DEPARTMENT OF THE AIR FORCE **QTP24-3-C278**
Headquarters US Air Force **14 January 2019**
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Specialty Recreational Vehicle

Vehicle Management Codes: C278, C302, C318

QUALIFICATION TRAINING PACKAGE

CONTENTS

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 5** 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 specialty recreational vehicles.

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

3.2. Desired Learning Outcomes.

3.2.1. Understand the safety precautions to be followed pre-, during-, and post- operation of the specialty recreational vehicle.

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

3.2.3. Know the proper operator maintenance procedures of the specialty recreational 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 specialty recreational vehicle.

3.3. Lesson Duration.

3.3.1. Recommended instructional and hands on training time is 27 hours:

Figure 3.1. Recommended Training Time for Training Activities.

Training Activity	Training Time
Trainee's Preparation	2 Hours
Instructor's Lecture and Demonstration	3 Hours
Trainee's Personal Experience (to build confidence and proficiency) ▪ Perform Operator Maintenance ▪ Operate the Vehicle	20 Hours
Trainee's Performance Evaluation	2 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.

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

3.4.2.1. TO 36-1-191.

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. The State's Commercial Driver's License (CDL) Manual (most can be downloaded from the internet) for vehicles with a GVWR of 26,001 lbs. or more or that carries 16 or more passengers.

3.4.6. Special references based-off type of vehicle.

3.5. Instructional Training Aids and Equipment.

3.5.1. Specialty Recreational Vehicle Lesson Plan.

3.5.2. Specialty recreational vehicle (mobile emergency operations center (MEOC) truck, mobile command center, blood donor 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. 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 demonstration, 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 specialty recreational vehicles.

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

5.1.2. Desired learning outcomes:

5.1.2.1. Understand the safety precautions to be followed pre-, during-, and post-operation of the specialty recreational vehicles.

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

5.1.2.2.1. Purpose various based on vehicle type (passenger movement, blood donation services support, emergency support services, etc.).

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

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

5.1.3.1. A specialty recreational vehicle is a large wheeled vehicle, intended to carry numerous persons and specialty and/or communication equipment.

5.1.3.2. Common components of specialty recreational vehicles:

5.1.3.2.1. Truck (engine/chassis and cab).

5.1.3.2.2. Air brakes.

5.1.3.2.2.1. Brake-lock switch.

5.1.3.2.2.2. Gauge.

5.1.3.2.2.3. Warning buzzer.

5.1.3.2.3. Body (common components).

5.1.3.2.3.1. Each handhold and railing.

5.1.3.2.3.2. Floor covering.

5.1.3.2.3.3. Signaling devices.

5.1.3.2.3.4. Emergency exit handles.

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 5** 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.

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

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

5.2.3.1.3.2. Make sure clamps and fittings are tight.

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

5.2.3.1.4. Fluid levels; ensure level is within limits:

5.2.3.1.4.1. Engine oil.

5.2.3.1.4.2. Coolant.

5.2.3.1.4.3. Hydraulic fluid.

5.2.3.1.4.4. Power steering fluid.

5.2.3.1.4.5. Transmission fluid.

5.2.3.1.4.6. Antifreeze.

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

5.2.3.1.6. Check all bolts, nuts, and screws.

5.2.3.1.6.1. If loose, bent, broken, or missing, either tighten or report conditions to the VCO or Vehicle Management.

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

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

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

5.2.3.1.9. All tires.

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

5.2.3.1.9.2. Sidewalls, tread.

5.2.3.1.9.3. Cuts and abrasions.

5.2.3.1.9.4. Lug nuts.

5.2.3.1.10. Transmission.

5.2.3.1.11. Drive belts; tension and fraying.

5.2.3.1.12. All hoses and wiring.

5.2.3.1.13. Differential, shocks and brakes for leaks.

5.2.3.1.14. Suspension, springs and shocks.

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

5.2.3.1.16. Horn operation.

5.2.3.1.17. Control panel.

5.2.3.1.18. Heater/defroster.

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

5.2.3.1.19.1. Look for bare wires and loose or broken connections.

5.2.3.1.20. Mirrors.

5.2.3.1.21. Windshield and windshield wipers/washers.

5.2.3.1.22. Doors.

5.2.3.1.23. Windows.

5.2.3.1.24. Hood latches.

5.2.3.1.25. Seatbelts.

5.2.3.1.26. 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.

5.2.3.2.2. 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. Post-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. Traffic due to size and weight.

5.3.1.2. Jerky starts and stops.

5.3.1.3. Traveling too fast and turning too sharply.

5.3.1.4. Overhead clearance.

5.3.1.5. Rollover risk.

5.3.2. Safety Clothing and Equipment:

5.3.2.1. Safety steel-toed boots must be worn.

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

5.3.2.3. First aid kit.

5.3.2.4. Inclement weather gear, if applicable.

5.3.2.5. Hearing/eye protection, if applicable.

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

5.3.2.7. Fire extinguisher.

5.3.2.8. AF Form 1800.

5.4. Driving Safety and Precautions.

5.4.1. 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.

5.4.2. General operational safety:

5.4.2.1. No personnel shall be allowed to ride anywhere, except in the main cab of the specialty recreational vehicle.

5.4.2.2. Do not exceed designed seating capacity.

5.4.2.3. Warning lights use:

5.4.2.3.1. Passenger pick up and drop off sites.

5.4.2.3.2. Railroad crossings.

5.4.2.4. Minimize the need for backing.

5.4.2.4.1. Always check the rear before backing.

5.4.2.4.2. Always use a spotter.

5.4.2.4.3. The operator must maintain visual contact with the spotter at all times. If visual contact is lost, the operator will stop the vehicle immediately.

5.4.2.4.4. Refer to AFMAN 24-306 for additional spotter safety guidance and standard AF spotter hand signals.

5.4.2.5. When mounting or dismounting equipment, use steps and handholds provided. Do not jump from vehicle.

5.4.2.6. Perform loading/unloading operations from curbside to the maximum extent possible.

5.4.2.7. Do not overload the specialty recreational vehicle, and always use proper engine speed and gear ratio to move the load.

5.4.2.8. Do not leave the specialty recreational vehicle unattended with the engine running. Shut off engine and set the parking brake when equipment is not in use.

5.5. Vehicle Operation.

5.5.1. Starting procedures.

5.5.1.1. Fasten seatbelts, adjust seats, and adjust mirrors.

5.5.1.2. Place gear selector in neutral and ensure the parking brake is applied.

5.5.1.3. Turn ignition to ON position.

5.5.1.3.1. Further turning of ignition engages starter.

5.5.1.3.2. Turn the ignition switch to the start position.

5.5.1.3.3. When the engine starts, release the ignition switch.

Note: Do not engage the starter for more than 30 seconds at a time. If engine does not start within 30 seconds, allow the starter 2 minutes to cool down.

5.5.1.4. When the engine is running, check the oil pressure.

5.5.1.4.1. If no oil pressure is detected, turn the engine off and investigate.

5.5.1.5. Check air pressure gauge.

Note: Do not attempt to move the vehicle until pressure has reached the appropriate psi for normal operating listed in the manufacturer's operator's manual.

5.5.1.6. When the engine has been started, watch the gauges to ensure proper oil pressure and proper charging level. Let the engine idle until the engine reaches operating temperature.

5.5.1.7. Check mirrors to ensure the step, awning, and slide-outs are secured.

5.5.1.8. Check all lights, sirens, horns, and turn-signals.

5.5.2. Leveling operations.

5.5.2.1. With the vehicle in neutral, push the auto-level button. (This will deploy auto-leveling jacks.) The red indicator light will illuminate when the vehicle is level.

5.5.2.2. The leveling jacks can be operated manually should the auto button fail.

5.5.3. Transporting passengers.

5.5.3.1. If present, the following components must be in safe working condition, especially the following:

5.5.3.1.1. Each handhold and railing.

5.5.3.1.2. Floor covering.

5.5.3.1.3. Signaling devices.

5.5.3.1.4. Emergency exit handles.

5.5.3.1.5. The seats must be safe for riders.

5.5.3.2. Loading passengers:

5.5.3.2.1. Activate the amber lamps of the eight-lamp flashing signal system.

5.5.3.2.2. Check the position of all passengers and others in the area traffic.

5.5.3.2.3. Approach waiting passengers with extreme care.

5.5.3.2.3.1. Stop the vehicle parallel to and within 12 inches of the curb, if one exists.

5.5.3.2.3.2. Come to a complete stop, keep the brake pedal depressed.

5.5.3.2.3.3. Put the transmission in the Neutral (N) position.

5.5.3.2.3.4. Set the park brake.

5.5.4. Specialty recreational vehicle evacuation.

5.5.4.1.1. The most important part of evacuation is having a plan. In many emergencies only 2 to 5 minutes is available to complete an evacuation before possible serious injury to passengers might occur.

5.5.4.1.2. The operator must direct the evacuation in order to avoid unnecessary injury to passengers. It is possible for passengers to block the emergency door if they are all trying to get out at the same time.

5.5.4.1.3. As the operator, be assertive and confident in giving directions. Depending on the situation, the operator may want to appoint an evacuation assistant chosen quickly upon initiating evacuation.

5.5.5. Shutdown procedures.

5.5.5.1. Bring vehicle to a complete stop.

5.5.5.2. Set parking brake and place transmission in neutral.

5.5.5.3. Allow engine 3 to 5 minutes to cool down.

5.5.5.4. Turn ignition switch off.

5.5.5.5. Inspect vehicle for damage.

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 specialty recreational 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. First aid kit.

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.

6.2.1.3.6. Hearing protection, if required.

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 belt.

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

6.2.1.7. Throughout demonstration, practice specialty recreational vehicle safety.

6.2.2. Practice basic AF 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 5**. An inspection guide (**Attachment 2**) can be used to ensure all areas of the specialty recreational vehicle 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 specialty recreational 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 specialty recreational vehicle capacities: Explain parking brake as they apply to specialty recreational vehicle being used.

6.4.2.2. Specialty recreational vehicle controls.

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

6.4.3. Demonstrate the following specialty recreational vehicle operations (use spotter when backing).

6.4.3.1. Forward stop.

6.4.3.2. Backing.

6.4.3.2.1. Straight line backing.

6.4.3.2.1.1. Back vehicle in a straight line between two rows.

6.4.3.2.1.2. Bring vehicles to a complete stop as close to the boundary.

6.4.3.2.2. Offset back – Left.

6.4.3.2.3. Offset back – Right.

6.4.3.3. Parking.

6.4.3.4. Right turn.

6.4.3.4.1. Drive forward and make a right turn around a cone.

6.4.3.4.2. Bring right rear wheel(s) of the vehicle as close to the base of the cone as possible without hitting it.

6.4.4. Demonstrate use of specialty recreational vehicle assets, as required for specific vehicle type.

6.4.5. With the specialty recreational vehicle, demonstrate driving on a road course.

6.4.5.1. Turns (4 Left/4 Right).

6.4.5.2. Intersections.

6.4.5.3. Urban/rural straight.

6.4.5.4. Expressway.

6.4.5.5. Start/stop.

6.4.5.6. Upgrades.

6.4.5.7. Downgrades.

6.4.5.8. Railroad crossing (1).

6.4.6. Show trainee the after operation inspection and report.

6.4.6.1. Ensure vehicle is cleaned.

6.4.6.2. Refuel vehicle.

6.4.6.3. Following manufacturer’s shut-down procedures.

6.4.6.4. Park.

6.4.6.4.1. Apply brakes.

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

6.4.6.5. Perform a walk-around inspection.

6.4.6.6. Annotate any discrepancies found on AF Form 1800.

6.4.7. 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 specialty recreational 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. First aid kit.

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 belt.

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

7.1.1.6. Specialty recreational 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.

7.1.2.2.1. Establish a road course that will have the following: (if the course does not have one of the following, then the trainee should be able to explain the correct driving techniques).

7.1.2.2.1.1. Turns (4 Left/4 Right).

7.1.2.2.1.2. Lane change maneuvers (2).

7.1.2.2.1.3. Intersections.

7.1.2.2.1.4. Urban/rural straight.

7.1.2.2.1.5. Expressway.

7.1.2.2.1.6. Start/stop.

7.1.2.2.1.7. Upgrades.

7.1.2.2.1.8. Downgrades.

7.1.2.2.1.9. Railroad crossing (1).

7.1.2.2.1.10. Backing.

7.1.2.2.1.10.1. Straight line backing.

7.1.2.2.1.10.2. Offset back-left.

7.1.2.2.1.10.3. Offset back-right.

Note: When backing, serve as the trainee's spotter, or if available, have another trainee be the spotter.

7.1.2.2.1.11. Parking.

7.1.2.2.2. Continue until trainee can show proficiency in operating.

7.1.2.3. Have trainee practice the specialty recreational vehicle operations listed below (use spotter when backing) until they can safely and efficiently perform.

7.1.2.4. Establish a road course and operate the specialty recreational vehicle until trainee performs safely and efficiently, the course should include the following:

7.1.2.4.1. Turns (4 Left/4 Right).

7.1.2.4.2. Lane change maneuvers (2).

7.1.2.4.3. Intersections.

7.1.2.4.4. Urban/rural straight.

7.1.2.4.5. Expressway.

7.1.2.4.6. Start/stop.

7.1.2.4.7. Upgrades.

7.1.2.4.8. Downgrades.

7.1.2.4.9. Railroad crossing (1).

7.1.2.4.10. Backing.

7.1.2.4.10.1. Straight line backing.

7.1.2.4.10.2. Offset back-left.

7.1.2.4.10.3. Offset back-right.

7.1.2.4.11. Parking.

7.1.2.5. Perform post-operation inspection.

7.1.2.5.1. Ensure vehicle cleaned.

7.1.2.5.2. Refueled.

7.1.2.5.3. Following manufacturer's shut-down procedures.

7.1.2.5.4. Park.

7.1.2.5.5. Apply brakes.

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

7.1.2.6. Perform a walk-around inspection.

7.1.2.7. 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** and **Attachment 4**.

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 specialty recreational 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. First aid kit.

7.2.2.2.4. Inclement weather gear, if applicable.

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

7.2.2.3. Ensure trainee wears seat belt.

7.2.2.4. Properly adjust driver's seat and all mirrors (if available).

7.2.2.5. Specialty recreational vehicle safety items/procedures.

7.2.3. Explain driving techniques.

7.2.4. Establish a road course that will have the following: (if the course does not have one of the following, then the trainee should be able to explain the correct driving techniques).

7.2.4.1. Establish a road course that will have the following: (if the course does not have one of the following, then the trainee should be able to explain the correct driving techniques).

7.2.4.1.1. Turns (4 Left/4 Right).

7.2.4.1.2. Lane change maneuvers (2).

7.2.4.1.3. Intersections (2 through/2 requiring stopping the bus).

7.2.4.1.4. Urban/rural straight.

7.2.4.1.5. Expressway.

7.2.4.1.6. Upgrades.

7.2.4.1.7. Downgrades.

7.2.4.1.8. Railroad crossing (1).

7.2.4.1.9. Backing.

7.2.4.1.9.1. Straight line backing.

7.2.4.1.9.2. Offset back-left.

7.2.4.1.9.3. Offset back-right.

7.2.4.1.10. Parking.

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

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*
AF Form 1800, *Operator's Inspection Guide and Trouble Report*

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
CDL—Commercial Driver's License
IAW—In Accordance With
MEOC—Mobile Emergency Operations Center
RM—Risk Management
TO—Technical Order
VCO—Vehicle Control Official

Attachment 2

SPECIALTY RECREATIONAL VEHICLE INSPECTION GUIDE

GENERAL

STEP 1. VEHICLE OVERVIEW

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

☐ Vehicle Approach
- 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
☐ Hydraulic Fluid.
☐ Battery Fluid Level, Connections & Tie-downs
☐ 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
☐ Mirrors & Windshield
☐ Wipers/Washers
☐ Emergency & Safety Equipment
- Red Reflective Triangles
- 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
- ABS Indicator (If equipped)
- Clearance Lights

(Reflective Clean & Functional Light & Reflector Checks Include:)

- Headlights
- Taillights
- Backing Lights
- Turn Signals
- Four-Way Flashers
- Brake Lights
- Red Reflectors & Amber Reflectors
- Reflective Tape Condition

☐ Horn
☐ Heater/Defroster
☐ Brakes

- Parking Brake Check
- Hydraulic Brake Check
- Air Brake Check (if equipped)
- Service Brake Check
- Safety Belt

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

STEP 4. WALK-AROUND INSPECTION

☐ **4A** – Steering

- Steering Box/Hoses
- Steering Linkages

☐ **4B** – Suspension

- Springs/Air/Torque
- Mounts
- Shock Absorbers

☐ **4C** – Brakes

- Slack Adjustors & Pushrods
- Brake Chambers
- Brake Hoses/Lines
- Drum Brake
- Brake Linings

☐ **4D** – Wheels

- Rims
- Tires
- Hub Oil Seals/Axle Seals
- Lug Nuts
- Spacers & Budd Spacing

SIDE OF VEHICLE

☐ **4E** – Doors

☐ **4E** – Mirrors

☐ **4E** – Fuel Tank

UNDERNEATH/REAR OF VEHICLE

☐ **4F** – Exhaust/Frame

☐ **4G** – Coupling Devices

SPECIAL COMPONENTS BY SPECIALTY RECREATIONAL VEHICLE TYPE/MISSION (TRAINER FILLS IN)

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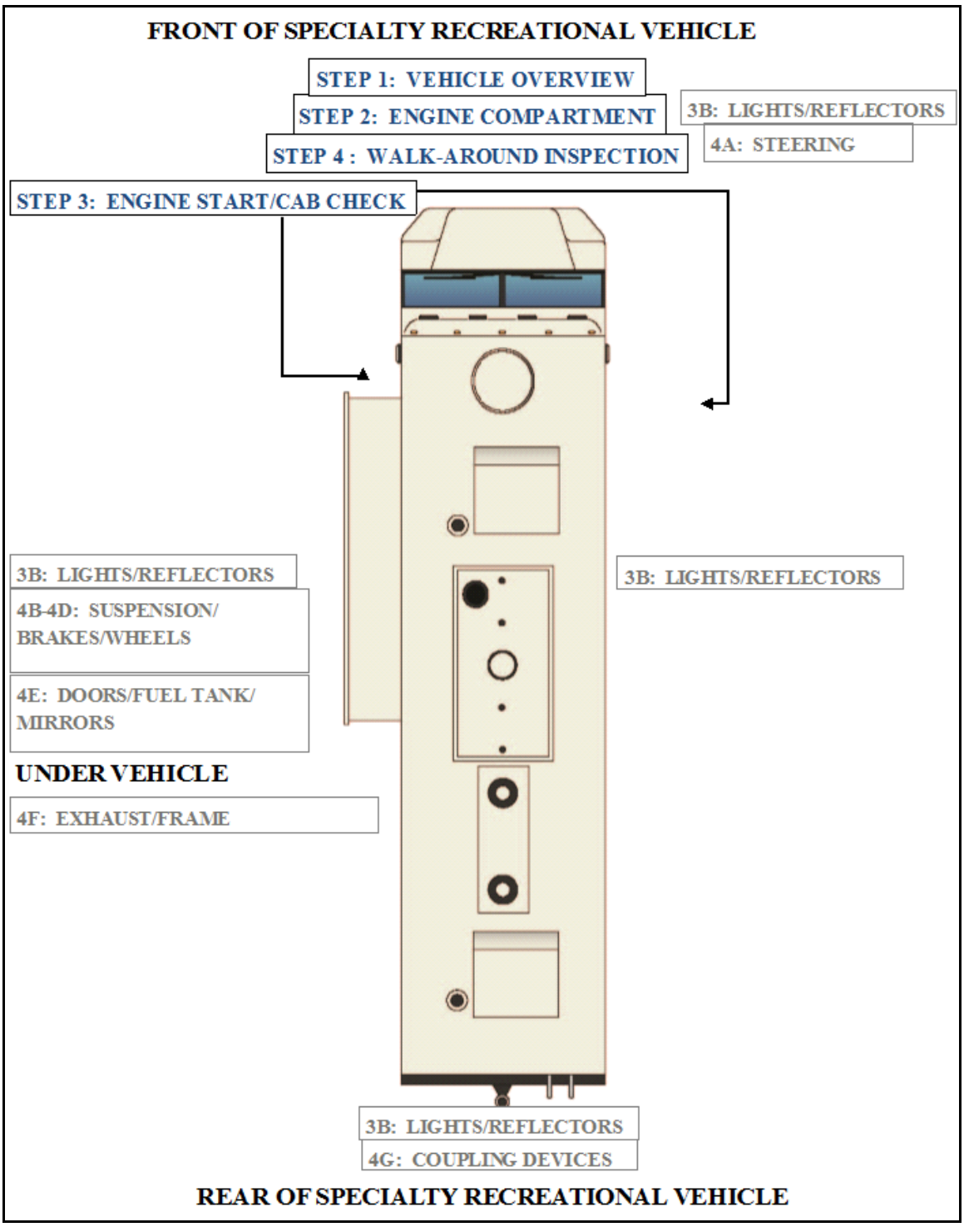
Figure A2.1. Specialty Recreational Vehicle Inspection Guide.



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 specialty recreational vehicle.

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

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

A3.1.4. Safely and proficiently operate the specialty recreational 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 specialty recreational 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 specialty recreational 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 specialty recreational 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. 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. Turns - checks traffic in all directions; uses turn signals and safely get into the lane needed for the turn; slows down smoothly, changes gears as needed to keep power; checks mirrors to ensure proper clearance; vehicle should not move into oncoming traffic.			
2.3. Intersections - checks traffic in all directions; decelerate gently, brakes smoothly and, if necessary, changes gears; if necessary, comes to a complete stop (no coasting) behind any stop signs, signals, sidewalks, or stop lines.			

2.4. Urban/Rural Straight - makes regular traffic checks and maintains a safe following distance; makes necessary traffic checks, uses proper signals, safely and smoothly changes lanes.			
2.5. Expressway - checks traffic, uses proper signals; merges smoothly into the proper lane of traffic; maintains proper lane positioning, vehicle spacing, and vehicle speed; continue to check traffic thoroughly in all directions; exits using proper signals, decelerates smoothly.			
2.6. Stopping - decelerates smoothly, brakes evenly, changes gears as necessary; brings vehicle to a full stop without coasting.			
2.7. Starting - checks traffic, avoids jerky starts.			
2.8. Upgrade - selects proper gear to maintain speed and does not lug the engine; checks traffic in all directions and moves to the right-most or curb lane; if legal to do so, uses four-way flashers if traveling too slowly for the flow of traffic.			
2.9. Downgrade - downshifts as needed to help control engine speed and test brakes; does not ride the clutch, race the engine, change gears, or coast.			
2.10. Railroad Crossing - decelerates, brake smoothly, and shift gears as necessary; does not stop, changes gears, pass another vehicle, or change lanes while any part of the vehicle is in the crossing.			

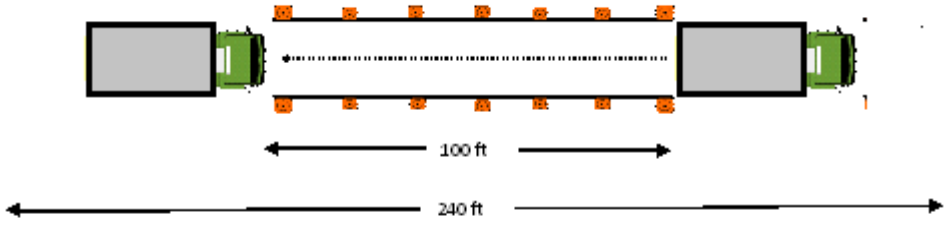
Event	Go	No Go	Notes
3. KNOWLEDGE OF VEHICLE AND USE OF CONTROLS			
3.1. Engine:			
Uses proper starting procedures			
Allows proper warm-up.			
Understands all gauges.			
Uses proper shutdown procedures.			
Event:	**Go**	**No Go**	**Notes**
4. BACKING/PARKING:			
4.1. Backing			
Positions vehicle properly.			
Inspects vehicle before backing.			
Posts spotter before backing and uses spotters properly.			
Uses mirrors properly.			
Avoids blind side backing.			
Controls speed.			
4.2. 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.			
CERTIFIER COMMENTS:			

Attachment 4

PERFORMANCE TEST GUIDE

A4.1. Straight Line Backing. Back through and out of the alley/lane, without touching boundary lines or cones on either side of the alley/lane.

Figure A4.1. Straight Line Backing.

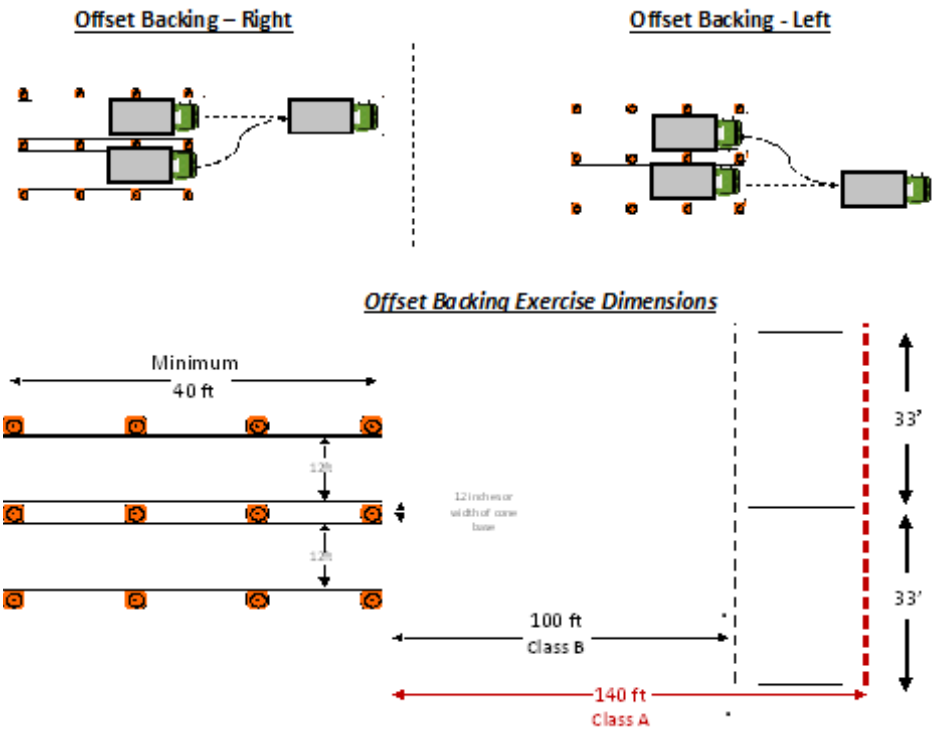


A4.2. Offset Backing – Left/Right. Adjust boundary depending on vehicle. At the start of the exercise, the vehicle is positioned in the right lane; the operator moves straight ahead and stops at the outer barrier lines/cones. The operator then backs the vehicle so it is positioned in the left lane and continues backing until the vehicle has cleared the forward set of cones with the front of the vehicle.

A4.2.1. The outer and side boundaries are containment boundaries and are used as a reference only.

A4.2.2. The opposite lane is used for Offset Back-Right. The driver drives straight in the left lane to the outer barrier, and backs the vehicle so it is positioned in the right lane and continues to back the vehicle until the front vehicle has cleared the forward set of cones.

Figure A4.2. Offset Backing – Left/Right.



A4.3. Left/Right Turn (4). Include turns at traffic lights, stop signs, and uncontrolled intersections. The turns should range from easy to somewhat difficult for commercial vehicles. The operator should try to get a mixture of types of intersections so that they vary in complexity. Try to include turns that have multiple approach lanes and a single approach lane turning onto a street with multiple lanes.

A4.4. Lane Change (2). Include two lane changes maneuvers. Each maneuver must include a lane change to the left and to the right. The lane change maneuvers can be conducted during any portion of the road test. The locations should be suitable for conducting lane changes and allow enough time for the driver to complete each lane change. The lane change maneuvers may be conducted during the expressway, urban or rural driving sections provided a sufficient amount of driving distance is available.

A4.5. Intersections. Select two through intersection and two intersections where a stop has to be made (a stop sign is preferred. These intersections should not be included in the urban section. One of the stop intersections should not be controlled by traffic lights (2- or 4-way stop).

A4.6. Railroad Crossing. Try to have an uncontrolled (no lights or stop arms) railroad crossing. The crossing should have enough sight distance to see if the operator checks left and right while approaching the crossing. The operator's looking left and right down the track will often be the only way to tell if the operator has noticed the crossing.

A4.6.1. If there is no railroad crossing in the testing area, do the following. Find a lightly traveled street or road that contains a landmark which the observer will point out to the operator. Tell the operator to pretend that there is a railroad crossing at that point. The landmark can be an intersection, an entrance to the road, or a road sign or billboard. Give the operator instructions out of traffic, while the vehicle is stopped.

A4.7. Expressway.

A4.7.1. The operator should use a roadway segment in or close to the testing area. If there is no roadway, freeway, etc., then use a road or highway with high speeds.

A4.7.2. The roadway section should be a four-lane controlled access highway such as an interstate highway. The section should start with a conventional ramp entrance and end with a conventional ramp exit. One set of lane change maneuvers may be conducted within this section.

A4.7.3. If using a rural highway section, it should be at least two miles long. (In general, look for an area of rural road that provides driving challenges similar to those found on an expressway.) One set of lane change maneuvers may be conducted within this section.

Attachment 5

SEVEN-STEP INSPECTION PROCESS

Figure A5.1. Seven-Step Inspection Process.

Seven-Step Inspection Process	
Step	**Procedure**
1. Vehicle Overview	• Review the AF Form 1800. o Ensure any discrepancy has been corrected. o Vehicle Management annotated the discrepancy was completed. o Approaching the vehicle. ▪ Damage or vehicle leaning to one side. ▪ Fresh leakage of fluids. ▪ 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. • Check the following: o Engine oil level. o Coolant level in radiator; condition of hoses. o Power steering fluid level; hose condition (if so equipped). o Windshield washer fluid level. o Battery fluid level, connections and tie-downs (battery may be located elsewhere). o Automatic transmission fluid level (may require engine to be running). o Check belts for tightness and excessive wear (alternator, water pump, air compressor)--learn how much "give" the belts should have when adjusted right.

	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. • Put gearshift in neutral (or park if automatic). Start engine; listen for unusual noises. • 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. • Look at the gauges. o Oil pressure. Should come up to normal within seconds after engine is started. o Air pressure. Pressure should build from 50 to 90 psi within 3 minutes. Build air pressure to governor cut-out (usually around 120 – 140 psi. Know the vehicle's requirements. o Ammeter and/or voltmeter. Should be in normal range(s). o Coolant temperature. Should begin gradual rise to normal operating range. o Engine oil temperature. Should begin gradual rise to normal operating range. o Warning lights and buzzers. Oil, coolant, charging circuit warning, and antilock brake system lights should go out right away. o Check Condition of Controls. Check all of the following for looseness, sticking, damage, or improper setting: ▪ Steering wheel. ▪ Accelerator (gas pedal). ▪ Brake controls. ▪ Foot brake. ▪ Trailer brake (if vehicle has one). ▪ Parking brake. ▪ Transmission controls.

	▪ Horn(s). ▪ Windshield wiper/washer. ▪ Lights. ▪ Headlights. ▪ Dimmer switch. ▪ Turn signal. ▪ Four-way flashers. ▪ Parking – clearance – identification – marker switch (switches). • Check mirrors and windshield. o Inspect mirrors and windshield for cracks, dirt, illegal stickers, or other obstructions to seeing clearly. Clean and adjust as necessary. • Check emergency equipment. o Check for safety equipment: ▪ Spare electrical fuses (unless vehicle has circuit breakers). ▪ Three red reflective triangles, 6 fuses or 3 liquid burning flares. ▪ Properly charged and rated fire extinguisher. Check for optional items such as: ▪ Tire changing equipment. ▪ List of emergency phone numbers Accident reporting kit (packet). 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. • Turn-on headlights (low beams) and four-way emergency flashers, and get out of the vehicle.
5. Do Walk-Around Inspection	• General. o Go to front of vehicle and check that low beams are on and both of the four-way flashers are working. o Push dimmer switch and check that high beams work. o Turn-off headlights and four-way emergency flashers. o Turn-on parking, clearance, side-marker, and identification lights.

	o Turn-on right turn signal, and start walk-around inspection. o Walk around and inspect. ▪ Clean all lights, reflectors, and glass as while doing the walk-around inspection. • Left front side. o Driver's door glass should be clean. o Door latches or locks should work properly. • Left front wheel. o Condition of wheel and rim--missing, bent, broken studs, clamps, lugs, or any signs of misalignment. o Condition of tires--properly inflated, valve stem and cap OK, no serious cuts, bulges, or tread wear. o Hub oil level OK, no leaks. Left front suspension. o Condition of spring, spring hangers, shackles, o U-bolts. o Shock absorber condition. • Left front brake. o Condition of brake drum or disc. o Condition of hoses. • Front. o Condition of front axle. Condition of steering system. o No loose, worn, bent, damaged or missing parts. o Must grab steering mechanism to test for looseness. o Condition of windshield. o Check for damage and clean if dirty. o Check windshield wiper arms for proper spring tension. o Check wiper blades for damage, "stiff" rubber, and securement. o Lights and reflectors. o Parking, clearance, and identification lights clean, operating, and proper color (amber at front). o Reflectors clean and proper color (amber at front).

	o Right front turn signal light clean, operating, and proper color (amber or white on signals facing forward). • Right side o Right front: check all items as done on left front. o Primary and secondary safety cab locks engaged (if cab-over-engine design). o Fuel tank(s). o Securely mounted, not damaged, or leaking. Fuel crossover line secure. o Tank(s) contain enough fuel. Cap(s) on and secure. o Condition of visible parts. Rear of engine--not leaking. o Transmission--not leaking. o Exhaust system--secure, not leaking, not touching wires, fuel, or air-lines. o Frame and cross members--no bends or cracks. o Air-lines and electrical wiring--secured against snagging, rubbing, wearing. o Spare tire carrier or rack not damaged (if so equipped). o Spare tire and/or wheel securely mounted in rack. o Spare tire and wheel adequate (proper size, properly inflated). o Curbside cargo compartment doors in good condition, securely closed, latched/locked and required security seals in place. • Right rear. o Condition of wheels and rims--no missing, bent, or broken spacers, studs, clamps, or lugs. o Condition of tires--properly inflated, valve stems and caps OK, no serious cuts, bulges, tread wear, tires not rubbing each other, and nothing stuck between them. o Tires same type, e.g., not mixed radial and bias types.

	o Tires evenly matched (same sizes). Wheel bearing/seals not leaking. o Suspension. o Condition of spring(s), spring hangers, shackles, and U-bolts. o Axle secure. o Powered axle(s) not leaking lube (gear oil). Condition of torque rod arms, bushings. o Condition of shock absorber(s). o If retractable axle equipped, check condition of lift mechanism. If air powered, check for leaks. o Condition of air ride components. o Brakes. o Brake adjustment. o Condition of brake drum(s) or discs. o Condition of hoses--look for any wear due to rubbing. o Lights and reflectors. o Side-marker lights clean, operating, and proper color (red at rear, others amber). o Side-marker reflectors clean and proper color (red at rear, others amber). • Rear. o Lights and reflectors. o Rear clearance and identification lights clean, operating, and proper color (red at rear). o Reflectors clean and proper color (red at rear). o Taillights clean, operating, and proper color (red at rear). o Right rear turn signal operating, and proper color (red, yellow, or amber at rear). o License plate(s) present, clean, and secured. o Splash guards present, not damaged, properly fastened, not dragging on ground, or rubbing tires. o Rear doors securely closed, latched/locked. • Left side.

	o Check all items as done on right side, plus: o Battery (batteries) (if not mounted in engine compartment). o Battery box (boxes) securely mounted to vehicle. Box has secure cover. o Battery (batteries) secured against movement. Battery (batteries) not broken or leaking. o Fluid in battery (batteries) at proper level (except maintenance-free type). o Cell caps present and securely tightened (except maintenance-free type). o Vents in cell caps free of foreign material (except maintenance-free type).
6. Check Signal Lights	• Get in and turn-off all lights. • Turn-on stop lights (apply trailer hand brake or have a helper put on the brake pedal). • Turn-on left turn signal lights. • Get out and check lights. • Left front turn signal light clean, operating and proper color (amber or white on signals facing the front). • Left rear turn signal light and both stop lights clean operating, and proper color (red, yellow, or amber). • Get in vehicle. o Turn-off lights not needed for driving. o Check for all required papers, trip manifests, permits, etc. o Secure all loose articles (they might interfere with operation of the controls or hit the operator in a crash). o Start the engine.
7. Start the Engine and Check Test for Hydraulic Leaks	• Test for hydraulic leaks. o If the vehicle has hydraulic brakes, pump the brake pedal three times. o Then apply firm pressure to the pedal and hold for five seconds.

	o The pedal should not move. If it does, there may be a leak or other problem. • Brake system. • Test parking brake. o Fasten safety belt. o Set parking brake. o Gently pull forward against parking brake to make sure the parking brake holds. o If it doesn't hold vehicle, it is faulty; get it fixed. • Test service brake stopping action. o Go about 5 miles per hour. o Push brake pedal firmly. o "Pulling" to one side or the other can mean brake trouble. o Any unusual brake pedal "feel" or delayed stopping action can mean trouble. o If the trainee finds anything unsafe during the Vehicle inspection, get it fixed. Federal and state laws forbid operating an unsafe vehicle. • Check vehicle operation regularly: o Instruments. o Air pressure gauge (if the vehicle has air brakes). Temperature gauges. o Pressure gauges. Ammeter/voltmeter. o Mirrors. o Tires. o If the trainee sees, hears, smells, or feels anything that might mean trouble, he/she should check it out. • Safety inspection. • Document any discrepancy on AF Form 1800. Sign-off AF Form 1800 to signify accomplishment of inspection.

Figure A5.2. Additional Steps for Inspecting Air Brakes System.

Additional Steps for Inspecting Air Brakes	
Step	**Procedure**
2. Engine Compartment Checks	• Check air compressor drive belt condition and tightness (if compressor is belt driven).
5. Walk-Around Inspecting	• Check manual slack adjusters on S-cam brakes. **Note:** Vehicles with automatic slack adjustors still must be checked. o Park on level ground and chock the wheels. o Release the parking brakes so the operator can move the slack adjusters. o Use gloves and pull hard on each slack adjuster that it can be reached. o Check slack adjuster, more than 1-inch indicates adjustments required (vehicles with too much brake slack can be very hard to stop). Adjust it or have it adjusted. • Check brake drums (or discs), linings, and hoses.
7. Final Air Brake Check	• Test low pressure warning signal. o Shut the engine off when the vehicle has enough air pressure so that the low pressure warning signal is not on. o Turn the electrical power on. o Step on and off the brake pedal to reduce air tank pressure. o Low air pressure warning signal should come on before the pressure drops to less than 60 psi in the air tank with lowest pressure. • Check that the spring brakes come on automatically. o Chock the wheels. o Release the parking brakes when enough air pressure is built up. o Shut the engine off. o Step on and off the brake pedal to reduce the air tank pressure. o "Parking brake" knob should pop out when the air pressure falls to the manufacturer's specification. • Check rate of air pressure buildup o Refer to manufacturer’s recommendation for average buildup time.

	o If not within recommended time, the air pressure may drop too low during driving operations. • Test air leakage rate. o With a fully-charged air system (typically 125 psi). o Turn-off the engine. o Release the service brake and time the air pressure drop. o The loss rate should be less than 2 psi in one minute for single vehicles. o Not less than 3 psi in 1 minute for combination vehicles. • Then apply 90 psi or more with the brake pedal. o After the initial pressure drop, if the air pressure falls more than 3 psi in 1 minute for single vehicles. o Not more than 4 psi for combination vehicles. • Check air compressor governor cut-in and cut-out pressures. o Air compressor should start at about 100 psi and stop at about 125 psi. o Run the engine at a fast idle. o Air governor should cut-out the air compressor at about the manufacturer's specified pressure. o Engine idling, step on and off brake to reduce air tank pressure. o Compressor should cut-in at manufacturer's specified cut-in pressure. o Test parking brake: Stop the vehicle; put the parking brake on; gently pull against it in low gear to determine if parking brake will hold. ▪ Test service brakes. ▪ Wait for normal air pressure. • Release the parking brake. • Move the vehicle forward slowly (about 5 mph). • Apply the brakes firmly using the brake pedal. • Note any vehicle "pulling" to one side, unusual feel, or delayed stopping action.