NFPA Apparatus Equipped with an Aerial Device (Aerial) Task Book

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<th>Task Book Assigned To:</th>
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<td>DPSST Fire Service #</td>
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<td>Signature of Agency Head or Training Officer</td>
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Additional copies of this document may be downloaded from the DPSST web site: http://oregon.gov/DPSST/FC/index.shtml

Revised January 2018
Task Book Qualification Record Books (Task Books) have been developed for various certification levels within the Oregon 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 then evaluated during separate evaluations. 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 Fire Service Agency.

**TASK BOOK SPECIFICATIONS:**
To successfully complete a task book, only an evaluator certified at the candidate’s specific level or higher may sign off on the JPR’s. ‘Requisite Knowledge’ and ‘Requisite Skills’ sections may be completed during class and signed by the instructor. Evaluation must be completed at candidate’s fire agency.

**NFPA TASK BOOK INFORMATION:**
The JPRs covered in 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. For more information on the complete job performance requirements and data, see the individual DPSST Task Book for that certification level.
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 below).

*A vertical line (|) to the left of the document indicates a change from the previous standard.

4.2.2 Document the routine tests, inspections, and servicing functions, given maintenance and inspection forms, so that all items are checked for operation and deficiencies are reported.

These skills are the job performance evaluations intended to be completed after the Requisite Knowledge and Requisite Skills have been successfully finished. This section should accomplished during three separate dates at the firefighter’s home department or, if no one at the home department is certified to sign off on the skills, at a neighboring department.

(A) Requisite Knowledge. Departmental requirements for documenting maintenance performed and the importance of keeping accurate records.

The Requisite Knowledge portions of the task book may be done during class and signed off by the instructor. Requisite Knowledge are the only JPR’s that are indented to be signed off in class.

(B) Requisite Skills. The ability to use tools and equipment and complete all related departmental forms.

Requisite Skills are intended to be completed at the firefighter’s home department or, if no one at the home department is certified to sign off on the skills, at a neighboring department.
NFPA Fire Apparatus Equipped with an Aerial Device

Signature Page

This signature page is a tool for your agency to document completed tasks; completion of the entire Task Book is still required (if not utilizing Task Performance Evaluations). The signature page and documentation should be kept on file at your agency. Please do not submit the Task Book or signature page to Department of Public Safety Standards and Training.

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4.1 General.
Prior to operating fire department vehicles, the fire apparatus driver/operator shall meet the job performance requirements defined in Sections 4.2 and 4.3.

4.2 Preventive Maintenance.

4.2.1* Perform routine tests, inspections, and servicing functions on the systems and components specified in the following list, given a fire department vehicle, its manufacturer’s specifications, and policies and procedures of the jurisdiction, so that the operational status of the vehicle is verified:

1) Battery(ies)
2) Braking system
3) Coolant system
4) Electrical system
5) Fuel
6) Hydraulic fluids
7) Oil
8) Tires
9) Steering system
10) Belts
11) Tools, appliances, and equipment
12) Built-in safety features

(A) Requisite Knowledge. Manufacturer specifications and requirements, policies, and procedures of the jurisdiction.

(B) Requisite Skills. The ability to use hand tools, recognize system problems, and correct any deficiency noted according to policies and procedures.
4.2.2 Document the visual and operational checks, given maintenance and inspection forms, so that all items are checked for operation and deficiencies are reported.

(A) **Requisite Knowledge.** Departmental requirements for documenting maintenance performed and the importance of keeping accurate records.

(B) **Requisite Skills.** The ability to use tools and equipment and complete all related departmental forms.

4.3 Driving/Operating.

4.3.1* Operate a fire apparatus, given a vehicle and a predetermined route on a public way that incorporates the maneuvers and features that the driver/operator is expected to encounter during normal operations, so that the vehicle is operated in compliance with all applicable state and local laws and departmental rules and regulations.

(A) **Requisite Knowledge.** The importance of donning passenger restraint devices and ensuring crew safety; the common causes of fire apparatus accidents and the recognition that drivers of fire apparatus are responsible for the safe and prudent operation of the vehicle under all conditions; the effects on vehicle control of liquid surge, braking reaction time, and load factors; effects of high center of gravity on roll-over potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, and gear patterns; negotiating intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.

(B) **Requisite Skills.** The ability to operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating, and turning, given road, weather, and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls.
4.3.2* Back a vehicle from a roadway into restricted spaces on both the right and left sides of the vehicle, given a fire department vehicle, a spotter, and restricted spaces 3.7 m (12 ft) in width, requiring 90-degree right-hand and left-hand turns from the roadway, so that the vehicle is parked within the restricted areas without having to stop and pull forward and without striking obstructions.

**FIGURE A.4.3.2(a)**
Alley Dock Exercise.

**FIGURE A.4.3.2(b)**
Station Parking Procedure Drill.
(A) **Requisite Knowledge.** Vehicle dimensions, turning characteristics, spotter signaling, and principles of safe vehicle operation.

(B) **Requisite Skills.** The ability to use mirrors and judge vehicle clearance.

4.3.3* Maneuver a vehicle around obstructions on a roadway while moving forward and in reverse, given a fire department vehicle, a spotter for backing, and a roadway with obstructions, so that the vehicle is maneuvered through the obstructions without stopping to change the direction of travel and without striking the obstructions.

![Diagram of Serpentine Exercise](https://via.placeholder.com/150)

**FIGURE A.4.3.3**
Serpentine Exercise.

(A) **Requisite Knowledge.** Vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.

(B) **Requisite Skills.** The ability to use mirrors and judge vehicle clearance.
4.3.4* Turn a fire apparatus 180 degrees within a confined space, given a fire department vehicle, a spotter for backing up, and an area in which the vehicle cannot perform a U-turn without stopping and backing up, so that the vehicle is turned 180 degrees without striking obstructions within the given space.

FIGURE A.4.3.4
Confined Space Turnaround.
(A) **Requisite Knowledge.** Vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.

(B) **Requisite Skills.** The ability to use mirrors and judge vehicle clearance.

4.3.5* Maneuver a fire department vehicle in areas with restricted horizontal and vertical clearances, given a fire department vehicle and a course that requires the operator to move through areas of restricted horizontal and vertical clearances, so that the operator accurately judges the ability of the vehicle to pass through the openings and so that no obstructions are struck.

![Diminishing Clearance Exercise](image)

**FIGURE A.4.3.5**
Diminishing Clearance Exercise.

(A) **Requisite Knowledge.** Vehicle dimensions, turning characteristics, the effects of liquid surge, spotter signaling, and principles of safe vehicle operation.

(B) **Requisite Skills.** The ability to use mirrors and judge vehicle clearance.

4.3.6* Operate a vehicle using defensive driving techniques, given an assignment and a fire apparatus, so that control of the vehicle is maintained.
(A) **Requisite Knowledge.** The importance of donning passenger restraint devices and ensuring crew safety; the common causes of fire apparatus accidents and the recognition that drivers of fire apparatus are responsible for the safe and prudent operation of the vehicle under all conditions; the effects on vehicle control of liquid surge, braking reaction time, and load factors; the effects of high center of gravity on rollover potential, general steering reactions, speed, and centrifugal force; applicable laws and regulations; principles of skid avoidance, night driving, shifting, gear patterns and automatic braking systems in wet and dry conditions; negotiation of intersections, railroad crossings, and bridges; weight and height limitations for both roads and bridges; identification and operation of automotive gauges; and operational limits.

(B) **Requisite Skills.** The ability to operate passenger restraint devices; maintain safe following distances; maintain control of the vehicle while accelerating, decelerating, and turning, given road, weather, and traffic conditions; operate under adverse environmental or driving surface conditions; and use automotive gauges and controls.

4.3.7* Operate all fixed systems and equipment on the vehicle not specifically addressed elsewhere in this standard, given systems and equipment, manufacturer’s specifications and instructions, and departmental policies and procedures for the systems and equipment, so that each system or piece of equipment is operated in accordance with the applicable instructions and policies.

(A) **Requisite Knowledge.** Manufacturer's specifications and operating procedures, and policies and procedures of the jurisdiction.

(B) **Requisite Skills.** The ability to deploy, energize, and monitor the system or equipment and to recognize and correct system problems.

4.4 **Fire Department Communications**

This duty shall involve initiating responses, receiving telephone calls, and using fire department communications equipment to correctly relay verbal or written information.

4.4.1 **Initiate the response to a reported emergency, given the report of an emergency, fire department SOPs, and communications equipment, so that all necessary information is obtained, communications equipment is operated correctly, and the information is relayed promptly and accurately to the dispatch center. [1001:5.2.1]**
(A) **Requisite Knowledge.** Procedures for reporting an emergency; departmental SOPs for taking and receiving alarms, radio codes, or procedures; and information needs of dispatch center. [1001:5.2.1(A)]

(B) **Requisite Skills.** The ability to operate fire department communications equipment, relay information, and record information. [1001:5.2.1(B)]

### 4.4.2 Receive a telephone call, given a fire department phone, so that procedures for answering the phone are used and the caller's information is relayed. [1001:5.2.2]

(A) **Requisite Knowledge.** Fire department procedures for answering nonemergency telephone calls. [1001:5.2.2(A)]

(B) **Requisite Skills.** The ability to operate fire station telephone and intercom equipment. [1001:5.2.2(B)]

### 4.4.3 Transmit and receive messages via the fire department radio, given a fire department radio and operating procedures, so that the information is accurate, complete, clear, and relayed within the time established by the AHJ. [1001:5.2.3]

(A) **Requisite Knowledge.** Departmental radio procedures and etiquette for routine traffic, emergency traffic, and emergency evacuation signals. [1001:5.2.3(A)]

(B) **Requisite Skills.** The ability to operate radio equipment and discriminate between routine and emergency traffic. [1001:5.2.3(B)]

### 4.4.4 Activate emergency procedures, given an emergency situation and department SOPs, so that emergency actions can be initiated.

(A) **Requisite Knowledge.** Department SOPs and emergency communication procedures.

(B) **Requisite Skills.** The ability to activate emergency procedures in accordance with the department's SOPs.
NFPA Apparatus Equipped with an Aerial Device

6.1* General.
The requirements of Fire Fighter I as specified in NFPA 1001 (or the requirements of Advanced Exterior Industrial Fire Brigade Member or Interior Structural Fire Brigade Member as specified in NFPA 1081) and the job performance requirements defined in Sections 6.1 and 6.2 shall be met prior to qualifying as a fire department driver/operator — aerial.

6.1.1 Perform the visual and operation checks on the systems and components specified in the following list in addition to those specified in 4.2.1, given a fire department aerial apparatus, and policies and procedures of the jurisdiction, so that the operational readiness of the aerial apparatus is verified:

1) Cable systems (if applicable)
2) Aerial device hydraulic systems
3) Slides and rollers
4) Stabilizing systems
5) Aerial device safety systems
6) Breathing air systems
7) Communication systems

(A) Requisite Knowledge. Manufacturer's specifications and requirements, and policies and procedures of the jurisdiction.

(B) Requisite Skills. The ability to use hand tools, recognize system problems, and correct any deficiency noted according to policies and procedures.

6.2 Operations.

6.2.1 Maneuver and position an aerial apparatus, given an aerial apparatus, an incident location, a situation description, and an assignment, so that the apparatus is positioned for correct aerial device deployment.

(A) Requisite Knowledge. Capabilities and limitations of aerial devices related to reach, tip load, angle of inclination, and angle from chassis axis; effects of topography, ground, and weather conditions on deployment; and use of the aerial device.

(B) Requisite Skills. The ability to determine a correct position for the apparatus, maneuver apparatus into that position, and avoid obstacles to operations.

6.2.2 Stabilize an aerial apparatus, given a positioned vehicle and the manufacturer’s recommendations, so that power can be transferred to the aerial device hydraulic system and the device can be deployed.
(A) **Requisite Knowledge.** Aerial apparatus hydraulic systems, manufacturer’s specifications for stabilization, stabilization requirements, and effects of topography and ground conditions on stabilization.

(B) **Requisite Skills.** The ability to transfer power from the vehicle’s engine to the hydraulic system and operate vehicle stabilization devices.

6.2.3 Maneuver and position the aerial device from each control station, given an incident location, a situation description, and an assignment, so that the aerial device is positioned to accomplish the assignment.

(A) **Requisite Knowledge.** Aerial device hydraulic systems, hydraulic pressure relief systems, gauges and controls, cable systems, communications systems, electrical systems, emergency operating systems, locking systems, manual rotation and lowering systems, stabilizing systems, aerial device safety systems, system overrides and the hazards of using overrides, safe operational limitations of the given aerial device, safety procedures specific to the device, and operations near electrical hazards and overhead obstructions.

(B) **Requisite Skills.** The ability to raise, rotate, extend, and position to a specified location, as well as lock, unlock, retract, lower, and bed the aerial device.

6.2.4 Lower an aerial device using the emergency operating system, given an aerial device, so that the aerial device is lowered to its bedded position.

(A) **Requisite Knowledge.** Aerial device hydraulic systems, hydraulic pressure relief systems, gauges and controls, cable systems, communications systems, electrical systems, emergency operating systems, locking systems, manual rotation and lowering systems, stabilizing systems, aerial device safety systems, system overrides and the hazards of using overrides, safe operational limitations of the given aerial device, safety procedures specific to the device, and operations near electrical hazards and overhead obstructions.

(B) **Requisite Skills.** The ability to rotate and position to center, unlock, retract, lower, and bed the aerial device using the emergency operating system.
6.2.5 Deploy and operate an elevated master stream, given an aerial device, a master stream device, and a desired flow, so that the stream is effective.

(A) Requisite Knowledge. Nozzle reaction, range of operation, and weight limitations.

(B) Requisite Skills. The ability to connect a water supply to a master stream device and control an elevated nozzle.