



**MONTGOMERY COUNTY FIRE AND RESCUE SERVICE  
DRIVER/OPERATOR TRAINING PROGRAM**

# Practical Application Guide Sheet

## Aerial Device Inspection

**Candidate Name:** \_\_\_\_\_

**Candidate Performance Competency:** The Candidate will demonstrate proficiency in the inspection, maintenance, and operation of the aerial ladder, outriggers, and component parts.

Task	Value	Score
1. Position the apparatus on a stable and reasonably level surface that has no overhead obstructions and permits full deployment of stabilizers. Place wheel chocks as appropriate for the terrain. <b>(CFP)</b>	3	
2. Check the hydraulic fluid level with all components stowed. <ul style="list-style-type: none"> <li>✓ dipstick or sight gauge</li> <li>✓ contact CMF if fluid is needed</li> </ul>	6	
3. Inspection and functional check of the stabilizers <ul style="list-style-type: none"> <li>✓ smooth engagement of the PTO and associated indicator lights</li> <li>✓ visible damage, leakage, damaged hoses, or scoring on sliding beams or hydraulic pistons</li> <li>✓ elongation or cracks to the stabilizer lock-pin holes</li> <li>✓ stabilizer feet are in place, properly lubricated, and have no damage</li> <li>✓ ground pads are in good condition; place them below the stabilizers before lowering the feet <b>(CFP)</b></li> <li>✓ locking pins are present, in good condition, and match the size of the holes in the stabilizers</li> <li>✓ stabilizers deploy and level for aerial use; check that interlock indicator lights function; insert locking pins <b>(CFP)</b></li> <li>✓ note if truck begins to sag, settles down on the locking pins, or loses interlock during any portion of the inspection</li> </ul>	10	
4. Inspect the turntable assembly <ul style="list-style-type: none"> <li>✓ damage to gear teeth, rotation drive motor, improper meshing or alignment, evidence of unusual wear, or inadequate lubrication</li> <li>✓ turntable bolts are all present and tight</li> </ul>	6	
5. Inspect turntable control pedestal <ul style="list-style-type: none"> <li>✓ wear or damage, indicator lights function</li> <li>✓ all electronic connections are tight and free of wear</li> <li>✓ switches are set to operator preferred settings</li> <li>✓ communications system is functioning</li> <li>✓ railing and fall protection devices intact; platform free of damage</li> </ul>	6	

Task	Value	Score
<p>6. Inspect the breathing air system (aerial towers)</p> <ul style="list-style-type: none"> <li>✓ &gt;4500psi in the storage cylinders</li> <li>✓ all valves and connections operating properly</li> <li>✓ damage or wear to cylinders, gauges, regulator, hose, or air connections</li> <li>✓ obvious air leaks in the system</li> </ul>	6	
<p>7. Functional check of auxiliary equipment</p> <ul style="list-style-type: none"> <li>✓ Remote controlled nozzle</li> <li>✓ Floodlights, spot lights, rung lights, panel lights, warning lights</li> <li>✓ Tools in the platform or aerial tip (stokes, axe, hook, etc.)</li> <li>✓ Aerial mounted roof ladder</li> </ul>	6	
<p>8. Inspect the aerial device retraction/extension system</p> <ul style="list-style-type: none"> <li>✓ signs of wear or damage</li> <li>✓ condition of sheaves, guards, guides and any other surfaces that come in contact with the cables to ensure that they are in good condition, turn freely, are properly lubricated, and have no asymmetric or rough edges</li> <li>✓ cables for fraying, bird-caging, crushing, and excessive corrosion.</li> <li>✓ cylinders for corrosion, leaks, damage, missing parts</li> <li>✓ verify cylinders are securely pinned to the mounts</li> </ul>	7	
<p>9. Inspect the aerial device elevation/lifting system</p> <ul style="list-style-type: none"> <li>✓ cylinders for corrosion, leaks, damage, missing parts</li> <li>✓ cylinders are securely pinned to the mounts</li> </ul>	6	
<p>10. Inspect each section of the aerial ladder</p> <ul style="list-style-type: none"> <li>✓ signs of damage, misalignment, cracked welds or missing parts</li> <li>✓ verify lubrication in the slides</li> <li>✓ rungs are not bent and anti-slip coverings are in place</li> </ul>	7	
<p>11. Inspect the aerial platform or tip</p> <ul style="list-style-type: none"> <li>✓ wear or damage</li> <li>✓ doors, gates, panels, or steps move freely and latch properly</li> <li>✓ ensure the bolts for the detachable aerial tip are in place and tight (if applicable)</li> <li>✓ control panel electronic connections are tight and free of wear</li> <li>✓ nozzle controls function</li> <li>✓ communications system is functioning</li> </ul>	7	
<p>12. Inspect the aerial waterway</p> <ul style="list-style-type: none"> <li>✓ signs of damage, misalignment, broken mounts</li> <li>✓ drains and valves operate freely</li> <li>✓ appropriate tip(s) on the master stream nozzle</li> <li>✓ inlets in good condition with caps in place</li> <li>✓ flying standpipe discharge threads in good condition; cap(s) in place</li> <li>✓ pin the waterway in each position to ensure the lock fully engages and functions properly (if equipped) <b>(CFP)</b></li> </ul>	7	
<p>13. Functional check of the aerial device</p> <ul style="list-style-type: none"> <li>✓ raise, rotate, and extend from the turntable control pedestal</li> <li>✓ raise, rotate, and extend from the platform (if applicable); ensure platform auto-levels; platform occupants must use safety belts <b>(CFP)</b></li> <li>✓ note any drift or uncontrolled movement in the aerial device</li> <li>✓ note any sluggishness in function of the aerial</li> <li>✓ note any leaks, unusual noise, or malfunctioning interlocks</li> <li>✓ all controls require two actions to operate; safety mechanisms function</li> <li>✓ all controls return to stop position automatically when released</li> </ul>	9	

Task	Value	Score
14. Candidate will explain the purpose, function and limitations of the emergency power unit (EPU). Candidate will demonstrate the EPU during stowing of the aerial or stabilizers. a. Most units allow a maximum of 30 minutes of continuous use followed by 30 minutes of rest; Candidate needs to know their specific unit as differences do exist b. Used when primary hydraulic pump fails	7	
15. Candidate will explain the purpose, function, and location of manual valve controls. Candidate will demonstrate the manual valve controls during stowing of the aerial or stabilizers. a. Overrides all safety interlocks b. Used when primary controls fail to remove personnel from harm's way c. Used to retract and stow the aerial or retract the stabilizers d. Aerial must be in the cradle before stabilizer manual controls are used	7	
<b>Total Points</b>	100	

## **Critical Fail Points**

*Failure to successfully perform any of the following components will result in an automatic failure of this evolution regardless of total score.*

- a) Failure to use wheel chocks
- b) Overriding any safety interlocks or placing apparatus in an unstable condition
- c) Failure to pin stabilizers prior to raising the aerial
- d) Failure to use ground pads below stabilizers
- e) Failure to check for or remain clear of overhead obstructions
- f) Failure to use a safety belt while operating from an elevated or moving platform
- g) Failure to effectively pin the waterway (barring mechanical malfunction)

**Evaluator: Initial beside the final outcome of the exam below.**

\_\_\_\_ **PASS**    \_\_\_\_ **FAIL – Overall Points**    \_\_\_\_ **FAIL – Critical Failure Point**

\_\_\_\_\_  
**Evaluator Name**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Evaluator Signature**