

State of Oregon
Oregon Department of Public Safety Standards and Training

Airport Fire Fighter
Task Book

Task Book Assigned To:	
Name	AP#
Department Name	Date Initiated
Signature of Department Head or Training Officer	Date Completed

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<http://www/dpsst.state.or.us>

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Task Book Qualification Record Books (Task Book) have been developed for various certification levels within the Department of Public Safety Standards and Training (DPSST) system. Each Task Book lists the job performance requirements (JPRs) for the specific certification level in a format that allows a candidate to be trained and evaluated during three (3) sequential sessions. Successful performance of all tasks, as observed and recorded by a qualified and approved evaluator will result in the candidate's eligibility for DPSST certification.

To become certified at a specific level, the applicant must successfully complete the job performance requirements in sequence. Before a job performance evaluation can be taken, all requisite knowledge and skills must be satisfied. In addition, all relative task book evaluations must be checked off by the evaluator. When all prescribed requirements have been met, an application for Certification will be forwarded to DPSST. All certificates are mailed to the Training Officer at his/her department.

Note to departments: These JPRs serve as general guidelines. As such they are not intended to replace specific sequences of apparatus or equipment operation that may be outlined by manufacturer specifications. At all times, Standard Operating Procedures of the department in which the evaluation is being conducted will govern. Departments should have available for evaluators a copy of manufacturer specifications and the department's Standard Operational Guidelines.

The JPRs covered within this Task Book meet or exceed all NFPA published standards for this certification level at the time of this publication. Mention of NFPA and its standards do not, and are not intended as adoption of—or reference to—NFPA standards.

Note to agencies: It is recommended that fire departments assigned to provide ARFF fire coverage to Index A through E Airports, as defined by the Federal Aviation Administration, have a requisite knowledge of the Code of Federal Regulation (CFR) 139 Certification of Airports, Subpart D, Operations. Furthermore, the following information is available as additional reference resources for agencies providing ARFF coverage (<http://www.faa.gov>): Airport Fire and Rescue Personnel Protective Clothing; Fire Department Responsibility in Protecting Evidence at the Scene of an Aircraft Accident; Aircraft Rescue and Firefighting Communications; Guide Specification for Water/Foam Aircraft Rescue and Firefighting Vehicles; Airport Emergency Plan, Pilot Guide to Airport Signs and Markings; NFPA 402 Guide for Aircraft Rescue and Firefighting Operations; and NFPA 403 Standard for Aircraft Rescue and Firefighting Services at Airports. For more information on the complete job performance requirements and data, see the individual DPSST Task Book for that certification level.

Definition: PrPPE: Proximity Personal Protective Equipment
Use of specialized PrPPE is at the discretion of the AHJ

HOW TO EVALUATE PERFORMANCE:

Each JPR has one corresponding box to the right in which to confirm a candidate's success. The evaluator shall indicate successful passing by the candidate of each JPR by initialing and dating (see example). There is no time restriction or constriction between the three evaluations, as long as they are consecutive.

3-1.1 Perform the routine tests, inspections, and servicing functions specified in the following list, given a fire department aerial apparatus, so that the operational readiness of the apparatus is verified.

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TASK BOOK QUALIFICATION RECORD

FOR THE CERTIFICATION LEVEL OF

AIRPORT FIRE FIGHTER

Prior to becoming certified in this position, the Airport Fire Fighter candidate shall successfully complete the following Job Performance Requirements (JPR) three times. The evaluator shall initial and date the appropriate boxes to indicate successful completion of each. For each JPR there are requisite knowledge and skill requirements. The evaluator of the first sequence shall initial and date in the box provided to indicate the meeting of those requirements before the Fire Fighter may proceed. **Asterisks (*) indicate that additional information is available in the Appendix of NFPA 1003 - 2005 Edition, "Standard for Airport Fire Fighter Professional Qualifications".**

6.2.1 Respond to day and night incidents or accidents on and adjacent to the airport, given an assignment, operating conditions, a location, a grid map, a vehicle, and a prescribed response time, so that the route selected and taken provides access to the site within the allotted time.

Requisite Knowledge: Airport familiarization, including runway and taxiway designations, frangible gate locations, airport markings, lights, instrument landing system (ILS) critical areas, critical rescue and fire-fighting access areas, designated isolation areas, vehicular traffic controls on airfield, bridge load limits, controlled access points, aircraft traffic patterns and taxi routes, fuel storage and distribution locations, airport and immediate local area topographic layout, drainage systems, water supplies, and airport facilities.

Requisite Skills: Read, interpret, and take correct action related to grid maps, water distribution maps, airport markings, and lights.

6.2.2 Communicate critical incident information regarding an incident or accident on or adjacent to an airport, given an assignment involving an incident or accident and an incident management system (IMS) protocol, so that the information provided is accurate and sufficient for the incident commander to initiate an attack plan.

Requisite Knowledge: Incident management system (IMS) protocol, the airport emergency plan, airport and aircraft familiarization, and communications equipment and procedures.

Requisite Skills: Operate communications systems, communicate an accurate situation report, implement incident management system (IMS) protocol and airport emergency plan, and recognize aircraft types.

6.2.3 Communicate with applicable air traffic control facilities, given a response destination on or adjacent to an airport and radio equipment, so that all required clearances are obtained.

Requisite Knowledge: Communications equipment and frequencies, tower light signals, aviation phraseology, and phonetic alphabet.

Requisite Skills: Operate communications equipment and use aviation phraseology and phonetic alphabet.

6.2.4* Perform an airport operation, given an assignment, a hazardous condition, and the airport policies and procedures, so that unsafe conditions are detected and reduced in accordance with the airport policies and procedures.

Requisite Knowledge: Airport and aircraft policies and procedures for hazardous conditions.

Requisite Skills: Recognize hazardous conditions and initiate corrective action.

6.3.1* Extinguish a 23.2 m² (250 ft²) aircraft fuel spill fire, given PrPPE, a minimum of a 45 kg (100 lb) dry chemical fire extinguisher, and procedures, so that the agent is applied according to procedures and the fire is extinguished in 25 seconds.

Requisite Knowledge: The fire behavior of aircraft fuels in spills and pools, physical properties, characteristics of aircraft fuel, agent application rates, densities, and procedures.

Requisite Skills: Operate dry chemical extinguishers equipped with a hose line, including removing and operating hose and applying agent.

6.3.2* Extinguish an aircraft fuel spill fire, given PrPPE, an assignment, agent application procedures, an ARFF vehicle hand line flowing a minimum of 359 L/min (95 gpm) of AFFF extinguishing agent, and a fire sized to the flow rate used [AFFF flow rate divided by 4.92 L/min/m² for fire size in square meters (0.13 gpm/min/ft² for fire size in square feet)], so that the agent is applied using the prescribed techniques and the fire is extinguished in a time proportionate to, but no longer than, 90 seconds for a 73 m² (786 ft²) fire with a flow rate at 359 L/min (95 gpm).

Requisite Knowledge: The fire behavior of aircraft fuels in pools, physical properties and characteristics of aircraft fuel, and agent application rates and densities.

Requisite Skills: Operate fire streams and apply agent.

6.3.3* Extinguish an aircraft fuel spill fire, given an assignment, PrPPE, an ARFF vehicle turret flowing a minimum of 946 L/min (250 gpm), a fire sized to the flow rate used [AFFF flow rate divided by 4.92 L/min/m² for fire size in square meters (0.13 gpm/min/ft² for fire size in square feet)], and the procedures for agent application, so that the agent is applied according to procedures and the fire is extinguished in a time proportionate to, but no longer than, 90 seconds for 192 m² (1923 ft²) fire with a flow rate at 946 L/min (250 gpm).

Requisite Knowledge: Operation of ARFF vehicle agent delivery systems, the fire behavior of aircraft fuels in pools, physical properties and characteristics

of aircraft fuel, the procedures for agent application, and agent application rates and densities.

Requisite Skills: Apply fire-fighting agents and streams using ARFF vehicle turrets.

6.3.4* Extinguish a three-dimensional aircraft fuel fire as a member of a team, given a team, PrPPE, an assignment, ARFF vehicle hand line(s) using primary and secondary agents, and agent application procedures, so that a dual-agent attack is used, the agent is applied according to procedures, the fire is extinguished, and the fuel source is secured.

Requisite Knowledge: The fire behavior of aircraft fuels in three-dimensional and atomized states, physical properties and characteristics of aircraft fuel, agent application rates and densities, agent application procedures, and methods of controlling fuel sources.

Requisite Skills: Operate fire streams and apply agents, and secure fuel sources.

6.3.5* Attack a fire on the interior of an aircraft while operating as a member of a team, given a team, PrPPE, an assignment, an ARFF vehicle hand line, an extinguishing agent, and a ladder or other means of accessing the aircraft, so that team integrity is maintained, the attack line is deployed for advancement, ladders or other means are used, access is gained into the fire area, effective agent application practices are used, the fire is approached, attack techniques facilitate suppression given the level of the fire, hidden fires are located and controlled, hazards are avoided or managed, and the fire is brought under control.

Requisite Knowledge: Techniques for accessing the aircraft interior according to the aircraft type, methods for advancing hand lines from an ARFF vehicle, precautions to be followed when advancing

hose lines to a fire, observable results that a fire stream has been applied, dangerous structural conditions created by fire, principles of exposure protection, potential long-term consequences of exposure to products of combustion, physical states of matter in which fuels are found, common types of accidents or injuries and their causes, the role of the backup team in fire attack situations, attack and control techniques, and techniques for exposing hidden fires.

Requisite Skills: Deploy ARFF hand line on an interior aircraft fire; gain access to aircraft interior; open, close, and adjust nozzle flow and patterns; apply agent using direct, indirect, and combination attacks; advance charged and uncharged hose lines up ladders and up and down interior and exterior stairways; and locate and suppress interior fires.



6.3.6* Attack an engine or auxiliary power unit/emergency power unit (APU/EPU) fire on an aircraft while operating as a member of a team, given PrPPE, an assignment, ARFF vehicle hand line or turret, a correct agent, and agent application procedures, so that agent application procedures are followed, the fire is extinguished, and the engine or APU/EPU is shut down.



Requisite Knowledge: Techniques for accessing the aircraft engines and APU/EPUs, safety procedures, methods for advancing hand line from an ARFF vehicle, methods for operating turrets, and methods for shutting down engine and APU/EPU operation.



Requisite Skills: Deploy and operate ARFF hand line, operate turrets, gain access to aircraft engine and APU/EPU, and shut down engine and APU.



6.3.7* Attack a wheel assembly fire, as a member of a team, given PrPPE, a team, an assignment, an ARFF vehicle hand line, and correct agent, so that the fire is extinguished.



Requisite Knowledge: Agent selection and application procedure, special safety considerations, and the characteristics of combustible metals.

Requisite Skills: Approach the fire in accordance with safety procedures, and select and apply agent.

6.3.8* Ventilate an aircraft through available doors and hatches while operating as a member of a team, given PrPPE, an assignment, tools, and mechanical ventilation devices, so that openings are created, all ventilation barriers are removed, and the heat and other products of combustion are released.

Requisite Knowledge: Aircraft access points; principles, advantages, limitations, and effects of mechanical ventilation; the methods of heat transfer; the principles of thermal layering within an aircraft on fire; and the techniques and safety precautions for venting aircraft.

Requisite Skills: Operate doors, hatches, and forcible entry tools; operate mechanical ventilation devices; and remove barriers.

6.3.9* Replenish extinguishing agents while operating as a member of a team, given an assignment, an ARFF vehicle, a fixed or mobile water source, a supply of agent, and supply lines and fittings, so that agents are available for application by the ARFF vehicle within the time established by the authority having jurisdiction (AHJ).

Requisite Knowledge: Resupply procedures, operation procedures for ARFF vehicle replenishment, and pumps and transfer devices.

Requisite Skills: Connect hose lines, operate valves, and operate pumps and transfer devices.

6.3.10 Preserve the aircraft accident scene, given an assignment and procedures, so that evidence is identified, protected, and reported according to procedures.

Requisite Knowledge: Airport emergency plan requirements for preservation of the scene, evidence identification, evidence protection, and evidence reporting procedures.

Requisite Skills: Preserve the scene for investigators, and identify, protect, and report evidence.

- 6.3.11 Overhaul the accident scene, given PrPPE, an assignment, hand lines, and property conservation equipment, so that all fires are located, exposed, and extinguished and all property is protected from further damage.

Requisite Knowledge: Methods of complete extinguishment and prevention of re-ignition, reasons for conservation, operating procedures for property conservation equipment, overhaul procedures, signs of a hidden fire, methods of detecting hidden fires, and tools and equipment used for overhaul.

Requisite Skills: Use property conservation equipment, detect hidden fires, and use tools and equipment to expose hidden fires.

- 6.4.1* Gain access into and out of an aircraft through normal entry points and emergency hatches, shut down and safety the aircraft, and assist in the evacuation process while operating as a member of a team, given PrPPE and an assignment, so that passenger evacuation and rescue can be accomplished.

Requisite Knowledge: Aircraft familiarization, including materials used in construction, aircraft terminology, automatic explosive devices, hazardous areas in and around aircraft, aircraft egress/ingress (hatches, doors, and evacuation chutes), military aircraft systems and associated hazards; capabilities and limitations of manual and power rescue tools and specialized high-reach devices, aircraft shutdown and safetying procedures.

Requisite Skills: Operate power saws and cutting tools, hydraulic devices, pneumatic devices, and pulling devices; operate specialized ladders and high-reach devices; secure aircraft safety and shutdown.

6.4.2* Locate and disentangle an entrapped victim from an aircraft as a member of a team, given PrPPE, a team and an assignment, and rescue tools, so that the victim is freed from entrapment without undue further injury and hazards are managed.

Requisite Knowledge: Capabilities and limitations of rescue tools, search procedures, hazard identification, and control methods.

Requisite Skills: Perform search procedures, control hazards, remove victims, and operate rescue tools.

6.4.3 Implement initial triage of the victims of an aircraft accident, given PrPPE, an assignment, and the triage protocol of the AHJ, so that each victim is evaluated and correctly categorized according to protocol.

Requisite Knowledge: Categories of triage according to the triage protocol of the AHJ, and methods of assessment.

Requisite Skills: Assess the critical factors of patient condition, and label patient for triage category.