY AS THIS FORM IS USED AS AN INPUT DOCUMENT TO AN AUTOMATED SYSTEM	PO BOX 15428 BOISE, ID 83715-5428 208-387-5781	4837 AIRCRAFT DRIVE ANCHORAGE, AK 99502-1052 907-271-3700/3935	**123456**

COMPANY NAME & ADDRESS	CONTRACT/BOA NO.	ITEM NO.	AIRCRAFT MAKE & MODEL	PILOT NAME (PIC)	SERV.	AGMT. NO	AC CONTROL NO.
	AIRCRAFT DESIGNATED BASE (City/St.)		AIRCRAFT FAA REGISTRATION NO	PILOT NAME (2ND PIC)	AGENCY ORDER NO.		
TELEPHONE NO.	HIRED (Date & Time)		RELEASED (Date & Time)	OTHER CREW MEMBER			

	DATE M D Y	FAA IDENTIFIER FROM	FAA IDENTIFIER TO	START	STOP	ELAPSED TIME OR QUANTITY	PAY ITEM CODE	PAYLOAD PAX	PAYLOAD CARGO	PILOT INITIAL	BILLEE CODE	USE CODE	USER ORGANIZATION AND CHARGE CODES	SIGNED RECEIVED	TAX CODE
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															

Enter one of the following Use Codes for each type of flight performed. No entry is needed for non-flight pay items such as AH, EA, EP, or FS. The Use Code must describe the actual use as accurately as possible. Special Use Codes always take precedence over Other or General Use Codes.

Special Uses - External Loads
1A Sling (Helicopter)
1F Fixed Wing External Load
1H Short Haul (Helicopter)
1L Long Line / Remote Hook

Special Uses - Interagency Fire Suppression
2A Helitack - Initial Attack
2C Cargo Transport - Internal
2E Smoke Jumper
2F Foam Dispensing
2H Personnel Transport
2K Air Attack
2L Lead Plane
2P Paracargo
2R Fire Retardant - Bucket /Tank
2W Water Dropping - Bucket / Tank

Special Uses - Local Fire Suppression
3A Helitack - Initial Attack
3C Cargo Transport - Internal
3F Foam Dispensing - Bucket / Tank
3H Personnel Transport
3L Lead Plane
3P Paracargo
3R Fire Retardant - Bucket / Tank
3W Water Dropping - Bucket / Tank

Special Uses - Flights Below 500'
6A Animal Herding
6C Animal Gathering / Capturing
6E Animal Electronic Tracking
6F Auto Surveyor
6H Habitat / Environment Evaluation
6K Anima Counting
6L Law Enforcement
6M Drug Law enforcement
6N Search and rescue
6P Powerline Patrol
6R Reconnasisance
6T Animal Eradicaiton / Tagging
6V Animal Visual Tracking
6W Wildlife Surveys
6X Medivac

Other Speical Uses
4A Takeoff or Landing Requiring Special Pilot Skills Due to Terrain or Surface Conditions
4H Hoversite - Helicoper
4L Wheel or Ski Operations on Unprepared Landing Sites - Fixed Wing
4M Fixed Wing Modifications that Invalidate Standard Certificate
4N Night Vision Goggles
4P Paracargo - Non-Fire
4R Rappelling - Helicopter
7N Offshore Navigation - Vessel or Platform Landings - Helicopter

Special Uses - Aerial Applications
8C Seeding
8F Fussee
8H Helitorch
8P Ping Pong Ball
8R Spraying
8T Thermite

Other Uses - Special Equipment or Techniques
5E Animal Electronic Tracking - Above 500 Feet
5F Mountain Flying
5M USGS and SOM Special Pilot Requirements
5R Overwater - Special PPE Required
5X Extended Overwater - Special PPE & Other Equipment Required.

General Uses
9A Air Crew Training
9C Cargo Only
9E Pilot Proficiency or Pilot Training
9F Ferry Aircraft - Required Air Crew only
9H Reconniassance - Above 500 Feet
9L Law Enforcement - Non Special Use
9P Personnel Transort - Point to Point
9R Search and Rescue - Above 500 Feet
9V Photo mapping or Video Photography
9X Other General Use
MA Maintenance Flights - DOI Fleet Only

Exhibit C-2: Sample OAS-23 For A Daily Availability Contract

Date	FAA IDENTIFIER		Start	Stop	Elapsed Time or Quantity	Pay Item Code	Payload		Bill Code	Use Code	User Organization and Charge Codes	SIGn
M D Y	From	To					PAX	Cargo				
06 12 92	MEV	MEV	1000	1900	**9.00**	**AV**						
06 13 92	MEV	MEV	1000	1200	**2.00**	**AV**						
06 13 92	MEV	MEV	1200	1500	**3.00**	**UA**						
06 13 92	MEV	MEV	1500	1900	**4.00**	**AV**						

Exhibit C-3: Sample OAS-23 For An Hourly Availability Contract

Date	FAA IDENTIFIER		Start	Stop	Elapsed Time or Quantity	Pay Item Code	Payload		Bill Code	Use Code	User Organization and Charge Codes	SIGN
M D Y	FROM	TO					PAX	Cargo				
06 12 92	MEV	MEV	1000	1900	**09 00**	**AH**						
06 13 92	MEV	MEV	1000	1206	**0300**	**AH**						
06 13 92	MEV	MEV	1206	1448	**02 70**	**UA**						
06 13 92	MEV	MEV	1448	1900	**0600**	**AH**						

Landing Fees (LF). The Fixed-Wing Base Landing Fee Record (see Chapter 3) provides the documentation to the airport authority that will support the latter's billing of the Airtanker contractor. Landing fees for one day may be totaled for each separate incident (discrete charge/cost code). Five (5) landings made in support of one fire would be entered as 00 05, with Pay Item Code **LF**. Landing fees should not be entered to the OAS-23 until an invoice marked paid is received from the vendor and the airport authority has indicated that payment has been made. (This may result in the submission of OAS-23s with landing fee charges reimbursable to the vendor well after the date of occurrence; however, OAS requires documentation that the fee has been paid by the vendor, so this is unavoidable.) Attach the invoice(s) to the OAS-23. Landing fees are not paid by the government for maintenance flights or during periods of unavailability. Ensure that this is documented on the Individual Flight Record and on the Airtanker Base Log. As an option, the government may simply pay the landing fees to the airport authority.

Special Charges (SC). Special charges include reimbursement to the vendor for airport use costs away from the designated base, additional equipment provided by the vendor through Contract Amendment, etc. These must have been paid by the vendor and must be supported by an itemized invoice attached to the OAS-23. (If invoices are not available, complete a separate OAS-23 at a later date.) Entries are made in whole dollars (rounded up). Ignore the decimal point in the Elapsed Time. A landing fee charge of $80.00 is entered as 00 80. A charge of $343.12 is entered as 03 44. A notation explaining the charge shall also be made in Remarks and an invoice attached.

B. Elements of a Correct BLM Cost-Account Code.

1. **Purpose.** The purpose of these instructions is to outline the elements of a correct BLM cost-account code (Organization or Charge Code Symbols). Aviation billings can then be reconciled properly by the scheduling or contracting agency.

2. **Applicability.** Proper coding must be assigned to appropriate payment documents for all aircraft flights for which the OAS-23 Aircraft Use Report or OAS-59 Fuel and Oil Issue Record is completed.

3. **Instructions For Completion.** See Exhibit C-4.

4. **Distribution.** The Washington Office is responsible for annual update and distribution to the States. The form must then be distributed by the State Aviation Manager to all Dispatchers, Aviation Managers, Contracting Officer's Administrative Representatives, Project Inspectors, Airtanker Base Managers, and administrative personnel with responsibilities for completion or review of OAS-23 Aircraft Use Reports or OAS-59 Fuel and Oil Issue Records.

Exhibit C-4: Elements Of A Correct BLM Cost-Account Code
For Entry On OAS-23 and OAS-AK-59 Payment Documents

Under "Organization and Charge Code Symbols" on the OAS-23, enter BLM cost-account codes according to the following:

1. STATE. 2-digit alpha State code. All codes are the postal abbreviation for the state, plus:

Washington Office	=	WO
Denver Service Center	=	SC
National Interagency Fire Center	=	RP

2. OFFICE. 3-digit numeric BLM office code. Use standard BLM office coding.

3. FUND CODE. Do not enter fund codes on OAS-23 payment documents.

4. ACTIVITY. 4-Digit Subactivity; ensure valid FY Subactivity codes are used. For fire, this is **2821**.

5. PROGRAM ELEMENT. 2-digit program element. For fire, this is **00**.

6. PROJECT NUMBER. 4-digit alpha, numeric, or alphanumeric project number. For fire, this is the **BLM Fire Number**.

7. OBJECT CLASS. Do not enter object classes on OAS-23 payment documents.

C. Assignment of Agency Order No. (BLM Document Control Number).

1. **Purpose.** The purpose of these instructions is to establish standard procedures for assignment of BLM Document Control Numbers (Agency Order No. on the OAS-23). Aviation billings can then be reconciled properly by the scheduling or contracting agency.

2. **Applicability.** Proper coding must be assigned to appropriate payment documents for all aircraft flights for which the OAS-23 Aircraft Use Report or OAS-59 Fuel and Oil Issue Record is completed.

3. **Instructions For Completion.** See Exhibit C-5.

4. **Distribution.** The Washington Office is responsible for annual update and distribution to the States. The form must then be distributed by the State Aviation Manager to all Dispatchers, Aviation Managers, Contracting Officer's Administrative Representatives, Project Inspectors, Airtanker Base Managers, and administrative personnel with responsibilities for completion or review of OAS-23 Aircraft Use Reports or AK Fuel and Oil Issue Records.

Exhibit C-5: Assignment of Agency Order No. (BLM Document Control Number) On OAS-23 and AK Payment Documents

Under "Agency Order Number" in the upper-right corner of the ON OAS-23, enter the document control number according to the following:

1. State. 1-digit Alpha State Code according to the following:

State	Code	State	Code	State	Code
Alaska	L	Montana	E	Wyoming	K
Arizona	A	Nevada	F	NIFC	R
California	B	New Mexico	G	WO	P
Colorado	C	Oregon	H		
Idaho	D	Utah	J		

OAS-23s for Flights Taken by the Eastern States Office Will Be Processed by the Washington Office Aviation Staff. Therefore the State Input for Document Control Numbers Will Be "R" for the Washington Office.

OAS-23s for flights taken by service center personnel have been and will continue to be processed by the state in which they are flying, or by the Colorado State Office for cross-jurisdictional flights arranged by the Colorado State Office. Therefore the input for the control number for SC Flights will be determined by the state processing the OAS-23.

OAS-23s for flights taken by Phoenix Training Center personnel have been and will continue to be processed by the Arizona State Office. Therefore the input for the document control number for training center flights will be "A" for Arizona.

2. **Office.** 3-digit numeric code of the office (organization) submitting the OAS-23. This will usually be a Field or State Office, or a Division of NIFC or the Washington Office.

3. **Document Type.** 1-digit Alpha. Enter "S" for Aircraft Use.

4. **Fiscal Year.** 1-digit Numeric. Enter the Last Digit (i.e., "9" for FY-99) of the Fiscal Year in Which the Flight Was Taken.

5. **Sequential Month Number.** 4-digit numeric. Enter the month in which the OAS-23 is mailed to OAS (not the month in which the flight was taken) according to the following numbering system:

FROM	TO	ENTRY	FROM	TO	ENTRY	FROM	TO	ENTRY
OCT 1	OCT 31	0001	FEB 1	FEB 28	0005	JUN 1	JUN 30	0009
NOV 1	NOV 30	0002	MAR 1	MAR 31	0006	JUL 1	JUL 31	0010
DEC 1	DEC 31	0003	APR 1	APR 31	0007	AUG 1	AUG 31	0011
JAN 1	JAN 31	0004	MAY 1	MAY 31	0008	SEP 1	SEP 30	0012

a. **0013** is assigned to all OAS-23s sent to OAS after September 30 for flights taken during the fiscal year ending September 30 which were not mailed timely and which were not assigned one of the normal numbers in the 0001-0012 range.

b. All zeroes must be entered.

c. All fields should be separated by a "-" (dash) for accurate entry into the OAS On-Line and Payment Collection (OPAC) billing system:

d. Example Of A Complete Document Control Number:

1. F-030-S3-0005 = Nevada (**F**)-Carson City Field (**090**)-Fiscal Year 99 (**S3**)-Flight Invoice Mailed Between February 1 and February 28 (**0005**)

D. Assignment of BLM Cost-Account Codes and OAS Billee Codes.

1. **Purpose.** The purpose of these instructions is to establish standard procedures for assignment of BLM or other-agency cost-account codes (Organization or Charge Code Symbols) and Billee Codes for both fire and non-fire flights. Aviation billings can then be reconciled properly by the scheduling or contracting agency.

2. **Applicability.** To insure prompt payment, proper coding must be assigned to appropriate payment documents for all aircraft flights for which the OAS-23 Aircraft Use Report or OAS-59 Fuel and Oil Issue Record is completed.

3. **Instructions For Completion.** See Exhibit C-6.

4. **Distribution.** The National Office is responsible for annual update and distribution to the States. The form must then be distributed by the State Aviation Manager to all Dispatchers, Aviation Managers, Contracting Officer's Administrative Representatives, Project Inspectors, Airtanker Base Managers, and administrative personnel with responsibilities for completion or review of OAS-23 Aircraft Use Reports or OAS-59 Fuel and Oil Issue Records.

Exhibit C-6a: Assignment of Cost-Account Codes and Billee Codes

BLM Instructions for Assignment of Cost Account and Billee Codes on Flight Payment Documents for aircraft Hired Under OAS Agreement or Contract					
#	**Type of Flight or Activity**	**Sample Situation**	**Cost-Account Coding**	**Billie Code**	**Who Processes the OAS-23**
			FIRE FLIGHTS		
1	Fire flight taken as a result of: • Fire on **your** unit. (Including non-reimbursable mutual aid.) • Fire on **another** BLM unit. • An order from any Federal cooperating Wildland firefighting agency: USFS, FWS, BIA, NPS. • **and** for which charges are **nonreimbursable**. • **NOTE** exception in situation where the National Interagency Coordination Center (NICC) assigns a 3000-series fire number for reimbursable support to Military, States, etc.	Your contract aircraft performs missions for units identified at left. Or Your unit arranges a rental/charter in response to an order rom any of the agencies identified. Or Your unit supplies **both** a helicopter module and/or manager **and** a CWN helicopter for the agencies identified. Note the exception in #4 if your unit does **not** furnish the CWN **aircraft**.	Since all assistance to those agencies is **non-reimbursable**, assign **your local** unit's cost account coding, including **your** State and Office code, **but** use the assigned BLM fire number off the Resource Order. **Do Not assign other-agency Project or Fire Codes (e.g., USFS "P" Numbers) on OAS-23 payment Documents.** **Examples of Valid BLM Fire Numbers:** 1-Digit Alpha plus 3-Digit Numeric for BLM Field Offices and State Offices. (e.g.: C567) **Example**: NV-040-2821-00-2645 (Ely Field Office: [NV-040] aircraft on Utah BLM fire [R645]) or 4-Digit Numeric assigned by NICC for other-agency support, according to the following[7]: 3000-3999 Miscellaneous Support (State or Military) 4000-4999 F & WS Support 5000-5999 BIA Support 6000-6999 NPS Support 9000-9997 USFS Support **Example**: NV-030-2821-00-9216: (Carson City Nevada Field Office [NV-030] aircraft on Forest Service fire with NICC-assigned Forest Service Support Number [9216]).	Use **your** unit's Billie Code.	**Your** Unit.

[1] NICC is encouraging local BLM units to immediately assign a local BLM support fire number that will be relayed throughout the system as orders are placed. This will hopefully avoid duplication of fire number assignment (i.e., NICC-assigned number, other -Field Office(s) assigned number(s), etc.) For example, Fire J221 in Carson City, as support fire number for the Toiyabe NF, would be transmitted throughout the system and would end up on an order for a helicopter from Montana BLM.

Exhibit C-6b: Assignment of Cost-Account Codes and Billee Codes

BLM Instructions for Assignment of Cost Account and Billee Codes on Flight Payment Documents for aircraft Hired Under OAS Agreement or Contract					
#	**Type of Flight or Activity**	**Sample Situation**	**Cost-Account Coding**	**Billie Code**	**Who Processes the OAS-23**
			FIRE FLIGHTS		
2	Fire flight taken as a result of: • An order from any cooperating State firefighting agency (i.e., CDF, NDF, etc.) **And** for which charges are **reimbursable**.	Your contract aircraft performs missions for units identified at left and fire is identified as a **reimbursable** State Agency fire (e.g.: California Department of Forestry). Or Your unit arranges a rental/charter in response to an order from any of the agencies identified, Or Your unit supplies **both** a Helicopter Module and/or Manager **and** a CWN helicopter for the agencies identified. **NOTE: The exception in #4 if your unit does not furnish the CWN aircraft.**	There are three options for this situation: 1. If a NIFC-assigned 3000-series number has been assigned, then assign your State and Office Code (costs will be recovered nationally) and use the 3000-series.	1. Use your unit's Billee Code. Costs will be re-covered nationa l-ly	**Your** Unit.
			2. Your unit may assign a local support BLM fire number and recover costs locally through cross-agency billing. This is only for incidents where a local BLM Field Office is supporting a local cooperating State agency. This BLM Field Office fire support number will be transmitted by NICC as part of any Resource Orders relayed through the system. **However, the Unit Which Assigned the BLM Fire Number Is Responsible for Recovering Reimbursable Costs from the State.**	2. Use your unit's Billee Code. Costs will be re-covered locally.	**Your** Unit.
			3. Assign the cost-account coding as identified by the other agency. This is the most streamline approach, since OAS bills and recovers the costs **directly** from the State agency (i.e., the BLM Field Office will not receive a bill from OAS.)	3. Use the other agency's Billee Code	**Your** Unit.

Exhibit C-6c: Assignment of Cost-Account Codes and Billee Codes

BLM Instructions for Assignment of Cost Account and Billee Codes on Flight Payment Documents for aircraft Hired Under OAS Agreement or Contract					
#	**Type of Flight or Activity**	**Sample Situation**	**Cost-Account Coding**	**Billie Code**	**Who Processes the OAS-23**
FIRE FLIGHTS					
3	Fire pre-suppression standby.	There are three situations that may be encountered. 1. Your contract aircraft is placed on presuppression standby by another unit from your interior agency	1. Assign the other unit's presuppression cost-account coding.	1. Use your unit's Billee Code.	**Your** Unit.
		2. Your contract aircraft is placed on presuppression standby by another agency . (i.e. USFS).	2. Assign the other agency's pre-suppression cost-account coding.	2. Use the other agency unit's (i.e. USFS) Billee Code . Availabl e from OAS.	**Your** Unit.
		3. A contract aircraft is located and managed at the local level (i.e. Field Office) but the State Office holds the pre-suppression funding for the aircraft.	3. Assign the cost-account coding of the unit holding the funding.	3. Use your unit's Billee Code.	**Your** Unit.

Exhibit C-6d: Assignment of Cost-Account Codes and Billee Codes

BLM Instructions for Assignment of Cost Account and Billee Codes on Flight Payment Documents for aircraft Hired Under OAS Agreement or Contract					
#	**Type of Flight or Activity**	**Sample Situation**	**Cost-Account Coding**	**Billie Code**	**Who Processes the OAS-23**
			FIRE FLIGHTS		
4	CWN helicopter hired by your Field Office sent off-unit. Helicopter module not furnished by your unit.	A CWN helicopter off the OAS Source List is hired by your unit and sent to another unit. A helicopter module from another unit is attached to the helicopter at the incident.	Module Leader assigns the receiving, benefitting unit's cost account coding, **regardless** of agency.	Use the receiv-ing bene-fitting unit's Billee Code, regard-less of whether agency is Federal or non-federal.	The Receiving, Bene-fitting Unit. Module Leader must ensure copies of OAS-23's are given to the local Aviation Manager
5	Fire flight charged to: Multiple fire code 8888 Multiple fire code 9999	Your contract aircraft or a rental aircraft scheduled by your unit performs flight for **another** BLM unit in response to Multiple Fires 8888 (charges later split out to individual fires) or 9999. Or Your contract aircraft or a rental aircraft scheduled by your unit performs flight for **your** BLM unit in response to Multiple Fires 8888 (Charges later split out to individual fires) or 9999.	Assign the other unit's State and Office Code.	Use **your** unit's Billee Code.	**Your** Unit.

Exhibit C-6e: Assignment of Cost-Account Codes and Billee Codes

BLM Instructions for Assignment of Cost Account and Billee Codes on Flight Payment Documents for aircraft Hired Under OAS Agreement or Contract					
#	**Type of Flight or Activity**	**Sample Situation**	**Cost-Account Coding**	**Billie Code**	**Who Processes the OAS-23**
FIRE FLIGHTS					
6	Non-fire flight charged to unit funds.	There are several situations possible. 1. Flight is arranged by your unit for the sole benefit of your unit.	1. Assign your unit's State and Office Code, plus subactivity, program element and project codes as identified on the Flight Request.	1. Use your unit's Billee Code.	**Your** Unit.
		2. Flight is arranged by another BLM unit, but at least part of the flight will be charged to your unit's funds.	2. Other unit should assign your unit's State and Office Code, plus subactivity, program element and project codes as identified on the Flight Request.	2. Use the other agency unit's (i.e. USFS) Billee Code . Available from OAS.	**Your** Unit.
		3. Your unit will be using other funds (i.e. Washington Office) to accomplish a project.	3. Assign your unit's State and Office Code, plus subactivity, program element and project codes as identified on the Flight Request.	3. Use your unit's Billee Code.	**Your** Unit.
		4. Flight is arranged by your unit, but at least part of the flight will be charged to another BLM units funds.	4. Flight charges must be split out appropriately on separate lines of the OAS-23, with your unit's and the other unit's coding entered appropriately. This may require alteration of lines originally entered (i.e. only one line entry made for a recon whose charges will be shared). Note the reason under "Remarks" on the OAS-23. Total flight time remains the same.	4. Use your unit's Billee Code.	**Your** Unit.
7	Non-fire flight charged to another agency (i.e. USFS, non-BLM DOI agency, County or State).	There are two situations which might be encountered: A non-fire flight is arranged by your unit for another agency who will bear all costs of the flight.	Assign other-agency's coding.	Assign other agency unit's Billee Code.	**Your** Unit.
		A non-fire flight is arranged by your unit for another agency who will bear part of the costs of the flight, with your unit assuming the rest.	If flight costs are to be shared with your unit, costs will have to be split out on separate lines of the OAS-23. Assign other agency's coding to appropriate lines on the OAS-23 and your unit's coding on the other lines.	Assign other-agency unit's Billee Code to appropriate lines on the OAS-23, and your unit's Billee Code on the lines to be charged to your unit.	

E. Instructions For Completion of OAS-AK-59 Fuel and Oil Issue Record.

(RESERVED)

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

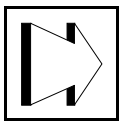
Appendix D

Emergency Response and SAFECOM Reporting

January 2000

Appendix D: Emergency Response and SAFECOM Reporting

I. Introduction. Time is an extremely critical factor in responding to overdue, missing, or crashed aircraft. Personnel responsible for aircraft flight following cannot justify any delay in initiating emergency response procedures based on the possibility that a Pilot has forgotten to perform a check-in. Immediate positive action is necessary; the longer the delay in locating the overdue or missing aircraft, the less chance the occupants have to survive an accident.



"SOMEONE'S LIFE MAY DEPEND ON YOUR ACTIONS."

II. Emergency Response Preparedness Plan.

A. Local Unit Responsibility. Each local dispatch or other flight following office should have an Aircraft Accident Preparedness Plan or Aircraft Crash, Search and Rescue Guide. Information in this plan or guide on emergency response procedures should be pre completed in the event of a mishap.

1. **Purpose.** The purpose of the plan is to establish standard emergency response procedures that local line officers will follow in all cases once an aircraft meets applicable criteria of "Overdue," "Missing," or "Crashed." (See Glossary)

2. **Applicability.** The plan will be used in situations where an aircraft meets overdue, missing, or crashed criteria.

3. **Contents.** Emergency response plans and guides may be formatted in a variety of ways, provided the user (that is, the individual making the initial response to the emergency) can easily reference the appropriate situation and then follow a generic checklist of actions to be taken for that situation.

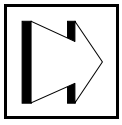
B. **Airtanker Base Manager Responsibility.** Upon arrival at an incident or prior to commencement of flying on a local incident, the Airtanker Base Manager should acquire information from the unit's emergency response plan or the local Aircraft Crash, Search and Rescue Guide.

III. Emergency Response Procedures.

A. "*Mayday Call*" indicates that the Pilot of an aircraft is experiencing an in-flight emergency. The Dispatcher or Aircraft Base Radio Operator must listen closely, since the Pilot may be relaying location information essential to dispatch of rescue services.

For this reason, a Dispatcher or Base Radio Operator must always be on duty at the radio during mission-type flights. Fixed-wing base personnel should also closely and continuously track the aircraft's location so that accurate location information can be relayed in an emergency. Flight Following Log, accomplishes this tracking.

After receiving a Mayday call, the Radio Operator should attempt to contact the aircraft to determine the nature of the emergency. If the aircraft has landed safely and there is no need to order emergency services, then the responsible Unit Aviation Manager or Airtanker Base Manager should be contacted and appropriate action taken.



IMPORTANT NOTICE: During emergency situations involving an overdue, missing, or crashed aircraft, close coordination between the local unit dispatch office and the helibase is critical to the success of the search and rescue operation.

IV. Incident, Hazard, and Accident Reporting.

A. **Definitions.** These definitions supplement those found on the Glossary. These may vary slightly among agencies, but are generally applicable to all agencies.

1. **Aviation Hazard.** An aviation hazard is any condition, act, or set of circumstances that compromise the safety of personnel engaged in aviation activities. These hazards may address, but are not limited to, such areas as:

   * Deviations from policies, procedures, regulations and instructions as contained in Manual and Handbook releases, Interim Directives, standard operating guides, etc.

   * Hazardous materials handling and/or transport

   * Flight following

   * Deviation from planned operations, flight plan, type of use (for example, general to special-use)

   * Failure to utilize PPE or ALSE

   * Inadequate training, or failure to meet training requirements

   * Failure to utilize load calculations and/or manifests correctly

   * Weather conditions

   * Ground operations

   * Pilot procedure's

   * Fuel contamination

   * Unsafe actions by Pilot, aircrew, passengers, or support personnel

2. **Maintenance Deficiency.** A Maintenance Deficiency is a defect or failure causing mechanical difficulties encountered in aircraft operations, not specifically identified as an incident or aviation hazard.

3. **Aircraft Incident.** An aircraft incident is an unplanned event that results in damage which is less than serious aircraft incident criteria, or injury less than medical attention. A situation involving an aircraft and/or personnel which have the potential of resulting in an accident is also classified as an aircraft incident. Note that the USDA-FS also has a classification of "Incident With Potential" to cause an accident. Examples of incidents are:

   a. **Injury to Personnel.** Injury requiring only first aid.

   b. **Damage to Aircraft.** Any damage less than significant (and less than accident criteria) when engines are turning and there is an intent to fly. When in doubt, respond to the occurrence as if it were an accident. The accident investigators will determine whether the occurrence is classified as an incident or accident.

   c. **Forced Landing.** A landing necessitated by failure of engines, systems, or components, which makes continued flight impossible, and which may or may not result in damage or injury.

d. **Precautionary Landing.** A landing necessitated by apparent impending failure of engines, systems, or components or incapacitation of the flight crew which makes continued flight inadvisable.

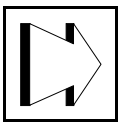
e. **Aircraft Ground Mishap.** A mishap in which there is no intent to fly, however, the power plants are in operation and damage incurred requiring replacement or repair of propellers, tires, wheels, wing tips, flaps, etc., or an injury is incurred requiring first aid.

f. **Ground Damage to Aircraft.** A mishap not specifically addressed as an incident above, where the aircraft or component incurs damage requiring repair or replacement before flight. Powerplants may or may not be in operation.

g. **Near Mid-Air Collision.** When airborne aircraft encroaches within 500 feet of another airborne aircraft, or a Pilot or crewmember determines that a collision hazard existed between two or more aircraft.

4. **Accident.** The accident definition is lengthy and fairly technical. If in doubt as to whether the occurrence was an incident ("Damage to Aircraft") or an accident, treat it as an accident. The investigation team will make the final determination as to classification.

B. Procedure for Utilizing Agency Forms. The agency with operational control of the aircraft at the time of the occurrence will complete a SAFECOM (incident/hazard form) and submit it through its agency channels. Use Form FS 5700-14 (OAS-34) for USDA-FS or DOI incidents, and applicable state and local formats.



Examples: BLM aircraft flying on USDA-Forest Service fire or project has an accident, or an incident, hazard or maintenance deficiency occurs. Either the BLM aircrew or USDA-FS employee observing the occurrence submits FS 5700-14/OAS-34 SAFECOM Form through Forest Service channels.

NPS aircraft flying on BLM fire or project as an accident, or an incident, hazard or maintenance deficiency occurs. Either the NPS aircrew or BLM employee observing the occurrence submits FS 5700-14/OAS-34 SAFECOM Form or OAS-77 Form for accident through BLM channels.

1. **Form OAS-77 Initial Report of Aircraft Accident.** (See Exhibit C-2)

a. **Purpose.** The purpose of the form is to collect and transmit information concerning an accident from the local level to OAS and the Washington Office.

b. **Applicability.** The form is to be completed for all aircraft which have met with an accident. If it is uncertain whether accident criteria are met, the form should be submitted.

c. **Responsibility and Requirements for Completion.** The Dispatcher or other aviation management staff is responsible for immediate completion and transmittal of the form. In their absence, any responsible agency individual with knowledge of the accident should make the report.

d. **Instructions for Completion.** See Exhibit C-2. Completion is self-explanatory. Remember that the names of injured personnel are not to be released to the public or media.

e. **Routing, Filing and/Or Action Necessary.** The form is routed immediately to both OAS, the agency's headquarters office, and the State, Area, or Regional Aviation Manager.

Exhibit D-1: Example of Form OAS-77 Initial Report of Aircraft Accident

Interagency Airtanker Base Operations Guide

Initial Report of Aircraft Mishap

Airtanker Base and Agency Name	

If the aircraft mishap involves ***damage*** or ***injury***, notify the appropriate DOI or USDA-FS Aviation Safety Office (ASO) ***Immediately*** by the most expeditious means available.

DOI - USDA-FS 24 Hour Aircraft Accident Reporting Hot Line: 1-888-4Mishap or 1-888-464-7427

1	Name of Person Making this Report			Title		
	Phone		Location			
2	Mishap Date		Time			
	Location					
	Nearest Airport		Hospital		Phone	
3	Brief Description of Mishap					
4					Injuries	
		Occupants	Employed By		Yes	No
	Pilot					
	Copilot					
	Passenger					
	Passenger					
	Passenger					
	Passenger					
	Passenger					
	Passenger					
5	Type Aircraft				No:	
	Owner/Operator				Phone:	
	Damage	[ ] Yes [ ] No				
6	Other Agencies Involved					
7	Local Actions Taken - Planned					

2. **SAFECOM OAS-34/FS 5700-14 Initial Report of Incident Or Accident.** (See Exhibit C-1.)

   a. **Purpose.** The purposes of the form are:

      * To report any condition, observance, act, maintenance problem, or circumstance which has potential to cause an aviation related accident.

      * To document all aviation hazards, incidents, incidents with potential, or accidents.

      * To perform trend analyses for short or long-term changes in policy and procedures, identify areas needing training, etc.,

      * To establish accountability on the part of all aviation mission participants for meeting flight and employee safety objectives.

   b. **Applicability.** The form is to be completed for any one of the four occurrences: Aviation Hazard, Incident, Incident With Potential, or Accident.

   c. **Responsibility and Requirements for Completion.** The responsible employee will document the facts and immediately file the report with his/her supervisor. Regions will immediately report by telephone all aviation accidents or incidents with potential to the National Aviation Safety Officer.

   d. **Instructions for Completion.** (See Exhibit C-1.)
   Completion is self-explanatory.

   e. **Routing, Filing and/Or Action Necessary.**

      (1) **Reporting.** Each individual and each organization has an obligation to others in aviation to share hazard, mishap and causal information. Each unit's aviation accident prevention plan should therefore contain provisions for encouraging the reporting of such information by individuals. The information is documented and processed for system-wide distribution.

      (2) **Time Frames.** Copies are routed to the Regional Aviation Safety Manager and Forest Aviation Officer as soon as possible. Accidents and incidents with potential are to be reported immediately.

3. **State and Local Agency Reports.** Reference local formats. Federal personnel managing Airtanker Bases or Fixed-Wing Bases, for state or local agencies, should complete the state or local format. If none exists, complete a SAFECOM OAS-34/FS 5700-14 and submit to the local unit Aviation Manager.

C. **SAFECOM Submission.** The Forest Service and Office of Aircraft Services (DOI) have each created Aviation Safety home pages on the Internet. You can use these sites to submit SAFECOM. Since the home pages are works in progress, to link to other home pages, it is suggested that you Bookmark in Netscape or save this site as a Favorite in Internet Explorer for quicker access. This method of submitting SAFECOM, through the Internet, is the preferred method. However, not all users have access to the Internet, so the methods of submitting used in the past are still acceptable: Fax and/or hard copy.

1. **Instructions for Submitting SAFECOM On the Internet.** (Forest Service)

   a. Get on the Internet

      * If using a PC, from the desktop, double click on the Internet Explorer icon. Your default home page should appear on the screen.

   b. Open the Forest Service Aviation Safety Home Page

      * If using **Internet Explorer**, use the mouse to click in the "Address" box near the top of the window.

      * Either delete everything that is in the box, or highlight everything that is in the box, and then type in **http://205.173.2.4**. General rule of thumb, remember to use lowercase only.

      * Then hit Enter and wait for the FS Aviation Home Page to load.

      * If using **Netscape**, use the same process as above, the only difference is that the"Address" box is called "Location" in Netscape.

   c. To add to "Favorites" in Internet Explorer or "Bookmark" in Netscape
   This is suggested only, it will make it easier to find and use the page in the future, essentially eliminating *Step B* above.

      * For **Internet Explorer:** Once the page is open, click on "Favorites" at the Top of the window (not the bottom with the word favorite).

      * A pull down menu will appear, select "Add to Favorites."

      * A box will appear with information about this "Favorite." Click OK.

      * You're done. To access this page in the future, just get on the Internet, click on "Favorites," then click on ***USFS Aviation Safety - Homepage***.

      * For **Netscape:** It is a similar process, except they are called "Bookmarks."
      * Click on "Bookmark," depending on which version of Netscape you have, it will be either to the left of the ***word*** Location, where you would type the address, or at the top of the Tool Bar.

      * Then click on "Add Bookmark."

      * You're done. It will now be on your Bookmark list for future use.

2. **Instructions for Submitting SAFECOM On the Internet.** (OAS)

   a. Get on the Internet.

      * If using a PC, double click on the **Netscape** icon.

   b. Open the Office of Aircraft Services (OAS) Homepage.

      * If using "**Netscape**," use the mouse to click on the "**Location**" box near the top of the window.

      * Either delete everything that is in the box, or highlight everything that is in the box, and then type in **http://www.oas.gov**. Remember to use lowercase only.

* Then hit Enter and wait for the OAS Aviation Home Page to load.

* To "Bookmark," see C.1.c. above.

3. **Opening and Completing SAFECOM Form.** (FS and OAS)

   a. From the Aviation Safety Homepage, click on the word "Submit SAFECOM."

      (1) On the OAS Aviation Safety Homepage, you can also click on the Pull-down Menu, click on Aviation Safety, and it will also bring you seven (7) options, choose "submit SAFECOM."

   b. A SAFECOM form will appear on your screen, use the mouse to click in the box you want to start typing in and complete the form. ***Tip***: You can use the "Tab" key to jump sequentially from box to box.

   c. There are several pull down screens with pick lists, please use these as much as possible.

   d. When you finish the narrative portion and the corrective portion, if appropriate, scroll to the bottom of the form.

   e. If you want a hard copy of the SAFECOM you are submitting, for your records, click on the print icon on your browser at this point. You will not be able to print a copy after you submit the form.

4. **Submitting the SAFECOM**.

   a. At the bottom of the submit SAFECOM screen, you will see three (3) items: "Clear Form," "Select Region," and "Submit."

   b. The "Clear Form" button, does just that, clears all the information you have just typed in.

   c. The "Select Region/Select Agency" box is a pull down **menu. You should select the Region/Agency where the event occurred.** This will send it to the correct Regional/Agency Safety Manager.

   d. The "Submit" button is the last thing you do. Click on this and the SAFECOM is sent to the server in Boise for processing.

   e. After you hit the "Submit" button, wait a few seconds and you should see a message appear that tells you the SAFECOM has been successfully sent.

5. **To view Forest Service and OAS SAFECOM:**

   a. Sign onto the Internet and go to your respective Homepage (FS or OAS).

   b. Once the Homepage comes up, click on **"Search SAFECOM."**

   c. A screen will appear that gives you two (2) choices, "Public Access Areas," and "Protected Access Area." Click on "Public Access Area," (Forest Service). For OAS, click on **"Public Query of AMIS Data."**

   d. Another screen will appear that allows you to set up search criteria, such as dates, regions, type of aircraft, etc. You can fill in search criteria as you wish, or to see the entire data base, leave the search criteria as they are, click "Submit" near the bottom of the screen.

e. After you click on "Submit," a Query Results screen will appear that shows a list of ten (10) SAFECOM at a time. To see the next 10 SAFECOM, click on the forward arrow at the bottom of list (>), to go to the end of the list click on the double arrow (>>), use reverse arrows to go back.

f. To view an individual SAFECOM from the list, click on the SAFECOM Trac # 99-1, 99-35, etc.

g. The SAFECOM will appear on your screen. You can print the SAFECOM from this location, or save it to a file desired.

Exhibit D-2: SAFECOM Aviation Safety Communique - Page 1

SAFECOMS

For Actual Document Go to the Internet: http://205.173.2.4/safecom/entry.asp

Home Offices Directory Library Safecoms Mishaps Traning Links News

This form is used to report any condition, observance, act, maintenance problem, or circumstance which has the potential to cause an aviation-related mishap. Submitting a Safecom is not a substitute for on-the-spot correction(s).

SAFECOMS

Reported By *(Optional)*

Name
Phone — *Office*
Organization — Other
Date — *mm/dd/yy*

EVENT

Date *mm/dd/yy* | Local Time *24 hour clock* | Injuries? | Damage

Location | State

Airport/City, Lat/Long, or Fire Name

Agency Involved | Other

MISSION

Type | Other

Procurement | Other

Persons Onboard | Special Use? | Hazardous Materials Onboard?

Departure Point | Destination

SAFECOM Aviation Safety Communique - Page 2

AIRCRAFT

Tail Number		Manufacturer		Model	
Owner/Operator			Pilot		

NARRATIVE ***(Please provide a brief explanation of the event).***

SAFECOM Aviation Safety Communique - Page 3

CORRECTIVE ACTIONS

Submit Instructions: Please review and correct entries, then select a **Send to Region.** To print this safecom for your records, use the **Print** button on your web browser. Once you have completed these steps, press the **Submit** button.

Clear Form	**Send to Region:**		Submit

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix E

Minimum Equipment Required or Recommended at an Airtanker Base

Appendix E: Minimum Equipment Required or Recommended at an Airtanker Base

Required Equipment

Quantity	Item
1-3	Fire Extinguisher, Aircraft Type, Minimum 20 Pound (one for each pit)
1	Outside Audio System (Public Address)
1	Telephone System (not required in Alaska)
2	Handheld Radios with Headsets (for Ramp Personnel)
1	Dispatch Radio System (VHF-AM and VHF-FM)
1	Gasoline Powered Backup Retardant Pump
1	Chock Blocks for each Home Base and Transient Aircraft
1	First Aid Kit (10 person minimum)
2	Body Fluids Barrier Kit
1	Pair Light Wands
1	High Visibility Vest (for each Parking Tender)
1	VCR with Monitor (for training)
1	Fax Machine (plain paper type)
1	Pentium Based Computer with Printer (Windows 95 minimum)
1	Safety Signs (as required to meet OSHA/State Regulations
1	Labor/Civil Rights Posters (to meet Federal/State Regulations
1	Material Safety Data Sheets and Binder (to meet OSHA/State Regulations
1	Current Flight Hazard Map
1	Refractometer, labels and packaging to meet NFES 1245 LA/QA for fire retardant chemicals.
1	Loading and refueling pit.

RECOMMENDED EQUIPMENT (Asterisked (*) items are required at Forest Service Bases)

Quantity	Item
1	Copy Machine*
1	OSHA and NFPA 30 Certified Flammable Liquids Storage Cabinet*
1	Programmable Scanner
1	Microwave Oven*
1	Air Compressor
1	Pressure Washer
1	Forklift and/or Hand truck
1	Refrigerator*
1	Vacuum Cleaner
1	Ice Maker (Forest Service may use bagged ice locker minimum 500 pounds)*
1	Large Capacity Coffee maker
1	Battery Charger
1	Ladder (6 foot minimum)*
1	Washer and Dryer*
1	Erasable Briefing Board
1	Easel and Paper
1	Electrical Outlets (for each Loading pit). Class A Installation or as required by local code.*
1	Assorted Automotive Type Tool Kit
1	Small Spill Kit (petroleum products)*
1	Bicycle
1	Lock Out, Tag Out kit*
1	Right to Know Station*
1	Eye/Shower Wash Stations at mixing area, each pit*
1	Mass flow meter for each loading pump* (Flow meter must be supplied by the Forest Service and NOT the retardant contractor. Additionally it must be equipped with LCD readouts located on the end of each loading hose and report flow in pounds (not gallons). A high/low specific gravity warning siren shall be attached and available to loaders).

Required Minimum Miscellaneous Parts And Supplies

If government performs retardant operations, minimum spare parts and supplies needed are:

Quantity	Item
1	Aircraft Loading Valve (3 inch Camlock)
1	Pipe Wrench (36 Aluminum)
1	Pipe Wrench (24 inch Aluminum)
6	3 inch Gaskets
6	4 inch Gaskets
2	3 inch Female Camlock-to-Female Thread Fittings
2	3 inch Female Camlock-to-Male Thread Fittings
2	3 inch Male Camlock-to- Female Thread Fittings
2	4 inch Female Camlock-to- Female Thread Fittings
2	4 inch Female Camlock-to- Male Thread Fittings
2	4 inch Male Camlock-to- Female Thread Fittings
2	4 inch Male Camlock-to-Male Thread Fittings
2	3 inch Sections of Loading Hose
1	4 inch Section Hose (for non permanent plumbed bases)
1	Jar Vaseline Petroleum Jelly
1	Spare Refractometer
1	Banding Tool Kit
5	Hose Carts

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix F

Retardant Hot-Loading Procedures

January 2000

Appendix F: Retardant Hot-loading Procedures.

A. Purpose. The introduction of turboprop aircraft necessitated some fundamental changes in retardant loading procedures. Originally hot-loading was authorized as a procedure to load aircraft without shutting down all of the engines. The original intention was to reduce loading times and prevent adverse impacts on aircraft systems, but this is no longer the case or concern. In recent years, the majority of Airtanker contractors have decided not to hot-load. The hot-loading procedure requires approved base plan, trained personnel and concurrence by both the flight crew and base personnel. If either said no, the hot-loading is not done. Hot-loading is still an approved procedure and if utilized, must be done properly, safely and addressed in the base supplement of the specific base that is doing the hot-loading. These procedures may also be applied to other aircraft, provided necessary authorizations are in place.

B. Objectives. The objective of this Appendix is to provide safe and viable reference procedures for loading aircraft with fire retardant chemicals without fully shutting down all of the aircraft's engines.

C. Definition. Hot-loading is the loading of an aircraft with retardant with only one engine running.

D. Applicability. These procedures are applicable but not limited to[8]:

- Lockheed Hercules C-130A
- Lockheed P3-A Orion
- Single-Engine Airtankers (SEAT)
- Grumman S-2F or S-2T (R5 only)*

During retardant loading operations, only aircraft approved in the Base Supplement may be hot-loaded. One engine may remain running provided it is on the side of the aircraft not being loaded and in full compliance with the procedure outlines in the following safety plan.

E. Responsibility. Each agency's Aviation Staff remains responsible for implementing a safe and effective "Hot-loading" procedure for each authorized Airtanker. Responsibility for compliance with the requirements and procedures outlined within this plan rests with each Agency, including the proper training of base personnel. Each Airtanker Base Manager is responsible for training personnel in these procedures. Airtanker loading operations create many hazards under normal conditions. Hot-loading intensifies the degree to which personnel must adhere to these procedures.

Training may be accomplished utilizing the “Turbine-Engine Aircraft Hot-Loading Video” along with the part of the base supplement that addresses hot loading training and safety procedures.

[8] Certain bases have been authorized to hot-load turboprop and other designated Airtankers. S2F aircraft have been asterisked above in the text. In order for a specific Airtanker to be hot-loaded, the local Base Supplement must contain authorization to do so from an appropriate level of an agency's aviation management.

F. Procedures. This procedure should be used for all loading operations for approved Airtankers. The Parking Tender/Engine Guard is not necessary during loading operations if all engines are shut down.

1. Initial Shut-Down. The Airtanker will be shut down for the first loading at an Airtanker Base from which this Airtanker has not previously operated from in the current season. Flight crews will review with the retardant ramp personnel:

* Procedures and equipment specific to that aircraft
  # Hot reloading procedures
  # Ramp traffic flow
  # Base safety considerations

2. Ramp Entry.

a. Prior to the Airtanker entering the loading area(s), the pilot will contact the Parking Tender/Ramp Manager on the appropriate Airtanker Base Ramp Frequency for loading pit assignment.

b. The Parking Tender[9] will be properly equipped with a high-visibility vest, PPE, and a hand-held VHF radio. When radio communication is established[10] with the Airtanker pilot, the Parking Tender/Ramp Manager will direct the aircraft to the appropriate loading pit.

c. Entry into loading pit will be in full compliance with the applicable turning radius of the make/model Airtanker being directed. Parking of the aircraft must include consideration for unloading the forces on tandem wheels and tires. For the C-130, the final parking spot will provide room for the Airtanker to pull straight ahead for at least ten feet.

d. Flight Crew Parking Action.[11] With the Airtanker positioned in the loading pit, the pilot places the propellers in "ground idle" (flat pitch), then shuts down the two engines on the side from which the aircraft is being loaded.[12] One engine on the opposite side (either inboard nor outboard) is left running to supply power to the aircraft.

e. Parking Tender Action.

1. The Parking Tender/Ramp Manager will take up a position to the front and side of the running engine(s) providing a maximum view of the engine(s), cockpit and safe area in the vicinity of the running engine, and will remain in communication (radio or hand signals) with the pilot.

---

[9] At contract retardant loading bases, the Ramp Manager/Parking Tender must be an agency employee trained in parking tender procedures, and not a retardant contractor employee.

[10] There may be hot-loading situations where radio communications between the Pilot and Parking Tender cannot be established. Hot loading can be accomplished safely by the Parking Tender establishing eye contact with the Pilot and utilizing standardized hand signals (see Appendix A).

[11] These actions apply to all aircraft approved for hot-loading.

[12] Both engines on the S2 remain running during hot-loading.

2. The Parking Tender/Ramp Manager must establish that the area is clear and receive a positive signal from the pilot to begin loading. The Parking Tender/Ramp Manager will then signal the reloading crew to begin. The signal may be given by VHF radio on the appropriate Ramp frequency, or an established hand signal.

3. If personnel or equipment is observed approaching the running engine(s), the Parking Tender/Ramp Manager will immediately instruct the pilot to shut down the engine(s).

f. Loaders will remain clear of the aircraft until the Parking Tender/Ramp Manager signal has been given to commence loading.

3. Loading of Retardant.

a. General.

1. Radio Communications (or eye to eye contact and hand signals) will be maintained throughout the retardant loading operations between the pilot and Parking Tender/Ramp Manager.

2. The Parking Tender/Ramp Manager must not allow anyone to approach the aircraft until after the props have stopped windmilling on the engines that are shutdown, (S-2s excepted).

3. Loaders will approach and depart the aircraft from the rear of the wing.

4. Loaders should be aware that any aircraft could settle during retardant loading.

b. C-130 Specific Procedure. When loading aircraft with no external load indicators, a designated flight crew member will continuously monitor tank filling visually and will signal loaders to confirm tank capacity level has been reached from inside the aircraft. With external quantity indicators installed, the loading crew will verify that the tank capacity has been reached.

c. S2 Specific Procedures.

1. The Parking Tender signals loader to activate electric loading level port and commence loading.

2. When the aircraft settles due to weight, the loader reduces the retardant flow to approximately one half.

3. The retardant loading system has two electric overflow switches at the loading port, one for 600 gallons and one for 800 gallons. The loader must contact the pilot before filling to determine the retardant load limit.

d. S2-T Specific Procedures.

1. The Ramp Manager/Parking Tender, during the loading, will remain on station near the left or right wing tip in full view of the Pilot and Loader.

2. Ramp Manager/Parking Tender obtains permission from the Pilot, to load when he and the aircraft are ready.

3. Ramp Manager/Parking Tender signal Loader when ready, so that the Loader can activate loading port levels.

4. When aircraft settles, due to weight, the loader reduces the flow.

5. The loader observes the loading lights, on the right side of the aircraft near the tail.

6. And, when the top light illuminates, the aircraft is full and the loader stops the flow.

4. Releasing the Aircraft.

a. General.

(1) When tank capacity has been reached, the loading crew will close the loading valve, disconnect the loading hose, remove it and themselves to the designated safe area, and signal that the hose is clear.

(2) The Parking Tender/Ramp Manager will notify the pilot by radio or signal that the hose and loading crew are clear of the aircraft.

(3) The Parking Tender/Ramp Manager will take up a position that will allow a view of both sides of the aircraft and be in clear view of the pilot and either signal engines are clear to start, or communicate by the VHF radio that the engines on the loading side are clear to start.

(4) The Airtanker will be cleared to exit the loading pit after the Parking Tender/Ramp Manager has determined that all obstructions and hazards are clear of the aircraft and the loading crew is in the designated safe area free from severe propeller blast.

5. Emergency Procedures.

a. Fire. The Parking Tender will notify the pilot, by radio, of fire. If the radio fails, the Parking Tender will face aircraft and point to the fire with one hand while drawing a figure-eight in the air with the other (see Appendix A). Fire extinguishers will be discharged to extinguish an engine fire only at the direction of the pilot or flight crew member. If a fire persists, follow established base emergency procedures.

b. Communications Loss. The Parking Tender will secure eye to eye contact with the pilot and pat earphones followed by thumbs down signal. The Parking Tender will continue to use hand signals if no radio is available. If the aircraft radio is inoperable, the aircraft will be shut down until repairs are made.

c. Situation Requiring Engine Shut-Down. If a situation requiring engine shutdown occurs, the Parking Tender will notify the pilot by radio or hand signal drawing index finger across the throat.

6. Safety Awareness. Airtanker base personnel have conducted safe and effective Airtanker loading operations for many years, however, the very nature of this type of operation creates many safety hazards. The Airtanker industry has undergone a transition into aircraft equipped with powerful, noisy turboprop engines creating new hazards and reasons for an updated Airtanker Ramp Safety Plan and Loading Procedures. Hazards include:

Operating vehicles
Aircraft and machinery
Wet slippery surfaces due to retardant spills or wash down
Obstructions such as hoses and tools to walkways and vehicle routes
Congestion due to limited operating space
Blowing dust
Prop blast
Very high noise levels

a. General Precautions.

Only qualified persons will perform aircraft and loading operational functions.
Only essential personnel will be allowed in the loading area during Hot-loading procedures. No person other than the Ramp Manager/Parking Tender or Loader is to approach the aircraft while the engines are running.

No personnel are to be involved in activities on the side of the aircraft adjacent to the operating engines. This might require preplanning at bases with wing tip to wing tip loading pits.

Never walk beneath, between, or in close proximity to aircraft propellers (turning or stopped).

Do not approach aircraft until the engines have been shut down on the loading side, and the Parking Tender/Ramp Manager has signaled the aircraft clear for loading.

Avoid the area to the rear of the aircraft while the engines are running. Hazards include:

Propeller Blast
Dust
Debris
Fumes

Be aware that fumes from raw fuel can ignite.

b. P-3A Precautions.

The APU on a P-3A is located near the nose on the right side. Ramp Manager should be careful not to approach that side of the cockpit.

The Parking Tender must remember that aircraft length exceeds wingspan. Caution must be used when operating in tight spaces that the swinging tail may strike objects cleared by the wing tip.

Remember that this aircraft has a low wing. Personnel operating around the P-3a should use caution since the aircraft may settle during loading.

Prop blast from departing aircraft may create flying debris.

c. C-130 Precautions.

Exhaust from running engine
Lack of prop blast from flat pitch props
High noise levels
G.T.C. exhaust port on left side of aircraft
Stronger than usual Prop blast and flying debris when aircraft pulls out of pit (secure all items around base)
C-130 wing height makes it tempting to walk beneath props ***Do not do it!***

d. S2/S-2T Precautions.

Exhaust from running engines
High nose levels (S2-T)
Lack of prop blast when props in beta mode (S2-T)
Prop blast and flying debris when aircraft pulls out of the pit

- # Always stay behind the wing (except for ramp parking)

7. **Safety Equipment.** The protective equipment outlined in the Interagency Airtanker Base Operations Guide will be worn at all times.

8. **Aircraft Description and Specifications.** For further information concerning the air tankers discussed in this Appendix, see Appendix J, Airtankers and Tank Systems.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix G

Airtanker Base Readiness Evaluation

January 2000

Appendix G: Exhibit G-1 Airtanker Base Readiness Evaluation -

Airtanker Base Fire Readiness Review

Team Conducting this Evaluation

Name	Agency	Phone

Important Note:	It is recommended that personnel qualifications and knowledge (Section G) be addressed last in the evaluation. During the course of the inspection, items addressed in Sections A-F will provide much of the information needed to make an evaluation of personnel in Section G.

Table of Contents

Section	Title
A	Routing
B	General
C	Base Facilities and Communications
D	Planning and Administration
E	Ramp Operations
F	Retardant Operations
G	Airtankers
H	Summary
I	Evaluators' Signatures

Routing

Title	Signature
Forest Service FMO	
State FMO/Range Unit	
BLM FMO	
BLM State Aviation Manager	
Geographic Aviation Unit	
National FW Specialist	
Regional Airtanker Base Specialist	
State Airtanker Base Specialist	

Functional Area: A. General

Functional Area: A. General					
Base Name		**Managed By (Agency/Agencies)**			
Type of Operation Conducted		Consult latest Airtanker Base Directory sheet for this base. Is the information accurate and current? (Review item by item).			
	Airtanker				
	Leadplane				
	Air Tactical	**Yes**		**No**	
Airtanker Base Manager		**Ramp Manager**			
Mixmaster		**Parking Tender**			
Mixing Crew		**Parking Tender**			
May be the same as retardant loading crew					
Mixing Crew		**Retardant Loading Crew**			
Mixing Crew		**Retardant Loading Crew**			
Aircraft Timekeeper		**Retardant Loading Crew**			
Aircraft Base Radio Operator		**Other Positions**			
Local Air Officer		**Phone Numbers**			
COAR or COR on Aircraft Contract		**Phone Numbers**			
Aircraft Project Inspector(s)		**Phone Numbers**			
COAR or COR on Retardant Contract		**Phone Numbers**			
Retardant Project Inspector(s)		**Phone Numbers**			

Functional Area: A. General - Continued

Functional Area: A. General Continued			
Title	**Name**	**Address**	**Phone 1**
Airtanker Vendor			
Pilot			
Relief Pilot			
Co Pilot			
Relief Co-Pilot			
Engineer (if applic).			
Relief Engineer (if applicable).			
Mechanic			
Retardant Vendor			
Local Retardant Company Rep.			
Other			
Other			
Other			

Notes

Functional Area: B. Base Facilities and Communications

Functional Area: B. Base Facilities and Communications				
Item #	**Evaluation Item/Criteria**	**Yes**	**No**	**Remarks**
B1	Does the base's dispatch office have adequate space for the number of personnel working there and for intended operations?			
B2	Does the dispatch office provide adequate visibility of arriving and departing aircraft?			
B3	Is the dispatch office well organized (materials and references accessible and labeled, maps on wall, etc.)?			
B4	Is there backup auxiliary power system at the base?			
B5	Is a Communications Plan posted in both the Dispatch Office and Pilot Ready Room, and are frequencies (Initial Call-In, Airnet, Forest/Field Office Net, Ramp) posted on this plan?			
B6	Does the base have VHF-AM equipment?			
B7	If VHF-AM frequencies are being used, are appropriate, authorized frequencies assigned?			
B8	Does the radio operator know proper radio use procedures?			
B9	Is the telephone system adequate to intended activity (numbers of lines and phones)?			
B10	Are instructions for use of phone system posted, including warning on use of government phones for personal business?			
B11	Are appropriate phone numbers clearly posted (local dispatch, crash-rescue, FBO, etc.)?			
B12	Is there a public address system at the base?			
B13	Is the Pilot Ready Room Standby area adequate? (See below)			
	Air conditioning available?			
	Heating available?			
	Hot and cold potable water?			
	Shower?			
	Restroom facilities?			
	Lounge area?			
	Adequate lighting?			
	Lockers?			
	Desks?			
	Flight planning area?			
	Eating facilities?			
	Sleeping and resting facilities?			
	Stove and/or microwave?			
	Refrigerator?			

Functional Area: C. Planning and Administration

Functional Area: C. Planning and Administration				
Item #	**Evaluation Item/Criteria**	**Yes**	**No**	**Remarks**
C1	Are the following references available at the base and easily accessible?			
	Aviation Management Manuals and Handbooks (all cooperators)			
	Interagency Airtanker Base Directory - NFES # 2537			
	Contract Administration Manual or Guide for appropriate Agency			
	Health and Safety Codes for appropriate agency			
	Current Airtanker Contracts, USDA-FS and OAS			
	Aircraft Communications Plan and Frequency Users Guide			
	Interagency Retardant Base Planning Guide - NFES # 1259			
	NFPA 407 Standards for Aircraft Fuel Servicing			
	Aircraft Rescue and Fire Fighting, 3rd Edition, International Fire Service Training Association, Oklahoma State University			
	Geographic Area Mobilization Plans and local Plans from appropriate agencies			
	Lot Acceptance, Quality Assurance, and Field Quality Control for Fire Retardant Chemicals, (NWCG Publication, PMS-444-1, April, 1995, NIFC, NFES #1245)			
	Interagency Airspace Coordination Guide			
	Incident/Accident (Aircraft Emergency Response) Action Plan			
	Agency contract administration guides			
	Training course material (including applicable videos)			
	Interagency SEAT Operations Guide			
	Interagency Helicopter Operations Guide			
C2	Has the Interagency Airtanker Base Operations Guide been discussed with aircrews and base personnel?			
C3	Is the Interagency Airtanker Base Operations Guide up-to-date? (Check revision page).			
C4	Are aircrews and base personnel aware of the national policy concerning provision of lunches to contract aircrews by the government?			
C5	Have lead plane policy and procedures been discussed with aircrews?			
C6	Are aircrews and base personnel aware of the national policy concerning Airtanker rotation?			
C7a	Are aircrews and base personnel aware of dispatch requirements as contained in the aircraft contract?			

Functional Area: C. Planning and Administration - Continued

Functional Area: C. Planning and Administration				
Item #	**Evaluation Item/Criteria**	**Yes**	**No**	**Remarks**
C7b	Are they aware of the exceptions to the 15 minute dispatch/reaction time clause?			
C8	Are aircrews and base personnel aware of the policies concerning startup/cutoff times and requirements for aerial supervision?			
C9	Are aircrew aware of the national policy concerning dropping of retardant in congested areas (exemptions)?			
C10	Has the base provided adequately for transportation of aircrews to and from lodging/eating facilities?			
C11	Are personnel aware of local policy concerning transportation of aircrews to and from lodging and eating facilities?			
C12	Is a timekeeping clock located in the dispatch office?			
C13	Have aircraft timekeeping procedures been established, reviewed with base personnel and aircrews and are they adequate to ensure accuracy?			
C14	Does the base have an established plan for flight dispatch, flight plans, and flight following? (Query base personnel and pilots).			
C15	Is a map of known local flight hazards posted?			
C16	Is the hazard map accessible to both dispatch and pilots?			
C17	Has the map been updated? Date of last revision:			
C18	Is there a key on the map that identifies type of hazard?			
C19	Are Military Training Routes and Special Use Airspace (Military Operations Areas, Restricted Areas, etc,.) clearly marked?			
C20	Are transmission wires and other hazards clearly marked?			
C21	Has a safety briefing been held with all home-based aircrews concerning local known hazards?			
C22	Is the base utilizing the CAHIS (Aviation Hazard) program?			
C23	If so, do they have the latest version of CAHIS?			
C24	Are aircrews aware of the use of Form ATB-3, Flight Resource Order: Tactical Fixed Wing?			
C25	Are aircrews aware of the use form ATB-3a, Airtanker Pilot's Flight Record?			
C26	Has the Local Supplement been updated this year?			
Notes				

Functional Area: C. Planning and Administration - Continued

Functional Area: C. Planning and Administration				
Item #	**Evaluation Item/Criteria**	**Yes**	**No**	**Remarks**
C27	Does the Supplement depict or discuss the following:			
	A current organization chart for the Airtanker base?			
	A current organization chart for the local air attack organization?			
	A current organization chart for the agency's contracting organization?			
	A current organization chart for the dispatch organization?			
	A current Communications Plan for phone and radio use?			
	Allowable takeoff performance Chart?			
	A map of the local area with prominent landmarks?			
	A map with zones of influence/exchange/initial attack areas?			
	A map with local airfield hazards/jettison areas?			
	A road map of local area?			
	A list of equipment and parts at the base?			
	Fuels and fire behavior common to the area?			
	Agency responsibilities (especially at interagency bases)?			
	Duties and responsibilities of Airtanker base personnel (as they differ from those in the Interagency Guide)?			
	Local Aircraft contract administration procedures?			
	Use of forms and reports (aside from those outlined in the IATGOB)?			
	Local procedures for payment of landing fees and airport use costs?			
	Procedures for submission of payment documents?			
	Retardant contract administration procedures?			
	Retardant billing procedures?			
	Local airfield management (procedures/regulations)?			
	Use of night lighting equipment?			
	Base electrical system (normal and emergency)?			

Functional Area: C. Planning and Administration - Continued

Functional Area: C. Planning and Administration				
Item #	**Evaluation Item/Criteria**	**Yes**	**No**	**Remarks**
C27	Maintenance of base facilities and equipment?			
	Use of agricultural Airtanker aircraft?			
	Local procedures for hot-loading Airtankers?			
	Retardant testing procedures?			
	Type of retardant in use?			
	Retardant pumping procedures?			
	Retardant dropping in sensitive areas?			
	Washdown, draining, and spill procedures?			
	Parking/release of aircraft procedures?			
	Preflight checks and engine run-up procedures?			
	Retardant/foam loading procedures?			
	Procedures for contacting local fuel vendor?			
	Fueling areas and procedures?			
	Flight plan and flight following procedures (Local, Regional/State, and National)?			
	Local procedures for requesting temporary flight restrictions (FAR 91.137)?			
	Local crash-rescue organization and procedures?			
C28	Does the Supplement contain a Fire Overload Contingency Plan?			
C29	Are personnel aware of their responsibility to submit Form ATB-8, Incident Fixed-Wing Base Daily Use and Cost Summary to Type I and II Incident Management Teams on a nightly basis?			

Functional Area: D. Ramp Operations

Functional Area: D. Ramp Operations				
Item #	**Evaluation Item/Criteria**	**Yes**	**No**	**Remarks**
D1	Location acceptable? Indicate any problems.			
D2	Ramp is capable of accommodating how many Airtankers:			
	In the Pits:			
	Load Simultaneously:			
	Parking:			
	Space For Unavailable Aircraft:			
D3	Is ramp surface in good condition?			
D4	Are wind indicator(s) properly placed?			
D5	Are foreign object damage avoidance/dust control measures in place?			
D6	Are the following warning signs posted appropriately			
	No Smoking			
	Hazardous Areas			
	Authorized Parking Signs			
	Signing and Marking for Ramp Security			
	Vehicle Control Signs designated restricted areas			
D7	Is ramp fenced and can the ramp be secured?			
D8	Is the overall security at the base adequate?			
D9	Is there adequate parking at the base?			
D10	Are aircraft-type fire extinguishers at each loading pit?			
D11	Are extinguishers the proper type and have they been inspected?			
	Number			
	Type			
	Capacity			
	Condition			
	Dates of last Inspection			
D12	Have appropriate Airtanker base personnel received training in crash-rescue procedures and use of extinguishers?			
D13	Are there a sufficient number of chock blocks for home-based aircraft and are personnel aware of their proper use?			
D14	Are there extra chock blocks available for transient aircraft?			
D15	Is there a night lighting kit available for night maintenance, etc?			
D16	Is there a first-aid kit readily available at the ramp?			
	Is the kit well-maintained?			
D17	Has the Allowable Takeoff Performance Chart for this base been completed and updated to reflect any airport improvements?			
D18	Are fueling procedures being followed?			

Functional Area: D. Ramp Operations - Continued

Functional Area: D. Ramp Operations				
Item #	**Evaluation Item/Criteria**	**Yes**	**No**	**Remarks**
D19	Do ladders to the top of tanks, etc?			
D20	Are walkways on tanks painted with non-skids type paint?			
D21	Do pump shafts have guards?			
D22	Is all electrical equipment properly grounded?			
D23	Are eyewash and emergency shower facilities provided?			
D24	Is there adequate personal protective equipment and is its use known?			
D25	Does the base have parking tender-to-aircraft communications? (push-to-talk headsets or other)?			
D26	Are the Parking Tenders knowledgeable of the hand signals for Airtankers?			

Notes:

Functional Area: E. Retardant Operations

Functional Area: E. Retardant Operations				
Item #	**Evaluation Item/Criteria**	**Yes**	**No**	**Remarks**
E1	Contractor Operated retardant base?			
	Government Operated retardant base?			
E2	Is the retardant mixing and storage equipment owned by the Retardant Company?			
	Is the retardant mixing and storage equipment owned by the Government?			
E3	What type(s) of retardant are used at this base:			
E4	Has the agency with retardant contracting responsibility performed a cost-benefit analysis that supports use of a particular retardant or company?			
E5	How much storage capacity exists at the base?			
	Wet:			
	Dry:			
E6	Is there adequate covered storage area for retardant?			
E7	Is there an adequate supply of retardant available and are personnel aware of procedures for reorder?			
E8	Are retardant testing equipment and charts available and are personnel knowledgeable in their use?			
E9	Are proper charts being used for the type of retardant(s) in use?			
E10	Is mass flow meter in use (Micro-Motion, Rockwell, etc.) and is it being used properly?			
	Last Calibration Date:			
E11	How many aircraft can be loaded simultaneously:			
	Is this loading capability adequate to the level of activity for the base's zone of influence?			
E12	Is there an adequate water supply?			
	Gallons available for immediate use:			
E13	Does the base have off-loading capability?			
E14	Does the base have adequate washdown capability and facilities?			
E15	Are retardant spills and washdown areas being drained properly?			
E16	Is pumping system (hoses, caps, lines, pumps) in working order?			
E17	Does the base "hot-reload" Airtankers?			
	If Yes, have all personnel received the required training for that operation?			
	Is there a letter of authorization in the Base Supplement?			
E18	Are retardant samples being sent to Missoula, MT with each load of new retardant?			
E19	Is feedback on samples being received from Missoula, MT and are corrections actions being taken in a timely manner?			

Functional Area: F. Airtankers

Functional Area: F. Airtankers				
Item #	**Evaluation Item/Criteria**	**Yes**	**No**	**Remarks**
F1	Frequency and Tone list readily available to the pilot:			
	Knowledgeable in Loran/GPS (I.e., RDSS Satellite) navigational equipment?			
	Instructional booklets available?			
F2	Any major component changes since arrival on base, or imminent?			

Functional Area: G. Personnel

Functional Area: G. Personnel					
Complete the following information for *each individual assigned* to the base: Airtanker Base Manager, Ramp Manager, Mixmaster, Radio Operator, Aircraft Timekeeper, Retardant Handler(s), and Parking Tender. Use one sheet per individual. In evaluating personnel qualifications, knowledge and training, refer to Chapter II of the Interagency Airtanker Base Operations Guide.					
Evaluator's Name					
Employee Name	Current Position	Past Experience			
		Position Worked	Agency Unit	Period From/To	# Seasons

Fire, Aviation and Airtanker Base Management Training Courses Attended		
Course	Year	Where Attended

Functional Area: G. Personnel - Continued

Functional Area: G. Personnel			
Evaluation Item/Criteria	**Yes**	**No**	**Remarks**
Does Individual meet training requirements for position filled?			
Training Needed or Recommended			

Knowledge of job duties and responsibilities (reference Chapter II of the Interagency Airtanker Base Operations Guide and test individual's knowledge and proficiency).

Comments

Functional Area: H. Summary

Functional Area: H. Summary
Identify the major deficiencies and corrective action to be taken below
1. General readiness of the Airtanker Base facility

Recommendations and Follow Up

Due Date	Reference Evaluation Section	Recommendations	Completion Date

Note: You should have an On-Line Officer sign off and then follow through with the above recommendations.

Functional Area: H. Summary - Continued

Functional Area: H. Summary
Identify the major deficiencies and corrective action to be taken below
2. General Readiness of Airtanker (Vendor) Personnel

Recommendations and Follow Up

Due Date	Reference Evaluation Section	Recommendations	Completion Date

Note: You should have an On-Line Officer sign off and then follow through with the above recommendations.

Functional Area: H. Summary - Continued

Functional Area: H. Summary
Identify the major deficiencies and corrective action to be taken below
3. General readiness of Airtanker Base. Agency, and if applicable, the Retardant Vendor Personnel

Recommendations and Follow Up

Due Date	Reference Evaluation Section	Recommendations	Completion Date

Note: You should have an On-Line Officer sign off and then follow through with the above recommendations.

Functional Area: I. Evaluators Signatures

Functional Area: I. Evaluator(s) Signature(s)			
Evaluator Name	**Signature**	**Agency**	**Date**

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix H

Recommended Outline for a Local Supplement to the Interagency Airtanker Base Operations Guide

January 2000

Appendix H: Recommended Outline For a Local Supplement to The Interagency Airtanker Base Operations Guide

The following is recommended as an outline for each base to develop its required Supplement.
This section is mandatory for Forest Service Airtanker Bases.

CHAPTER 1 - INTRODUCTION

A. Objectives
B. Authority
C. General Information
    1. State/Regional Organization
    2. Airtanker Base Locations in State/Region
    3. Air Tactical Organization
    4. Fuels and Fire Behavior Common to Area
    5. Prominent Landmarks in Area
    6. Local Area Orientation Flight

CHAPTER 2 - ORGANIZATION AND RESPONSIBILITIES

A. Agency (or Interagency) Responsibilities
B. Airtanker Base Personnel
    1. Organization Chart
    2. Duties and Responsibilities[13]

CHAPTER 3 - ADMINISTRATIVE PROCEDURES

A. Forms and Reports[14]
B. Contract Administration
    1. Aircraft Contracting Organization
    2. Retardant Contract
        a. Responsibility and Procedures
    3. Aircraft Payment procedures
        a. Verification of flight times at home base and when at alternate bases
        b. Schedule for submission of flight use reports
        c. Payment of Subsistence
        d. Payment of Landing Fees and Airport Use Costs
    4. Availability and Standby Requirements
        a. Pilot standby/availability hours
        b. Off-duty scheduling and means of contact
    5. Dispatch reaction time requirements
    6. Maintenance scheduling
    7. Liquidated damages

[13] If different from Chapter 2, Personnel, in the Interagency Airtanker Base Operations Guide.

[14] If different from Chapter 3, Form, Reports, and Administrative Procedures, in the Interagency Airtanker Base Operations Guide.

CHAPTER 4 - BASE FACILITIES, OPERATIONS, AND DISPATCH

A. Facilities
   1. Equipment at the Base
      a. Parts and equipment storage
      b. Maintenance Responsibility
   2. Base/Ramp/Dispatch Communications
   3. Lighting Equipment
   4. Electrical System
   5. Flight Crew Accommodations and Facilities
   6. Reference Library
   7. Local Airfield Management
      a. Regulations
      b. Procedures

B. Operations
   1. General
   2. Environmental Considerations
      a. Base Operations
         (1) Washdown, Draining, and Spill Procedures
         (2) Holding Areas
      b. Retardant Dropping in Sensitive Areas
      c. Recall drop area for retardant disposal (jettison area map)
   3. Retardant Operations
      a. Types of Retardant In Use
      b. Retardant Testing Schedule and Procedures
   4. Parking Procedures (with map)
   5. Preflight Checks
      a. Safe engine operation (run-up procedure)
   6. Loading
      a. Pumping Equipment (diagram)
      b. Maintenance Responsibility and Requirements
   7. Fueling
      a. Local Vendor
      b. Procedures
      c. Equipment Inspection
   8. Releasing the Aircraft
      a. Local procedures
   9. Air Tactical/Lead Plane Organization and Procedures

C. Dispatch Procedures
   1. Briefing and Orientation
      a. Area and Local Dispatch Organization
      b. Zones of Influence/Exchange Areas
   2. Use of the Flight Resource Order: Tactical Fixed-Wing
      a. Local dispatch procedure from Initial Report to dispatch of aircraft
   3. Communications
      a. Local System
         (1)Map showing base stations, repeaters and VOR navigational aids)
         (2) Airfield and base communications
         (3) Frequencies, call signs and identifiers
         (4) Lead Plane communications and communication procedures
         (5) Large fire communication plan

b. Flight tracking and check-in requirements
4. Dispatch Priority
5. Startup and Cutoff Times
6. Termination of Drop Activities
7. Agricultural Airtanker Procedures

CHAPTER 5 - SAFETY

A. Airtanker Base Evaluations
1. Schedule and procedures
B. Aerial Hazard Maps
1. Responsibility and Procedures for Update
2. Briefings on Airport Hazards
3. Turbulence, wind and time of day limitations on flight activity
C. Temporary Flight Restrictions/Military Training Routes
1. Local Procedures
2. Map
D. Crash-Rescue Planning and Equipment
1. Local Incident/Accident Action Plan
2. Local Crash-Rescue Equipment
a. Fire Extinguishers: Inspection and Location
b. Local organization and Responsibility
3. Single engine/engine out procedures
4. Emergency fields
E. Hazard, Incident, and Accident Reporting
1. Local Procedures
2. Routing
F. Proficiency Flights
G. Dropping On or Near Congested Areas
1. Local Procedures
H. Landing With Full or Partial Load
1. Local Contract Specifications
2. Runway and Ramp Wheel-loading Capability
a. Allowable Takeoff Performance Chart
I. Base Safety Items
1. Inventory
2. Maintenance Responsibility

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix I

Single Engine Airtanker Operations

January 2000

Appendix I: Agricultural Airtanker Operations

This Appendix introduces you to the use of Single Engine Airtankers (SEAT's). These procedures are approved for use by Department of Interior, U.S. Forest Service, and State agencies who adhere to Interagency fire standards. Other nonparticipating State agencies occasionally utilize non-approved agricultural aircraft for fire suppression. All SEAT operations are standardized in the national **Interagency Single Engine Airtanker Operations Guide. (ISOG, NFES 1844, January 1999.)** Copies of the ISOG may be ordered from: National Interagency Fire Center, Great Basin Support Cache Supply Office, 3833 S. Development Ave., Boise, ID 83705.

A. Definition. The Interagency Airtanker Board has determined that any aircraft carrying less than 800 gallons is not under their purview, under ICS, SEAT's are categorized as Type IV Airtankers and will be classified as an Airtanker in this guide.

B. Pre-Planning. SEAT Managers in cooperation with local or State/Area/Regional aviation management, should make contact with area airport managers at the beginning of the contract period or fire season. Each should be familiar with airport and airstrip locations and their limitations, as well as operational areas within aircraft zones of influence.

C. *SEAT Managers.* SEAT Managers are always assigned to aircraft when the aircraft is assigned to a fire. SEAT Managers are seldom available from within the established Airtanker Base Organization. Therefore, each State, Area, or Region should train the appropriate number of SEAT Managers in accordance with the anticipated workload. The duties and responsibilities of the SEAT Manager:

1. Conducting document examination of the SEAT, ground support vehicle, and pilot to ensure adherence to the requirements of the Office of Aircraft Services (OAS), Exclusive Use or Call-When Needed contract specifications.

2. Determine the need to set up a base of operations at a location nearer the incident, thus providing a more efficient and cost-effective air operation; perform liaison with airport or airstrip manager; coordinate aircraft security with local authorities;

3. Ensure the operation adheres to using agency guidelines and regulations, as well as continued adherence to the requirements the OAS SEAT contract.

4. Conducts daily or more frequent briefings with pilots, other contract personnel, and government employees assigned to the alternate base;

5. Ensure proper frequencies are programmed and are being utilized.

6. When required by contract, or when the SEAT is working from an established SEAT base, supervises agency personnel and cooperators in proper aircraft loading procedures (see Appendix F, Retardant Hot Loading Procedures);

7. If the SEAT is being loaded with retardant from established pits, coordinates with the Airtanker Base Manager to ensure that aircraft separation from large aircraft is maintained;

8. Perform SEAT logistical coordination, including ensuring adequate supplies of foam and water are available, obtaining rest, lodging and eating facilities, providing ground transportation, etc.;

9. Coordinates all SEAT flights with local dispatchers and, obtains daily or more frequent briefings from aviation or fire supervisors regarding mission priorities, quality of retardant, problems, etc.;

10. Request airspace coordination as necessary through Dispatch;

11. Maintain on/off times according to standard procedures outlined in Chapter 3; complete flight payment documents (OAS-23s);

12. Ensure pilot meets pilot duty and flight time requirements;

13. Serves as liaison between the SEAT vendor, the using agency and unit;

14. Complete a Contract Daily Diary;

D. Operational Requirements.

1. State-Owned or -Contracted: All SEAT operations will be conducted in accordance with the contract. State owned or contracted SEATS which are not approved for interagency use, may not mix with approved aircraft or interagency incidents.

2. Department of Interior Contracted.

a. All federal SEAT aircraft are contracted by the Office of Aircraft Services, Department of Interior. Operations of these aircraft will be conducted in accordance with the call-when-needed or exclusive use contract under which the aircraft was dispatched.

b. All SEAT pilots shall be carded to reflect the complexity of the operations that they are approved for (i.e., aerial supervision required, etc.). Each pilot shall carry these credentials, and a copy of the pertinent contract.

E. Limitations.

1. Day VFR Only. As a single-engine aircraft, SEAT operations are limited to flight during the official daylight hours and under VFR conditions only. Daylight hours are defined as 30 minutes before official sunrise to 30 minutes after official sunset, but may be further limited by shadows, smoke, weather conditions, etc.

2. Winds. Extreme caution should be exercised when cross runway winds are near or exceed a 15-knot wind speed. Aircraft limitations as well as pilot experience levels should be considered. In the event these winds exist, the aircraft should be moved to an alternate standby airport empty.

3. Landing Sites. SEAT pilots will approve all landing sites as to condition and suitability.

4. Gear Width. Caution should be exercised when landing at a site with an extremely narrow runway. Again, SEAT pilots will approve all landing sites as to condition and suitability.

5. Landing Loaded. SEATS may not have the structural integrity to withstand loaded landings. Early discussion with assigned pilots concerning this matter will provide a clear understanding of operational limitations and safety procedures to be followed.

6. Operational Limitations. Whether or not these limitations (see Chapter 4) apply to SEATS is a using-agencies decision, regardless of which agency furnishes the Airtanker. If an agency elects not to adhere to these times, safety concerns, particularly during early morning and late evening periods of shadow, may dictate whether an air attack or a lead plane may be used.

7. Requirement for a Leadplane. The use of the SEAT on an incident does not automatically require a lead plane.[15]

[15] A lead plane does not operate at the low altitudes/drop heights and/or airspeeds that is the normal environment for the SEAT. Therefore it is not required that a lead plane be used over the fire to determine that visibility is adequate for dropping (as is the case with start-up and cut-off times with large Airtankers). This does not preclude the use of a lead plane or an Air Tactical Group Supervisor if the situation requires it (e.g., smoke and/or haze, concentration or mix of aircraft over the fire) and other incident or agency-specific aviation and safety concerns.

8. **Exemptions.** All U. S. Department of the Interior wildfire suppression activities, by definition, qualify as a "public emergency" and the provisions of Federal Aviation Regulations 137.1(b). Fire suppression missions for the USDA Forest Service, will be flown in accordance with appropriate USDA-FS Grant(s) of Exemption.

F. Facilities. In order to realize the full economic and operational effectiveness of SEAT and to optimize their self-sufficient capabilities, SEAT fire operations should be established as close to the incident as possible using available airstrips. Use of roads will require approval by State, Area, or Regional Aviation Management, who must coordinate with state and local transportation departments and law enforcement.

1. **Operation From Established Airtanker Bases.** SEATS may operate from the same facility as large Airtankers, provided the base has trained in SEAT use. SEAT operational procedures and specifics should be incorporated into the Base Supplement. The two basic safety precautions which should be taken are:

2. **Operation From Off-Site (Remote) Areas.** All SEAT operations from off-airport locations shall be the sole responsibility of the SEAT operator. The using agency shall ensure that the operation has been coordinated with the proper authorities and that the local authorities' assistance is obtained concerning road closures and necessary security requirements.

G. Fueling and Retardant Loading. Unless otherwise specified by contract, these operations are the sole responsibility of the vendor and must <u>not</u> be performed by Government personnel.

1. Fueling cannot be performed by government personnel.

2. Retardant loading can be performed at Airtanker Bases, by government personnel in accordance with the Base Plan.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

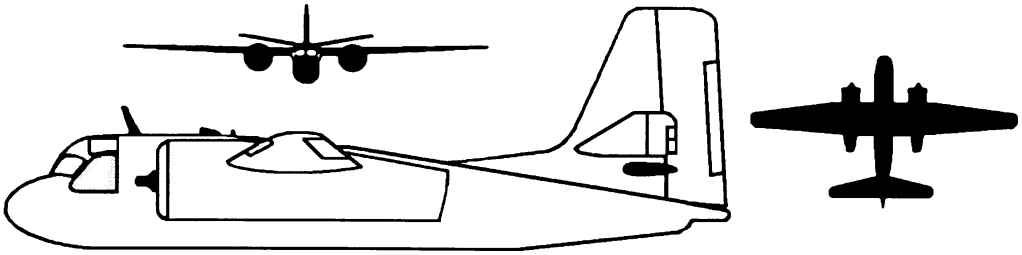
Appendix J

Airtankers and Tank Systems

January 2000

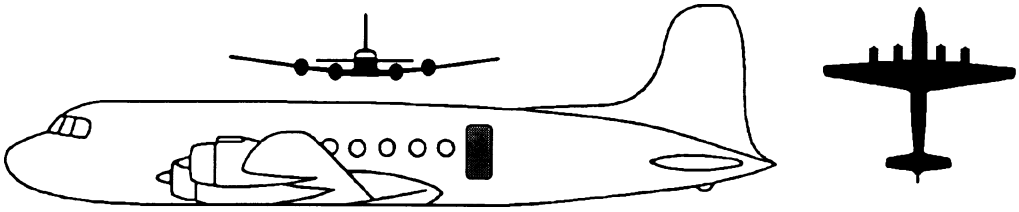
Appendix J: Airtankers and Tank Systems

GRUMMAN S-2 TRACKER



Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
S-2	69-8	42-0	44-8	18-6	S	27,000	24,500	N/A	25,000	800	102	160

DOUGLAS DC-4 AIRLINER



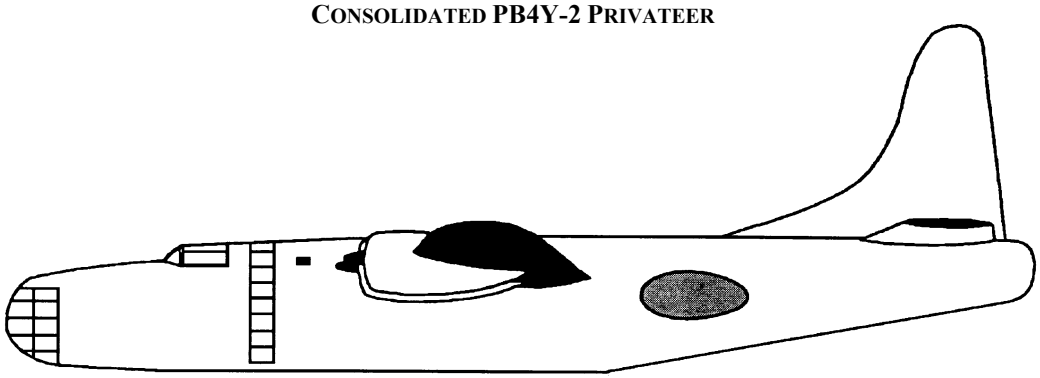
Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
DC-4	117-6	93-11	86-2	24-8	D	VARIES	VARIES	VARIES	63,000	2,000	75	178
Super DC-4	117-6	93-11	86-2	24-8	D	71,200	61,500	60,400	65,370	2,200	75	200

KEY TO AIRTANKER DATA

WSP:	Wingspan	FUL:	Fuselage Length	TRN:	Turning Radius	WHB:	Wheelbase
G/C:	Gear Configuration	MTW:	Max Takeoff Wt.	MLW:	Max Landing Gear Wt.	ZFW:	Zero Fuel Weight
COW:	Contract Op Weight	MRC:	Max Retardant Capacity	FPT:	Wheel Loading	SPD:	Cruise Airspeed

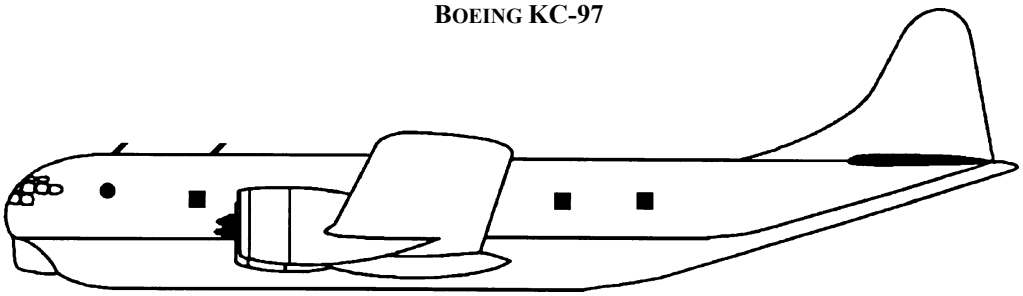
NOTE: Wheel Track = Distance between main wheel centerlines;
Gear Configuration: S=Single, D=Dual, DT=Dual Tandem; SPD=True Airspeed in Knots;
Wheel Loading for main gear only.

CONSOLIDATED PB4Y-2 PRIVATEER



Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
PB4Y-2	110-00	74-8	68-0	25-8	S	60,000	60,000	N/A	55,405	2,000	90	184
	110-00	74-8	68-0	25-8	S				57,210	2,200	90	184

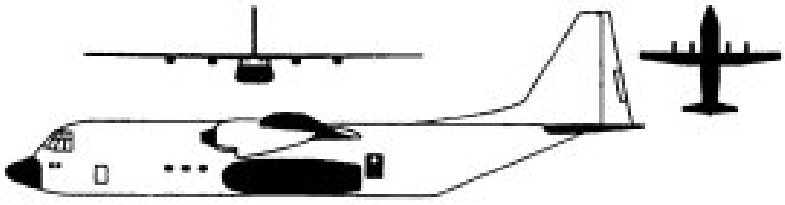
BOEING KC-97



Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
KC-97	141-3	100-4	84-10	28-6	D	153,000	153,000	128,000	126,000	3,000	117	210
NOTE: KC-97 FPT IS ESTIMATED PENDING MORE COMPREHENSIVE DATA												

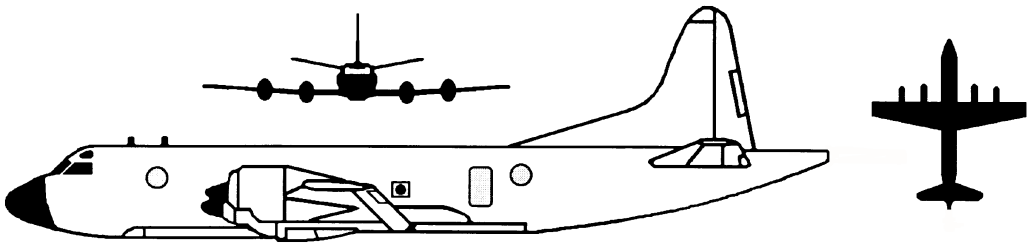
KEY TO AIRTANKER DATA			
WSP: Wingspan G/C: Gear Configuration COW: Contract Op Weight	FUL: Fuselage Length MTW: Max Takeoff Wt. MRC: Max Retardant Capacity	TRN: Turning Radius MLW: Max Landing Gear Wt. FPT: Wheel Loading	WHB: Wheelbase ZFW: Zero Fuel Weight SPD: Cruise Airspeed
NOTE: Wheel Track = Distance between main wheel centerlines; Gear Configuration: S=Single, D=Dual, DT=Dual Tandem; SPD=True Airspeed in Knots; Wheel Loading for main gear only.			

LOCKHEED C-130 HERCULES



Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
C-130A	132-7	106-1	88-0	14-3	D	120,000	97,000	97,000	108,553	3,000	70	250

LOCKHEED P3-A ORION



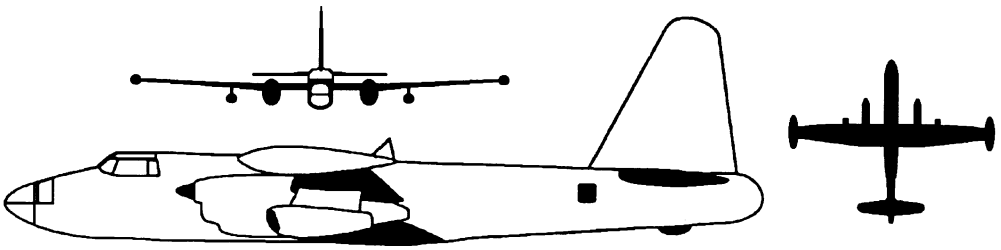
Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
P-3	99-8	104-7	65-1	31-2	D	105,000	105,000	83,500	95,1000	3,000	89	275

KEY TO AIRTANKER DATA

WSP: Wingspan	FUL: Fuselage Length	TRN: Turning Radius	WHB: Wheelbase
G/C: Gear Configuration	MTW: Max Takeoff Wt.	MLW: Max Landing Gear Wt.	ZFW: Zero Fuel Weight
COW: Contract Op Weight	MRC: Max Retardant Capacity	FPT: Wheel Loading	SPD: Cruise Airspeed

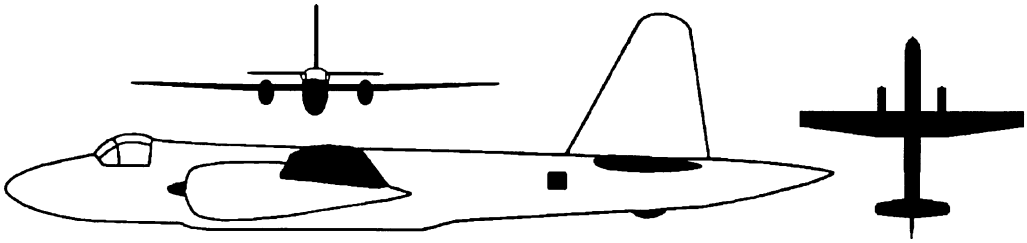
NOTE: Wheel Track = Distance between main wheel centerlines;
Gear Configuration: S=Single, D=Dual, DT=Dual Tandem; SPD=True Airspeed in Knots;
Wheel Loading for main gear only.

LOCKHEED P2V NEPTUNE



Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
P2V	100	86	71-6	25-9	S	80,000	67,000	75,850	70-75K	2,600	98	187

LOCKHEED SP2H



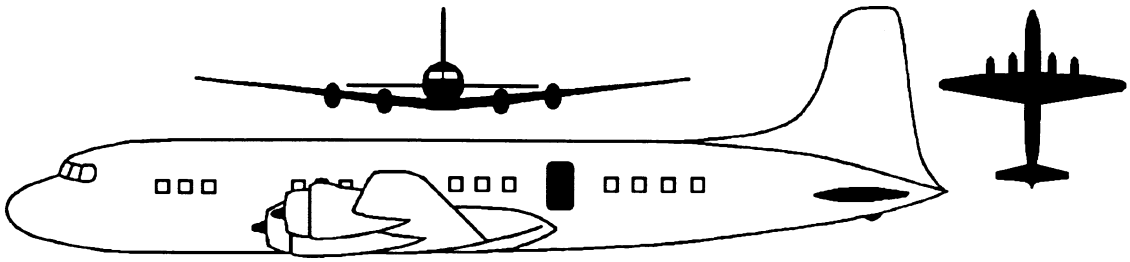
Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
SP-2H	100	92	71-6	25-9	S	67,500	67,000	59,100	60,600	2,000	90	195

KEY TO AIRTANKER DATA

WSP:	Wingspan	FUL:	Fuselage Length	TRN:	Turning Radius	WHB:	Wheelbase
G/C:	Gear Configuration	MTW:	Max Takeoff Wt.	MLW:	Max Landing Gear Wt.	ZFW:	Zero Fuel Weight
COW:	Contract Op Weight	MRC:	Max Retardant Capacity	FPT:	Wheel Loading	SPD:	Cruise Airspeed

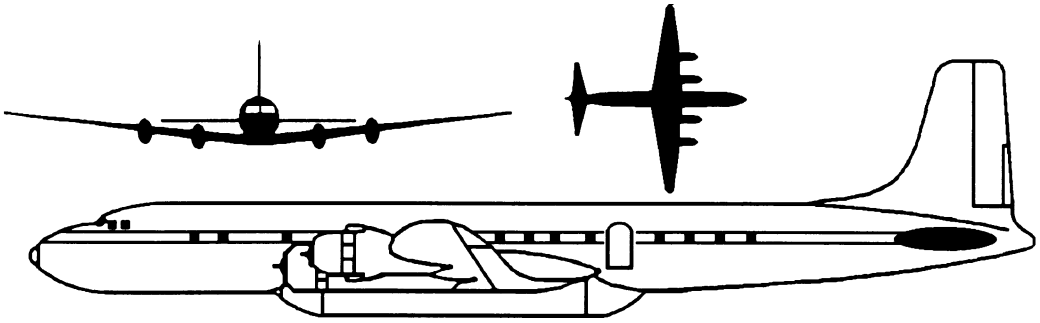
NOTE: Wheel Track = Distance between main wheel centerlines;
Gear Configuration: S=Single, D=Dual, DT=Dual Tandem; SPD=True Airspeed in Knots;
Wheel Loading for main gear only.

DOUGLAS DC-6 AIRLINER



Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
DC-6	117-6	105-7	72-8	24-8	D	92,200	85,000	72,74K	75-79K	2,450	92	215

DOUGLAS DC-7 AIRLINER



Model	WSP	FUL	TRN	WHB	GC	MTW	MLW	ZFW	COW	MRC	FPT	SPD
DC-7B	117-6	105-7	72-8	24-8	D	116,900	102,000	96,000	102-126	3,000	111	235
DC-7C	126-6	112-3	81-1	34-8	D	127,500	109,000	101,500	106,244	3,000	106	235

KEY TO AIRTANKER DATA

WSP:	Wingspan	FUL:	Fuselage Length	TRN:	Turning Radius	WHB:	Wheelbase
G/C:	Gear Configuration	MTW:	Max Takeoff Wt.	MLW:	Max Landing Gear Wt.	ZFW:	Zero Fuel Weight
COW:	Contract Op Weight	MRC:	Max Retardant Capacity	FPT:	Wheel Loading	SPD:	Cruise Airspeed

NOTE: Wheel Track = Distance between main wheel centerlines;
Gear Configuration: S=Single, D=Dual, DT=Dual Tandem; SPD=True Airspeed in Knots;
Wheel Loading for main gear only.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix K

OSHA and Hazmat Compliance Information

January 2000

Appendix K: OSHA and Hazmat Compliance Information

The U.S. Department of Labor, Occupational Safety and Health Administration, offers Catalog 2019, "OSHA Publications and Audiovisual Programs," free of charge. The document can be used to assist with obtaining information to meet compliance with workplace safety regulations.

The catalog can be ordered from:

U.S. Department of Labor
OSHA Publications Office
P.O. Box 37355
Washington, D.C. 20012-1535
(202) 693-1888 FAX (202) 693-2498

OSHA operates a Website on the Internet which provides extensive information on workplace safety and compliance. The address is www.osha.gov/index.html

The following is a listing of OSHA Regional Offices that service various parts of the country. In addition, there are area offices within each region. States marked with an (*) operate their own OSHA approved job safety and health programs (CT and NY plans cover public employees only). States with approved plans must have a standard that is identical to, or at least as effective as the federal standard. Addresses for state agencies can be found in the OSHA Website.

Region I
(CT*, MA, ME, NH, RI, VT*)
JFK Federal Building
Room E340
Boston, MA, 02203
(617) 565-9860

Region II
(NJ, NY*PR*,VI*)
201 Varick Street
Room 670
New York, NY, 10014
(212) 337-2378

Region III
(DC, DE, MD*, PA, VA*,WV)
Gateway Building
3535 Market Street
Philadelphia, PA, 19104
(215) 596-1201

Region IV
(AL, FL, GA, KY*, MS, NC, SC*,TN*)
61 Forsyth Street
Suite 587
Atlanta, GA, 30367
(404) 562-2300

Region V
(IL, IN*,MI*, MN* OH, WI)
230 Dearborn Street
Room 3244
Chicago, IL, 60604
(312) 353-2200

Region VI
(AR, LA, NM* OK, TX)
525 Griffin Street
Room 602
Dallas, TX, 75202
(214) 767-4731

Region VII
(IO*, KS, MO, NE)
City Center Square
1100 Main Street
Suite 800
Kansas City, MO, 64105
(816) 426-5861

Region VIII
(CO, MT, ND, SD, UT*, WY*)
Federal Building
1999 Broadway
Suit 1690
Denver CO, 80202
(303) 844-1600

Region IX
(AZ*,CA*HI*NV* Samoa,
Guam, Territories)
71 Stevenson Street
Room 420
San Francisco, CA 94105
(415) 975-4310

Region X
(AK*, ID, OR*, WA*)
1111 Third Avenue
Suite 715
Seattle, WA 98101-3212
(206) 553-5930

The following information provides some of Title 29, Code of Federal Regulations, that may pertain to OSHA Compliance at airbases. In addition, state agencies may have jurisdiction over regulating workplace safety standards. The information provided is not a complete listing of all regulations. Consult your agency technical specialist or the regulating agency for assistance.

Accident Prevention and Signing	29 CFR 1910.145, .150
Blood borne Pathogens	29 CFR 1910.1030
Cabinets, Flammable and Combustible Liquid Storage	29 CFR 1910.106 (d)(3)
Cleaning Compounds and Degreasers	29 CFR 1910.252
Clothing, Protective	29 CFR 1910.252 (b)(3), .132
Compressed Gas Cylinders	29 CFR 1910.253(a)(2)
Confined Spaces	29 CFR 1910.120, .146
Dust Hazards and Employee Exposure	29 CFR 1910.98
Exits	29 CFR 1910.37
First Aid Standards and Sources	29 CFR 1910.153
Fire Extinguishers	29 CFR 1910.157
Fuel Handling and Storage	29 CFR 1910.178
Fire Prevention Plan	29 CFR 1910.38(b)
Guarding	29 CFR 1910.211-.222
Guardrails	29 CFR 1910.21-.22
Handrails	29 CFR 1910.24(h)
Head and Helmet Protection	29 CFR 1910.24(h)
Hazard Communication, The Right to Know Law	29 CFR 1910.1200
Hazardous Waste Operations	29 CFR 1910.120
Hearing Conservation	29 CFR 1910.95
Lockout/Tag	29 CFR 1910.147
Material Safety Data Sheets	29 CFR 1910.1200
Mechanical Handling Equipment	29 CFR 1910.177
Medical Standards and Sources	29 CFR 1910.153
Noise Exposure Standards and Sources	29 CFR 1910.99
Personal Protective Equipment	29 CFR 1910.132
Pits	29 CFR 1910.23(a)(5)
Powered Hand Tools, Standards and Sources	29 CFR 1910.246
Respiratory Protection	29 CFR 1910.134
Spill Containment	29 CFR 1910.106(d)
Tanks, Storage	29 CFR 1910.106
Training, Personnel	29 CFR 1910.96, .217
Trucks, Forklifts	29 CFR 1910.261
Ventilation Standards and Sources	29 CFR 1910.99
Walking and Working Surfaces	29 CFR 1910.22, .31

Procurement Source Information (Disclaimer)

The following information is provided to assist with procuring equipment, supplies, and training materials to meet compliance with OSHA Regulations. The sources listed are not endorsements or recommendations of vendor products and services, but are offered as information only.

When procuring any equipment and supplies always check with the vendor and see if there are discounts for government agency purchases. Consolidations of orders within an administrative unit can result in savings when purchasing in quantities. There are many companies that supply safety products through the GSA Federal Supply Schedule or Defense Supply Logistics Agency. Consult your agency purchasing personnel for assistance. Additional sources for procurement can also be accessed through the Internet.

Lab Safety and Supply
P.O. Box 1368
Janesville, WI, 53547-1368
Catalog Request 1-800-356-0783
Technical Support 1-800-356-2501
Safety Information by FAX 1-800-393-2287
Internet Website ..... http://www.LabSafety.com

J. J. Keller & Associates
3003 W. Breezewood Lane
P.O. Box 368
Neenah, WI, 54957-0368
Catalog Request and Product Ordering 1-800-327-6868
FAX 1-800-727-7516
Internet Website ..... http://www.jjkeller.com

Cornerstone Direct Corporation
480 Fillmore Avenue
Tonawanda, NY, 14150
Catalog Request and Sign Products Ordering 1-800-544-2440
Catalog Request and Industrial Products Ordering 1-800-828-7540
FAX 1-800-222-1934
Internet Website ..... http://www.cornerstonedirect.com

Ideal Environmental Products and Services
P.O. Box 307
Gilroy, CA 95021
Catalog and Product Ordering 1-800-844-6998
FAX ..... 1-(408)-848-2579
Internet Website ..... http://www.CHEM-STOR.com

Conney Safety Products
3202 Latham Drive
Madison WI, 53744-4190
Catalog and Product Ordering 1-800-356-9100
FAX 1-800-845-9095
Internet Website ..... www.conney.com

Hazmat Compliance: Refer to the local Unit Hazmat Specialist and plan.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix L

Daily Aviation, Tactical and Safety Briefings

January 2000

Appendix L: Daily Aviation, Tactical and Safety Briefings

A. Aviation resources are often an integral part of fire suppression tactics and long-term strategies. In many cases, airtanker base personnel are not included in daily briefings due to Airtanker Bases and resources being geographically removed from the ICP. FSM 5720.3.6, states that we must, "Ensure that aviation safety briefings are conducted prior to any aviation mission either by a person responsible for the mission or, in situations where the pilot may be the only official present, as part of the normal preflight activities, such as dispatch, weather, and flight plan briefings." It becomes the Airtanker Base Managers responsibility to provide information as to tactics, planned use, and above all, a comprehensive safety briefing prior to work on a daily basis. Equally important is a daily debriefing to identify any areas of safety concern that may have developed through the days activities and reviewing what is and is not working operationally.

Military adherence to pre- and post-operations briefings has proven to be highly effective. We should look to their example in this regard to strengthen our own operations. This has also been identified as a National Safety Council recommendation.

During ongoing fire support, all Airtanker Base Managers/Assistants or Air Support Supervisors, identified as a part of a fire operation should provide the following:

1) Printed copy of daily Incident Action Plans (IAP),

2) A pre-mission safety and operations briefing.

3) A post-mission safety and operations debriefing.

The person responsible for conducting these briefings and debriefings shall be clearly identified by position and relationship to the operation, assigned to the task, and held accountable for its completion as well as for insuring that aviation risk assessments are completed prior to conducting airtanker missions. Possible persons to be assigned this task are the Unit Aviation Officer (UAO), Airtanker Base Manager, Air Support Group Supervisor, or Air Operations Branch Director.

Personnel informed of tactics and strategy and supported by sound risk management decisions as well as receiving timely safety reminders will add to the overall safety and effectiveness of an operation. We look to positive leadership roles to assure the briefings/debriefings and risk assessments are accomplished in a professional, effective manner.

B. For examples see: Exhibit L-1: Fixed-Wing Base Daily Safety Briefing Format,
Exhibit L-2: Daily Operational Airtanker Base Checklist,
Exhibit L-3: Tactical Debriefing Form (Aerial Crews - Fixed and Rotary Wing)
Exhibit L-4: Fixed-Wing Base Briefing Board. (Example: 4' x 8').

Fixed-Wing Base
Daily Safety Briefing Format

Exhibit L-1

1. Review of Incident Action Plan (IAP) including what is happening nationally.

2. Weather
   a. Current
   b. Expected

3. Personnel Assignments.
   a. Who is in charge

4. Communications frequencies
   a. Airport
   b. Ramp
   c. Incidents

5. Procedures specific to the airport, ramp and PPE.
   a. Allowable takeoff and performance chart reviewed
   b. Specific parking for fueling and maintenance
   c. Pilot PPE and Ramp personnel PPE
   d. Hot-Loading and Loading procedures, specific to individual Airtankers that need to be known.

6. Specific Flight Following Procedures

7. Airtanker Rotation and Days Off
   a. First out
   b. Second out
   c. Who is off
      1. When

8. Other Aircraft Assignments
   a. Lead
   b. SMJ
   c. ATGS
   d. Days Off

9. Dispatch Procedures.
   a. Complete and no information missing
   b. Correct information
   c. Frequencies
   d. Location
   e. Contacts
   f. Tactical Order Form

10. Aerial Hazards
    a. Ground
    b. Airborne.

11. Airspace Restrictions
    a. Military low-level flight routes
    b. MOA's
    c. Agency designated Temporary Flight Restrictions (TFR's)
    d. Non-incident aircraft within airspace

12. Sensitive Areas
    a. Wildlife
    b. Domestic
    c. Populated Areas

13. Retardant Operations and Coverage

14. Crew Comfort Items
    a. Food and Drinks
    b. Rest Areas
    c. Transportation
    d. Lodging

15. Previous Days Operational Concerns.
    a. Problems and honorable mention,
    b. Aircraft,
    c. Crew
    d. Fire Weather
    e. Risks involved
    f. Assessment
    g. Organization
    h. Safety Attitude
    i. Procedures Followed?
    j. Activity Effective?
    k. Launch Delays
    l. Aircraft Separation

16. Next Briefing
    a. Location
    b. Time

17. End of Shift Debriefing
    a. Procedures
    b. Location
    c. Time

Daily Operational Airtanker Base Checklist

Exhibit L-2

Daily Operational Airtanker Base Checklist

This checklist should be used to assure that the operational and overnight limitations of an airbase are not exceeded. These limitations are developed and specified in the Job Hazard Analysis which should be reviewed by all personnel assigned at the airbase.

A	**Site**	
		Adequate parking and projected numbers and types of Airtankers
		Adequate loading pits for projected numbers and types of Airtankers
		Recommended wing tip to wing tip separation of Type 1, 2, and 3 Airtankers maintained
		Adequate parking for current and projected air attack and lead aircraft provided
		Adequate separating an clearance between rotor and fixed wing are provided
B	**Facilities**	
		Briefing area established, Incident Action Plans, Maps, Aircraft assignments, Rotation, NOTAMS, TFR's and frequencies posted
		Rest and sanitation facilities are adequate for personnel assigned
		Adequate logistical support provided for personnel assigned to airbase. (Food, transportation, and lodging)
C	**Operations**	
		Previous day's safety problems discussed with assigned personnel and pilots and resolved
		Briefing held for all personnel
		All Airbase positions have been assigned to qualified personnel
		Ramp manager procedures discussed and known
		Are pilots checking allowable takeoff performance charts in the heat of the day?
		Use of Personal Protective Equipment for pilots, airbase personnel is known and used
		All personnel have received the required training for Hot Loading
		Communications, Flight Paths, and airport procedures have been reviewed and are in place
		Crash rescue and Hazmat procedures have been reviewed and are in place
		Military Training Routes, Special Use Airspace considerations have been discussed with pilots
		Airbase capacity and operations limits are provided to appropriate Dispatch facilities and Air Operations Directors on Incidents
		Load calculation for each aircraft known and posted and Airtankers are loaded accordingly
		1. There is a high volume of airplane and or helicopter traffic anticipated in close proximity to each other
		2. There is a high frequency of non-incident aircraft using common airspace
D	**Fueling**	
		FBO can support fuel, oil, and other special requirements for projected number and types of aircraft
		Fueling areas and procedures are reviewed and identified
E	**Administration**	
		End of shift debriefing procedures established, including pilots, and made aware of requirement for constructive feedback and critique
		Provision made for debriefing of pilots and airbase personnel going off-shift early

Tactical Debriefing Form, Aerial Crews, Fixed and Rotor Wing
Exhibit: L-3

Date		Pilots Name (Optional)	
Fire Name		Location	
P #			
GENERAL INFORMATION			
Number of Tactical Aircraft on Fire:			
Altitudes			
Fire Weather			
Risks Involved			

Questions	**Yes**	**No**
Was Correct Dispatch Information Given? If No, Please Explain in Comments.		
Were You Able to Check Weather?		
Any Delays Launching Aircraft?		
Were You Given a Proper Briefing? Hazards, Altitudes and Coverage Levels?		
Was There Proper Aircraft Separation?		
Was the Fire Operation Organized?		
Was Safety Implemented?		
Were Procedures Followed?		
Was Activity Effective?		

COMMENTS

GENERAL INFORMATION CONTINUED

Date			
Fire Name		Fire Number	
Pilot in Command of Aircraft			

POINTS TO PONDER

General Ground Conditions*					
Aircraft		Attitudes		Risks Involved	
Crew		Fire Weather		Ongoing Assessment	

	Yes	**No**
***Was Correct Dispatch Information Received?**		
Frequencies		
Location		
Contacts		
Other:		
Other:		

If Not, What Information Was Missing:

Activity Highlights	**Yes**	**No**
Was the Fire Organized		
Was Safety Implemented		
Were Procedures Followed		
Was Activity Effective		

How Did it Go

Optional Questionnaire
Please Fill out What You Can.

Fixed Wing Base Briefing Board
Exhibit: L-4

Fixed Wing Base Briefing Board

Date	Base Manager	A/C Timekeeper	Ramp Manager	Mix Master

Frequencies	Base	Ramp	Airport Unicom	Local Dispatch
Incident Frequencies	I A/A	2 A/A	3 A/A	4 A/A
	A/G	A/G	A/G	A/G
Incident Info: Location Flight Pattern Altitude	1	2	3	4

Airport/Local Flight Procedures/Safety Notes

Aircraft	Time	D/O	Assignment		Aircraft	Time	D/O	Assignment		Aircraft	Time	D/O	Assignment

Saftey Briefing

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix M

Portable Bases

January 2000

Appendix M : Portable Bases

During the fire season, there are requests for Portable Retardant mixing plants. The current National Long-Term Fire Retardant Requirements Contract contains the Emergency Equipment Rental Agreements (EERA's) for the portable base operations offered by the retardant manufacturers. If there is a need for a portable retardant operation, these EERA's are utilized. Mobile/portable retardant mixing bases (Fixed-Wing or Helicopter) should be ordered directly from the companies by the local user agency. When ordering a portable base, order the appropriate retardant base and type of retardant product by considering factors such as type of product generally used in the area and whether need is for fixed-wing or helicopters. If the need is for helicopter operations, determine if bucket or fixed tanks will be used and order the appropriate qualified and approved fire chemical. Questions regarding the qualified and approved retardant types may be directed to the San Dimas Technology Development Center at (909)599-1267.

An agency plant manager/mixmaster should be assigned to each portable operation. Agency plant managers/mixmasters are responsible for contract administration functions such as (1) ensuring LA/QA (Lot Acceptance and Quality Assurance) functions are performed according to NWCG Publication PMS 444-1, Lot Acceptance, Quality Assurance, and Field Quality Control for Fire Retardant Chemicals (NFES 1245) (PROCEDURES Chapter), (2) verifying receipt of retardant quantities and maintaining agency records, (3) communicating any safety and environmental concerns with the contractor.

Since the equipment needs of the Government and availability of Contractor's equipment during the emergency cannot be determined in advance, it is mutually agreed that, upon request of the Government, the Contractor will furnish the equipment listed in the Requirements Contract to the extent the Contractor is willing and able at the time of the order. At the time of the dispatch, a resource order number will be assigned. The contractor must furnish this number upon arrival and check in at the incident. When such equipment is furnished to the Government, the clauses to refer to, to manage the EERA, are within the Requirements Contract on the EERA Form OF-294.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix N

Sterile Cockpits, Air Traffic Guidance and Uncontrolled Airport Procedures

January 2000

Appendix N: Sterile Cockpits, Air Traffic Guidance and Uncontrolled Airport Procedures

It is essential that pilots be alert, look for other traffic, and exchange traffic information with other pilots when approaching or departing from an airport without an operating tower. All Forest Service employed or contracted pilots will utilize the common traffic advisory frequency (CTAF) designated for the airport to communicate their intentions and to obtain airport and traffic information. Communications will be established with a flight service station (FSS), a unicom station , other ground facility if available, or by making self-announced broadcasts, whichever is appropriate for the airport. The CTAF for a particular airport can be obtained by consulting the FAA's Airport Facility Directory (AFD), AOPA's Airports USA, Flight Guide publication, WAC Charts, Sectionals, or Jeppeson approach charts if so charted as an Instrument Approach Airport (IPA).

Arrival Procedures - Communications

1) Pilots of arriving aircraft will select and monitor the designated CTAF or ATC assigned frequency when the aircraft is not less than 10 miles from the airport, except when FAR's or local procedures require otherwise.

2) Communications will be established and maintained with the appropriate ground facility not less than 5 miles from the airport or the pilot will make self-announced broadcasts if no ground facility is available.

3) Communications will include the pilot's intentions, aircraft location, altitude, and any other information the pilot deems necessary to ensure the safe outcome of the arrival.

4) ***Sterile cockpit procedures will be maintained at all times when within a 5-mile radius of the airport. No radio or cockpit communication will be performed during the time that is not directly related to safe flight of the aircraft until after landing and clearing the runway.***

Uncontrolled Airport Arrivals - Traffic Patterns/Procedures

1) When two or more aircraft are approaching an airport for the purpose of landing, the aircraft at the lower altitude has the right of way, but it will not take advantage of this rule to cut in front of another which is on final approach to land, or to overtake that aircraft (14 CFR Part 91.113 (f).

2) Airports without operating control towers usually have a segmented circle visual indicator system. The device provides visual information on established traffic patters and comprises the following components: Wind Direction Indicator, Landing Direction Indicator, Landing Strip Indicators, and Traffic Pattern Indicators. Before entering the traffic pattern at an uncontrolled airport or an airport without an operational tower, the pilot should be concerned with the indicator for the approach end of the runway to be used. When approaching for landing, all turns must be made to the left unless the airport displays approved light signals or visual markings indicating that turns should be made to the right, in which case the pilot must make all turns to the right; and pilots of a helicopters must avoid the flow of fixed-wing aircraft (14 CFR Part 91.126).

   The FAA and Airman's Information Manual (AIM) recommends the following procedures for fixed-wing entering the traffic pattern at uncontrolled airports:

1) Enter the traffic pattern in level flight, abeam the midpoint of the runway, at traffic pattern altitude (TPA).

2) Maintain pattern altitude until abeam the approach end of the landing runway on the downwind leg.

3) Complete the turn to final approach at least one-quarter mile from the runway.

4) If parallel runways exist, do not overshoot final or continue on a track which will penetrate the final approach of the parallel runway.

Departure Procedures - Communications

1) Pilots of departing aircraft will select the designated CTAF or ATC assigned frequency, establish and maintain communications or make self-announced broadcast prior to taxiing, and announce their departure intentions on the appropriate frequency prior to taxiing onto the active runway and prior to take off roll.

2) Communications will include runway departing, direction of flight after departure, current altitude and altitude climbing to and any other information the pilot deems necessary to ensure a safe outcome of the departure.

3) ***Sterile cockpit procedures will be maintained at all times while within a 5-mile radius of the airport. No radio or cockpit communications will be performed during that time that is not directly related to safe flight of the aircraft.***

4) The CTAF or ATC assigned frequency will continue to be monitored until the aircraft is at least 10 miles from the airport, except when FAR's or local procedures require otherwise.

Uncontrolled Airport Departure Procedures

The FAA and Airman's Information Manual (AIM) recommend the following procedures for fixed-wing aircraft when exiting the traffic pattern at an uncontrolled airport:

1) On takeoff, maintain runway heading until beyond the departure end of the landing runway.

2) If remaining in the traffic pattern, begin the turn to crosswind beyond the departure end of the runway and within 300 feet of pattern altitude.

3) If departing the traffic pattern, continue straight out or exit with a 45-degree left or right turn beyond the departure end of the runway after reaching pattern altitude.

4) If parallel runways exist, do not continue on a track which will penetrate the departure path of the parallel runway.

Sterile Cockpit

Sterile cockpit procedures will be maintained, whenever feasible, within 5 miles of all airports whether controlled or uncontrolled.

Exception to Sterile Cockpit Requirement

There may be occasions when there is a fire within 5 miles of an airport making it impossible to maintain the sterile cockpit. Under these circumstances, the departing aircraft will maintain a sterile cockpit until departing the traffic pattern and reaching final altitude, at that time performing any mission required communications. The pilot will continue to monitor the CTAF frequency until engaged in the firefighting activity but should continue to monitor the CTAF if feasible.

Upon completing the fire mission or being released from the fire, the pilot will immediately select and monitor the CTAF frequency, if not already monitoring it, maintain a sterile cockpit as soon as practical, but no later than upon entering the traffic pattern.

Definitions

Uncontrolled Airport Any airport that does not have an operating control tower. This includes airports at which control towers operate only during certain hours and is considered uncontrolled when the tower is closed.

Sterile Cockpit Procedures by which the crew of an aircraft do not perform any conversations between each other, with other aircraft or with any ground activity that are not directly related to flying the aircraft in a safe manner. Normally this would consist of reading checklists, communication with Air Traffic Control (ATC), Flight Service Stations, a Unicom, or other aircraft with the intent of ensuring separation from other aircraft or complying with ATC requirements. Ordering fuel, ground services, or checking with the dispatch facility should not be accomplished during this time.

INTERAGENCY AIRTANKER BASE OPERATIONS GUIDE

Appendix O

Pilot Briefing and Orientation

January 2000

Appendix O: Pilot Briefing and Orientation

I. This is an outline for the local Base Supplement that discusses the areas of operation and safety. The outline should be briefed to all Airtanker, lead plane and Air Tactical Group Supervisor flight crews upon their arrival at the beginning of the season. A package should also be put together to hand to the flight crews. This information may include:

1. Noise abatement procedures as they pertain to each particular base.

2. Contact frequency charts and lists for all local cooperators.

3. Agency maps
   a. USFS and Ranger Units
   b. BLM Field Offices
   c. NPS
   d. Refuges
   e. Miscellaneous Maps

4. If Class B, current Class B Chart, NOAA.

5. If Military co-located, local procedures. Discuss with local military units.

A. Specific

1. Local Communications

   a. Local Communications System Base and Repeaters

   b. Frequencies, call signs and identifiers

   c. Leadplane communications and communication procedures

   d. Incident communication plan

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Reference Section

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