

Part I - Introduction

A. Objectives. *The objectives of this supplement are to:*

- 1. Define and standardize operating procedures at the Jeffco Airtanker Base in the Governments relationship with air tanker contractors and air tanker base personnel.*
- 2. Through standardization, facilitate the activation of trained personnel during periods of high fire activity.*
- 3. Provide checklists, orientation outlines, and special instructions for both contractor employees (Pilots/Mechanics) and government workers at the air tanker base.*

B. Authority. *This local base supplement is a requirement at each air tanker base as prescribed in the Interagency Airtanker Base Operations Guide. The guide for Jeffco Tanker Base is designed to reflect local area operations.*

C. General Information.

1. Regional Organization. *The Jeffco Airtanker Base Operations are supervised by the Arapaho-Roosevelt National Forests. The Jeffco Airtanker Base Manager/Assistant Manager, report to the Forest Fire Management/Aviation Officer . Funding for safety, standardization, and training is allocated by the Regional Fire Operations Specialist, to Bases as the funds are requested.*

2. Airtanker Base Locations in Region. *The Rocky Mountain Region has 2 primary air tanker bases and 4 secondary reload bases. The bases are as follows:*

PRIMARY- (Contract Base)

Jeffco ATB	Broomfield, CO	USFS, R-2 Rocky Mtn.	303-439-0336
Grand Junction ATB	Grand Junction, CO	BLM, GJC Center	970-257-4800
Rapid City ATB	Rapid City, SD	USFS, Black Hills, NF	605-393-1364
Durango ATB	Durango, CO	USFS, San Juan/Rio Grande NF	970-382-8070

SECONDARY-(Re-load Base)

Pueblo ATB	Pueblo, CO	USFS, Pike/San Isabell NF	719-545-1454
Greybull ATB	Greybull, WY	Hawkins/Powers	307-765-4482

3. Air Tactical Organization. *The Jeffco Air Tanker Base has 1 large air tanker assigned during the fire season. A PB4Y-2 has been assigned this year, with a retardant capacity of 2000 gallons is on contract between 16 June and September 30 yearly.*



The Jeffco Airtanker base may also host a Colorado State Forest Turbine Single Engine Airtanker (SEAT). This Aircraft (Air Tractor-802) has the capacity of carrying up to 800 gallons of retardant. The SEAT is under contract with the State of Colorado for 60 days each year, typically in July and August.



*This aircraft (SEAT) is used mainly in Colorado and can be propositioned, as needed. Repositioning needs are determined by the State and Federal Fire Operations Coordinators. Jeffco Tanker Base has been able to maintain 8 air tankers at any given period. **However, 4 air tankers are the best operationally for a two pit operation.** Weight restrictions with the airport authority have been change per agreement with the airport authority. DC-6 and DC-7's are also allowed at Jeffco Tanker Base. Operational weights for singles is 75,000 lbs and duals are 130,000 lbs. Any aircraft operationally above the 75,000 lbs limit have landing fee's which are paid by the Forest Service and not the contractor.*

4. Prominent Landmarks in the area. *The initial attack area to the west of Jeffco Airtanker Base is characterized by numerous small lakes, high mountains (Elevations over 14,000 ft), high meadows, Large Granite outcroppings, and numerous drainages. See Map under Exhibit 5, Jeffco Operations Plan. Ask tanker base personnel for more detailed information as needed.*

5. Local Area Orientation Flight. *At start of the fire season, during initial proficiency water drops, we will try to utilize the flight to illustrate some typical terrain to the pilots as well as a view of the prominent land features.*

Be aware of possibility of erratic mountain winds. Flight hazard maps of the area are available in the Pilots lounge, Dispatch and in the hanger.

6. Fuels and Fire Behavior Common to the Area. *The Primary NFDRS fuel models vary greatly along the Colorado Front Range. The Front Range had 769 fires in 1996, and 394 in 1997. Lighting is responsible for 75% of the fires. The majorities approximately 90%, remain small, and less than a quarter of an acre, and do not require the assistance of retardant aircraft.*

The remaining 10% of fires are over a quarter of an acre, with 50% of those being over 10 acres in size. Most of the extended attack fires are contained successfully before the second burning period.

Part II- Organization and Responsibilities

A. Agency Responsibilities. *The Jeffco Airtanker Base is managed by the USDA Forest Service, Arapaho-Roosevelt National Forests. The Forest Fire Management/Aviation Officer supervises the Tanker Base Manager, who supervises the Assistant Tanker Base Manager.*

B. Airtanker Base Personnel. *The base has a Manager and Assistant Manager assigned during the fire season and off-season to perform various duties required to maintain the readiness for operations. When fire activity dictates the need, a Time keeper/Dispatcher is added as well as a Mix Master, Marshalls, and Loaders.*

1. Organizational Chart. *Is in accordance with Chapter 2, Interagency Airtanker Base Operations Guide, Personnel Exhibit II, Table of Organization*

2. Duties and Responsibilities. *The duties and responsibilities, of personnel at the Jeffco ATB, are described in Part 2, B, Airtanker Base Personnel: Duties and Responsibilities.*

Part III- Administrative Procedures

A. Forms and Reports. *The forms and reports used at Jeffco Airtanker Base are those described in Chapter 3, Interagency Airtanker Base Operations Guide Forms, Reports and Administrative Procedures.*

B. Contract Administration. *The Aircraft contract is issued by the USDA- Forest Service Contracting Office, located at the National Interagency Fire Center in Boise, ID.*

1. Aircraft Contracting Organization. *The Forest Service Contracting Officer is located in Boise, ID. The CO delegates contract administration responsibility to the*

regional Administrative Contracting Officer (ACO) in the Rocky Mountain Region Headquarters in Golden, Colorado. The (ACO) appoints the Contracting Officers Representative (COR) to be the local administrator to execute the provisions of the air tanker contract. The COR in-turn appoints Project Inspectors (PI) to assist in the day-to-day administration of the contract. The COR and PI are the personnel that normally interact daily with the contractor. The COR and PI, with help from the contractor, gather the information that provides documentation to support the payments, for services provided by the contractor. This is especially important if the aircraft is away from its home base. See Exhibit 2, Jeffco Operations Plan, Contract Contacts.

2. Retardant Contract. *The retardant pumping operation at the Jeffco Airtanker Base is by Force Account (Employee Operated), as compared to a Full Service contract that provides the personnel for loading and mixing operations.*

a. Responsibilities and Procedures. *In a Force Account Operation the personnel that manage the base are responsible for maintaining a supply of fire retardant chemicals, keeping the chemical ready to be pumped, maintaining the base equipment, demand-mixing the retardant and pump in to the aircraft, and managing the aircraft traffic on the loading ramp.*

3. Aircraft Payment Procedures. *The proper completion of flight payment documents is critical for the correct and timely payment to contractors.*

a. Verification of flight times at home base and alternate bases.

When the air tanker is at its assigned base, it is the responsibility of both parties (Government/Contractor) to record and verify the accuracy of flight times, and duty hours on proper forms, for subsequent payment. When the aircraft is working from an alternate base, the information must be passed back to the home base to insure proper credit for service rendered by the contractor. This can be done in one of 3 ways: (1) Home base personnel can call the alternate base and obtain the previous days flight and duty times, (2) The contractors designated representative (Pilot/Co-pilot) can call the home base and pass on the information, or (3) The management of the alternate base can send by facsimile (FAX), the information to the aircrafts home base, on the form (Individual Airtanker Flight Record) or a similar form.

b. Schedule of Submission of Flight Use Reports. *Flight Use Report (FS 6500-122) shall be completed daily, usually for the previous days activity. Frequency of payment shall be in accordance with the National Tanker Contract, Section G, and G.1.11 Payment Procedures*

c. Payment of Subsistence. *Payment of subsistence shall be recorded on the Flight Use Report (FS 6500-122), Block 26. The appropriate rate per night, according to Federal Travel Regulations (FTR), shall be paid for every night the authorized crew is assigned to an alternate base. A detailed explanation is located in, National Airtanker Contract, Section G, and G.1.10 Overnight Allowance.*

d. Payment of Landing Fees and Airport Use costs. *Unless there is a tie-down fee at an alternate airport, the only airport fees may be landing fees. At the Jefferson County Airport, the FS is not assessed any landing fees. Other airports may assess fees, and payment shall be according to the information recorded on the Fixed-Wing Base Landing Fee Record form, found in the Interagency Airtanker Base Operations Guide. Fees are paid by the specific base and should not be recorded on the flight payment sheet (FS 6500-122).*

4. Availability and Standby Requirements. *Vary depending on the tanker base except for the requirement for 9 hrs of standby. The Jeffco Airtanker Base is on standby from 0900-1800 seven days a week. If the home base tanker is located at Jeffco they are available 7 days a week the first week, and 5 days the second week. With Monday and Tuesday as a mandatory days off.*

a. Pilot Standby/Availability Hours. *Normal standby for the aircraft assigned to the Jeffco Airtanker Base will be 0900-1800 hours daily. Hours will be adjusted, to start earlier or later, depending on the fire danger and activity. See National Airtanker Contract, Section C, C.6.1 Flight and Duty Limitations. Availability will be paid and the day off shall be in accordance with the schedule of items in the National Airtanker Contract.*

Unavailability will be calculated according to the National Tanker Base Contract Section G, G.1.4, 5 in the. See section on Availability, Payment of Availability. Contractor will notify ATBM or acting of availability status.

b. Off-Duty Scheduling Means of Contact. *The contractor will notify Jeffco Base personnel of local address and telephone/cellular number. Other communications will be made by radio. See section C,C.6.1 (C), National Airtanker Contract, Flight and Duty Limitations and Section F, F.2 (5) (B) (3.) Return to standby.*

5. Dispatch Reaction Time Requirements. *Normal off times for dispatches is 15 minutes from the time of receipt of the order from dispatch. This will be in accordance with Section F, (B) (1.) Standby, National Air tanker Contract.*

6. Maintenance Scheduling. *Maintenance will be scheduled and accomplished according to the provisions in Section C, C.5.5, National Airtanker Contract, Aircraft Maintenance and Section F, F.2 (7), Authorized Breaks.*

a. Unscheduled Maintenance. *Any major component change, structural damage or other maintenance as determined by COR, would require government A/P certification of airworthiness.*

7. Liquidated Damages. *Shall be determined by the ACO, after a claim is submitted by the contractor, and awarded automatically according to the Federal Acquisition Regulation, Clause 52.216-16, August 1989.*

PART IV Base Facilities, Operations and Dispatch.

A. Facilities.

1. **Equipment at the Base.** *The Jeffco Airtanker Base has the following equipment on the base. The base has a 25 HP Electric Powered Peerless 3in Pump (Pit 1), 30 HP electric motor with Monarch 4in pump, Homelite 4in Portable (gas) trash pump, 2 Honda 3in (gas) trash pumps, 36,000 gallons of liquid concentrate retardant storage, 10,000 gallons of water storage, 4000 gallons of off-load capacity, 1 Electric hose reel for aircraft wash down, a ramp wash down collection facility with a disbursement pump, Ramp/Dispatch Operations building, and a temporary Pilots Lounge.*



- a. **Parts and Equipment Storage.** *Jeffco Airtanker Base has primary tool shed, garage, and 4 large conex boxes. This house all equipment needed to maintain ramp readiness and insure operations.*
- b. **Maintenance Responsibility.** *The crews assigned to manage the Jeffco Base are responsible for the majority of the maintenance at the base. In the event, that maintenance required is beyond the capability of the base crew, a specialist will be located and services will be contracted for the job.*
- c. **Retardant Metering.** *Jeffco uses Micro Motion meters to measure the density and weight of retardant while loading air tankers for fire missions. These meters are very accurate, to ensure proper mixtures and to meet contract weight requirements. These meters are recalibrated and tested prior to every fire season.*



Note: In 2002 we will be the test base for a new hybrid flow meter unit.

2. Base/Ramp/Dispatch Communications. *Communications between the dispatch and ramp are done via radio or walk in Ramp/Dispatch Operations building. The base has VHF radios with headsets for use on the ramp. Jeffco ramp frequency 123.975, for ramp, timekeeping, and aircraft communications while on the ramp. The ramp also has an outside public address system, to alert flight crews of an imminent dispatch. Air Dispatch will be flight following with Ft. Collins on 168.650, this frequency is also used for in-flight mission corrections/information. When a Resource Order is received for an air tanker, all radio frequencies, for the incident, will be noted on the original order. Air Guard frequency (168.625) is available for communications between the air tanker, dispatch, and ground forces for emergency purposes. After dispatch, communications will be according to the information found in Chapter IV, I.V.C.4. Communications, Interagency Airtanker Base Operations Guide*



3. Lighting Equipment. *Lighting for security is provided by the USFS on the ramp. For night ground operations, the base has numerous portable light stands. Loading Pit number 1 is equipped with lighting for dusk operations. Additional lights may be obtained, by calling the Region 2 Fire Cache, and requesting other portable lighting kits.*

4. Electrical System. *The electrical service on the ramp is 200 amps. This service provides electricity to all the pumps (2), The Live Reel, GFCI's located on the ramp and the reels, and to the pump remote switches. In the event of an electrical failure, 2 gas-powered pumps are available to load aircraft and a generator is available (from the R2 Fire Cache) to provide power to the ready room.*

5. Flight Crew Accommodations and Facilities. *Standby facilities, for aircrews, are provided at the base. the dispatch office is located 50ft from the ramp. This building is a 10 x 20 room, with a shower and bathroom attached and air conditioning. A pilot ready room is located behind the dispatch office. This building is has an office area, living area, and a library/sleeping quarters. Designated phone lines are in service for use for calls or Internet access. For transportation to accommodations and meals, this base follows the guidelines described in section G, G.1.10 (6) in the National Airtanker contract, under "LUNCHES" and Chapter 4, IV.A.6 Interagency Airtanker Base Operations Guide. Jeffco Tanker Base will provide dinners to flight crews if placed on standby or if active fire operations occur after 1900 hrs.*

6. Airtanker Reference Library. *The air tanker reference library is located in the manager's office area. Other information that may not be accompanied with the Operations guide can be found here. If there is specific information that is required ask the Base Manager or the Assistant Base Manager for assistance.*

7. Local Airfield Management. *The Jefferson County Airport is run by the Jefferson County Council Government. Local Airport Management includes an, Airport Manager, and Assistant Manager, as well as an Operations Supervisor, and Maintenance Crew. They are responsible for most of the airport property, not occupied by tenants, including mowing and snow removal operations.*

The water system is under the City of Broomfield jurisdiction, and they are responsible for all the maintenance up to the water meter junction, from that point to the building, responsibility for other repairs is barred by the USFS.

a. Regulations. *Operations on the Jeffco base are in accordance with Forest Service Regulations. Additional regulations by the airport authority and the FAA govern some operations at the base. The airport authority governs local operations, mainly maintenance, since they own the property the ramp is built on. The FAA regulates flight operations, and the airport maintains security.*

b. Procedures. *Procedures at the Jeffco Base are in accordance with Forest Service Operational Handbooks:*

- 1. Interagency Airtanker Base Operations Guide.*
- 2. Contract Administration Manual*
- 3. Health and Safety Code*
- 4. National Airtanker Contract*
- 5. Retardant Lot Acceptance and Quality Assurance Guide*
- 6. Area Mobilization Plans*

7. Pre-Dispatch Planning
8. Incident/Accident Action Plan
9. Interagency Airspace Coordination Guide
10. Ramp Safety Plan, and others.

B. Operations.

1. General. Operations at the Jeffco Base are dependent on good communications, daily briefings, on-the-job training, and a demonstrated concern for safety. These key factors help in the safety and efficiency of the overall operation of the base.

a. Base Operations. Since the Forest Service is the primary operator of the Jeffco Base, the employees are responsible for ensuring compliance with local, state, and federal regulations pertaining to hazardous materials spillage containment and disposal.

1. Wash down, Draining, and Spill Procedures. The Jeffco base has a water system that parallels the underground retardant loading line to pit two. The water system is pressurized by the city of Broomfield water main that in turn feeds the 2, 1 1/2" water stanchions at each pit. The ramp is sloped to the trench drain located on the ramp. All wash down material flows to the drain and is collected into an underground storage tank (3000 Gallons). In the event of a spill, the source is immediately identified and shut off.

Depending on the amount of material spilled, a wash down or recovery will be executed. A large spill will be recovered and placed into a 4000-gallon recovery tank for subsequent use. Small amounts will be washed down and diluted with water. To prevent spills, the standard procedure is to close all valves when ending a procedure and opening only those valves need to proceed with the next. A briefing is given to all involved in loading and ramp operations prior to any loading event.

If an aircraft is to be washed down after fire operations, ensure that ALL PERSONNEL with that aircraft keep the ramp is clean.

2. Holding Areas. A 3000-gallon underground storage tank is located off the ramp, to collect all wash down materials. The air tanker parking areas drain to and subsequently flow into the underground storage tank. The material collected is pumped out to three possible areas.

- a. Drainage Ditch to the rear of the base property.
- b. Two 4000-gallon storage tanks located west of the wet well.

To pump to one of these tanks, the electrical panel by the wet well needs to be manually switched to the corresponding tank and the pumping route will be automatically switched below ground. The recovery tanks are marked with the corresponding valve configuration.



b. Retardant Dropping in Sensitive Areas. Sensitive areas, within the Jeffco Base/Front Range Zone, will be clearly marked on dispatch maps. Sensitive area information will be requested from ordering dispatch offices, prior to dispatching the air tanker. Pilots will be alerted to possible sensitive areas in the vicinity of the incident. Sensitive areas that might be affected are: Standley Lake/Great Western Reservoir (S/SW), City of Superior directly to the west-northwest. Rocky Flats Plant, Several Subdivisions, streams, and misc structures in the area. **U.S. Forest Service regulations prohibit dropping of retardants within 300 ft of any water source.**

c. Retardant Disposal (Jettison Area). The local jettison area is located northwest of the Jeffco Base on Coffin top Mountain within the boundaries of the Arapaho/Roosevelt National Forest. The site is located on the Radial of 330 degrees and 19NM from the Jeffco VOR, Lat: If identified jettison area cannot be reached, there is open space south and west of the airfield that could be utilized. The Pilot will immediately notify Ft. Collins Dispatch of Emergency Drop.

d. Retardant Operations. Retardant Operations are governed by the standard operating requirements and procedures found in:

1. Lot Acceptance, Quality Assurance and Field Quality Control for National Fire Retardant Chemicals, (NWCG Publication, PMS 444-1, May 2000)
2. National Interagency Fire Center, (NFES#1245)
3. Interagency Retardant Base Planning Guide (NWCG pub, PMS 440-1Mar95)
4. National Interagency Fire Center, (NFES#1259)
5. Jeffco Tanker Base Operations Guide
6. Manufacturers product data.

e. Type of retardant in Use. The retardant used at Jeffco Base is "Fire-Trol" LCA-R. See Lot Acceptance, Quality Assurance and Field Quality Control for National Fire Retardant Chemicals, (NWCG Publication, PMS 444-1, April 1995), for more information.

1. Ordering Procedures can be done by calling Carol Brown ARNF, Contracting Office, (970) 498-2515 to obtain a Purchase Order number to expedite the process. Contact Firetrol LLC, direct and ask for Rhonda, Karen, or Terry Brensen, (530)865-4932. He will need the PO# from Carol. Retardant is delivered in a 4000-gallon tanker truck, so make sure there is enough room in the tank for off-loading. Multiple Lots can be ordered. It needs to be decided if the load needs to be expedited,

as it comes from Phoenix, AZ. It takes a good 24 hours for delivery of product, so try to anticipate delivery time. A minimum of two members from the air tanker base must be around to off-load the truck when it arrives.

- f. **Off-Loading Procedures of Delivered Retardant.** *Jeffco Airtanker Base is a forced account base. Being a forced account base we have to off-load all delivered retardant. This requires the use of a portable pump, and various lengths of hose needed to fill each retardant tank.*



2. Retardant Testing Schedule and Procedures. *At the Jeffco Base the procedures for testing and sampling retardant will be as described in Lot Acceptance, Quality Assurance and Field Quality Control for National Fire Retardant Chemicals, (NWCG Publication, PMS 444-1, May 2000), for more information see pages 26-37. **Samples are sent via UPS to: National Wildfire Suppression Technologies, 5575 Hwy 10 W., Missoula, MT 59802.***

- a. **Recirculation of retardant.** *During the fire season and prior, retardant will have to be recirculated. Jeffco Tanker Base uses a Liquid concentrated retardant (LCA-R). Because of it's heavy clay content it will tend to separate into different layers if it sits for a long period of time. By aerating the mixture with high-pressure air, it allows the mix to stay in suspension (**non-settled**). To accomplish this our base is equipped with a large diesel compressor with an attachment that is placed on the tank itself. Operations and procedures are available in a separate appendix.*

Before recirculation operations begin, get with a trained person to review procedures prior to any use of aeration equipment.



3. Parking Procedures. *Parking will as described in Chapter IV, IV.B.4, Parking, Interagency Air Tanker Base Operations Guide, and Ramp Safety Plan.*



a. Local Procedures. *Pilots will be guided to parking by placing their nose wheels on either the solid yellow line or dash line into each pit. Deviations to this procedure could mean a possible collision with an immovable object or being too far away from the loading hose. **The home base air tanker when appropriate will occupy pit #1. Any other air tanker will occupy pit #2** during any activity. At no time during the fire season will any small aircraft be parked in this area. Parking for transient small fixed wing aircraft is available on the Far East side of the ramp, just south of the hangar door. During times of high fire activity and when numerous aircraft are assigned to the Jeffco Tanker Base, (more than 4) additional parking will be arranged through the FBO's, Stevens Aviation or Denver Air.*

*Day off or Maintenance parking is on the General Aviation ramp controlled either by Stevens Aviation or South of the main terminal by Denver Air. A security gate controls this area, and you must obtain a key or gain access through Jeffco airport authority. A ground guide is not required for this area but unnecessary activity must be kept to a minimum. Parking may be available on the Jeffco Tanker Ramp dependent on fire activity with permission from the Airtanker Base Manager. Additional operations regarding safety will be according to **Appendix 2, Ramp Safety Plan**, and this supplement.*

4. Preflight Checks. *The pilot should accomplish the standard pre-flight checklist at the beginning of each duty day. The flight crew may start the engines, if they feel it is needed. The flight crew will also check radios and frequencies, Loran/GPS calibration, and a tank systems check.*

- a. **Safe Engine Operations.** *When an air tanker has sat on the base for over a week, or times of cold weather will be allowed at their option, to start the engines, complete a run up, and ensure that they are working safely and efficiently.*



5. Loading. *The Airtanker Base Manager, Assistant Base Manager, Ramp Manager, Parking Tenders, and Loading Crews are the **ONLY** personnel permitted on the ramp during aircraft operations. The size of the ramp crew depends mainly on the amount of activity and number of air tankers working out of the base. Personnel that are in training must stay close to their primary trainer at all times when on the ramp. If there is a question **AT ANY TIME** regarding the loading of a particular air tanker, pilots or crew will be asked prior to commencing any loading procedures. During any operations ramp personnel will conduct a visual safety check. This insures that only authorized personnel are on the ramp and ramp safety procedures are being followed.*

*The ramp crew shall wear hearing protectors, eye protection, and high visibility clothing. Loading crew clothing should contrast with the color of the parking tender to avoid the possibility of confusion. Boots with no skid soles are recommended (ie: light weight hikers, work boots, or safety boots.) for use on the ramp. Shorts are optional for ramp crews to cut down on heat related injuries from excessive physical activity. Loading of aircraft with engines running will not be permitted "except" when all personnel involved have been trained. **No Hot Loading of large air tankers are permitted. Only the S.E.A.T. is authorized to be hot loaded.** See appendix F, Retardant Hot Loading Procedures, IBOG.*

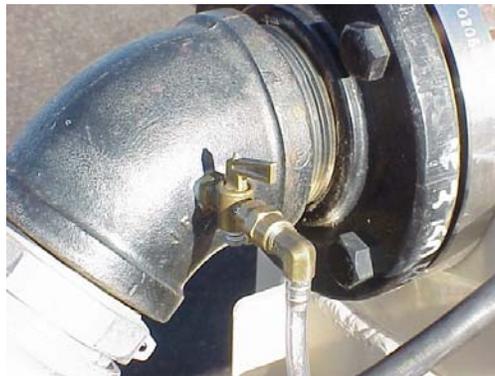
6. Retardant Mixing Procedures. *Jeffco uses Fire-Trol LCA-R, Liquid Concentrate Retardant. This type is very easy to mix for proper proportions for a 5.1 ratio mix.*

A “ Y ” blender is used for our operation to mix retardant before going to the pumps.



This allows for manual control of the mixing valves for water and retardant. All fittings are color coded to aid in training and safe operations. The colors are as follows: Red- Retardant, Blue- Water, Green- Backflow preventers, Yellow valves w/red handles- Safety valves.

a. Aircraft Sampling. Located on each Micro Motion Meter is a sampling valve. By taking samples while retardant is begin loaded on the aircraft it gives better quality control of what is being sent to a fire. These samples are read by a refractometer that shows the salt crystal content in the mixture. Ideal mixtures should be between 13.5 and 16.0 centipoises. For instance if we are not within these levels, we can adjust the blender accordingly to compensate the mixture.



7. Fueling. Fueling will be in accordance with Chapter IV, IV.B.7 (a-h), Fueling, Interagency Airtanker Base Operations Guide and Aviation Fuel Quality Control Program (USDA-FS publication May 1979), NFPA 407 (Aircraft Fuel Servicing, 1999 edition).

a. Local Vendors. The FBO (Fixed Base Operators) are Stevens Aviation and Denver Air Center. They are the two main sources for aviation fuel at the Jeffco Airport. Both provide 100LL (Low Lead) and oil for reciprocating engines, as well as Jet-A for turbine aircraft. For more information regarding updated fuel pricing and operations check out the web sight: www.airnav.com and select the KBJC ICAO.

b. Procedures. Fuel may be obtained one of two ways at the Jeffco Tanker Base. The flight crew may call in on Unicom, 122.95 directly to a fuel vendor, or call the base on 123.975, to relay requested fuel vendors prior to arrival. It is the contractor's responsibility to choose which vendor they wish to use.

c. Fueling areas. Airtankers may fuel on the Jeffco Ramp during the following times:

- Prior to start of required duty day.
- End of each flight day.
- Only air tanker assigned to base.

All other times fueling will be completed by the main terminal by either FBO vendor. This allows the loading pits to be open at all times during fire activity.

7. Releasing of Aircraft. *Release of aircraft will be in accordance with Chapter IV, IV.B.9, Releasing the aircraft, Interagency Airtanker Base Guide.*

a. Local Procedures. *If both pits on the Base are occupied, a wing-walker must be utilized to insure proper wing clearance of aircraft moving off the ramp, especially any aircraft moving out of pit #2.*

8. Air Tactical/Lead Plane Organization and Procedures. *There are two lead planes assigned to Region 2. One is located at Jeffco Tanker Base and the other is located at the Grand Junction Air Center. During the fire season, one is on standby seven days a week, usually paralleling the air tankers duty day. When tactical aircraft is needed, (ie: Air Attack) dispatch will attempt to locate one with the proper radio configuration, or one already on contract for the fire season. The BLM, (GJ Air Center) normally has one contract air attack on contract during each fire season.*



C. Dispatching Procedures, Briefings, Communications.

1. Dispatch Procedures. *Dispatch Procedures shall be as discussed in Chapter IV. IV.C, Dispatch Procedures, Interagency Airtanker Operations Guide. Dispatches for the Jeffco Airtanker Base will be through the dispatch center at Fort Collins. The Aircraft dispatcher filling out the resource order needs to contact the Airtanker Base Manager/Asst. Base Manager when an order is placed, to expedite the air tanker dispatch procedure. The ramp crew will then have time to notify the air tanker pilots, and the air tanker can be loaded and readied while the resource order is being finalized. Two copies of the Aircraft Resource Order are needed, One for the Base Manager and one for the Pilots.*

a. Resource Ordering: *Aircraft Resource orders for incidents on Arapaho-Roosevelt National Forest protected lands will originate at Fort Collins Dispatch.*

b. Overhead Orders: *Orders for Overhead resources to support operations at Jeffco will be placed via phone to Fort Collins Dispatch. The resource orders will be tracked on Form NFES 2213 or NFES 2214 (Continuation sheet). All fill information will be relayed from Fort Collins to Jeffco. Jeffco will relay all demobilization information back to dispatch. Dispatch will relay any reassignment orders back to Jeffco to be given to the employee. All travel arrangements are made and confirmed thru Ft. Collins and passed via fax to Jeffco Operations.*

c. Supply Orders: *Orders for supplies and equipment will be placed by the Airtanker Base Manager or Asst. Base Manager directly to the R2 Fire Cache. The Supply/Equipment resource orders will be tracked on Form NFES 2215 or NFES 2216 (Continuation sheet). When possible, supplies and equipment can be purchased through local vendors using established purchasing procedures.*

2. Briefing and Orientation. *The Assistant Base Manager is responsible for covering area's of safety during the pre-work conference for aircrews and safety information needed during a dispatch. Morning briefings will address the following:*

- *Departure Routes*
- *Know Flight Hazards to Fire Area*
- *Jettison sights*
- *Local procedures*
- *Altitudes*
- *Flight weather*
- *Frequencies for fire communications*
- *Flight following*

*Information for the complete (pre-work conference) pilot briefing is found in **Appendix 1, Jeffco Base Pilot Briefing Guide, Jeffco Airtanker Base Operations Plan.***

a. Zones of Influence. *The immediate initial attack area for the Jeffco Airtanker Base is the entire Colorado Front Range. Extended dispatches for the air tanker*

for initial attack occur due to the sparse availability of other air tanker bases throughout the region. Long dispatches for the air tankers frequently occur, typical turnaround times are over an hour.

- b. **Sterile Cockpit:** *“Limiting communications and actions within the cockpit to only those required for safe maneuvering and traffic separation”*. This means communications with Dispatch, ground personnel and other aircraft concerning mission information is prohibited. Pilots will be afforded the opportunity to maneuver the aircraft safely at all times without undue physical or mental interference. This is especially important during approach/departure and take-offs/landings. **A sterile cockpit will be maintained within a 10 mile radius of controlled and uncontrolled airports.**

3. Communications. Communications shall be as described in Chapter IV, IV.C.4, Communications, and Interagency Airtanker Base Operations Guide.

a. Local System.

1. Base stations, Repeaters and VOR sights. The aircraft base station is located in the Ramp Operations building. Currently there is not a repeater in use in conjunction with this base unit. The Jeffco VOR is located on the Jefferson County Airport.

2. Airfield and Base Communications. The Jefferson County Airport is tower controlled. Hours of operation are 0600-2200 daily. The assigned flight service station is Denver. Communications with the dispatch center are on VHF-FM radio or with the tanker base on VHF-AM radio, or by telephone.

3. Lead plane Communications and Communication Procedures. A lead plane is required to accompany a mission where two or more air tankers will be over the fire at the same time, if the air tanker pilot is not initial attack rated, if the fire is in a congested area, is requested by the air tanker pilots, or if MAFFS are ordered and activated for the incident. The local air tactical frequency varies depending upon which state and which zone you may be flying in. A map of these frequencies and zones is posted in the ready room, with copies for each air tanker. Flight following is 168.650. When the lead planes are assigned to an incident, the pilot will be identified by a predetermined call sign, (ie: Lead 21 or Lead 77 etc.) Lead planes will contact the requesting unit dispatcher upon arrival and upon departing, if an Air Tactical Group Supervisor (AGTS) is stationed over the fire, communications from the dispatch center/air tanker base, will be directed to that person, who will in turn relay the information to the lead plane pilot. If there is no ATGS over the incident, the lead plane pilot will be the direct air tactical link.

4. Large Fire Communications Plan. If the Jeffco base is the main base utilized on an extended attack incident, an Incident Action Plan (IAP) will be obtained, daily, for the morning briefings of all tactical aircraft flight crews. Communications information will be obtained from the ICS 205 form, Incident Radio Communications Plan,

that is located within the IAP. These are faxed to Jeffco Tanker Base prior to start of next duty day. A complete IAP will be distributed to ATGS, Air Attack, and Lead planes.

a. Flight Tracking and Check-In Requirements. At the contract pre-work meeting, flight crews will be advised of required check-in procedures, while in flight. Aircraft operating out of Jeffco or any incident will check in and flight follow with dispatch unless other arrangements have been made and approved by Fort Collins Dispatch. The sending unit has the responsibility to forward the flight information on the air tanker to the receiving unit. The flight crew has the responsibility to check-in, upon arrival, at their destination.

1. Dispatch Priority. Will be according to Chapter IV, IV.C.5 (a-c), Dispatch rotation and Priority, Interagency Airtanker Base Operations Guide.

2. Startup and Cutoff Times. Will be according to Chapter IV, IV.C.6. (a-b), Airtanker Dispatch Limitations-Startup/Cutoff Times, Interagency Airtanker Base Operations Guide.

3. Termination of Drop Activities. Will be determined by the aerial supervisor over the incident, using the cutoff time guidance in conjunction with the actual visibility.

PART V - SAFETY

A. Airtanker Base Evaluations. Shall be according to Chapter V, Interagency Airtanker Base Operations Guide, V.B.1-2., Airtanker Base Evaluations and Appendix G, Airtanker Base Readiness Evaluation and the abbreviated form found in Appendix 3 of this plan.

1. Schedule and Procedures. The evaluation is usually scheduled to coincide with the air tanker pre-work conference, held on June 16th. This is usually accomplished by the R-2 Fire Operations Specialist or a designated representative.

B. Aerial/Flight Hazard Maps. Are developed according to Chapter V, Interagency Airtanker Base Operations Guide, V.C.1-3., Aerial Hazard Maps.

1. Responsibility and Procedures for Update. The Airtanker Base Manager or Assistant Base Manager has the responsibility to update this yearly, reflecting changes and new aerial hazards. For adjacent initial attack lands, the base manager should solicit those land managers for aerial hazard information that can be incorporated onto the base map.

2. Briefings and Airport Hazards. The Base Manager or other personnel by direction, is responsible for the gathering of airport hazard information for the subsequent dissemination to the flight crews. This information can be obtained from the office of the Jeffco Airport Manager. These may also be located on the NOAA web sight. (www.noaa.gov) They have listings for all aviation type NOTAMS, which can be selected a single ICAO or, by radius to a particular area from their web sight. This information is briefed to the Flight crews currently assigned to the Jeffco Base. Copies of this information are also posted on the main bulletin board in the Pilots Lounge. As hazards change or are eliminated, the Base Manager will brief the flight crews accordingly.

a. Turbulence, Wind and Time of Day Limitations on Flight Activity.

Information on turbulence will be obtained from pilot reports of such activity, when going to, over, or returning from a fire and relayed to other flight crews working from the base. Additional information will be obtained from the control tower, and the following web sights:

NOAA Flight Weather: www.noaa.gov

National Weather Service: www.nws.gov

Aviation Digital Data Service: www.adds.com (Best sight)

Flight restrictions during high wind events will be obtained from the flight crews and relayed to dispatch. Time of day flight activity limitations will be obtained from either the ATGS or the Airtanker Supervisor (Lead plane Pilot).

C. TFR's/MTR's. Temporary Flight Restrictions (TFR) will be according to the provisions in the Interagency Airspace Coordination Guide. Military Training Routes, in the area, will be monitored via the AP-1B, Military Training Routes Handbook. Current versions are available in dispatch by request, and in the pilots lounge.

1. Local Procedures. In the event that an Incident Commander requests a TFR, the request form in the Interagency Airspace Coordination Guide, is filled out by the dispatch center, with the appropriate information, and passed on to RMACC. The Denver ARTCC (Air Route Traffic Control Center) is contacted, by Rocky Mountain Area Coordination Center (RMACC). After the information on the request form has passed on the ARTCC, they will give the caller a TFR (Temporary Flight Restriction) number, that the dispatch center will place on a resource order (AIRCRAFT) to document the TFR. After the emergency ceases to exist, the TFR will be cancelled.

2. MTR Map. The tanker base will possess and update the current map illustrating Military Training Routes that traverse the Initial Attack Area. It will be updated/issued regularly by IAMS. When the TFR is cancelled, the map symbol will be removed if necessary. This information will be noted on the Aircraft Resource Order, and briefed to flight crews. MTR maps are located in the pilots lounge and in the Jeffco ATB dispatch.

D. Crash-Rescue Planning and Equipment. Shall be in according to Chapter V, V.E.1. Crash Rescue Planning and Equipment, Interagency Airtanker Base Operations Guide.

1. Local Incident/Accident Action Plan. The local plan will be as described in the Rocky Mountain Region, Aircraft Crash, Search, and Rescue Guide and FSM 5720. Crash Rescue procedures for accidents occurring within the local I/A area, away from the Jefferson County Airport, are described in the Forest/Unit/Incident/Accident response. *Copies of these plans shall be made available upon request.*



2. Local Crash-Rescue Equipment. Currently Jeffco Airport has a Titan II, Titan III, and Oshkosh Crash Rescue rigs located on the airport. These engines are currently located at the Jeffco Airport throughout of the year. North Metro Fire department has a mutual aid agreement with the airport. They will send 3 engines, 1 ambulance, and 1 Battalion chief to coordinate crash/rescue incidents.

a. Fire Extinguishers: Inspection and Location. Fire Extinguishers on the base are inspected on a yearly schedule. The base has 1 50lb CO2 extinguisher, and 2 100lb PKP Dry Chemical Extinguisher. (One at each loading pit) The Base also has a minimum of 3 20lb ABC extinguishers located strategically throughout the ramp area.

b. Local Organization and Responsibility. In the event of an on/off field accident or fueling mishap, the Aircraft, Crash, Search and Rescue Guide will be followed. If there is an accident/incident, "ALL EMPLOYEES" have the responsibility of notifying the Airtanker Base Manager. The Base Manager & Dispatcher will contact the local fire department, ambulance service, organization with SAR responsibility, or Regional Aviation Safety Officer. If the dispatcher does not know that an incident has occurred on the ramp, it is the responsibility of the Ramp Manager to notify the Dispatcher, who immediately notifies the appropriate emergency response. Contractor responsibility shall be according to Section C, National Airtanker Contract, C.7.4. (1-6) Accidents, Incidents.

3. Single Engine/Engine Out Procedures. Shall be in accordance with the manufacturer or FAA approved procedures. Section C, National Airtanker Contract, C.7.2 (3), Takeoff and Landing, shall govern these operations.

4. Emergency Fields. There are numerous small paved and unpaved airports within the zone of influence of the Jeffco Airtanker Base. Rather than list them, pilots should make a decision, during a bonified emergency, where they can go, or an airport that they can reach. Information may be obtained from the aeronautical sectional charts, WAC charts, airport facility directories, and Flight Guide, as to location, length and surface. Closest airport to the current location of the aircraft is programmed into most of all Global Positioning Systems (GPS) receivers.

E. Hazard, Incident, and Accident Reporting. Hazard, Incident, and Accident Reporting shall be in accordance with Chapter V, V.F.1-5. Interagency Airtanker Base Operations Guide as outlined in FSM 5720. The form to be used is the new USDA/USDI SAFECOM, FS 5700-14 (OAS-34). See exhibit 2. SAFECOMS may be reported and sent on-line at the following web addresses:

www.oas.gov/oassafety/entry.asp (For DOI incidents)

www.aviation.fs.fed.us (Click on SAFECOM Icon, for FS incidents)

1. Local Procedures. It is the responsibility of any individual who observes or who is involved in an aviation incident or accident to report the occurrence at time of incident, as a "heads up" to the Regional Aviation Safety Officer. A hard copy or electronic copy of a SAFECOM should follow within 48 hrs. Circumstances of the Hazard, Incident, and Maintenance Deficiency should be discussed with the pilot, if possible, and the form initiated, the pilot has the responsibility to report the incident on the SAFECOM form.

2. Routing. The form should be sent to the Regional Aviation Safety Officer for subsequent distribution to the Regional Aviation and Training Officer.

F. Proficiency Flights. Proficiency flights shall be in accordance with Chapter V, V.G.1, Proficiency Flights, Interagency Airtanker Base Operations Guide, and Section J., Exhibit 9, Proficiency Guideline Checklist, National Airtanker Contract.

G. Dropping On or Near Congested Areas. Shall be in accordance with Chapter V, V.H., Dropping On or Near Congested Areas, Interagency Airtanker Base Operations Guide and Chapter II, II.J.1. (a-c), Congested Area, Interagency Airspace Coordination Guide, Appendix 3, Text of FAR Part 91.119 and USDA/DOI of FAR Part 91.119, 5714.11, Grant of Exemption No. 392, and Appendix 3, Text of FAR Part 91.119 and USDA/DOI Exemptions to 91.119, USDI Guidance on Exemption 3017 from FAR 91.119 (Congested Area Operations).

1. Local Procedures. It is a local procedure, because of the growing complexity of local urban interface areas, various rural fire departments, numerous radio systems, numerous jurisdictions, local populace interference, numerous aircraft, etc., to order a lead plane with every air tanker order. As the complexity grows or as determined by the air tanker coordinator (Lead plane Pilot), an Air Tactical Group Supervisor (ATGS) will be assigned.

H. Landing with Full or Partial Load. Landing with a full or partial load operations shall be in accordance with, Section C, C.7.2. (3) (C), Takeoff and Landing, National Airtanker Contract, and Load bearing weights/agreements with the Jefferson County Airport Authority.

1. Local Contract Specifications. Air tankers shall land with their contracted load onboard unless legal landing weight or airport limits will be exceeded. If there is an emergency or when adverse conditions make safe landing uncertain, the pilot is allowed to drop the load. Landing loaded is not allowed at Jeffco due to weight bearing restrictions limits. **Hence the term once it leaves the base it's yours!**

2. Runways and Ramp Wheel-Loading Capability. Wheel loading capabilities at the Jeffco Airport are: 75,000 lbs for single wheel, and 130,000 for dual wheel (Tandem). Landing fees are in place for non-exempt aircraft. These fees are paid by the government and are not incurred cost by the contractor.

a. **Allowable Takeoff Performance Chart.** See Exhibit 3.

I. Base Safety Items.

1. **Inventory.** See Exhibit 4.

Part VI: Media Operations, and Visitor Policies.

1. Media Operations. During high fire situations, media tours are frequently asked for. Typically the media is present when activity on the ramp is high. Media personnel, or any other non-authorized personnel, must always be escorted either by base personnel, including tanker pilots, or agency public information officers. It is a good idea for a knowledgeable base person to be on hand to provide correct information, as many times air tanker operation information is not known by public information officers. Air tanker operations ***will not*** be held up for any media operations. ***Fire Missions are the highest priority*** and the media will be accommodated when time is available. If problems persist with Media personnel contact the Base Manager or Assistant Base Manager to resolve further issues.

2. Visitors Policies. Rules governing air tanker visitation can and should be made to fit the size of the group, and whether the pilots can accommodate these groups according to their company policies. Requests for large groups should be made at least 24hrs in advance. It is forbidden for anyone to enter the plane without the consent of the pilot or co-pilot. Unauthorized personnel will not be permitted on the ramp without permission. Visitors may be given tours during periods of non-operations. There is **NO SMOKING** allowed on the ramp. During fire operations people tend to gather around to watch the planeload and depart. It is a must that they remain behind the blast fence or designated safety area. Safety must **NEVER** be compromised for any reason.

PART VII: AirNet Base Units, Dispatch Centers, Initial Attack Frequency Map.

1. AirNet/Airguard Units and Dispatch Centers: Within region 2 there are 10 communication centers. These centers monitor 168.650 (Net) and 168.625 (Guard) for all aircraft in transitioning their area of operations.

Colorado Centers:

FTC- Fort Collins Interagency Dispatch Center

PBC- Pueblo Interagency Dispatch Center

CRC- Craig Interagency Dispatch Center

GJC- Grand Junction Interagency Dispatch Center

MTC- Montrose Interagency Dispatch Center

Wyoming Centers:

CDC- Cody Interagency Dispatch Center

CPC- Casper Interagency Dispatch Center

RWC- Rawlins Interagency Dispatch Center

South Dakota:

CSC- Custer Interagency Dispatch Center

2. Initial Attack Frequency Map for Region 2.

(See Dispatch or Pilot/Aircrew Orientation Guide for Frequency Map)