



**OREGON DEPARTMENT OF FORESTRY  
2600 STATE STREET  
BLDG D, AVIATION UNIT  
SALEM, OREGON 97310**

## **TERMS OF AGREEMENT FOR HIRING CALL-WHEN-NEEDED AIRCRAFT AND PILOTS**

### **1. PURPOSE**

The purpose of this agreement is to set forth the terms and conditions under which the Oregon Department of Forestry will hire aircraft and pilots. The Contractor is not an officer, employee, or agent of the State as those terms are used in ORS 30.265. This agreement applies only to aircraft hired for use during a wildfire incident, under the authorities of ORS 477.406 and ORS 279A025 (2)(n).

This agreement makes no guarantee that the State will hire aircraft and pilots, but in the event of such hiring, this agreement will be considered binding.

### **2. DEFINITION OF TERMS**

Contractor – Person or company, or representatives of a company who possess or control the use of the aircraft and provide qualified pilots hired under the terms of this agreement.

FAA - Federal Aviation Administration

FAR - Federal Aviation Regulation

ORS – Oregon Revised Statute

PIC—Pilot-In-Command

SIC—Second-In-Command

State – State of Oregon, Oregon Department of Forestry, Douglas Forest Protective Association, Coos Forest Protective Association, and Walker Range Protective Association.

### **3. TYPES OF FLIGHT ACTIVITIES**

Aircraft hired by the State may be required to patrol forests in search of fires, or to transport personnel or cargo. Aircraft may be required to deliver personnel or cargo, in close proximity to wildland fires, carry cargo or fire chemicals suspended from a cargo hook, drop fire chemicals, transport injured persons, or perform other activities which can be accomplished by aircraft. Most flying will be over rough or mountainous terrain.

#### 4. CALL-WHEN-NEEDED SUBMISSION INSTRUCTIONS

- a) Submissions: Fill out the appropriate Rental Rate Forms and the Aircraft Pilot Summary with current year's information. A valid signature is required on the Rental Form for acceptance.
- b) **Changes to pricing on the submitted Rate Sheet will not be accepted after June 1<sup>st</sup> of each year, unless the change is a decrease in pricing or addition of aircraft.**
- c) If you have questions or concerns about meeting the insurance requirements of this agreement, please contact the Aviation Unit at [aviationsubmission@odf.oregon.gov](mailto:aviationsubmission@odf.oregon.gov).
- d) All submissions:
  - i) No additional documents or written memos will be accepted for aircraft rates or aircraft information. Please do not add items to your rate sheet such as Extended Personnel Standby. These additions will not be accepted. If you need assistance with the forms, please contact the Aviation Unit at:  
[aviationsubmissions@odf.oregon.gov](mailto:aviationsubmissions@odf.oregon.gov)
  - ii) Proof of insurance must be submitted as outlined in Section 5 of this agreement with the required forms listed.
  - iii) Insurance forms and rate sheets must be submitted to the State via the Aviation Unit at: [aviationsubmissions@odf.oregon.gov](mailto:aviationsubmissions@odf.oregon.gov)
  - iv) Please do not submit your information for this agreement to anyone other than the Aviation Unit to ensure a timely response and review of the submission.
  - v) When your submission is received, it will be reviewed for completeness. You will receive a short email reply confirming receipt. If there is a need for follow-up questions on rates, pilots, or aircraft, a representative from the Aviation Unit will contact you. When your agreement is approved, you will receive an email with a confirmation letter stating that your submission will be included in the State's Call-When-Needed Aircraft List.

#### 5. INSURANCE

- a) Indemnification Clause: The hired Contractor shall indemnify, defend, and hold harmless the State of Oregon and the Department of Forestry, Douglas Forest Protective Association, Coos Forest Protective Association, and Walker Range Protective Association, its officers, divisions, agents, employees, and members from all claims, suits or actions of any nature resulting from the activities of the Contractor, its officers, subcontractors, agents or employees under this agreement.
- b) Insurance Requirements: Contractor shall obtain at the Contractor's expense the insurance specified in this section prior to performing under this agreement and shall maintain it in full force and at its own expense throughout the duration of this agreement, as required by any extended reporting period or tail coverage requirements, and all warranty periods that apply. Contractor shall obtain the following insurance from insurance companies or entities that are authorized to transact the business of insurance

and issue coverage in the State and that are acceptable to the State (ODF). Coverage shall be primary and non-contributory with any other insurance and self-insurance, with the exception of Worker's Compensation. Contractor shall pay for all deductibles, self-insured retention and self-insurance, if any.

- c) **WORKER'S COMPENSATION & EMPLOYERS' LIABILITY:** All employers, including Contractor, that employ subject workers, as defined in ORS 656.027, shall comply with ORS 656.017 and provide workers' compensation insurance coverage for those workers, unless they meet the requirement for an exemption under ORS 656.126(2). Operator shall require and ensure that each of its subcontractors complies with these requirements. If Contractor is a subject employer, as defined in ORS 656.023, Contractor shall also obtain employers' liability insurance coverage with limits not less than \$500,000 each accident. If Contractor is an employer subject to any other state's workers' compensation law, Contractor shall provide workers' compensation laws including employers' liability insurance coverage with limits not less than \$500,000 and shall require and ensure that each of its out-of-state subcontractor complies with these requirements.

- d) **COMMERCIAL GENERAL LIABILITY:**

Required    Not required

Commercial General Liability Insurance covering bodily injury and property damage in a form and with coverage that is satisfactory to the State. This insurance shall include personal and advertising injury liability, products and completed operations, contractual liability coverage for the indemnity provided under this agreement, and have no limitation of coverage to designated premises, project or operation. Coverage shall be written on an occurrence basis in an amount of not less than \$2,000,000 per occurrence. Annual aggregate limit shall not be less than \$4,000,000.

- e) **AIRCRAFT LIABILITY**

Required    Not required

Aircraft Liability Insurance with a combined single limit for bodily injury and property damage liability including passengers (if carrying passengers other than crew members) of not less than \$2,000,000 per occurrence/aggregate.

- f) **AUTOMOBILE LIABILITY INSURANCE:**

Required    Not required

Automobile Liability Insurance covering Contractor's business use including coverage for all owned, non-owned, or hired vehicles with a combined single limit of not less than \$1,000,000 for bodily injury and property damage. This coverage may be written in combination with the Commercial General Liability Insurance (with separate limits for Commercial General Liability and Automobile Liability). Use of personal automobile

liability insurance coverage may be acceptable if evidence that the policy includes business use endorsement is provided.

g) POLLUTION LIABILITY:

Required     Not required

Pollution Liability Insurance covering Contractor's or appropriate subcontractor's liability for bodily injury, property damage, and environmental damage resulting from sudden accidental pollution and related cleanup costs incurred by Contractor, all arising out of the Goods delivered or Services (including transportation risk) performed under this agreement is required. Combined single limit per occurrence shall not be less than \$500,000. Annual aggregate limit shall not be less than \$1,000,000.

An endorsement to the Commercial General Liability or Automobile Liability policy, covering Contractor's or subcontractor's liability for bodily injury, property damage and environmental damage resulting from sudden accidental and related clean-up cost incurred by the Contractor that arise from the Goods delivered or Services (including transportation risk) performed by Contractor under this agreement is also acceptable.

h) EXCESS/UMBRELLA INSURANCE:

A combination of primary and excess/umbrella insurance may be used to meet the required limits of insurance.

i) ADDITIONAL INSURED:

All liability insurance, except for Worker's Compensation (if applicable), required under this agreement must include an additional insured endorsement specifying the State of Oregon, the Department of Forestry, Douglas Forest Protective Association, Coos Forest Protection Association, and Walker Range Forest Protective Association and their officers, employees and agents as Additional Insureds, including additional insured State with respect to liability arising out of ongoing operations and completed operations, but only with respect to the Contractor's activities to be performed under this agreement. Coverage shall be primary and non-contributory with any other insurance and self-insurance. The Additional Insured endorsement with respect to liability arising out of Contractor's ongoing operations must be on ISO Form CG 20 10 07 04 or equivalent and the Additional Insured endorsement with respect to completed operations must be on ISO form CG 20 37 04 13 or equivalent.

j) WAIVER OF SUBROGATION:

Contractor shall waive rights of subrogation which Contractor or any insurer of Contractor may acquire against the ODF and State of Oregon by virtue of the payment of any loss. Contractor will obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the ODF has received a waiver of subrogation endorsement from the Contractor or the Contractor's insurer(s).

k) TAIL COVERAGE:

If any of the required insurance is on a claims made basis and does not include an extended reporting period of at least 24 months, Contractor shall maintain either tail coverage or continuous claims made liability coverage, provided the effective date of the continuous claims made coverage is on or before the effective date of this agreement, for a minimum of 24 months following the later of (i) Contractor's completion and ODF's acceptance of all Services required under this agreement, or (ii) ODF or Contractor termination of agreement, or (iii) the expiration of all warranty periods provided under this agreement.

l) CERTIFICATE(S) AND PROOF OF INSURANCE:

Contractor shall provide to ODF Certificate(s) of Insurance for all required insurance before delivering or performing any Services required under this agreement. The Certificate(s) shall list the State of Oregon, its officers, employees and agents as a Certificate Holder and as an endorsed Additional Insured. The Certificate(s) shall also include all required endorsements or copies of the applicable policy language effecting coverage required by this agreement. If excess/umbrella insurance is used to meet the minimum insurance requirement, the Certificate of Insurance must include a list of all policies that fall under the excess/umbrella insurance. As proof of insurance ODF has the right to request copies of insurance policies and endorsements relating to the insurance requirements in this agreement.

m) NOTICE OF CHANGE OR CANCELLATION:

The Contractor or its insurer must provide at least 30 days' written notice to ODF before cancellation of, material change to, potential exhaustion of aggregate limits of, or non-renewal of the required insurance coverage(s).

n) INSURANCE REQUIREMENT REVIEW:

Contractor agrees to a periodic review of insurance requirements by ODF under this agreement and to provide updated requirements as mutually agreed upon by Contractor and ODF.

o) STATE ACCEPTANCE:

All insurance providers are subject to ODF acceptance. If requested by ODF, Contractor shall provide complete copies of insurance policies, endorsements, self-insurance documents and related insurance documents to ODF's representatives responsible for verification of the insurance coverages required under this Exhibit C.

## 6. STANDARDS

All aircraft and pilots used by the State shall meet all FARs applicable to the flight. In addition, the following standards will apply:

**GENERAL QUALIFICATIONS**

- a) For flights with State employees onboard, Contractors must possess a certificate authorizing operations under FAR Parts 121, 125, or 135 as required by FAR Part 119, and must comply with all applicable requirements of FAR Parts 119, 121, 125, and 135.
- b) Contractors conducting helicopter external load operations will possess a Certificate of Operations (COA) issued by the FAA under FAR Part 133, or appropriate equivalent authorization from country or registry authorizing (a) carriage of fixed external loads and (b) jettisonable loads suspended from a load-carrying device.
- c) Contractors doing application work will possess a FAR Part 137 Aerial Application Certificate. Contractor will be in compliance with the Oregon Department of Agriculture (ODA) regulations and Aerial Pesticide Applicator responsibilities in Oregon and in good standing with ODA.
- d) Contractors will be expected to furnish insurance coverage with the submission information for this agreement. Specific insurance requirements can be found in Section 5 of these terms.
- e) Contractor is responsible for the security of aircraft and equipment offered.
- f) Contractors will ensure that all aircraft offered have one Global Positioning System (GPS) receiver mounted in the cabin.
- g) The Contractor shall ensure all aircraft offered have an Automated Flight Following (AFF) system that is compatible with the Federal Government's AFF tracking network (Webtracker). Not all available AFF systems are compatible with Webtracker, nor meet Webtracker's requirements. To view Webtracker's current compatibility requirements and a list of previously successful AFF equipment manufacturers, refer to:  
<https://www.aff.gov>.
  - i) A subscription service must be maintained through the equipment provider allowing position reporting via the Federal Government AFF Program. The reporting interval must be every two minutes while aircraft power is on.
  - ii) AFF equipment must be registered with aff.gov providing all requested information. A username and password are required. Changes to equipment and registration information must be reported to aff.gov ensuring the program is current prior to aircraft use.
  - iii) If AFF becomes unreliable, the aircraft may, at the discretion of the State, remain available for service utilizing radio/voice systems for flight following. The system must be returned to full operational capability within 5 calendar days after the system is discovered to be unreliable.

**GENERAL PILOT QUALIFICATIONS**

- a) Pilots will possess an FAA Commercial Pilot Certificate, FAA Airline Transport Pilot Certificate, or equivalent certificate from country of registry, and appropriate aircraft ratings.
- b) Pilots will hold a current FAA First or Second-Class Medical Certificate.

- c) Pilots may be required to substantiate PIC time with logbooks. Pilots may also be required to provide documentation of recent line check or flight review status.

#### **AIRCRAFT CERTIFICATION**

- a) Aircraft used for personnel transportation will possess a Part 135 Certificate and be certified in the Normal, Utility, or Transport Category.
- b) Restricted Category aircraft may be used, but only for the special purpose for which they are certified.
- c) Some aircraft may have dual certification. An example is a Normal Category helicopter, which becomes Restricted Category with application equipment installed or bucket attached. No passengers will be carried while the aircraft is engaged in Restricted Category operations.
- d) All aircraft and support equipment shall be in compliance with appropriate FARs.
- e) Aircraft will not be considered for hire unless equipped with FM Radio(s) capable of operating on both Narrowband and Wideband frequencies.
- f) All aircraft utilized by the State in fire suppression shall have, as a minimum, capabilities for:
  - i) Air to Ground Communications (Narrowband FM)
    - 1. Exceptions may be considered for aircraft equipped with portable FM connections (antennae, audio panel interface, 14-28V power). These exceptions will be determined on case-by-case basis by districts which have portable radios.
  - ii) Air to Air Communications (VHF)

#### **7. OPERATIONS OF AIRCRAFT AND SAFETY**

- a) All aircraft used by the State shall be operated in accordance with all applicable FARs and State safety regulations.
- b) Transportation of passengers at night in non-turbine single-engine aircraft and all helicopters is prohibited. However, pilots may, at their option, solo-pilot single-engine airplanes or helicopters at night.
- c) Single non-turbine engine passenger flights during Instrument Flight Rules (IFR) conditions are prohibited. Night flying will not be permitted from airports without an operational runway lighting system. Minimum acceptable airport lighting systems will consist of runway boundary and threshold lights. Night flying is defined as flight occurring 30 minutes after sunset to 30 minutes before sunrise.
- d) Night flying may be approved by the State for single-engine turbine powered airplanes conducting Aerial Supervision (Air Attack) missions, if:
  - i) Aircraft are IFR equipped

- ii) Pilots have logged a minimum of three takeoffs and full-stop landings during the period of one hour after sunset to one hour before sunrise within the previous 90 days to be considered for night flying
  - iii) Aircraft will not begin engagement with firefighting activities prior to 30 minutes before sunrise
  - iv) Aircraft has terminated engagement with firefighting activities by 30 minutes after sunset
  - v) Aircraft is taking off and landing at an airport with an acceptable lighting system
  - vi) Aircraft must meet the applicable requirements in FAR Part 91 and Part 61
- e) Twin engine airplanes are not limited to daylight operations. The aircraft can travel to/from or work over an incident before sunrise and after sunset if the aircraft is equipped and authorized for IFR operations and comply with fixed-wing, low-level operations in low-light conditions.
- f) All flights on IFR flight plans shall be operated in accordance with the applicable FARs. Single-engine aircraft may be operated on IFR flight plans, provided such flights do not involve flight in Instrument Meteorological Conditions (IMC).
- g) Aircraft will not be used when engine time reaches manufacturer's recommended inspection/overhaul time. The Contractor is responsible for all costs associated with maintenance, including flight time in connection with field maintenance, as well as flying time to return to the base of operations due to mechanical trouble.
- h) All maintenance will be performed as specified by the Contractor's FAA Certified Operations Manual.
- i) Unless an FAA-approved progressive maintenance schedule is in effect, all aircraft offered will, as a minimum, be maintained with the manufacturer's recommendation or FAR required 100-hour inspection procedure for the aircraft. Other manufacturers' recommended inspections within 100-hour intervals will also be completed.
- j) Hazardous Materials can be flown internally on the aircraft with PIC approval. The transportation of Hazardous Materials must be in compliance with the Interagency Aviation Transport of Hazardous Materials NFES 1068 Handbook. A copy of the special permit, handbook guide, and Emergency Response Guide shall be on board each aircraft operating under the provisions of this special permit. When the pilot and aircraft have an FAA-approved HazMat Certificate, Hazardous Materials must be transported in compliance with the issued HazMat Certificate.
- k) Prior to each takeoff, the PIC shall ensure all passengers have been orally briefed. FAR 135.117 shall be followed, if applicable. The briefing must include the following items as a minimum, and shall occur at least once per day for repeated flights with the same passengers:
- i) No Smoking
  - ii) Use of safety belts

- iii) Placement of seat back if appropriate
  - iv) Location and use of normal and emergency exits
  - v) Location of first aid kit
  - vi) Location of fire extinguisher(s)
- l) The final “go” or “no-go” decision for any flight or maneuver is the responsibility of the PIC.
- m) Overloading aircraft will not be permitted. All pilots will follow appropriate procedures to ensure that aircraft weight and balance computations are within authorized limits prior to flight. Helicopter pilots are responsible for completing and signing a “Load Calculation Form”. At least one load calculation per operational day is necessary and it should reflect the most adverse conditions forecasted for that day.
- n) The reporting of all aircraft incidents/accidents is extremely important. All aircraft and accidents involving the State’s aviation activities must be reported to the District Forester and the State Aviation Manager or designee immediately. Reports should be completed in the Interagency Aviation Safety Communique system (SAFECOM). This includes mechanical issues, near-misses, and incidents with potential. SAFECOMs should be filed no later than 72 hours after the incident occurs.
- o) All pilots flying State missions are subject to the flight and duty time limitations listed below. All work-related flying time shall count towards the limitations. This includes travel/flight time and from base to operations area (ferry time).
- i) Flight Time Limitations:
    1. PIC may not fly more than 8 hours per day regardless of the mission type (i.e., water bucket work or reconnaissance)
    2. Pilots may not exceed 40 hours of flight time in any seven consecutive days
    3. The Air Operations Branch Director (AOBD), State Aircraft Manager, State Aviation Manager, or State Aviation Operations Specialist can increase the safety standards by decreasing the number of flight hours per day a pilot can fly when in their opinion, the situation warrants it. This should be done in coordination with the Incident Commander (IC), or District Forester.
    4. Dual-piloted aircraft (where the pilot and co-pilot can interchange duties as PIC) can fly 10 hours total per day.
    5. Limitations will be adhered to except in the case of life-threatening emergency.
  - ii) Duty Time Limitations:
    1. Pilots flying for fire suppression operations may not be on duty for more than 14 hours, in any 24 consecutive hours
    2. Each pilot shall have a minimum of 10 consecutive hours of rest during the 24-hour period prior to the start of the next duty period
    3. All pilots must be relieved of their duties and be given a minimum of two days off in any 14-day period

4. All pilots required to fly after 2200 hours or before 0500 hours, shall be given a minimum of 12 hours of rest following the completion of the duty period in which the flight occurred
- p) Aircraft shall be available for a minimum of nine (9) hours per day (daily standby) and not to exceed fourteen (14) hours. Daily times of availability will be determined by the State Aviation Manager or designated representative.
  - q) If the aircraft is subject to unapproved down time, during the daily standby period, the Contractor is subject to forfeiture of the Daily Availability Rate identified on the Daily Aircraft Rental Rates form. Each half hour (30 minutes) of downtime, the Contractor will forfeit 1/18<sup>th</sup> of the Daily Availability Rate, unless the State has granted approval for a three (3) hour grace period.
    - i) In its discretion and with its written approval, the State may allow the Contractor up to three (3) hours to return an aircraft to ready condition. The Contractor shall provide, within three (3) hours after an event that causes maintenance of the aircraft to be necessary, qualified maintenance personnel to complete all necessary maintenance in accordance with manufacturer's standards.
    - ii) If the Contractor is able to provide a replacement aircraft meeting the agreement specifications within three (3) hours of notifying the State the aircraft is unavailable, the Daily Availability Rate will not be forfeited. The State must agree that the replacement aircraft is a suitable replacement.
    - iii) If the replacement aircraft does not arrive within three (3) hours of specified downtime but is in transit to arrive no later than four (4) hours from the time the Contractor notified the State aircraft manager or designee, the State will not find a replacement aircraft.
    - iv) If the Contractor cannot provide a suitable replacement aircraft, the Contractor will forfeit the Daily Availability Rate until the aircraft is returned to ready condition. The Contractor shall not bear costs above and beyond their agreed upon Daily Availability Rate.
    - v) In the event the aircraft cannot be returned to service by the next operational period, the State reserves the right to terminate this agreement.

## **8. PUBLIC AIRCRAFT OPERATIONS**

- a) The State exercises the authority to initiate, control, and terminate flights through the dispatching and resource ordering system. In doing so, the State is exercising operational control. As such, and in the performance of firefighting or land management operations, the flight may be considered as a public flight (reference 14 CFR 1.1). However, this does not negate compliance with FAR Part 91 General Operations and Flight Rules, nor negate additional operating requirements as specified by the Contractor's Part 133, 135,

- or 137 operating certificates; except where the deviation is reasonably necessary to meet the State's objectives. The State acknowledges that special-use mission flights include, but are not limited to aerial ignition, airspace and fire management, reconnaissance, search and rescue, law enforcement, fire suppressant operations, and logistical operations.
- b) After agreement acceptance, the Contractor should notify the Flight Standards District Office that, in the performance of contract services, public aircraft operations may occur. More information on this notification can be found by searching "Public Aircraft Operations – Manned and Unmanned"
  - c) Unless otherwise indicated herein, or otherwise authorized by the State Aviation Manager, the Contractor shall comply with the certifications and operation specification of their 14 CFR Part 119, 133, 135, and 137 commercial operating certificates. Although the State has elected to identify public flights and the deviations that are necessary, this does not relieve the Contractor from adherence to aircraft airworthiness certification standards. Pilots shall conform to flight manual and federal airspace regulations unless a deviation is reasonable and necessary to meet the State's objectives.
  - d) The following list specifies deviations that may be approved and further identifies flights that may be considered public by the State:
    - i) Flights where compliance with minimum altitudes cannot be adhered to (Reference 14 CFR 91.119).
    - ii) Flight delivering fire retardants, fire suppressants, or logistic supplies necessary to protect the public, but could result in damage to property. (Reference 14 CFR 91.15).
    - iii) Flights without an FAA-approved Congested Area Plan. (Reference 14 CFR Part 133.33(d)(1)).
    - iv) Flights within 500 feet of persons, vehicles, or structures. (Reference 14 CFR Part 133.33(d)(e)).
    - v) Flights in rotorcraft-type certificated in the restricted category over densely populated areas, in a congested airway, or near a busy airport where transport operations are conducted. (Reference 14 CFR Part 91.313(3) and 14 CFR Part 133.45(d)).
    - vi) Flights over congested areas without an FAA-approved plan. (Reference 14 CFR Part 137.51(b)(3)).
    - vii) Flights performing external loads with State personnel aboard. These flights are restricted to cargo let-down, hoist, aerial ignition, and short haul. (Reference 14 CFR Part 133.35).
    - viii) Flights where the rotorcraft flight manual does not authorize doors to be opened, closed, or remain unsecured during flight. These flights are limited to rappel, short haul, cargo let-down, and hoist.
    - ix) Flights that the State has elected to manage stowage and security of cargo, whether external or internal.

- x) Flights that do not conform to 14 CFR Part 91 and 14 CFR Part 135 passenger security and egress. These flights are limited to rappel, short haul, cargo let-down, hoist, and aerial ignition.
- xi) Flights that are special-use mission flights.
- xii) Flights transporting Hazardous Materials. The State assumes management of training requirements, packaging, loading, storage, record keeping, and exemptions approved by the Department of Transportation (DOT). However, this does not relieve the Contractor or the State from adhering to the Interagency Standards for the Aviation Transportation of Hazardous Material, not abiding the DOT exemption.

## 9. PAYMENT

- a) Flight Time:
  - i) Helicopter flight time will be calculated in hours and tenths of hours, based on Hobbs time.
  - ii) Light fixed wing (ATGS, Detection, Reconnaissance) flight time will be calculated in hours and tenths/hundredths of hours from the time the aircraft moves under its own power for the purpose of flight and ends when it comes to rest after landing at an airport.
  - iii) SEAT, SES, and Multi-engine scoper flight time will be calculated in hours and hundredths of hours from the time the aircraft rolls from the loading pit to the time the aircraft is stopped in the parking spot (full stop, engine shutdown). All time between sorties when the engine is running will be considered part of the flight time for that mission.
  - iv) Large airtanker flight time will be calculated in hour and tenths/hundredths of hours from the time the aircraft rolls out of the loading pit to the time the aircraft is stopped in the loading pit (each sortie will have a roll time and a stop time).
- b) Ferry time (all aircraft): will be paid for actual flight time required to travel from the aircraft's location, at the time ordered, to the fire location or operational base designated by the State.
- c) Daily Availability Helicopter: is paid as a guaranteed minimum when aircraft and pilot are considered operational by the State at the rates agreed upon on the Helicopter Rental Rates Form (Daily Availability – Home Base or Daily Availability – Away From Home Base).
- d) Daily Availability all Fixed Wing: is paid as a guaranteed minimum when aircraft and pilot are considered operational by the State at the rates agreed upon on the Airplane Rental Rates Form (Daily Availability).

- e) Daily Availability will be paid for half or whole days including flight time accrued depending on the time the aircraft was ordered or released, according to the following schedule:
  - i) If ordered before 1200 and held the remainder of the day, one whole Daily Availability will be paid, offset by any flight time.
  - ii) If ordered after 1200 and held the remainder of the day, one-half Daily Availability will be paid, offset by any flight time.
  - iii) If the aircraft is held through the morning and released after 1200, one whole Daily Availability will be paid, offset by any flight time (as applicable).
  - iv) If aircraft is released before 1200, one-half Daily Availability will be paid, offset by any flight time.
  - v) Flight time necessary to offset any Daily Availability will be negotiated by the State individuals requesting the aircraft and the Contractor in writing.
- f) Rest Over Night (RON) will be paid for as follows, based on the time the aircraft was released, according to the following schedule:
  - i) If the aircraft is released before 1200, no RON will be paid, unless previously negotiated by the State individual requesting the aircraft and the Contractor, and only in cases where the aircraft cannot make it to their home base or next assignment by civil twilight.
  - ii) If released after 1200, RON will be paid.
- g) Once released from operation by the State, ferry time will be paid for actual flight time required to travel home base or where the aircraft originated unless negotiated with the State in writing prior to departing the assignment. When reassigned to a new incident, the receiving incident/agency is responsible for the payment of flight time to the new assignment.
- h) **Extended personnel standby is not authorized or billable under the terms of this agreement.**
- i) Invoices must specify the incident name and number (as indicated on the Resource Order). The contract number will be “**ODF-CWN**” on each invoice. Corresponding copies of the State’s Fixed Wing/Helicopter Shift Tickets or Aircraft Daily Use Summary must be submitted with invoices for payment. These forms are provided by the State’s aircraft manager and signed by the Contractor or designated representative.
- j) The State Fixed Wing/Helicopter Shift Ticket or Aircraft Daily Use Summary shall be completed by the State’s aircraft manager and Contractor, at the conclusion of each day.
- k) Each Fixed Wing/Helicopter Shift Ticket or Aircraft Daily Use Summary shall be reviewed and signed by the Contractor’s representative or PIC who will return it to the State aircraft manager or designee. Any erasures or other corrections shall be initialed by the Contractor’s representative or PIC and State aircraft manager as appropriate.

- l) The State's aircraft manager or designee and Contractor's representative or PIC will be responsible for recording the following information on the Fixed Wing/Helicopter Shift Ticket or Aircraft Daily Use Summary:
  - i) Flight date
  - ii) Contract number – ODF-CWN
  - iii) Aircraft registration number
  - iv) Company name
  - v) Incident number and name (from Resource Order)
  - vi) Name of pilot
  - vii) Location from which flight time or ferry for the day commenced, and beginning time
  - viii) Location at which flight time or ferry ended, and flight time ended for the day
  - ix) Flight rate (from Aircraft Rental Agreement)
  - x) Fuel Servicing Vehicle (FSV) mileage (if applicable)
  - xi) Unavailability or down time (if applicable)
  - xii) RON-Yes or No
  - xiii) Any other item(s) pertinent to establishing the net sum earned by the Contractor (per diem, etc.)
- m) All invoices must be received by the State within 90 days of the service provided by the operator.
- n) All invoices, regardless of CWN or Severity funds, will be submitted to [odf.severityfinance@odf.oregon.gov](mailto:odf.severityfinance@odf.oregon.gov). The Protection Finance Unit will distribute the invoices to the appropriate finance contacts for payments.
- o) For private vendors providing goods and services, payment will be made within **45 days**. Overdue charges are paid at a rate of two-thirds of one percent per month, not to exceed eight percent per annum. Overdue claims are those that have not been paid within 45 days of the latest of the following dates:
  - i) The date of receipt of the invoice
  - ii) The date of the initial billing statement, if no invoice is received
  - iii) The date the claim is made certain by agreement of the parties or by law (Reference Oregon Accounting Manual 15.40.00)

## **10. HELICOPTER REQUIREMENTS:**

### Pilot requirements:

- a) Helicopter pilots must hold an Interagency Helicopter Pilot Qualification Card or provide equivalency. Pilots without an Interagency Helicopter Pilot Qualification Card will have accumulated, as PIC, the following flight time minimum:
  - i) PIC Helicopter – 1,500 hours
  - ii) Helicopter Turbine (if applicable) – 250 hours

- iii) In each weight class of helicopter to be flown – 100 hours
  - iv) Time in preceding 12 months – 100 hours
  - v) Typical terrain and landing situations – 100 hours
  - vi) Night flying in helicopters – 50 hours
  - vii) External Load Long Line – 100 hours
  - viii) Pilot experience shall include two (2) fire seasons of using a long line with bucket, from a hover position above streams, rivers, ponds, or other sources of water in order that rapid repeated drops can be made on wildland fires. Pilots must be proficient at loading and unloading the bucket by themselves, to and from the helicopter during fire suppression activities.
- b) At the Contractor's expense, pilots may be required to demonstrate proficiency during a State Agency evaluation in the mission for which they are being hired.

#### Helicopter-Aircraft Requirements:

- a) Helicopters used in fire suppression activities shall be equipped with the following additional standard equipment, unless the primary function is for reconnaissance.
  - i) One self-cocking, automatic locking cargo hook employing both electric and manual release systems, rated at the maximum lifting capacity of the aircraft and complying with FAR Part 133.43.
  - ii) One variable-capacity bucket or fixed-tank, commensurate with the maximum lifting capabilities of the aircraft, and complying with FAR Part 133.43.
  - iii) Helicopters involved in fire operations or project work will be equipped as follows, in addition to the other required equipment:
    - 1. Rotor blades will be painted in contrasting colors to improve visibility.
    - 2. Helicopters will be equipped with a multi-channel narrowband FM radio capable of a minimum of 320 channel operation with 168.625 frequency guarded and constantly monitored.
    - 3. 720 channel VHF radio.
    - 4. White strobe light, clearly visible, for daytime or nighttime operation.
- b) Cargo racks/baskets will be installed in a manner that will prohibit accidental disengagement of the rack/basket from the helicopter during flight.
- c) All helicopters equipped with an external rack/basket must have FAA STC or field approval applicable for the make and model, for dimension, load carrying capability, and material construction.
- d) All front seat occupants of helicopters shall wear an aviator's protective helmet, with a chinstrap fastened whenever the helicopter is in flight during fire missions and longline operations. (A list of approved helmets can be found in the Interagency Aviation Life Support Equipment (ALSE) Handbook). Aircraft will have the capability to interface an additional flight helmet for front seat occupants capable of communications on VHF, VM, and an intercom system with the pilot. When fire crews are transported, hard hats with chin straps may substitute for flight helmets other than front seats.

- e) Helicopter night departures from field or project sites will not be permitted while the aircraft is under State control. Departures prior to night that terminate at an airport after sunset will comply with the lighting requirements.
- f) For standard category helicopters conducting personnel transportation, new or overhauled engines and transmissions will have a minimum of five (5) flight hours at the Contractor's expense before they are used by the State. For restricted category helicopters, new or overhauled engines and transmission will have accumulated one (1) flight hour at the Contractor's expense before they are used by the State.
- g) The Contractor shall not leave or permit a PIC to leave the cockpit of an aircraft unoccupied while the engine is running, when operating at designated helibases or helispots that are occupied by personnel or within 500 feet of personnel.
- h) The Contractor shall permit PIC to leave the cockpit of an aircraft while the engine(s) are running for the sole purpose of deploying the bucket in support of fire suppression activities as long as, the helicopter is not within 500 feet of personnel, the practice is allowed in the approved flight manual, and the pilot has locked down the controls. The PIC may not leave the rotor arc during this event.
- i) A power assurance check must be accomplished on the first day of operation and thereafter within each 10-hour interval of contracted flight operations unless prohibited by conditions (i.e., weather, smoke). The power assurance check shall be accomplished by the Contractor in accordance with the aircraft's approved Rotorcraft Flight Manual and approved company procedures. A current record of the power assurance checks must be maintained with the aircraft.
- j) Helicopters with engine power below the minimum published power assurance charts or if the trend analysis indicates significant deterioration in performance the aircraft shall be removed from service or availability. The power condition must be corrected before returning to service and availability.
- k) Helicopters with an Interagency Aircraft Card must be returned to Contract Availability by the issuing agency's Aircraft Maintenance Inspector prior to being utilized on federal jurisdictions.

Helicopter Support Equipment/Fuel Servicing Vehicle (FSV) Requirements:

- a) The Contractor will provide one FSV with each helicopter unless otherwise approved by the State. The FSV shall be attended by one helper with basic knowledge of the aircraft.
- b) The FSV may be a truck and/or trailer.
- c) The FSV shall be capable of transporting fuel over rough mountainous terrain to include grades of up to 9%.
- d) The FSV shall be capable of supporting the operation for which the aircraft was hired. It shall be properly maintained according to the Department of Transportation (DOT) standards.

- e) The FSV shall be properly maintained, cleaned, and reliable. Tanks, plumbing, filters, and other equipment shall be free of leaks, rust, scale, dirt, and other contaminants. Trailers used for storage and transportation of fuel shall have an effective wheel braking system.
- f) Spare filters, seals, and other components of the FSV filtering system shall be stored in a clean, dry area in the FSV. A minimum of one set is required to be with the vehicle.
- g) The FSV tank shall have sufficient capacity to sustain eight (8) hours of flight. Barrels are not acceptable.
- h) All tanks will be securely fastened to the vehicle frame in accordance with DOT regulations and shall have a sump or sediment settling area of adequate capacity to provide uncontaminated fuel to the filter.
- i) The filter manufacturer's Operating, Installation, and Service Manual shall be with the FSV. Filters shall be changed in accordance with the filter manufacturer's manual, at a minimum of every 12 months, whichever is less, and documented. The filter vessel shall be placarded indicating filter change dates and documented in FSV logs.
- j) Gasoline/diesel engine driven pumps shall be designed to pump fuel, have shielded or insulated ignition system, USDA Forest Service approved spark arrestor muffler, and a metal shield between the engine and pump. Other exposed terminal connections shall be insulated to prevent sparking in the event of contact with conductive materials.
- k) FSV shall have deadman controls designed to allow operations while wearing gloves and be held for the time needed. A pistol grip deadman device at the end of the nozzle or an electronic control to stop the pump is acceptable.
- l) FSV shall have the most current version of the Emergency Response Guidebook (ERG) on FSV either electronically or hardcopy.
- m) Two fire extinguishers, each having a rating of at least 40-B:C and with one extinguisher on each side of the vehicle. Extinguishers located in enclosed compartments must be readily accessible, and their location must be externally marked and placarded. Extinguishers must comply with NFPA 10: Standard for Portable Fire Extinguishers. ABC Multi-purpose Dry Chemical Fire Extinguishers (ammonium phosphate) must not be placed on FSV.
- n) Fuel tanks shall be designed to allow contaminants to be removed from the sediment settling area (sump).
- o) Only hoses compatible with aviation fuel shall be used for servicing. Hoses shall be kept in good repair. The hose shall be at least 50 feet in length, minimum of ½ of the rotor diameter plus 20 feet for rapid refueling.
- p) Aircraft fueling hoses shall be removed from service after 10 years from date of manufacturer.
- q) Aircraft fueling hoses not placed into service within 2 years of the date of manufacture shall not be used.

- r) Fuel nozzle shall include a 100-mesh or finer screen (including closed circuit systems), a dust protective device, and a bonding cable with clip or plug. No hold-open devices will be permitted.
- s) An accurate fuel-metering device for registering quantities in U.S. gallons of fuel shall be provided. The meter shall be positioned in full view of the fuel handler while fueling the helicopter.
- t) FSV shall have adequate bonding cables.
- u) FSV shall comply with DOT and EPA requirements for the transportation and storage of fuel and shall carry sufficient petroleum product absorbent pads or materials that absorb or contain up to a 5-gallon petroleum product spill. The Contractor is responsible for proper disposal of all products used in cleanup of a spill in accordance with EPA, 40 CFR 261 and 262.
- v) All tank inlet ports, sump drains, and the fuel nozzle must be locked closed or stored inside locked compartments when not in use to preclude tampering, contamination, or improper drainage of the fuel supply.
- w) FSV shall have "NO SMOKING" signs with 3-inch minimum letters visible from both sides and rear of vehicle.
- x) FSV shall be conspicuously and legibly marked to indicate the nature of the fuel. The marking shall be on each side and the rear with 3-inch minimum letters high on a background of sharply contrasting color such as jet fuel by type, Example: Jet-A white on a black background.
- y) All fuel shall be supplied by the operator and shall comply with the aircraft manufacturer's recommendations and applicable FAA standards. At no time will the State dispense fuel for hired aircraft.

## **11. LIGHT-FIXED WING REQUIREMENTS (Detection/Reconnaissance/ATGS):**

### Pilot Requirements:

- a) Light fixed wing pilots will have instrument ratings for any IFR operations and will meet the requirements of FAR Parts 121, 125, and/or 135 as applicable. Light fixed wing pilots without an Interagency Fixed Wing Pilot Qualification Card will have accumulated as PIC, the following flight time minimums:
  - i) PIC Airplane – 1,000 hours
  - ii) PIC in class to be flown – 100 hours
  - iii) Time in preceding 12 months – 100 hours
  - iv) Cross-country flying – 200 hours
  - v) Flying over typical terrain and conditions (mountainous/hazardous) – 200 hours
  - vi) Night flying – 50 hours
  - vii) In category and class within 60 days prior to flight – 10 hours
- b) At the Contractor's expense, pilots may be required to demonstrate proficiency during an Agency evaluation in the activity for which they are being hired.

Aircraft Requirements Specific to Light Fixed Wing –Fire Detection and Reconnaissance:

- a) All aircraft in this category will have a minimally obstructed viewshed necessary for the FO/SIC position and the aft observer to see the detection/reconnaissance areas clearly. Aircraft design must not limit flight profiles requiring steep bank angles or increased lateral distance from the target area. These undesirable flight profiles increase the distance between the aerial observer and the objective which causes parallax.
- b) Average mission crew weight (210x2=420) + Gear (15x2=30) =450 lbs.

Aircraft Requirements for Light Fixed Wing- Air Tactical Group Supervisor (ATGS) Missions:

- a) The mission is to provide aerial supervision for complex and emerging incident(s) in the wildland and urban interface.
- b) The minimum flight crew configuration of two (2) is:
  - i) Flight Crew – PIC
  - ii) Primary ATGS
  - iii) Optional secondary ATGS/Instructor
- c) ATGS seating positions shall be at the SIC position. When configured with a secondary ATGS/Instructor, seating position shall be on the right side of the aircraft (downward looking), while sitting in an OEM seat, with their shoulder beside the largest window possible, with their seatbelt fastened, back against the backrest and able to reach the station avionics.
- d) Aircraft will land with the FAA minimum fuel reserves.
- e) Aircraft with an Interagency Aircraft Card must be returned to Contract Availability by the issuing agency's Aircraft Maintenance Inspector prior to being utilized on federal jurisdictions.

**12. SINGLE-ENGINE AIR TANKER (SEAT) PILOT REQUIREMENTS:****Pilot Requirements:**

- a) SEAT pilots must be rated as Level 1 or Level 2 by Office of Aircraft Services, U.S. Department of Interior, or provide equivalency. Must have minimum experience as PIC that includes:
  - i) Certified all aircraft – 1,500 hours
  - ii) Certified fixed wing aircraft – 1,200 hours
  - iii) Fixed wing single-engine (land) – 200 hours
  - iv) In make and model to be flown under this agreement – 25 hours
  - v) Low-level fixed wing flight operations – 200 hours
  - vi) Dispensing fire chemicals or water on fires, or agricultural materials – 100 hours
  - vii) Typical terrain – 200 hours
  - viii) PIC during the previous 12 months -100 hours
  - ix) PIC during the previous 60 days – 10 hours

- x) In make and model to be flown each calendar year- 5 hours, including 5 takeoffs and landings, and dropping two full loads of water or fire chemicals
- b) At the Contractor's expense, pilots may be required to demonstrate proficiency during a State evaluation in the activity for which they are being hired.

### **13. SINGLE-ENGINE SCOOPER (SES) PILOT REQUIREMENTS:**

- a) SES pilots must be rated as Level 1 or Level 2 by Office of Aircraft Services, U.S. Department of Interior, or provide equivalency. Must have minimum experience as PIC that includes:
  - i) Certified all aircraft – 1,500 hours
  - ii) Certified fixed wing aircraft – 1,200 hours
  - iii) Fixed wing single-engine (sea) – 100 hours
  - iv) In make and model to be flown under this agreement – 50 hours
  - v) Low-level fixed wing flight operations – 200 hours
  - vi) Dispensing fire chemicals or water on fires, or agricultural materials – 100 hours
  - vii) Typical terrain – 200 hours
  - viii) PIC during the previous 12 months -100 hours
  - ix) PIC during the previous 60 days – 10 hours
  - x) In make and model to be flown each calendar year- 25 hours, including 50 scooping and dispensing cycles.
- b) At the Contractor's expense, pilots may be required to demonstrate proficiency during a State evaluation in the activity for which they are being hired.

#### SEAT or SES Aircraft Requirements:

- a) Aircraft shall be turbine powered (minimum 1,200 HP)
- b) Aircraft shall have a standard or restricted category airworthiness certificate.
- c) Aircraft must be certified under 14 CFR Part 23 or 25.
- d) Aircraft will be flown VFR, day only.
- e) Aircraft must have a minimum payload of 6,900 lbs. with IAB approved gate system installed, 1.5 hours fuel with 200 lbs. pilot at 7,000ft and 30° Celsius. (IAB approved gates for Type 3 airtankers are Air Tractor Fire Gate Gen 1, 2, or 3, Hartfield Gate, or Hydromax Gate).
- f) Aircraft will have a minimum tank capacity of 800 gallons.
- g) Aircraft will have an operational endurance of at least one hour and thirty minutes (1.5 hours) at 75% power with 6,900 lbs. of retardant and a 200 lbs. pilot.
- h) Aircraft will have a Never Exceed Airspeed (VNE) of at least 140 knots indicated airspeed at Max Takeoff Weight (MTOW).
- i) Aircraft will be capable of takeoff as configured above 7,000 feet pressure altitude and 30° Celsius.

- j) Aircraft will be capable of a cruise airspeed of at least 117 knots true airspeed at 7,000 feet pressure altitude and 30° Celsius.
- k) The Contractor will supply all labor, equipment, and supplies including PPE to provide a complete air tanker service as specified in this agreement. The State or its cooperators will furnish fire suppressant or retardant.
- l) All aircraft approved for fire operations shall use P25 Digital VHF-FM transceivers.
- m) Contractors will supply one support person to support (fuel and load chemicals/water) each aircraft. The Contractor may be asked to supply one fuel truck and one mobile mixing unit for fire chemicals for each aircraft, which must be available to move to an alternate base location if requested.
- n) Aircraft must have a Kamlok coupler which allows the aircraft tank contents to be offloaded through it.
- o) Aircraft must be equipped with loading ports that facilitate loading from either side.
- p) Aircraft engines must meet the manufacturer's specifications on time before overhaul with a minimum of 200 hours usable before major overhaul due at the start of the availability period.
- q) Aircraft will have an assigned Tanker or Scooper number must be displayed on both sides of the vertical stabilizer and/or rudder. The numbers must be as large as possible, but at least 12 inches high with the format and spacing the same as aircraft "N" numbers (refer to 14 CFR Part 45.29).
- r) Aircraft must have high visibility strobe lights that are activated during all flights under this agreement.
- s) Contractor will ensure that all maintenance is in accordance with 14 CFR Part 43 and will be corrected in accordance with FARs or the approved maintenance manual pursuant to Part 43. The Contractor will ensure that all aircraft are inspected annually and each 100 hours of operation.
- t) Contractor will ensure that pilots wear an approved one-piece aviator flight helmet made of hard-shell material. This material shall be polycarbonate, Kevlar, carbon fiber, or fiberglass, and will cover the top, sides, and the rear of the head.
- u) Contractor will ensure that pilots wear long-sleeved shirts and trousers or flight suits made of fire-resistant polyamide or aramid material or equal. Operator will also ensure that pilots wear footwear with all-leather uppers covering the ankle and leather or polyamide or aramid gloves. All clothing shall overlap to prevent exposure to flash burns.
- v) Contractor will ensure that pilots possess a first aid/survival kit for individual use located in the cockpit. If this kit is not carried on the pilot's person, it shall be located in a conspicuous and easily accessible position and secured to the cockpit.
- w) Contractor will ensure that personnel involved in handling potentially hazardous materials wear PPE appropriate for the specific task.

- x) The Contractor must provide and require personnel to wear PPE in accordance with the Interagency Aviation Life Support Equipment (ALSE), Chapter 2 Personal Protective Equipment.
- y) Contractor ground personnel will comply with local tanker base PPE requirements.
- z) Hot/Rapid Refueling is not allowed for SEATs or SES operating under this agreement.
- aa) Aircraft with an Interagency Aircraft Card must be returned to Contract Availability by the issuing agency's Aircraft Maintenance Inspector prior to being utilized on federal jurisdictions.

SEAT/SES Fuel/Support Vehicle Requirements (when State requests):

The Contractor is responsible for fuel availability. Fuel quantities shown in this section shall apply regardless of how the Contractor chooses to provide fuel for the aircraft. The Contractor will provide a support vehicle for fueling and mobile mixing when requested by the State. The following requirements and specifications shall apply:

- a) The Contractor must comply with all applicable Federal, State, and local laws regarding fuel trucks. Contractor's fuel vehicles must meet all requirements of 49 CFR applicable to the type of fuel being transported.
- b) When requested, the Contractor will provide one Fuel/Support vehicle for each aircraft. The bulk fuel tank(s) must have a minimum of 6 hours of usable fuel for the make and model of aircraft offered. Approximate "Recommended Cruise" Fuel Consumption Rates Exhibit. The vehicle manufacturer's gross vehicle weight (GVW) with full fuel tanks and accessories must not be exceeded.
- c) The Contractor must equip and maintain the vehicle as shown below:
  - i) The FSV must be capable of transporting fuel at posted highway/freeway speeds.
  - ii) The FSV must be properly maintained, clean, and reliable with a functioning air conditioner for the driver. Tanks, plumbing, filters, and other required equipment must be free of rust, scale, dirt, and other contaminants. All leaks must be repaired immediately.
  - iii) Fuel tanks must be designed to allow removal of contaminants from the sediment settling area. The settling area plumbing must be extended to the vehicle perimeter to allow contaminant removal without crawling under the vehicle. The sump must be drained daily when the system is used. The draining must continue until fuel appearance is contaminant free. The daily sump draining must be documented on the Contractor's checklist/form.
  - iv) Fuel tanks must be securely fastened to the vehicle frame in accordance with Department of Transportation (DOT) regulations. All tanks must have a low point sump/settling area and drains that allow water/particulate contamination accumulation and removal during daily preventative maintenance.

- v) All tank inlet ports, drains, and the fuel nozzle must be locked closed or stored inside locked compartments when not in use to preclude tampering, contamination, or improper drainage of fuel supply.
- vi) A 10-gallon per minute (GPM) flow rate delivered by the filter and pumped at the nozzle is the minimum size acceptable. Filter and pump sizes must be compatible with the aircraft being serviced.
- vii) Fuel nozzle must include a 100-mesh or finer screen, a dust protective device, and a bonding cable with clip or plug. Except for closed circuit systems, no nozzle hold-open devices are permitted.
- viii) FSV must have adequate bonding cables which must be utilized in accordance with NFPA 407: Standard for Aircraft Fuel Servicing.
- ix) One accurate fuel-metering device for registering quantities in U.S. gallons of fuel pumped. The meter must be positioned where it is in full view of the person fueling the aircraft. All fuel transfers to the aircraft must be documented and tracked.
- x) Fuel transfer pumps must be designed for dispensing fuel. Gasoline engine powered pumps must have a flame and spark arresting exhaust system and a metal shield between the engine and pump. The pump seals must be fuel compatible. Spark plugs and other exposed terminal connections must be insulated to prevent sparking in the event of contact with conductive materials. All refueling pumps, regardless of power source, must be listed for use with petroleum products by the Underwriters Laboratory (UL) or provide documentation of another approval.
- xi) The Contractor must ensure they are in compliance with 40 CFR Part 112: Oil Pollution Prevention.
- xii) Enough petroleum product absorbent pads or materials to absorb or contain a 5-gallon petroleum spill must be kept on hand. The Contractor must properly dispose of all products used in a spill cleanup in accordance with the Environmental Protection Agency (EPA) (40 CFR Parts 261 and 262).
- xiii) FSV performing pressurized/closed circuit refueling must meet the deadman control requirements of NFPA 407.
- xiv) Two fire extinguishers, each having a rating of at least 40-B:C and with one extinguisher on each side of the vehicle. Extinguishers located in enclosed compartments must be readily accessible, and their location must be externally marked and placarded. Extinguishers must comply with NFPA 10: Standard for Portable Fire Extinguishers. ABC Multi-purpose Dry Chemical Fire Extinguishers (ammonium phosphate) must not be placed on FSV.
- xv) The Contractor will ensure that an approved vehicle first aid kit including a body fluids barrier kit is placed in each FSV. The first aid kit shall be located in a conspicuous place and clearly marked.

- xvi) The Contractor will ensure that the support vehicle has a minimum water capacity of 1,600 gallons. The volume of the mix tank may be included in calculating the minimum water capacity. The vehicle must be capable of localized transport of this capacity of water.
- xvii) The Contractor will ensure that the support vehicle has hose couplers to accept water from Government equipment as follows: One 1-inch female National Hose Thread and one 2-inch female National Hose Thread adapters to 2-inch and 3-inch male and female Kamlock couplers.
- xviii) The Contractor will ensure the support vehicle batch mixing capability in a single vessel is a minimum of 800 gallons. When using retardant, Contractor will verify the correct mix with a Contractor supplied refractometer and record the results prior to loading the aircraft.
- xix) The Contractor will ensure that the support vehicle batch mixing equipment is capable of loading and mixing both dry powder and liquid concentrate fire chemicals.
- xx) The Contractor will ensure that mixed fire chemicals are introduced into the aircraft through the loading system apparatus and not poured into the loading system. The exception is SES capable of onboard mixing of fire chemicals.
- xxi) The Contractor will ensure material from the service vehicle or other sources are loaded through a standard dry-break coupler or shutoff valve.
- xxii) The Contractor will ensure loading system hoses and fittings are capable of containing residual material without leaking.
- xxiii) The Contractor will ensure that the material loading system is capable of pumping at the rate of at least 100 gallons per minute.
- xxiv) The Contractor will ensure that an operable refractometer is carried on each support vehicle and used to check the mixture ratio of each batch of mixed retardant.
- xxv) The State will pay the Contractor the rate per mile provided on the Rental Rates Agreement.

## **14. MULTI-ENGINE AMPHIBIOUS FIXED WING WATER SCOOPERS**

### Water Scooper PIC (AKP) Requirements:

- a) Commercial Pilot Airplane Certificate with Instrument Rating or an Airline Transport Pilot (ATP) with appropriate Category and Class and an Unrestricted Type Rating for the aircraft to be flown.
- b) Pilot (Total Time)—1500 hours
- c) PIC (Airplane)—1200 hours
- d) PIC Breakdown:
  - i. Time shall be accumulated after the issuance of the type rating in make and model—25 hours
  - ii. Category (airplane) and class (multi-engine) to be flown—200 hours

- iii. Multi-engine aircraft over 12,500 pounds
  - 1. Time shall be accumulated after receiving type rating—100 hours
  - 2. During preceding 12 months (Airplanes)—100 hours
  - 3. Instrument (50 hours actual)—75 hours
  - 4. Night flying to include at least 3 takeoffs and landings to full stop during the 90 days preceding the annual pilot approval in category and class over 12,500 lbs. —100 hours
  - 5. Typical terrain (mountainous and low-level below 1000' AGL)—200 hours

Water Scooper SIC (AKC) Requirements:

- a) Commercial Pilot Airplane Certificate with Instrument and Multi-Engine land and sea or aircraft type rating.
- b) PIC (airplanes)—800 hours
- c) Pilot hours in the preceding 12-month—100 hours

Multi-Engine Amphibious Water Scooper Aircraft Requirements:

- a) Aircraft shall be amphibious, twin turbine engine powered, have a Standard or Restricted Category Airworthiness Certificate and shall meet the following:
  - i. Payload: Minimum payload of 1400 deliverable gallons of water at Sea Level + 15°C. Deliverable gallons are those gallons carried to the fire minus the residual gallons in the tank after dispensing. Payload conversion is made at an average of 8.3 pounds per gallon of fluid. Exact payload will be computed from documented weight and balance data and Takeoff and Landing performance charts for the Assigned Work Location (AWL).
  - ii. Takeoff and Landing: The aircraft accelerate-stop distance shall not be greater than 5,000 feet plus the length of the stopway (if present). For restricted category airplanes, a stopway is a safety asset, but cannot be used in the accelerate-stop calculation. (14 CFR 1.1)  
Aircraft shall be capable of accelerating on all engines to the manufacturer's or FAA-approved Decision Speed (V1), experience a failed engine, and either continue to accelerate to take-off with a failed engine within the remaining runway, or come to a complete stop in the accelerate-stop distance. If Decision Speed is not available, Rotation Speed (Vr) shall be used in determining accelerate-stop requirements.  
Aircraft shall be capable of accelerating on all engine in a no wind condition through Decision Speed to Take-off Safety Speed lifting off within 80% of the effective takeoff length at sea level @ ISA plus 30°C. Take-off Safety Speed (V2) is defined as the speed at which IAB one engine inoperative climb performance can be achieved, or if this speed is not available, 115% of power-off stall speed for the takeoff configuration.

- Capable of operating from a 5,000-foot gravel runway, 3,000 feet pressure altitude, and 25° Celsius with an empty tank.
- iii. Certification: Aircraft certified in accordance with 14 CFR 21.183 or 21.185. Federal Aviation Administration (FAA) Type Certificate (TC) allows for the dropping of water or on wildland fires (e.g., aerial dispersant of liquids); An aircraft make and model for which engineering and logistical support, for continued airworthiness, is provided from the current type certificate holder. VFR/IFR, Day and Night.
  - iv. Cruise Speed: Cruise airspeed of at least 180 knots true airspeed at 10,000 feet pressure altitude and ISA, empty tank. Endurance of four (4) hours at maximum cruise power, optimum altitude, standard temperature with a 45-minute reserve.
  - v. Tank: Offered aircraft Tank system shall be approved by the Interagency Airtanker Board (IAB) as a multi-engine amphibious water scooper. Tank capacity minimum of 1400 U.S. Gallons.

Personnel Requirements:

- a) PIC, SIC, Flight Engineer as applicable, Mechanic.

Condition of Equipment:

- a) Contractor-furnished aircraft and equipment shall be operable, free of damage, and in good repair. Fluid leaks shall be within manufacturer's specified limits.
- b) All windows and windshields shall be clean and free of scratches, crack, crazing, distortion, or repairs, which hinder visibility.
- c) The aircraft interior shall be clean and neat.
- d) The exterior finish shall be clean, neat, and in good condition. Low visibility paint schemes are unacceptable.
- e) If the aircraft has been used to disperse pesticides or herbicides, it shall be supplied clean and odor free. The tank(s) shall be cleaned in accordance with Federal Insecticide Fungicide Rodenticide Act (1969) (FIFRA) Regulations.
- f) Contractor shall provide the Basic Aircraft and Fire Equipment as required by USFS Solicitation No. AG-024B-SD-17-9003 Exhibit 1.

Non-mission essential equipment:

- a) Non-mission essential equipment stored in the aircraft during firefighting missions will be limited to crew baggage, technician baggage (as applicable), essential ground support equipment, minimum consumable liquids and spare parts not to exceed 1 percent of the maximum operating/takeoff weight.
- b) Equipment stored in the aircraft shall be securely stored to prevent movement in flight.
- c) All mission essential equipment shall be documented in the aircraft weight and balance records.

### Aircraft Certifications and Approvals:

- a) Aircraft shall conform to an FAA-approved type design and be maintained and operated in accordance with Type Certificate (TC) requirements and applicable Supplemental Type Certificates (STCs). Former military aircraft are not acceptable. The aircraft shall be maintained in accordance with an FAA-approved inspection program and must include an FAA-approved Supplemental Structural Inspection Document (SSID), Structural Inspection Program (SIP), or Instruction for Continued Airworthiness (ICA) for the airframe structure, as applicable with an ICA or Airworthiness Limitations Section (ALS) approved by the manufacturer and account for the Water Scooper role.
- b) Contractors shall be certificated to meet 14 CFR Part 137 (Agriculture Aircraft Operations). Any aircraft operated shall be listed by make, model, series, and registration number on the Operators Certificate.
- c) Contractor shall hold a 14 CFR Part 145 Repair Station Certificate with the appropriate ratings for the aircraft and equipment to be offered.
- d) Aircraft shall be 14 CFR Instrument Flight Rules (IFR) certified.
- e) Any modification or alteration to the aircraft that may alter the San Dimas Technology Development Center (SDTDC) drop test results shall be approved by the Interagency Airtanker Board (IAB) prior to use under this agreement.
- f) Any modification or alterations to the aircraft which affects the aircraft performance, flight characteristics, or operational limitations, must be approved by the IAB prior to use under this agreement.

## **15. LARGE AIRTANKER REQUIREMENTS:**

### Pilot Requirements:

- a) Large Airtanker pilots must hold an Interagency Pilot Qualification Card or provide equivalency, and be rated as Qualified Large Airtanker Pilot or Initial Attack (IA) Qualified Large Airtanker Pilot. Large Airtanker pilots shall have accumulated the minimum flight hours listed below:
  - i) Pilot (total time) – 1,500 hours
  - ii) PIC (airplane) – 1,200 hours
  - iii) PIC Breakdown:
    1. Time accumulated after the issuance of the type rating in make and model – 25 hours
    2. Category (airplane) and class (multi-engine) to be flown – 200 hours
  - iv) Multi-engine aircraft over 12,500 pounds
    1. Time shall be accumulated after receiving type rating – 100 hours
    2. Total instrument time – 75 hours
    3. Actual instrument time—50 hours
    4. During the preceding 12 months PIC (airplanes) – 100 hours

5. Other flight time requirements:
  - a. Flight below 2500 ft AGL in mountainous terrain (any combination of PIC and SIC)—200 hrs.
  - b. PIC flight time below 500 ft AGL—200 hours
- b) Large Airtanker SIC requirements:
  - i) Commercial Pilot Airplane Certificate with Instrument and Multi-Engine rating.
  - ii) Total time (airplane)—1200 hours
  - iii) PIC (airplane)—800 hours
  - iv) Total flight time in the preceding 12 months (any combination of PIC and SIC)—100 hours
- c) At the Contractor's expense, pilots may be required to demonstrate proficiency during a State evaluation in the activity for which they are being hired.

Large Airtanker Aircraft Requirements:

- a) Large airtankers must have been approved by the Interagency Airtanker Board (IAB) and/or operating under interim IAB approval.
- b) All aircraft approved for fire operations shall use P25 Digital VHF-FM transceivers.
- c) The State works very closely with federal cooperating agencies to support Large Airtanker Operations. Airtanker bases and lead planes are staffed and provided by federal cooperating agencies. Lead Plane availability is not guaranteed and is prioritized based on need and/or values at risk.
- d) Aircraft with an Interagency Aircraft Card must be returned to Contract Availability by the issuing agency's Aircraft Maintenance Inspector prior to being utilized on federal jurisdictions.