**DEPARTMENT OF THE AIR FORCE**
**Headquarters US Air Force**
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**QTP24-3-B212**
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# Armored Vehicle

Vehicle Management Codes: B212, C508, F508, L285

# QUALIFICATION TRAINING PACKAGE

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## Section 1—OVERVIEW

### 1.1. Overview.

1.1.1. Send comments and suggested improvements on AF Form 847, *Recommendation for Change of Publication* through Air Force Installation and Mission Support Center (AFIMSC) functional managers via e-mail at AFIMSC.IZSL.VehicleOps@us.af.mil.

1.1.2. How to use this plan:

1.1.2.1. Instructor:

1.1.2.1.1. Provide overview of training, **Section 2** and **Section 3**.

1.1.2.1.2. Instructor's lesson plan for trainee preparation, give classroom lecture, **Section 4**.

1.1.2.1.3. Instructor's lesson plan for knowledge training, **Section 5**.

1.1.2.1.4. Instructor's lesson plan for demonstration, **Section 6**.

1.1.2.1.5. Instructor's lesson plan for performance and evaluation, **Section 7**.

1.1.2.2. Trainee:

1.1.2.2.1. Reads this entire lesson plan prior to starting lecture.

1.1.2.2.2. Follows along with lecture using this lesson plan and its attachments.

1.1.2.2.3. Uses **Attachment 2** and **Attachment 4** as guides for vehicle inspection.

1.1.2.2.4. Takes performance test.

## Section 2—RESPONSIBILITIES

### 2.1. Responsibilities.

2.1.1. The trainee shall:

2.1.1.1. Ensure the trainer explains the Air Force Qualification Training Plan (AFQTP) process and the responsibilities.

2.1.1.2. The trainee should ask questions if he/she does not understand the objectives for each unit.

2.1.1.3. Review missed questions with the trainer.

2.1.2. Instructor shall:

2.1.2.1. Review the AFQTP with the trainee.

2.1.2.2. Conduct knowledge training with the trainee using the AFQTP.

2.1.2.3. Grade the review questions using the answer key.

2.1.2.4. Review missed questions with the trainee to ensure the required task knowledge has been gained to complete the task.

2.1.2.5. Sign-off the task(s).

2.1.3. The Certifier shall:

2.1.3.1. Evaluate the Airman's task performance without assistance.

2.1.3.2. Sign-off the task(s).

## Section 3—INTRODUCTION

### 3.1. Objectives.

3.1.1. Given lectures, demonstrations, hands-on driving session and a performance test, trainees will be able to perform operator's inspection and complete the performance test with zero instructor assists.

3.1.1.1. Train and qualify each trainee in safe operation and preventive maintenance of the various oversize cargo trucks.

3.1.1.2. This training will ensure the trainee becomes a qualified armored vehicle operator; an operator who has the knowledge and skills to operate an armored vehicle in a safe and professional manner.

### 3.2. Desired Learning Outcomes.

3.2.1. Understand the safety precautions to be followed before-, during-, and after- operation of the armored vehicle.

3.2.2. Understand the purpose of the armored vehicle and its role in the mission.

3.2.3. Know the proper operator maintenance procedures of the armored vehicle, IAW applicable technical orders (TOs) and use of Air Force (AF) Form 1800, *Operator's Inspection Guide and Trouble Report*.

3.2.4. Safely and proficiently operate the armored vehicle.

**3.3. Lesson Duration.**

3.3.1. Recommended instructional and hands on training time is 5 hours:

**Figure 3.1. Recommended Training Time for Training Activities.**

| Training Activity | Training Time |
|---|---|
| Trainee's Preparation | 1 Hour |
| Instructor's Lecture and Demonstration | 1 Hour |
| Trainee's Personal Experience (to build confidence and proficiency)<br>▪ Perform Operator Maintenance<br>▪ Operate the Vehicle | 2 Hours |
| Trainee's Performance Evaluation | 1 Hour |

**Note:** This is a recommended time; training time may be more or less depending how quickly a trainee learns new tasks.

**3.4. Instructional References.**

3.4.1. Risk Management (RM) and Safety Principles IAW Air Force Pamphlet (AFPAM) 90-803, *Risk Management (RM) Guidelines and Tools*.

3.4.2. Applicable TOs or Manufacturer's Operator's Manual (see Vehicle Management for TO number for vehicle being used in training).

3.4.3. Air Force Manual (AFMAN) 24-306, *Operation of Air Force Government Motor Vehicles.*

3.4.4. AF Form 1800.

3.4.5. Special references based-off type of vehicle.

**3.5. Instructional Training Aids and Equipment.**

3.5.1. Armored Vehicle Lesson Plan.

3.5.2. Armored Vehicle.

3.5.3. Applicable TO or Manufacturer's Operator's Manual.

3.5.4. AF Form 1800.

3.5.5. Videos (if locally produced).

3.5.6. Suitable training area.

3.5.7. Skid pad.

3.5.8. Traffic cones.

## Section 4—TRAINEE PREPARATION

### 4.1. Licensing Requirements.

4.1.1. Trainee must have in his/her possession a valid state driver's license.

4.1.2. AF Form 171, *Request for Driver's Training and Addition to U.S. Government Driver's License* IAW Air Force Instruction (AFI) 24-301, *Ground Transportation*.

4.1.3. Applicable local licensing jurisdiction requirements.

### 4.2. Required Reading.

4.2.1. Read this entire lesson plan.

4.2.2. Read AFMAN 24-306.

4.2.3. Read manufacturer's operator's manual for the vehicle being trained on.

## Section 5—KNOWLEDGE LECTURE AND EVALUATION

### 5.1. Overview of Training and Requirements.

5.1.1. Training objectives:

5.1.1.1. Given lectures, demonstrations, hands-on driving session and a performance test, trainees will be able to perform operator's inspection and complete the performance test with zero instructor assists.

5.1.1.2. Train and qualify each trainee in safe operation and preventive maintenance of the various armored vehicles.

5.1.1.3. This training will ensure the trainee becomes a qualified oversized cargo operator—an operator who has the knowledge and skills to operate an armored vehicle in a safe and professional manner.

5.1.2. Desired learning outcomes:

5.1.2.1. Understand the safety precautions to be followed before-, during-, and after-operation of the armored vehicles.

5.1.2.2. Understand the purpose of the armored vehicle and its role in the mission.

5.1.2.2.1. Purpose of the armored vehicle is for use in a variety of missions, as a military counter attack and rescue vehicle used in hostile urban environments and/or for patrol and transportation on a variety of terrain.

5.1.2.2.2. Role in the mission (Unit/Base/Community (during natural disasters)/Air Force).

5.1.3. Armored vehicle design. The design of an armored vehicle varies depending on the vehicle type. Refer to the manufacturer's operator's manual for additional information on the specific armored vehicle being operated, and to the data plate for safe load capacity guidance. The armored vehicle normally can be identified by the following characteristics:

5.1.3.1. Specifications. Refer to the manufacturer's operator's manual and vehicle data plate to become familiar with the following specifications for the armored vehicle being operated.

5.1.3.1.1. Weight.

5.1.3.1.2. Chassis.

5.1.3.1.3. Engine/drive train.

5.1.3.1.4. 4WD system. Dual rear wheels and 4WD with automatic hubs.

5.1.3.1.5. Electrical system.

5.1.3.1.6. Front and rear auxiliary heat and air conditioning (A/C).

5.1.3.1.7. Passenger capacity: Design for fire team and standard gear and additional capability, if applicable, for short periods.

5.1.3.1.8. Interior room.

5.1.3.1.9. Maximum payload (with and without blast armor).

5.1.3.1.10. Fuel tank capacity/fuel type.

5.1.3.1.11. Armor rating and location.

5.1.3.1.12. Blast resistant components, if applicable.

5.1.3.1.13. Weapons configuration.

5.1.3.1.14. Rollover prevention data. Angle of approach, angle of departure, maximum side slope on hard surfaces, maximum side slope on soft surfaces, center of gravity location.

5.1.3.2. Additional components.

5.1.3.2.1. Run flat tires. **Note:** Tire pressure must be checked before each use.

5.1.3.2.2. Doors.

5.1.3.2.2.1. Door hold open system (if applicable).

5.1.3.2.2.2. Door guards.

5.1.3.2.3. Turret.

5.1.3.2.3.1. Secure open/closed.

5.1.3.2.3.2. Mounting weapons and turning.

5.1.3.2.3.3. Gunner stand.

5.1.3.2.4. Full side and rear running boards.

5.1.3.2.5. Rooftop access points.

5.1.3.2.6. Handholds.

5.1.3.2.7. Locking fuel door.

5.1.3.2.8. Instrument panels.

5.1.3.2.9. Hour meter.

5.1.3.2.10. Other meters and gauges.

5.1.3.2.11. Center console.

5.1.3.2.11.1. Wig Wag & strobes.

5.1.3.2.11.2. Heated windshields.

5.1.3.2.11.3. Rear black-out feature.

5.1.3.2.11.4. Radio (mobile).

5.1.3.2.11.5. Thermal imaging.

5.1.3.2.11.6. Siren/public address (PA) system.

5.1.3.2.11.7. Power inverter. Allows the vehicle to be charged using shore plug on the exterior of the vehicle. **Note:** The inverter switch must be in the off position to avoid drain on the batteries when not in use.

5.1.3.2.12. Cabin interior.

5.1.3.2.12.1. Lighting is tactical (red) or non-tactical (white).

5.1.3.2.13. Rear heater control.

5.1.3.2.14. Firing ports.

**5.2. Vehicle Inspection.**

5.2.1. Pre-trip vehicle inspection test. Use **Attachment 2** as a walk around guide along with AF Form 1800.

5.2.2. A Seven-Step Inspection Method will help ensure the inspection is the same each time it is conducted, and that nothing is left out. See **Attachment 4** for the Seven-Step Inspection Method.

5.2.3. Types of Vehicle Inspection. If discrepancies are found they must be reported to the Vehicle Control Official (VCO), the supervisor, and/or vehicle maintenance:

5.2.3.1. Pre-trip inspection – find items/problems that could cause accident or breakdown.

5.2.3.1.1. Vehicle maintenance to authorize continued use for all other maintenance discrepancies.

5.2.3.1.2. Cleanliness/damage/missing items.

5.2.3.1.2.1. Glass.

5.2.3.1.2.1.1. Depending on the armored vehicle, the interior surface of the transparency can be ballistic glass.

5.2.3.1.2.1.2. Clean the interior glass and painted surfaces with mild soapy water or a glass cleaner.

5.2.3.1.2.1.3. Do NOT use Windex or similar glass cleaners that contain ammonia, lacquer thinner, acetone, turpentine, or similar solvents.

5.2.3.1.2.1.4. Exterior: Clean the exterior glass surface using a commercially available glass cleaner and a soft, clean cloth, or paper towel.

5.2.3.1.2.2. Exterior painted surfaces (not glass).

5.2.3.1.2.2.1. Clean with soap and water designed for automotive purposes.

5.2.3.1.2.2.2. Do NOT wax.

5.2.3.1.3. Secure cargo and equipment before operating the vehicle.

5.2.3.1.4. Leaks (fuel/oil/coolant/hydraulic/air).

5.2.3.1.4.1. Check hoses and fluid lines for wear, damage, or leaks.

5.2.3.1.4.2. Make sure clamps and fittings are tight.

5.2.3.1.4.3. Wetness around seals, gaskets, fittings, or connections indicates leakage. A stain also indicates leakage. Report all leaks to Vehicle Management.

5.2.3.1.5. Fluid levels; ensure level is within limits:

5.2.3.1.5.1. Opening hood.

5.2.3.1.5.1.1. Hood open assist device: yellow handle located on the passenger side of front grill, behind the bumper. After release, stand off-center, towards passenger side for ease of lifting ballistic hood.

5.2.3.1.5.1.2. Full engage the hood prop during all under hood inspections.

5.2.3.1.5.2. Engine oil.

5.2.3.1.5.3. Coolant.

5.2.3.1.5.4. Power steering fluid.

5.2.3.1.5.5. Transmission fluid.

5.2.3.1.5.6. Antifreeze.

5.2.3.1.6. Battery; security, fluid, damage and corrosion.

5.2.3.1.7. Power inverter.

5.2.3.1.8. Inverter vehicle battery charge feature.

5.2.3.1.9. Check all bolts, nuts, and screws. **Note:** If loose, bent, broken or missing, either tighten or report conditions to the VCO or Vehicle Management.

5.2.3.1.10. Look for loose or chipped paint, rust, or cracks at welds.

5.2.3.1.10.1. If a cracked weld is found, report to vehicle maintenance.

5.2.3.1.11. All wheel rims (cracks, splits, etc.); check for loose or missing lug nuts.

5.2.3.1.12. All tires.

5.2.3.1.12.1. Due to the weight of the vehicle, the tire changes can only be done with the vehicle issued jack and tire tools. The tires are extremely heavy and will require 2 or more individuals to remove the spare tire and to put the flat back in its place.

5.2.3.1.12.2. Proper inflation. Note: Notify VCO, the supervisor, and/or vehicle maintenance if split rim is completely flat.

5.2.3.1.12.3. Sidewalls, tread to include depth, bulges.

5.2.3.1.12.4. Cuts and abrasions.

5.2.3.1.12.5. Lug nuts.

5.2.3.1.12.6. Check for debris/rocks between dual tires.

5.2.3.1.13. Transmission.

5.2.3.1.14. Drive belts; tension, and fraying.

5.2.3.1.15. All hoses and wiring.

5.2.3.1.16. Differential, shocks, and brakes for leaks.

5.2.3.1.17. Suspension, springs, and shocks.

5.2.3.1.18. Fuel door and fuel cap; intact, not broken or damaged.

5.2.3.1.19. Horn operation.

5.2.3.1.20. Control panel.

5.2.3.1.21. Heater/defroster.

5.2.3.1.22. Wiring/lights/reflectors (interior and exterior).

5.2.3.1.22.1. Look for bare wires and loose or broken connections.
5.2.3.1.22.2. Tactical (red) and non-tactical (white) lighting.

5.2.3.1.23. Mirrors.

5.2.3.1.24. Windshield and windshield wipers/washers.

5.2.3.1.25. Doors/door guards.

5.2.3.1.26. Turret.

5.2.3.1.27. Weapon mounts.

5.2.3.1.28. Gunner stand, if applicable.

5.2.3.1.29. Firing ports.

5.2.3.1.30. Full side and rear running boards.

5.2.3.1.31. Rooftop access points.

5.2.3.1.32. Hand holds.

5.2.3.1.33. Locking fuel door.

5.2.3.1.34. Windows.

5.2.3.1.35. Hood latches.

5.2.3.1.36. Seatbelts.

5.2.3.1.37. Storage compartments, stowing and tie down equipment.

5.2.3.1.38. Fire extinguisher (if applicable).

5.2.3.2. During-operation.

5.2.3.2.1. All gauges and warning lights for proper operations.

5.2.3.2.1.1. Warning lights.

5.2.3.2.1.2. Gauges (oil pressure, fuel gauge, water temperature, voltage).

5.2.3.2.1.3. Indicators.

5.2.3.2.1.4. Wig wags and strobes.

5.2.3.2.1.5. Heated windshields, if applicable.

5.2.3.2.1.6. Blackout features.

5.2.3.2.1.7. Radio, if applicable.

5.2.3.2.1.8. Thermal imaging system, if applicable.

5.2.3.2.1.9. Siren/PA, if applicable.

5.2.3.2.2. Listen for exhaust and air leaks. Listen for any unusual sounds.

5.2.3.2.3. Stay alert for any unusual smells or odors.

5.2.3.2.4. Stay alert for any abnormal vibrations or handling problems.

5.2.3.3. After-trip inspection and report.

5.2.3.3.1. Ensure vehicle and components are cleaned.

5.2.3.3.2. Equipment is properly stowed.

5.2.3.3.3. Refueled.

5.2.3.3.4. Parked.

5.2.3.3.5. Apply brakes.

5.2.3.3.6. Place transmission in neutral (park for an automatic).

**5.3. Vehicle Safety and Equipment.**

5.3.1. Hazards and Human Factors:

5.3.1.1. Overhead clearance.

5.3.1.2. Traffic due to size and weight.

5.3.1.3. Loads beyond the vehicle’s capability.

5.3.1.4. Jerky starts and stops.

5.3.1.5. Traveling too fast and turning too sharply.

5.3.1.6. Rollover risk warning. The potential for a vehicle to rollover increases for vehicles with a high gross weight (20,000 lbs. or more) or a high center of gravity. Check the vehicle's data plate to determine if the vehicle is at higher risk for rollover. Always ensure the operator and passenger(s) are wearing proper head protection.

5.3.2. Safety Clothing and Equipment:

5.3.2.1. Safety steel-toed boots must be worn.

5.3.2.2. Head protection.

5.3.2.3. Gloves will be worn during cargo loading and unloading (take off rings/jewelry first.

5.3.2.4. First aid kit.

5.3.2.5. Inclement weather gear, if applicable

5.3.2.6. Reflective belt during hours of reduced visibility and on flightline (if applicable).

5.3.2.7. Tire gauge.

5.3.2.8. Fire extinguisher.

5.3.2.9. Hearing/eye protection, if applicable.

5.3.2.10. AF Form 1800.

**5.4. Driving Safety and Precautions.**

5.4.1. Jerky starts and stops.

5.4.1.1. When braking, allow a much greater distance to stop. An armored vehicle can take twice the distance of a High Mobility Multipurpose Wheeled Vehicle (HMMWV) to stop.

5.4.1.2. Do not make sharp turns during hard braking.

5.4.1.3. Armored vehicles can be more than double the weight of a HMMWV and more than three times heavier than a 6-passenger pickup truck.

5.4.2. Traveling too fast and turning too sharply.

5.4.2.1. To not exceed safe operating speed based on environmental conditions, vehicle limitations and precautions as listed in the operating manual when negotiating curves.

5.4.3. Rollover prevention. Be familiar with rollover prevention data for the armored vehicle being operated: Approach angle, departure angle, center of gravity, maximum side slope (hard and soft surfaces).

5.4.4. Rollover risk procedures. The senior occupant will ensure that all personnel are checked for injuries and that injured personnel are given the appropriate medical attention. Report the accident immediately, along with the injury report.

5.4.4.1. Driver. Release the accelerator. Keep hands on steering wheel with extended, but not locked, arms. Tuck head into chest and brace for impact and yell, "ROLLOVER."

5.4.4.2. Passenger(s). Tuck head into chest and brace for impact. Plant feet firmly on the floor while holding onto a stationary object. Yell, "ROLLOVER."

5.4.4.3. Gunner. Drop down. Tuck head into chest and brace for impact. Plant feet firmly on the floor while holding onto a stationary object. Yell, "ROLLOVER."

**Note:** Gunners when operating the turret, limit body protrusion not to exceed name tag.

5.4.5. Use caution on all wet and snowy roads. See AFMAN 24-306 for additional guidance on vehicle operation for varying road conditions.

5.4.6. Off-road driving. For more information on off-road driving and safe vehicle operation guidance, refer to AFMAN 24-306.

5.4.7. Tire Changing Safety.

5.4.7.1. If not done correctly, it can cause serious injury to personnel, as well as damage to the vehicle.

5.4.7.2. Ensure that the vehicle is on a level surface and that wheels are chocked prior to lifting the vehicle.

5.4.7.3. Due to the vehicles heavy weight, tire changes can only be done with the vehicle issued jack, jack stands and tire tools.

5.4.7.4. If pneumatic tools will be used, gloves, eye protection and hearing protection are required.

5.4.7.5. These tires are extremely heavy and it will more than likely require two or three people to remove the spare tire and put the flat back in its place.

5.4.7.6. Ensure tire pressures are checked before each use.

5.4.7.7. Tires are extremely heavy since they are equipped with run flat inserts. Tires need to be torqued as soon as possible after changing.

5.4.8. Backing.

5.4.8.1. Minimize the need for backing.

5.4.8.2. Always use a spotter when backing. The operator must maintain visual contact with the spotter at all times. If visual contact is lost, the operator must immediately stop the vehicle. See AFMAN 24-306 for additional guidance on spotter safety and for AF standard spotter hand signals. **Note:** Tactical environments may prevent the use of a spotter.

**5.5. Vehicle Operation.**

5.5.1. Prepare to take control.

5.5.1.1. Adjust the driver's seat before operating the vehicle.

5.5.1.2. Check/adjust all mirrors for maximum visibility before operating vehicle.

5.5.1.3. Must be in control of the vehicle at all times.

5.5.2. Start the engine.

5.5.2.1. Glow plug preheat.

5.5.2.1.1. Diesel engines are equipped with glow plugs instead of spark plugs. Glow plugs must be allowed to heat up prior to starting the vehicle.

5.5.2.1.2. Turn the key to the on position and look for the glow plug indicator light (two curly pig tails) on the instrument cluster. When the light goes out it is safe to start the vehicle. **Note:** If the glow plugs are not allowed to heat up, permanent damage can occur.

5.5.2.2. Check the instrument panel.

5.5.3. Visibility. Ensure the vehicle is seen. Turn on the headlights when operating the armored vehicle.

5.5.4. 4WD operation.

5.5.4.1. Do not operate 4WD on hard, dry surfaces, as this can cause damage and dangerous driving conditions.

5.5.4.2. Some vehicles are equipped with Electronic Shift on Fly (ESOF), and therefore hubs will not need to be locked. Proper use of ESOF can be found in the operator's manual.

5.5.5. Cruise control. Do not use in icy conditions, rain, low visibility conditions, dangerous road conditions, etc.

5.5.6. Diesel Particulate Filter (DPF).

5.5.6.1. Exhaust filter installed to reduce carbon emissions by trapping exhaust particles prior to the tailpipe. When DPF is nearly full the "Drive to Clean Exhaust Filter" light will be displayed in the instrument cluster.

5.5.6.2. When this occurs the driver will need to drive the vehicle above 30 mph for about an hour until the light goes out. If this is not done, the engine will go into reduced power mode until the filter is cleaned.

5.5.7. Speed limits.

5.5.7.1. Speed limits will be established locally not to exceed 65 mph.

5.5.7.2. Speed limits need to be reasonable and prudent and should be established for both improved and unimproved surfaces.

5.5.8. Spot light (if applicable).

5.5.8.1. The light is controlled by the 4 way joystick/power switch.

5.5.8.2. Vehicle's main power must be in the on position to use the light.

5.5.8.3. Do not aim at windshields, or damage could occur.

5.5.9. Towing. Operators will not attempt to tow/pull, with another vehicle or use this vehicle to tow/pull another vehicle.

**Note:** See manufacturer's operator's manual for additional guidance on armored vehicle operation. Operation procedures will vary based on vehicle manufacturer, model, and exterior/interior configuration and components.

## Section 6—EXPLANATION AND DEMONSTRATION.

### 6.1. Instructor's Preparation.

6.1.1. Establish a training location.

6.1.2. Obtain appropriate vehicle operator's manual.

6.1.3. Schedule/reserve a vehicle.

6.1.4. Ensure trainee completes AF Form 171.

**6.2. Safety Procedures and Equipment.**

6.2.1. The following safety items should be followed by both the instructor and trainee.

6.2.1.1. Chock wheel (if required) when armored vehicle is parked.

6.2.1.2. Remove all jewelry and identification tags.

6.2.1.3. Personal protective equipment and equipment items.

6.2.1.3.1. Safety steel-toed boots must be worn.

6.2.1.3.2. Gloves will be worn during cargo loading and unloading.

6.2.1.3.3. Hearing and eye protection, if applicable.

6.2.1.3.4. Inclement weather gear, if applicable.

6.2.1.3.5. Reflective belt during hours of reduced visibility or on the flightline.

6.2.1.4. Walk around vehicle to become familiar with and to familiarize and the trainee with all warning labels and signs.

6.2.1.5. Ensure trainee wears seat belts.

6.2.1.6. Properly adjust driver’s seat and all mirrors, if available.

6.2.1.7. Throughout demonstration, practice armored vehicle safety.

6.2.2. Practice basic RM process during demonstration:

6.2.2.1. Identify hazards.

6.2.2.2. Assess hazards.

6.2.2.3. Develop controls and make decisions.

6.2.2.4. Implement controls.

6.2.2.5. Supervise and evaluate.

**6.3. Operator Maintenance Demonstration.**

6.3.1. With trainee, accomplish vehicle inspection using AF Form 1800. The vehicle inspection will follow the seven-step method as described in **Attachment 4**. An inspection guide (**Attachment 2**) can be used to ensure all areas of the tractor and trailer are covered in addition to the "Operation Demonstration" guidelines provided below.

**6.4. Operation Demonstration.**

6.4.1. Throughout demonstration:

6.4.1.1. Allow for questions.

6.4.1.2. Repeat demonstrations as needed.

6.4.2. For all armored vehicles, within the training area, demonstrate and explain the following. **Note:** Use information contained on the data plate and/or the operator's manual:

6.4.2.1. Specific armored vehicle capacities.

6.4.2.2. Armored vehicle controls.

6.4.2.3. Point out the items to be inspected during operations.

6.4.2.3.1. Instruments.

6.4.2.3.2. Air pressure gauge (if the vehicle has air brakes).

6.4.2.3.3. Temperature gauges.

6.4.2.3.4. Pressure gauges.

6.4.2.3.5. Ammeter/voltmeter.

6.4.2.3.6. Mirrors.

6.4.2.3.7. Tires.

6.4.3. Demonstrate the following armored vehicle operations on gravel road AND on hard pavement:

6.4.3.1. Rapid straight line stop from 30 mph.

6.4.3.2. Backing. (Use a spotter).

6.4.3.3. Parking.

6.4.3.4. Right turn/left turn.

6.4.4. Show trainee the after operation inspection and report.

6.4.4.1. Ensure vehicle is cleaned.

6.4.4.2. Refuel vehicle.

6.4.4.3. Following manufacturer’s shut-down procedures.

6.4.4.4. Park.

6.4.4.4.1. Apply brakes.

6.4.4.4.2. Place transmission in neutral (park or an automatic).

6.4.4.4.3. Chock wheels (if required), when armored vehicle is parked.

6.4.4.5. Perform a walk-around inspection.

6.4.4.6. Annotate any discrepancies found on AF Form 1800.

6.4.5. Conclude by allowing time for questions and any requested re-demonstrations.

## Section 7—TRAINEE PERFORMANCE AND EVALUATION

### 7.1. Trainee Performance.

7.1.1. Instructor will:

7.1.1.1. Ensure safety at all times. **Note:** Stop training when safety items are violated. Proceed only when the trainee fully understands how to avoid repeating the safety infraction(s).

7.1.1.1.1. Chock wheel (if required) when armored vehicle is parked.

7.1.1.1.2. Remove all jewelry and identification tags.

**Note:** If available, mark vehicle with magnetic sign indicating “Driver-in-Training” or “Trainee Operator.”

7.1.1.2. Personal protective equipment and other items:

7.1.1.2.1. Safety steel-toed boots must be worn.

7.1.1.2.2. Gloves will be worn during cargo loading and unloading.

7.1.1.2.3. Hearing and eye protection, if applicable.

7.1.1.2.4. Reflective belt during hours of reduced visibility or on the flightline.

7.1.1.2.5. Inclement weather gear, if applicable.

7.1.1.3. Pay particular attention to the cautions and warnings listed in the operator's manual.

7.1.1.4. Ensure trainee wears seat belts.

7.1.1.5. Properly adjust driver’s seat and all mirrors.

7.1.1.6. Armored vehicle safety items/procedures.

7.1.1.7. Ensure the driver is aware of driving situations he/she is to perform.

7.1.1.8. Conduct during/after-action reviews with the trainee (demonstration may need to be re-accomplished).

7.1.2. Trainee Performance.

7.1.2.1. Conduct operator maintenance (have trainee explain items being inspected). **Note:** Allow trainee to use **Attachment 2** as a guide while performing inspection.

7.1.2.1.1. Pre-inspection.

7.1.2.1.2. During-inspection.

7.1.2.2. Ensure AF From 1800 is properly documented.

7.1.2.3. Have the trainee describe the following:

7.1.2.3.1. Specific armored vehicle capacities.

7.1.2.3.2. Armored vehicle controls.

7.1.2.4. Have the trainee point out the items to be inspected during operations.

7.1.2.4.1. Instruments.

7.1.2.4.2. Air pressure gauge (if the vehicle has air brakes).

7.1.2.4.3. Temperature gauges.

7.1.2.4.4. Pressure gauges.

7.1.2.4.5. Ammeter/voltmeter.

7.1.2.4.6. Mirrors.

7.1.2.4.7. Tires.

7.1.2.5. Have the trainee demonstrate the following armored vehicle operations on gravel road AND on hard pavement:

7.1.2.5.1. Rapid straight line stop from 30 mph.

7.1.2.5.2. Backing. (Use a spotter).

7.1.2.5.3. Parking.

7.1.2.5.4. Right turn/left turn.

7.1.2.6. Continue until trainee can show proficiency in operating.

7.1.2.7. Trainee will perform after-operation inspection.

7.1.2.7.1. Ensure vehicle cleaned.

7.1.2.7.2. Refueled.

7.1.2.7.3. Following manufacturer's shut-down procedures.

7.1.2.7.4. Park.

7.1.2.7.5. Apply brakes.

7.1.2.7.6. Place transmission in neutral (park or an automatic).

7.1.2.8. Trainee will perform a walk-around inspection.

7.1.2.9. Trainee will report any discrepancies found on AF Form 1800.

**7.2. Performance Evaluation.**

7.2.1. Trainee will perform performance evaluation found in **Attachment 3**.

7.2.1.1. Instructor and trainee will review **Attachment 3**.

7.2.1.2. Instructor will answer trainee's questions.

**Note:** If available, mark vehicle with magnetic sign indicating "Driver-in-Training" or "Trainee Operator".

7.2.2. Instructor will:

7.2.2.1. Ensure safety at all times.

7.2.2.1.1. Place wheel chocks (if required) when armored vehicle is parked,

7.2.2.1.2. Remove all jewelry and identification tags.

7.2.2.2. Personal protective equipment and other items.

7.2.2.2.1. Safety steel-toed boots must be worn.

7.2.2.2.2. Gloves will be worn during cargo loading and unloading.

7.2.2.2.3. Hearing and eye protection.

7.2.2.2.4. Reflective belt during hours of reduced visibility or on the flightline.

7.2.2.2.5. Inclement weather gear, if applicable.

7.2.2.3. Pay particular attention to the cautions and warnings listed in the operator's manual.

7.2.2.4. Ensure trainee wears seat belts.

7.2.2.5. Properly adjust driver’s seat and all mirrors (if available).

7.2.2.6. Armored vehicle safety items/procedures.

7.2.3. Explain driving techniques.

7.2.4. Evaluation will consist of:

7.2.4.1. Conducting operator maintenance (have trainee explain items being inspected). **Note:** Allow trainee to use **Attachment 2** as a guide while performing inspection.

7.2.4.1.1. Pre-inspection.

7.2.4.1.2. During-inspection.

7.2.4.2. Properly documenting AF Form 1800.

7.2.4.3. Trainee describing the following:

7.2.4.3.1. Specific armored vehicle capacities.

7.2.4.3.2. Armored vehicle controls.

7.2.4.4. Trainee demonstrating the following armored vehicle operations on gravel road AND on hard pavement:

7.2.4.4.1. Rapid straight line stop from 30 mph.

7.2.4.4.2. Backing. (Use a spotter).

7.2.4.4.3. Parking.

7.2.4.4.4. Right turn/left turn.

7.2.4.5. Trainee performing after-operation inspection.

7.2.5. Ensure the driver is aware of driving situations.

7.2.6. Conduct after-action reviews with the trainee.

7.2.7. Trainee is not allowed any instructor assists to pass performance evaluation.

7.2.8. Evaluation checklist provided in **Attachment 3**.

7.2.9. Retraining; retrain No-go's.

7.2.9.1. Re-demonstrate No-Go items.

7.2.9.2. Have trainee re-perform until they show proficiency in operating, critique weaknesses as observed.

7.2.9.3. Re-evaluate.

## Attachment 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

***References***
**AFI 24-301**, *Ground Transportation*, 1 November 2018
**AFMAN 24-306**, *Operation of Air Force Government Motor Vehicles*, 9 December 2016
**AFPAM 90-803**, *Risk Management (RM) Guidelines and Tools*, 11 February 2013

***Adopted Forms***
**AF Form 171**, *Request for Driver's Training and Addition to U.S. Government Driver's License*, 1 November 2018
**AF Form 847**, *Recommendation for Change of Publication*, 22 September 2009
**AF Form 1800**, *Operator's Inspection Guide and Trouble Report*, 01 April 2010

***Abbreviations and Acronyms***
**AF—**Air Force
**AFI—**Air Force Instruction
**AFIMSC—**Air Force Installation Mission Support Center
**AFMAN—**Air Force Manual
**AFQTP—**Air Force Qualification Training Plan
**DPF—**Diesel Particulate Fuel
**HMMWV—**High Mobility Multipurpose Wheeled Vehicle
**IAW—**In Accordance With
**MPH—**Miles per Hour
**PA—**Public Address
**PSI—**Pounds per Square Inch
**RM—**Risk Management
**TO—**Technical Order
**VCO—**Vehicle Control Official
**4WD—**Four Wheel Drive

**Attachment 2**

**ARMORED VEHICLE INSPECTION GUIDE**

GENERAL

STEP 1. VEHICLE OVERVIEW

☐ Paperwork
- AF Form 1800
- Discrepancy Correction Complete (VM Annotation)

☐ Vehicle Approach
- Cleanliness
- Damage
- Vehicle Leaning
- Fresh Leakage of Fluids
- Hazards Surrounding Vehicle

INTERNAL

STEP 2. ENGINE COMPARTMENT

☐ Leaks/hoses/Electrical Wiring Insulation
☐ Oil Level
☐ Coolant Level
☐ Power Steering Fluid
☐ Windshield Washer Fluid
☐ Battery Fluid Level, Connections & Tie-downs
☐ Power Inverter/Inverter Vehicle Battery Charge Feature
☐ Automatic Transmission Fluid Level
☐ Engine Compartment Belts

STEP 3. ENGINE START/CAB CHECK (LEFT/FRONT/RIGHT)

☐ Safe Start
☐ Gauges
- Oil Pressure Gauge
- Air Pressure Gauge
- Temperature Gauge (Coolant/Engine Oil)
- Ammeter/Voltmeter

☐ Warning Lights & Buzzers
☐ Blackout Features.
☐ Radio.
☐ Thermal Imaging System.
☐ Mirrors & Windshield
☐ Wipers/Washers

☐ Emergency & Safety Equipment
- Properly Charged & Rated Fire Extinguisher
- Optional (Chains/Tire Changing Equip, Emergency Phone List)

☐ **3B** – Lights/Reflectors/Reflector Tape Condition (Front/Sides/Rear)

(Dash Indicators for:)
- Left Turn Signal
- Right Turn Signal
- Four-Way Emergency Flashers
- High Beam Headlight
- Spotlight
- Clearance Lights
- Wig Wags/Strobes

(Reflective Clean & Functional Light & Reflector Checks Include:)
- Headlights
- Taillights
- Backing Lights
- Turn Signals
- Four-Way Flashers
- Spotlight
- Wig Wags/Strobes
- Brake Lights
- Red Reflectors & Amber Reflectors
- Reflective Tape Condition

☐ Horn

☐ Siren/PA

☐ Heater/Defroster

☐ Brakes
- Parking Brake Check
- Hydraulic Brake Check
- Service Brake Check

☐ Safety Belt

(TURN-OFF ENGINE/TURN-ON HEADLIGHTS *LOW BEAM* AND FOUR-WAY FLASHERS)

<u>STEP 4. WALK-AROUND INSPECTION</u>

☐ **4A** – Steering
- Steering Box/Hoses
- Steering Linkages

☐ **4B** – Suspension
- Springs/Air/Torque
- Mounts
- Shock Absorbers

☐ **4C** – Brakes
- Brake Chambers
- Brake Hoses/Lines
- Drum Brake
- Brake Linings

☐ **4D** – Wheels
- Rims
- Tires
- Hub Oil Seals/Axle Seals
- Lug Nuts
- Tire Pressure

SIDE OF VEHICLE

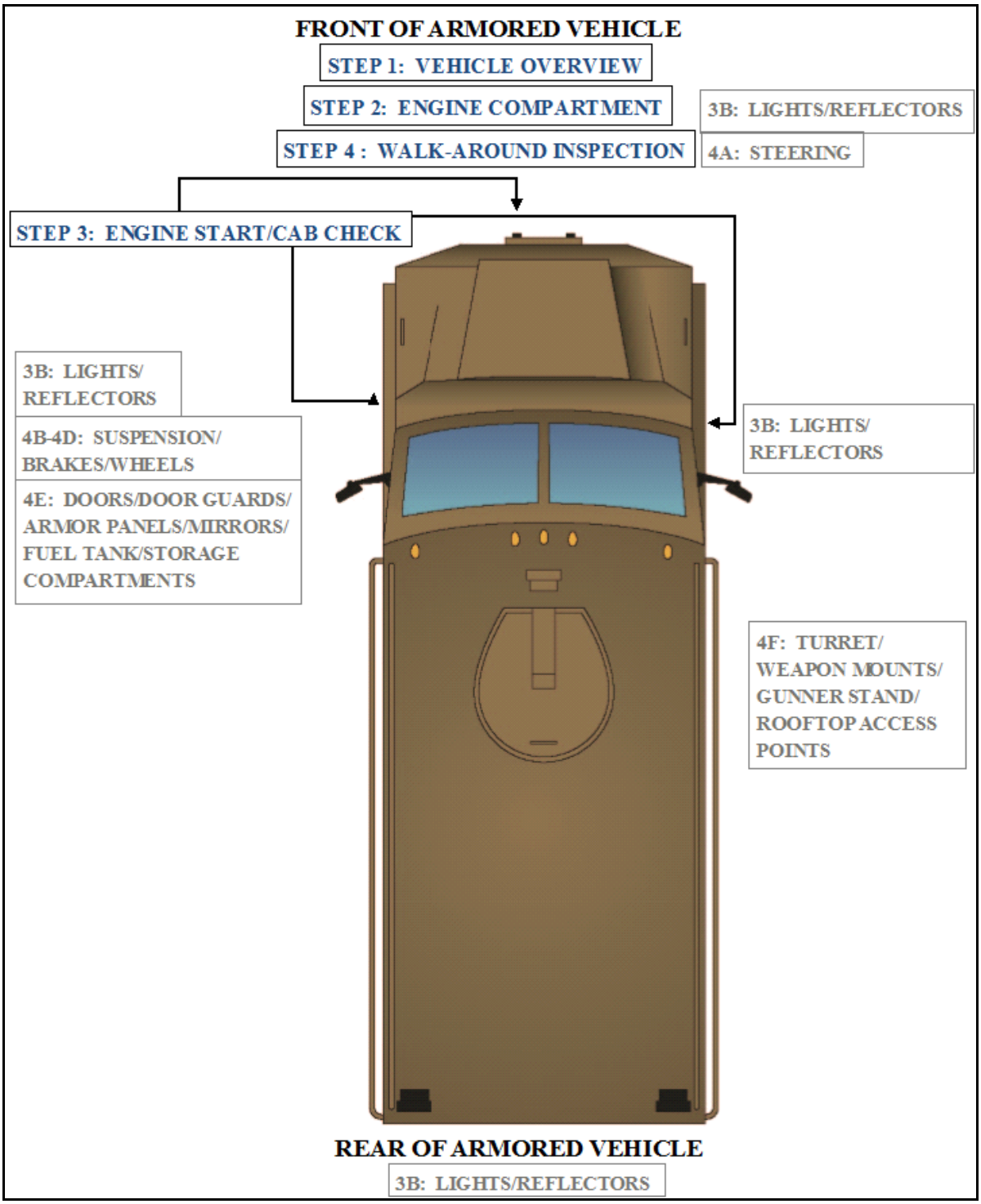
☐ **4E** – Doors
☐ **4E** – Door Guards
☐ **4E** – Armor Panels
☐ **4E** – Mirrors
☐ **4E** – Fuel Tank
☐ **4E** – Fuel Tank Door
☐ **4E** – Firing Ports
☐ **4E** – Storage Compartments

TOP OF VEHICLE

☐ **4F** – Turret
☐ **4F** – Weapon Mounts
☐ **4F** – Gunner Stand
☐ **4F** – Rooftop Access Points

REAR OF VEHICLE

**Figure A2.1. Armored Vehicle Inspection Guide.**



## Attachment 3

## PERFORMANCE TEST

**A3.1. Desired Learning Outcome.**

A3.1.1. Understand the safety precautions to be followed pre-, during-, and post-operation of the armored vehicle.

A3.1.2. Understand the purpose of the armored vehicle and their role in the mission.

A3.1.3. Know the proper operator maintenance procedures of the armored vehicle, IAW applicable technical orders and use of AF Form 1800.

A3.1.4. Safely and proficiently operate the armored vehicle.

**A3.2. Instructions.** Before beginning the performance test, the trainer will brief the trainee on the scenario the trainee will need to accomplish. He/she will be given additional directions and instructions as needed to proceed through the scenario.

**A3.3. Scoring.**

A3.3.1. The trainer examiner will be scoring on armored vehicle operations and also the general safe driving practices. The examiner will give directions and instructions to the trainee in sufficient time for to execute a driving maneuver. He/she will not be asked to drive in an unsafe manner.

A3.3.2. The examiner will be making various marks on the performance test checklist. This does not necessarily mean the trainee have done anything wrong. It is in the best interest to concentrate on the operation of the armored vehicle. The trainer will explain the test results to the trainee at the conclusion of the performance test.

A3.3.3. Tasks being graded are listed on the following page; the trainee will be required to successfully pass all items.

A3.3.4. The instructor will stop the test at any time safe armored vehicle operations are not being followed or as deemed necessary for safety concerns.

**Figure A3.1. Performance Test Checklist:**

| PERFORMANCE TEST | | | |
|---|---|---|---|
| **Trainees Name:** | | **Date:** | |
| **Event** | **Go** | **No Go** | **Notes** |
| **1. PRE, DURING, AND POST- OPERATION INSPECTION** | | | |
| 1.1. Operator has required Personal Protective Equipment. | | | |
| 1.2. Follows general pattern of pre-trip checklist. | | | |
| 1.3. Performs brake component check | | | |
| 1.4. Signs AF Form 1800 to signify accomplishment of complete inspection. | | | |
| 1.5. Cleans windshield, windows, mirrors, lights and reflectors | | | |
| 1.6. Continues during operations inspection checks. | | | |
| 1.7. Knows use of jacks, tools, emergency devices, tire chains, fire extinguishers, etc. | | | |
| 1.8. Engine. | | | |
| Uses proper starting procedures. | | | |
| Allows proper warm-up. | | | |
| Understands all gauges. | | | |
| Uses proper shutdown procedures. | | | |
| Basic knowledge of engines. | | | |
| 1.9. Performs post trip inspection and reports malfunctions to Vehicle Management. | | | |
| **Event** | **Go** | **No Go** | **Notes** |
| **2. ON-ROAD DRIVING TEST** | | | |
| 2.1. General - safety belt is used; obeys all traffic signs, signals, and laws; completes test without an accident or moving violation. | | | |
| 2.2. Gravel Road. | | | |
| 2.2.1. Rapid straight line stop from 30 mph. | | | |

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| 2.2.2. Backing. | | | |
| Positions vehicle properly. | | | |
| Inspects vehicle before backing. | | | |
| Posts spotter/uses spotter correctly. | | | |
| Uses mirrors properly. | | | |
| Avoids blind side backing. | | | |
| Controls speed. | | | |
| 2.2.3. Parking. | | | |
| Checks traffic position before parking. | | | |
| Secures truck properly. | | | |
| Parks legally and safely. | | | |
| Pulls completely off pavement when possible. | | | |
| Knows proper use of emergency warning devices. | | | |
| Uses emergency warning devices. | | | |
| 2.2.4. Right turn/left turn. | | | |
| 2.3. Hard Pavement. | | | |
| 2.3.1. Rapid straight line stop from 30 mph. | | | |
| 2.3.2. Backing. | | | |
| Positions vehicle properly. | | | |
| Inspects vehicle before backing. | | | |
| Posts spotter/uses spotter correctly. | | | |
| Uses mirrors properly. | | | |
| Avoids blind side backing. | | | |
| Controls speed. | | | |
| 2.3.3. Parking. | | | |
| Checks traffic position before parking. | | | |
| Secures vehicle properly. | | | |
| Parks legally and safely. | | | |
| Pulls completely off pavement when possible. | | | |
| Knows proper use of emergency warning devices. | | | |
| Uses emergency warning devices. | | | |
| 2.3.4. Right turn/left turn. | | | |

**CERTIFIER COMMENTS:**

## Attachment 4

## SEVEN-STEP INSPECTION PROCESS

**Figure A4.1. Seven-Step Inspection Process.**

| Seven-Step Inspection Process | |
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| **Step** | **Procedure** |
| 1. Vehicle Overview | • Review the AF Form 1800.<br>o Ensure any discrepancy has been corrected.<br>o Vehicle Management annotated the discrepancy was completed.<br>o Approaching the vehicle.<br>▪ Damage or vehicle leaning to one side.<br>▪ Fresh leakage of fluids.<br>▪ Hazards around vehicle. |
| 2. Check Engine Compartment | • **Note:** Check that the parking brakes are on and/or wheels chocked. The operator may have to raise the hood, tilt the cab (secure loose things so they don't fall and break something), or open the engine compartment door.<br>• Check the following:<br>o Engine oil level.<br>o Coolant level in radiator; condition of hoses.<br>o Power steering fluid level; hose condition (if so equipped).<br>o Windshield washer fluid level.<br>o Battery fluid level, connections and tie-downs (battery may be located elsewhere).<br>o Automatic transmission fluid level (may require engine to be running).<br>o Check belts for tightness and excessive wear (alternator, water pump, air compressor)--learn how much "give" the belts should have when adjusted right. |

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| | o Leaks in the engine compartment (fuel, coolant, oil, power steering fluid, hydraulic fluid, battery fluid). Cracked, worn electrical wiring insulation. |
| 3. Start Engine and Inspect Inside the Cab (Get in and Start Engine) | • Make sure parking brake is on.<br>• Put gearshift in neutral (or park if automatic). Start engine; listen for unusual noises.<br>• If equipped, check the Anti-lock Braking System (ABS) indicator lights. Light on dash should come on and then turn-off. If it stays on the ABS is not working properly.<br>• Look at the gauges.<br>o Oil pressure. Should come up to normal within seconds after engine is started.<br>o Ammeter and/or voltmeter. Should be in normal range(s).<br>o Coolant temperature. Should begin gradual rise to normal operating range.<br>o Engine oil temperature. Should begin gradual rise to normal operating range.<br>o Warning lights and buzzers. Oil, coolant, charging circuit warning, and antilock brake system lights should go out right away.<br>o Check Condition of Controls. Check all of the following for looseness, sticking, damage, or improper setting:<br>▪ Steering wheel.<br>▪ Accelerator (gas pedal).<br>▪ Brake controls.<br>▪ Foot brake.<br>▪ Trailer brake (if vehicle has one).<br>▪ Parking brake.<br>▪ Transmission controls.<br>▪ Interaxle differential lock (if vehicle has one).<br>▪ Horn(s).<br>▪ Windshield wiper/washer.<br>▪ Lights. |

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| | ▪ Headlights.<br>▪ Dimmer switch.<br>▪ Turn signal.<br>▪ Four-way flashers.<br>▪ Parking – clearance – identification – marker switch (switches).<br>• Check mirrors and windshield.<br>o Inspect mirrors and windshield for cracks, dirt, illegal stickers, or other obstructions to seeing clearly. Clean and adjust as necessary.<br>• Check emergency equipment.<br>o Check for safety equipment:<br>▪ Properly charged and rated fire extinguisher. Check for optional items such as:<br>▪ Chains (where winter conditions require).<br>▪ Tire changing equipment.<br>▪ List of emergency phone numbers Accident reporting kit (packet).<br>o Check safety belt. Check that the safety belt is securely mounted, adjusts; latches properly and is not ripped or frayed. |
| 4. Turn-off Engine | • Make sure the parking brake is set, turn-off the engine, and take the key with.<br>• Turn-on headlights (low beams) and four-way emergency flashers, and get out of the vehicle. |

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| 5. Do Walk-Around Inspection | • General.<br>o Go to front of vehicle and check that low beams are on and both of the four-way flashers are working.<br>o Push dimmer switch and check that high beams work.<br>o Turn-off headlights and four-way emergency flashers.<br>o Turn-on parking, clearance, side-marker, and identification lights.<br>o Turn-on right turn signal, and start walk-around inspection.<br>o Walk around and inspect.<br>▪ Clean all lights, reflectors, and glass as while doing the walk-around inspection.<br>• Left front side.<br>o Driver's door glass should be clean.<br>o Door latches or locks should work properly.<br>• Left front wheel.<br>o Condition of wheel and rim--missing, bent, broken studs, clamps, lugs, or any signs of misalignment.<br>o Condition of tires--properly inflated, valve stem and cap OK, no serious cuts, bulges, or tread wear.<br>o Use wrench to test rust-streaked lug nuts, indicating looseness.<br>o Hub oil level OK, no leaks. Left front suspension.<br>o Condition of spring, spring hangers, shackles,<br>o U-bolts.<br>o Shock absorber condition.<br>• Left front brake.<br>o Condition of brake drum or disc.<br>o Condition of hoses.<br>• Front.<br>o Condition of front axle. Condition of steering system.<br>o No loose, worn, bent, damaged, or missing parts.<br>o Must grab steering mechanism to test for looseness.<br>o Condition of windshield. |

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| | o Check for damage and clean if dirty.<br>o Check windshield wiper arms for proper spring tension.<br>o Check wiper blades for damage, "stiff" rubber, and securement.<br>o Lights and reflectors.<br>o Parking, clearance, and identification lights clean, operating, and proper color (amber at front).<br>o Reflectors clean and proper color (amber at front).<br>o Right front turn signal light clean, operating, and proper color (amber or white on signals facing forward).<br>• Right side<br>o Right front: check all items as done on left front.<br>o Primary and secondary safety cab locks engaged<br>o Right fuel tank(s).<br>o Securely mounted, not damaged, or leaking. Fuel crossover line secure.<br>o Tank(s) contain enough fuel. Cap(s) on and secure.<br>o Condition of visible parts. Rear of engine--not leaking. Transmission--not leaking.<br>o Exhaust system--secure, not leaking, not touching wires, fuel, or air-lines.<br>o Frame and cross members--no bends or cracks.<br>o Spare tire carrier or rack not damaged (if so equipped).<br>o Spare tire and/or wheel securely mounted in rack.<br>o Spare tire and wheel adequate (proper size, properly inflated).<br>o Cargo securement<br>• Right rear.<br>o Condition of wheels and rims--no missing, bent, or broken spacers, studs, clamps, or lugs.<br>o Condition of tires--properly inflated, valve stems and caps OK, no serious cuts, bulges, tread wear, tires not |

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| | rubbing each other, and nothing stuck between them.<br>o Tires same type, e.g., not mixed radial and bias types.<br>o Tires evenly matched (same sizes). Wheel bearing/seals not leaking.<br>o Suspension.<br>o Condition of spring(s), spring hangers, shackles, and u-bolts.<br>o Axle secure.<br>o Powered axle(s) not leaking lube (gear oil). Condition of torque rod arms, bushings.<br>o Condition of shock absorber(s).<br>o If retractable axle equipped, check condition of lift mechanism. If air powered, check for leaks.<br>o Condition of air ride components.<br>o Brakes.<br>o Brake adjustment.<br>o Condition of brake drum(s) or discs.<br>o Condition of hoses--look for any wear due to rubbing.<br>o Lights and reflectors.<br>o Side-marker lights clean, operating, and proper color (red at rear, others amber).<br>o Side-marker reflectors clean and proper color (red at rear, others amber).<br>• Rear.<br>o Lights and reflectors.<br>o Rear clearance and identification lights clean, operating, and proper color (red at rear).<br>o Reflectors clean and proper color (red at rear).<br>o Taillights clean, operating, and proper color (red at rear).<br>o Right rear turn signal operating, and proper color (red, yellow, or amber at rear).<br>o License plate(s) present, clean, and secured. |

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| | o Splash guards present, not damaged, properly fastened, not dragging on ground, or rubbing tires.<br>o End gates free of damage, properly secured in stake sockets.<br>o Rear doors securely closed, latched/locked.<br>• Left side.<br>o Check all items as done on right side, plus:<br>o Battery (batteries) (if not mounted in engine compartment).<br>o Battery box (boxes) securely mounted to vehicle. Box has secure cover.<br>o Battery (batteries) secured against movement. Battery (batteries) not broken or leaking.<br>o Fluid in battery (batteries) at proper level (except maintenance-free type).<br>o Cell caps present and securely tightened (except maintenance-free type).<br>o Vents in cell caps free of foreign material (except maintenance-free type). |
| 6. Check Signal Lights | • Get in and turn-off all lights.<br>•<br>• Turn-on left turn signal lights.<br>• Get out and check lights.<br>• Left front turn signal light clean, operating and proper color (amber or white on signals facing the front).<br>• Left rear turn signal light and both stop lights clean operating, and proper color (red, yellow, or amber).<br>• Get in vehicle.<br>o Turn-off lights not needed for driving.<br>o Check for all required papers, trip manifests, permits, etc.<br>o Secure all loose articles in cab (they might interfere with operation of the controls or hit the operator in a crash).<br>o Start the engine. |

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| 7. Start the Engine and Check Test for Hydraulic Leaks | • Test for hydraulic leaks.<br>o If the vehicle has hydraulic brakes, pump the brake pedal three times.<br>o Then apply firm pressure to the pedal and hold for five seconds.<br>o The pedal should not move. If it does, there may be a leak or other problem.<br>• Brake system.<br>• Test parking brake.<br>o Fasten safety belt.<br>o Set parking brake (power unit only). Place vehicle into a low gear.<br>o Gently pull forward against parking brake to make sure the parking brake holds.<br>o If it doesn't hold vehicle, it is faulty; get it fixed.<br>• Test service brake stopping action.<br>o Go about 5 miles per hour.<br>o Push brake pedal firmly.<br>o "Pulling" to one side or the other can mean brake trouble.<br>o Any unusual brake pedal "feel" or delayed stopping action can mean trouble.<br>o If the trainee finds anything unsafe during the Vehicle inspection, get it fixed. Federal and state laws forbid operating an unsafe vehicle.<br>• Check vehicle operation regularly:<br>o Instruments.<br>o Pressure gauges. Ammeter/voltmeter.<br>o Mirrors.<br>o Tires.<br>o If the trainee sees, hears, smells, or feels anything that might mean trouble, he/she should check it out.<br>• Safety inspection.<br>• Document any discrepancy on AF Form 1800. Sign-off AF Form 1800 to signify accomplishment of inspection. |