2020

U.S. Air Force

3/27/2020



(Example) Utility Vehicle (UTV) Operator Lesson Plan

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Utility Vehicle (UTV) Operator Training | | | | |
| **Unit**: | | **UTV Model:** 2015 Kawasaki 400F | | |
| **PURPOSE**: Example lesson plan to train personnel in the operation of Government Off-Road Vehicles. This includes Government Vehicles Other (GVO’s) (e.g. Kawasaki Mule, Polaris Ranger, and Polaris Razor). These vehicles are frequently referred to as Specialty Vehicles, Utility Vehicles (UTV’s) and Side by Side’s.  This training, along with review of the applicable Manufacturer’s Owner’s Manual and AFMAN 24-306, Operation of Air Force Government Motor Vehicle, Chapters 1-5, 7-9 and 12, is required by all unit personnel operating these UTV’s. Updated training will occur anytime there is a change in equipment, procedures or processes. | | | | |
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1. Overview of Training and Requirements:
   1. How to use this plan:
      1. Instructor:
         1. Provide overview of training, **Sections 2** and **Section 3**
         2. Instructor’s lesson plan for trainee preparation, give classroom lecture, **Section 4**
         3. Instructor’s lesson plan for knowledge overview, **Section 5**
         4. Instructor’s lesson plan for demonstration, **Section 6**
         5. Instructor’s lesson plan for performance test evaluation, **Section 7**
      2. Trainee:
         1. Reads this entire lesson plan prior to starting lecture
         2. Follows along with lecture using this lesson plan and its attachments
         3. Uses **Attachment 2** and **Attachment 3** as guides for vehicle inspection
         4. Takes performance test
2. Responsibilities:
   1. The trainee shall:
      1. Ensure the trainer explains the training process and the trainee’s responsibilities
      2. Review the lesson plan with the trainer
      3. The trainee should ask questions if he or she does not understand the objectives for each unit
   2. Instructor shall:
      1. Review the lesson plan with the trainee
      2. Conduct knowledge training with the trainee using the lesson plan
      3. Sign-off the task(s)
3. Introduction:
   1. Training Objectives:
      1. Given lectures, demonstrations, hands-on operating session(s), the trainee must be able to perform operator’s inspection and complete the performance evaluation with zero instructor assists
      2. Train and qualify each trainee in safe operation and preventive/operational maintenance of the UTV
      3. This training will ensure the trainee becomes a qualified UTV operator—an operator who has the knowledge and skills to operate a UTV in a safe, proficient and professional manner
   2. Desired learning outcomes:
      1. Understand the principals of operation, the purpose of the UTV and its role in the mission
      2. The primary purpose of the UTV is for transportation of passengers and materials
      3. Role in the mission (Unit/Base/Community/Air Force)
      4. Understand the importance of efficient operation and performance of preventative maintenance on the UTV to meet mission requirement
      5. Preventative maintenance ensures safe operation and availability for daily and emergency use
      6. Understand the safety precautions to be followed before, during and post-operational inspection of the UTV
      7. Be completely familiar with the safety features of the UTV
      8. Safely and proficiently, operate the UTV
   3. Lesson Duration:
      1. Recommended instructional and hands on training time is 4 hours:

Table 1: Recommended Training Time

|  |  |
| --- | --- |
| Training Activity | Training Time |
| Trainee’s Preparation | 30 Minutes |
| Instructor’s Lecture | 30 Minutes |
| Instructor’s Demonstration | 30 Minutes |
| Trainee’s Personal Experience (to build confidence and proficiency)   * Perform Operator Maintenance * Operate the Vehicle | 2 Hours |
| Trainee’s Performance Evaluation | 30 Minutes |

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

* 1. Instructional References:
     1. Applicable technical manual(s) or Manufacturer’s Operator’s Manual for vehicle being used in training
     2. DoDI 6055.04, *DoD Traffic Safety Program*
     3. AFI 91-207, *The US Air Force Traffic Safety Program*
     4. AFI 24-302, *Vehicle Management*
     5. AFMAN 24-306, *Operation of Air Force Government Motor Vehicle*, Chapters 1-5, 7-9 and 12
     6. AFMAN 91-203, *Air Force Occupational Safety, Fire and Health Standards*
     7. AFPAM) 90-803, *Risk Management (RM) Guidance and Tools*
     8. AF Form 1800, *Operator’s Inspection Guide and Trouble Report*
  2. Instructional Training Aids and Equipment:
     1. UTV Lesson Plan
     2. UTV
     3. Applicable technical manual or manufacturer operator’s manual
     4. AF Form 1800
     5. Suitable training area

1. Trainee Preparation:
   1. Licensing Requirements:
      1. Trainee must have in his/her possession a valid state driver’s license
      2. Applicable local licensing jurisdiction requirements
   2. Required Reading:
      1. Read this entire lesson plan
      2. Read AFMAN 24-306, Chapters 1-5, 7-9 and 12
      3. Read manufacturer’s operator’s manual for the vehicle being trained on
2. Knowledge Lecture and Evaluation:
   1. Controls and indicators
      1. The design of a UTV varies depending on the vehicle manufacturer. Refer to the manufacturer operator’s manual(s) for additional information on the specific UTV being operated.
      2. The operator must know the location and function of all controls and indicators prior to operating the vehicle.

Table 2: Controls and Indicators

|  |  |
| --- | --- |
| Control/Indicator | Description |
| Engine oil pressure gauge/light | Indicates engine oil pressure when the engine is running/Warning light if oil pressure is low |
| Engine oil temperature light | A warning indicator that illuminates if engine oil becomes overheated |
| Coolant temperature gauge/light | Indicates engine coolant temperature/Warning light that illuminates if engine becomes overheated |
| Voltmeter/Battery light | Indicates the charging level of the electrical system/Indicates no charge condition |
| Fuel gauge | Indicates the amount of fuel in the fuel tank |
| Hour Meter | Indicates the total number of hours on the engine |
| Speedometer | Indicates vehicle speed |
| Tachometer | Indicates engine rpm |
| Ignition switch | Turns the electrical system on/off and engages the starter |
| Light switch | Operates the driving and marker lights |
| Choke Knob | Pull out to close choke/pushing to open choke |
| 2WD-4WD Shift Lever | Operates the transfer case engaging the front axle drive |
| Differential lock | Engages differential lock causing both axle tires to spin equally  (may cause difficulty in turning/inability to get out of rut) |
| Shift lever | Enables gear selection of the transmission |
| Steering Wheel | Controls the turning of the vehicle |
| Horn button | Activates the horn |
| Clutch pedal | Disengages engine power to the transmission/drive wheels |
| Accelerator pedal | Controls Engine RPM/Power |
| Parking Brake Warning | Illuminates to indicate parking brake is engaged |
| Parking Brake Lever | Controls the application of the parking brake |
| Cargo Bed Latch | Unlocks cargo bed to allow dumping or raising for service |

**Note:** The design of a UTV varies depending on the vehicle manufacturer. Refer to the manufacturer operator’s manual(s) for specific controls.

* 1. Pre-operation Vehicle Inspection:
     1. Pre-operation vehicle inspection, use **Attachment 2** as a 360 walk-around guide along with **AF Form 1800**
     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 3** for the Seven-Step Inspection Method
     3. Daily Pre-Ride/Use Inspections will be tracked on the AF FORM 1800, OPERATOR’S INSPECTION GUIDE AND TROUBLE REPORT
     4. Pre-operation inspection – identify items/problems that could cause accidents or breakdowns
        1. Vehicle Maintenance may authorize continued use for all other maintenance discrepancies
        2. Cleanliness/damaged/missing items
        3. Leaks (fuel/oil/coolant/air)
        4. Fluid levels; ensure levels are within limits:
           1. Engine oil
           2. Coolant
           3. Brake Fluid
        5. Battery; security, fluid, damage and corrosion
        6. All wheel rims/tires (cracks, splits, etc.):
           1. Proper inflation
           2. Sidewalls, tread:

Include depth, bulges

Cuts and Abraisions

* + - * 1. Loose or missing lug nuts
      1. Transmission
         1. Differential(s): Damage, wear and leaks
         2. Drive train: Damage, wear and leaks.
      2. Air filter
      3. All hoses and wiring
      4. Suspension
         1. Shocks and springs, damage
      5. Frame bolts and other fasteners; visual inspection for damage
      6. Welds; visual inspection for cracks
      7. Visual and auditory warning devices
      8. Storage bin doors properly latched
      9. Windshield and windshield wipers/washers
      10. Doors, Side windows, Mirrors
      11. Seatbelts/Passenger Restraints
  1. During-operation inspection
     1. Ignition to On position
     2. Check all gauges and warning lights/indicators for proper operation
     3. Ignition to Start (Pull choke knob out cold start)
     4. Check for unusual conditions:
        1. Sounds, Odors, Vibrations, Leaks
        2. Light function
     5. Conduct function check of all controls
        1. Steering Wheel, Shift Lever
        2. Brake, Parking Brake
     6. Sign AF Form 1800
  2. Post-operation inspection
     1. Check fuel level (< ¾ tank, refuel)
     2. Ensure vehicle and components are cleaned
     3. Park vehicle: Ensure transmission in neutral, apply parking brake
     4. Shut off lights and accessories.
     5. Follow manufacturer’s shut-down procedures
     6. Post 360 walk-around, check for leaks and damage

**Note:** the items listed for inspection **is not** all-inclusive, see manufacturer operator’s manual

**WARNING:** Failure to properly inspect the vehicle may result in severe injury or death. Always inspect the vehicle before each use to ensure it’s in proper operating condition.

* 1. Vehicle Safety and Equipment:
     1. Hazards and human factors:
        1. Traveling too fast and turning too sharply
        2. High rollover risk
        3. Stunting
     2. Required PPE:
        1. Seat belt/Harness restraint
           1. Except on UTV’s without a Rollover Protective Structure (ROPS)
           2. Additional Safety Standards apply to vehicles without ROPS
        2. Sturdy over-the-ankle footwear
        3. Gloves (recommend leather or other sturdy material)
        4. Conditionally Required PPE:
           1. Helmet (Required for off-road/rough terrain operations)
           2. Eye Protection, wrap around (Required when no windshield is installed)
           3. Reflective Belt (Operation on Flightline)
  2. Driving Safety and Precautions:
     1. Overview safety and precautions. The following are safety items and procedures to be followed during UTV operations. The manufacturer operator’s manual will also provide safe operating procedures and the vehicle itself may have warnings, cautions and danger stickers that the vehicle operator should be aware of.
     2. Vehicle data plate. Be familiar with the location and information found on the data plate.
     3. Plan the route; Analyze the **RISK**
        1. Off-road operations
        2. Ground surfaces (soft, rough, inclines, etc..)
        3. On road operation
           1. Traffic
           2. Roadways with 35 mph or less speed limit (Substantially higher risk of injuries/death on higher speed roadways)
        4. Pedestrian Areas
           1. Maximum speed limit 5 mph
           2. Audible back up alarm
     4. Read all owner’s manuals and all labels carefully and follow the operating procedures described
     5. Wear all required PPE
     6. Never allow anyone without a valid driver’s license to operate these vehicles
     7. Always travel at a speed proper for the terrain; visibility and operating conditions
     8. To reduce tip over risk:
        1. Slow down on corners
        2. Use caution when operating on slopes, encountering obstacles or when braking on hills or turns
        3. Off-road vehicles use low inflation tires and have a high center of gravity
     9. Never consume alcohol or drugs before or while operating this vehicle.
     10. Never attempt wheelies, jumps or other stunts.
     11. Always travel slowly and use extra caution when operating on unfamiliar terrain, be alert to changing terrain.
     12. Always be sure there are no obstacles or people behind your vehicle when operating in reverse
     13. Always keep arms and legs inside the cab/frame while the vehicle is in motion
     14. Keeping both hands on the steering wheel during operations
     15. If the vehicle does not have turn signals, please use appropriate hand signals
     16. Never exceed the stated load capacity for the vehicle:
         1. Cargo should be properly distributed and securely attached
         2. Reduce speed and follow the instructions in the owner’s manual for hauling cargo or pulling a trailer
         3. Allow a greater distance for braking.
     17. UTV’s braking system are different than a passenger vehicle, more prone to overheating:
         1. Overheated brakes leads to brake fade and potential failure
            1. This means the operator will need to apply the brakes harder and harder to acquire equivalent stopping power
            2. Generating more heat increasing fade until pads/shoes just burn up; failure
         2. Some models don’t have front brakes only a single brake on the drive/transmission
         3. Most have drum brakes on front hubs and single disc brake on drive
         4. Use caution on downhill grades; gravity causes a greater strain on brakes
     18. Backing:
         1. Walk around the vehicle to ensure the area is clear before moving
         2. Try to adjust route to reduce need for backing
         3. Use a spotter when view is limited
            1. Required when towing a trailer
            2. Keep spotter in view at all times; STOP IMMEDIATELY if you lose site
            3. See AFMAN 24-306 for standard AF spotter hand signals and additional guidance on spotter safety
     19. Never attempt to start or operate the vehicle from any location other than the operator’s seat
     20. Never leave the vehicle running unattended
     21. Do not attempt to get on or off of the machine while it is moving
     22. Always turn off the engine before refueling:
         1. GASOLINE IS EXTREMELY FLAMMABLE
         2. Make sure the refueling area is well ventilated and free of any source of flame or sparks
     23. When the vehicle is not in use remove the ignition key to prevent unauthorized use or accidental starting, unless it’s on the flight line
  3. General Vehicle Operation:
     1. Never run an engine in an enclosed area. Engine exhaust is poisonous and can cause loss of consciousness resulting in severe injury or death
     2. Complete a pre-operation vehicle inspection
     3. Sign the current AF Form 1800
     4. Climb into the vehicle
     5. Adjust the seat and mirrors as needed; fasten seat belt

* 1. Starting the Vehicle:
     1. Ensure the parking brake is set and place shift lever in neutral
     2. Start the vehicle
        1. Do not engage the starter for more than 5 seconds at a time. If the engine does not start within 5 seconds, allow the system to cool-off for 15 seconds
        2. Engine cold air temperature below 20° C (68°f):
           1. Pull chock knob all the way out and hold
           2. Release when engine starts
           3. Push in choke knob after engine warms
        3. Engine warm or air temperature above 20° C (68°f):
           1. Do not use choke
           2. Push down on accelerator pedal slightly
           3. Use choke only if engine is hard to start and for short time
        4. Do not rev the engine until it is warm and oil pressure is good, vary engine speed to assist warming with slight throttle
     3. After the engine starts, idle engine for 3 to 5 minutes before operating
     4. Depress brake pedal and release the parking brake
     5. Place shift lever in the appropriate gear, then release the foot brake and accelerate to desired speed.
  2. Shutdown Procedures
     1. Release the throttle pedal completely and brake to a complete stop
     2. Put gear shift lever into neutral/park
     3. Apply parking brake; use wheel chocks where appropriate
     4. Avoid parking on an incline
     5. Turn ignition key to OFF and remove the key to prevent unauthorized use
     6. End of Day:
        1. Perform post-operation procedures as described in Paragraph V-D
        2. Fuel the UTV at the end of each working day to prevent moisture from condensing and forming droplets of water within the fuel tank. Ensure the vehicle has a minimum of three-fourths tank of fuel at the end of the duty day.
  3. Special Operational Considerations:
     1. Driving on Slippery Surfaces, such as wet trails, loose gravel, or ice be alert for the possibility of skidding and sliding. Under these conditions, follow these precautions:
        1. Slow down when entering slippery areas.
        2. Maintain a high level of alertness, reading the trail and avoiding quick, sharp turns, which can cause skids.
           1. Correct a skid by turning the steering wheel in the direction of the skid
           2. Adjust throttle to reduce skidding
           3. Never apply the brakes during a skid
        3. Drive with AWD engaged to assist in controlling the vehicle
           1. Allow wheels to stop spinning before engaging AWD
           2. Severe damage to the drive train may occur if the AWD is engaged while the wheels are spinning
     2. Off-road Operations; see AFMAN 24-306 Section 8C
     3. Travelling on a grade:
        1. Braking and handling are greatly affected when operating in hilly terrain. Improper procedures could cause you to lose control of the vehicle or cause the vehicle to overturn which could result in serious injury or death
        2. Never climb hills with excessively slippery or loose surfaces
        3. Avoid steep hills (15 degree maximum)
        4. Uphill:
           1. Never go over the crest of a hill at high speed

An obstacle, sharp drop, vehicle or person could be on the other side

* + - * 1. Always travel straight uphill
        2. Keep both feet on the floor
        3. Proceed at a steady rate of speed and throttle opening
      1. Downhill:
         1. Never descend a hill at high speed, always operate slowly when traveling downhill.
         2. Proceed directly downhill
         3. Apply brakes slightly to aid in maintaining appropriate speed
      2. Crossing hillsides or turning on hills can result in loss of control of the vehicle or cause the vehicle to overturn, resulting in severe injury or death. Avoid crossing the side of a hill when possible.
    1. Driving Through Water
       1. The large tires on the UTV may cause the vehicle to float in deep or fast-flowing water. Never cross deep or fast-flowing water with your UTV
       2. UTV can operate through water up to a maximum recommended depth equal to the floorboards:
          1. Always determine water depths and current before entering
          2. Choose a crossing where both banks have gradual inclines
          3. Proceed slowly, avoiding rocks and obstacles
          4. After leaving water, always dry the brakes by applying light pressure to the
          5. brakes repeatedly until braking action is normal
       3. Immersion can result in major damage, after immersion always have the vehicle serviced by a qualified shop. Do not start engine!
    2. Inclement weather
       1. Reduce speed to compensate for reduced visibility and road surface
       2. Increase braking distance
    3. Use Appropriate Risk Management:
       1. Accept no unnecessary risk
       2. Make risk decisions at the appropriate level
       3. Integrate RM into operations, activities and planning at all levels
       4. Apply the process cyclically and continuously
          1. Deliberate RM; pre-activity
          2. Real-Time RM; during activity/operation

1. Explanation and Demonstration:
   1. Instructor Preparation:
      1. Establish a training location:
         1. Classroom
         2. Hands-on area
            1. Should be consistent with anticipated operational areas
            2. Don’t train off-road operations in a parking lot
         3. Have training vehicle available
      2. Ensure trainees are prepared
         1. Have valid passenger vehicle driver’s license
         2. Have/Reviewed required training materials
         3. Required PPE
   2. Safety Procedures and Equipment:

**Note:** Both the instructor and trainee should follow the following safety items:

* + 1. Practice basic AF RM process during all aspects of training
    2. Personal protective equipment (PPE) and equipment items
       1. Helmet, if required
       2. Eye protection, if required
       3. Seat belt
       4. Gloves will be worn during pre-operation inspection, post-operation inspection and while performing maintenance
    3. The trainer and the trainee should conduct a 360 walk-around the vehicle
       1. Ensure the vehicle is properly parked before accomplishing the walk-around inspection
       2. Become familiar with all warning labels and signs
    4. Properly adjust driver’s seat and all mirrors
    5. Ensure trainee wears seat belts
    6. Throughout demonstration, practice UTV operational safety
  1. Operator Maintenance Demonstration:
     1. With trainee, accomplish vehicle inspection using AF Form 1800
     2. The vehicle inspection will follow the seven-step method as described in **Attachment 3**
     3. An inspection guide can be used to ensure all areas of the UTV are covered in addition to the “Operation Demonstration” guidelines provided below
  2. Operation Demonstration.
     1. Throughout demonstration
        1. Allow for questions
        2. Repeat demonstrations as needed
     2. Demonstrate/discuss pre-operation and during-operation inspection requirements
     3. Describe the operation and location of the following items
        1. Brake pedal
        2. Steering wheel
        3. Horn button
        4. Shift selector
        5. Parking brake.
        6. Differential lock.
     4. Discuss the following important operational notes
        1. Engine oil must be at the full mark on the oil dipstick/sight glass
        2. Do not operate the starter for more than 5 seconds, then wait 15 seconds
     5. Demonstrate the following for the UTV
        1. Engine start up, including proper safety precautions
        2. Instrument use and their indications
        3. Proper use of UTV controls
        4. Proper movement with and without a load
           1. Forward
           2. Turning (at various speeds)
           3. Braking
           4. Backing (use spotter when backing)
           5. Parking
        5. Demonstrate shutdown procedures
        6. Demonstrate/discuss post-operation requirements
           1. Ensure vehicle is clean
           2. Refuel vehicle
           3. Following manufacturer’s shut-down procedures
           4. Perform a 360 walk-around inspection
           5. Annotate any discrepancies found on AF Form 1800
     6. Conclude by allowing time for questions and any requested re-demonstrations

1. Trainee Performance and Evaluation:
   1. Trainee Performance:
      1. Instructor will:
         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)
         2. Ensure appropriate PPE is used
         3. Discuss when additional PPE may be required
         4. Pay particular attention to the cautions and warnings listed in the operator's manual
         5. Ensure trainee wears seat belt
         6. Ensure the trainee is aware of tasks to be performed
         7. Conduct during/after-action reviews with the trainee. (Demonstration may need to be re-accomplished)
      2. Trainee Performance:
         1. Conduct operator maintenance (have trainee explain items being inspected)
            1. Pre-operation inspection

Identify and explain UTV gauges, switches, levers and buttons

Ensure AF From 1800 is properly documented

* + - * 1. During-operation inspection; Using appropriate road course

Properly adjust driver’s seat and all mirrors

Follow UTV safety items/procedures

Operate vehicle:

Forward

Turning

Braking

Backing (use spotter when backing)

Parking

* + - * 1. Perform post-operation inspection

Park UTV:

Shift lever in neutral

Apply parking brake

Follow manufacturer shutdown procedure

Ensure vehicle components are cleaned

Check fuel level

* + - * 1. Perform a 360 walk-around inspection checking for leaks and damage

* 1. Performance Evaluation:
     1. Any reckless or intentionally unsafe behavior will be cause to remove trainee
     2. Trainee will perform performance evaluation found in **Attachment 2**
        1. Instructor and trainee will review **Attachment 2**
        2. Instructor will answer trainee’s questions
     3. The trainee will demonstrate and be evaluated on the following procedures
        1. Pre-operation inspection/preventative maintenance
        2. Start-up procedures
        3. Forward
        4. Turning
        5. Braking
        6. Backing (use spotter when backing)
        7. Parking
        8. Perform post-operation inspection
        9. Ensure vehicle components are cleaned
        10. Park
        11. Check fuel level
        12. Following manufacturer’s shut-down procedures
        13. Place transmission in neutral
        14. Apply parking brake
        15. Perform a 360 walk-around inspection checking for leaks and damage
     4. Ensure the trainee is aware of tasks (what they need to do)
     5. Conduct after-action reviews with the trainee.
     6. Trainee is not allowed any instructor assists to pass performance evaluation
     7. Evaluation checklist provided in Attachment 2.
        1. Retrain No-Go’s
           1. Re-demonstrate “No-Go” items
           2. Have trainee re-perform until they show proficiency in operating, critique weaknesses as observed.
           3. Re-evaluate

**Note**: This is only a guide, you must tailor it to your specific vehicle and operating environment!!

# Attachment 1

**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

**REFERENCES:**

Applicable technical manual(s) or Manufacturer Operator’s Manual for vehicle being used in training: <https://www.kawasaki-onlinetechinfo.net/dispeBook?file=99987-1810&mark=KAF400DFF&manual_kind=OM&model_year=2015&lang_code=EN>

**DoDI 6055.04**, DoD Traffic Safety Program

**AFI 91-207**, The US Air Force Traffic Safety Program

**AFMAN 24-306**, Operation of Air Force Government Motor Vehicle, Chapters 1-5, 7-9 and 12.

**AFMAN 91-203**, Air Force Occupational Safety, Fire and Health Standards

**AFPAM 90-803,** Risk Management (RM) Guidance and Tools

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

**Abbreviations and Acronyms**

**AF—**Air Force

**AFI—**Air Force Instruction

**AFMAN—**Air Force Manual

**AFQTP—**Air Force Qualification Training Plan

**DoD—**Department of Defense

**IAW—**In Accordance With

**PPE—**Personal Protective Equipment

**RM—**Risk Management

**UTV—**Utility Vehicle

# Attachment 2

### PERFORMANCE TEST

**A2.1. Desired Learning Outcome.**

A2.1.1. Understand the safety precautions to be followed before, during, and post-operation of the UTV.

A2.1.2. Understand the purpose of the UTV and its role in the mission.

A2.1.3. Know the proper operator maintenance procedures of the UTV, IAW applicable technical orders and use of Air Force (AF) Form 1800.

A2.1.4. Safely and proficiently operate the UTV.

**A2.2. Instructions.** Before beginning the performance test, the trainer will brief the trainee on the scenario that will need to be accomplished. He/she will be given additional directions and instructions as needed throughout the scenario.

**A2.3. Scoring.**

A2.3.1. The trainer examiner will be scoring the trainee on UTV operations and also the general safe driving practices. The examiner will give directions and instructions to the trainee in sufficient time for him/her to execute a driving maneuver. They will not be asked to drive in an unsafe manner.

A2.3.2. The examiner will be making various marks on the performance test checklist. This does not necessarily mean anything has been done wrong. It is in the best interest to concentrate on the operation of the UTV. The trainer will explain the test results at the conclusion of the performance test.

A2.3.3. Tasks being graded are listed on the following page; the trainee will be required to successfully pass all items.

A2.3.4. The instructor will stop the test at any time safe operations are not being followed or as deemed necessary for safety concerns.

# Figure A2.1. 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. Performs post trip inspection and reports malfunctions to Vehicle Management. |  | |  |
| **Event** | **Go** | | **No Go** | **Notes** |
| **2. BASIC CONTROL AND VEHICLE OPERATION** | | | |  |
| 2.1. Safety belt is used; obeys all traffic signs, signals, and laws; completes test without an accident or moving violation. |  | |  |
| 2.2. Avoids jerky starts and stops. |  | |  |
| 2.3. Does not cut corners sharply. |  | |  |
| 2.4. Maintains proper speed and space. |  | |  |
| 2.5. Ensure proper UTV safety practices. List safety violations. |  | |  |
| 2.6. Turns: | | | |  |
| Checks traffic in all directions; uses turn signals and safely gets 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. |  | |  |
| 2.7. Stopping - decelerates smoothly, brakes evenly, changes gears as necessary; brings vehicle to a full stop without coasting. |  | |  |
| 2.8. Starting - checks traffic, avoids jerky starts. |  | |  |

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| **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. |  |  |
| Basic knowledge of engines. |  |  |
| 3.2. Brakes and Braking Techniques | | |
| Proper use of parking brake. |  |  |
| Performs brake check before pulling out. |  |  |
| **Event** | **Go** | **No Go** | **Notes** | |
| **4. BACKING/PARKING** | | |  | |
| 4.1. Backing. | | |  | |
| Positions properly. |  |  |  | |
| Inspects before backing. |  |  |  | |
| 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. |  |  |  | |
| Uses emergency warning devices, if required. |  |  |  | |
| **Event** | **Go** | **No Go** | **Notes** |
| **5. UTV OPERATIONS** | | |  |
| 5.1. Mounting attachments.. |  |  |
| 5.2 Kickbroom Operation |  |  |  |
| **CERTIFIER COMMENTS:** | | | |

# Attachment 3

### SEVEN-STEP INSPECTION PROCESS

**Figure A3.1. Seven-Step Inspection Process.**

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| **Seven-Step Inspection Process** | | |
| **Step** | | **Procedure** |
| 1. Vehicle Overview | | * Review the AF Form 1800. * Ensure any discrepancy has been corrected. * Vehicle Management annotated the discrepancy was completed. * 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: * Engine oil level. * Coolant level in radiator; condition of hoses. * Power steering fluid level; hose condition (if so equipped). * Windshield washer fluid level. * Battery fluid level, connections and tie-downs (battery may be located elsewhere). * Automatic transmission fluid level (may require engine to be running). * 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. * Oil pressure. Should come up to normal within seconds after engine is started. * 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. * Ammeter and/or voltmeter. Should be in normal range(s). * Coolant temperature. Should begin gradual rise to normal operating range. * Engine oil temperature. Should begin gradual rise to normal operating range. * Warning lights and buzzers. Oil, coolant, charging circuit warning, and antilock brake system lights should go out right away. * Check Condition of Controls. Check all of the following for looseness, sticking, damage, or improper setting: * Steering wheel. * Clutch. * Accelerator (gas pedal). * Brake controls. * Foot brake. * Parking brake. * Transmission controls. | |

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|  | * Interaxle differential lock (if vehicle has one). * 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. * 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: * Chains (where winter conditions require). * Tire changing equipment. * List of emergency phone numbers Accident reporting kit (packet). * 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. |

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

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|  | * Check for damage and clean if dirty. * Check windshield wiper arms for proper spring tension. * Check wiper blades for damage, "stiff" rubber, and securement. * Lights and reflectors. * Parking, clearance, and identification lights clean, operating, and proper color (amber at front). * Reflectors clean and proper color (amber at front). * Right front turn signal light clean, operating, and proper color (amber or white on signals facing forward). * Right side * Right front: check all items as done on left front. * Primary and secondary safety cab locks engaged (if cab-over-engine design). * Right fuel tank(s). * Securely mounted, not damaged, or leaking. Fuel crossover line secure. * Tank(s) contain enough fuel. Cap(s) on and secure. * Condition of visible parts. Rear of engine--not leaking. Transmission-- not leaking. * Exhaust system--secure, not leaking, not touching wires, fuel, or air-lines. * Frame and cross members--no bends or cracks. * Air-lines and electrical wiring-- secured against snagging, rubbing, wearing. * Spare tire carrier or rack not damaged (if so equipped). * Spare tire and/or wheel securely mounted in rack. * Spare tire and wheel adequate (proper size, properly inflated). * Curbside cargo compartment doors in good condition, securely closed, latched/locked and required security seals in place. * Right rear. |

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|  | * Condition of wheels and rims--no missing, bent, or broken spacers, studs, clamps, or lugs. * 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. * Tires same type, e.g., not mixed radial and bias types. * Tires evenly matched (same sizes). Wheel bearing/seals not leaking. * Suspension. * Condition of spring(s), spring hangers, shackles, and u-bolts. * Axle secure. * Powered axle(s) not leaking lube (gear oil). Condition of torque rod arms, bushings. * Condition of shock absorber(s). * If retractable axle equipped, check condition of lift mechanism. If air powered, check for leaks. * Condition of air ride components. * Brakes. * Brake adjustment. * Condition of brake drum(s) or discs. * Condition of hoses--look for any wear due to rubbing. * Lights and reflectors. * Side-marker lights clean, operating, and proper color (red at rear, others amber). * Side-marker reflectors clean and proper color (red at rear, others amber). * Rear. * Lights and reflectors. * Rear clearance and identification lights clean, operating, and proper color (red at rear). * Reflectors clean and proper color (red at rear). * Taillights clean, operating, and proper color (red at rear). |

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|  | * Right rear turn signal operating, and proper color (red, yellow, or amber at rear). * License plate(s) present, clean, and secured. * Splash guards present, not damaged, properly fastened, not dragging on ground, or rubbing tires. * End gates free of damage, properly secured in stake sockets. * Rear doors securely closed, latched/locked. * Left side. * Check all items as done on right side, plus: * Battery (batteries) (if not mounted in engine compartment). * Battery box (boxes) securely mounted to vehicle. Box has secure cover. * Battery (batteries) secured against movement. Battery (batteries) not broken or leaking. * Fluid in battery (batteries) at proper level (except maintenance-free type). * Cell caps present and securely tightened (except maintenance-free type). * 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. |

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|  | * Check for all required papers, trip manifests, permits, etc. * Secure all loose articles in cab (they might interfere with operation of the controls or hit the operator in a crash). * Start the engine. |
| 7. Start the Engine and Check Test for Hydraulic Leaks | * Test for hydraulic leaks. * If the vehicle has hydraulic brakes, pump the brake pedal three times. * Then apply firm pressure to the pedal and hold for five seconds. * The pedal should not move. If it does, there may be a leak or other problem. * Brake system. * Test parking brake. * Fasten safety belt. * Set parking brake (power unit only). Place vehicle into a low gear. * Gently pull forward against parking brake to make sure the parking brake holds. * If it doesn't hold vehicle, it is faulty; get it fixed. * Test service brake stopping action. * Go about 5 miles per hour. * Push brake pedal firmly. * "Pulling" to one side or the other can mean brake trouble. * Any unusual brake pedal "feel" or delayed stopping action can mean trouble. * 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: * Instruments. * Air pressure gauge (if the vehicle has air brakes). Temperature gauges. * Pressure gauges. Ammeter/voltmeter. * Mirrors. * Tires. * Cargo, cargo covers. Lights, etc. |

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|  | 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. |