

**Forest Service Handbook  
National Headquarters – Washington Office  
Washington, DC**

**Forest Service Handbook 7109.19 – Fleet Equipment Management Handbook  
Chapter 30 - Use, Loading, and Storage**

**Amendment:** 7109.19-2020-1

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**Duration:** This amendment is effective until superseded or removed.

**Superseded Directive:** 7109.19, 30, Amendment 7109.19\_30\_Amend-2018, March 5, 2018

**Approved by:** Tina Terrell, Associate Deputy Chief, NFS

**Date approved:** June 29, 2020

**Responsible Staff:**

**Explanation of changes:** Following is an explanation of the changes throughout the directive by section.

**30:** Changes section header from “Use, Loading, and Storage” to “Fleet Operations and Safety.” Clarifies RSC responsibilities to provide additional information supplementary to Owner’s Manual and Agency and Department policy.

**31:** Changes section header from “Vehicle Load” to “Vehicle and Trailer Loading.”

**31.05:** Updates Definition section to add new terminology pertinent to chapter and clarifies older terminology.

**31.1:** Vehicle Ratings. Updates Fire-related Weight of driver and passengers per seat belts used in determining cargo limitation for vehicles to indicate “250lbs each.”

**31.2:** Load Limits and Distribution. Updates language to clarify use and location of form FS-7100-2a; expands “Performance” to “Vehicle Performance” and updates definition.

**31.3:** Removes obsolete language and clarifies all trailers with a GTWR of 1,500lbs or greater must be equipped with trailer brakes without exception; and clarifies use of wheel chock blocks on all parked trailers.

Clarifies that all trailers with air brakes must meet FMVSS 121, and identifies weight limitations for trailers with hydraulic surge brakes to 20,000lbs GTWR.

Clarifies requirement for independent sway controls for trailers over 6,000lbs GTWR where active trailer sway control systems are not already present on the towing vehicle. Clarifies requirement for adequate ground clearance for trailers when towed on roads with varied maintenance level ratings. Adds reference to OEM and 49 CFR 567.5 for installation of all frame-mounted hitch receivers.

**32:** Updates section adding reference to Federal Bridge Gross Weight Formula for calculating bridge capacity; directs operators to obtain overload permits from the Forest Supervisor and Regional Bridge Inspection Program Manager.

**34:** Adds requirement to address fuel storage and/or drain issues associated with long-term storage of fleet equipment.

**35:** Establishes code, caption, and sets forth direction on “Multiple Passenger Vehicles and Vans.”

**36:** Establishes code, caption, and sets forth direction on “Transporting Service Animals and Pets.”

**37:** Establishes code, caption, and sets forth direction on “All-Terrain Vehicle (ATV) and Utility All-Terrain Vehicle (UTV).”

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## 30 - Fleet Operations & Safety

### 31 - Vehicle and Trailer Loading

Regions, Stations, and National Job Corps (RSC) shall ensure field unit compliance with Owner's Manual information, and Agency and Department policy regarding vehicle and trailer loading activities. These factors have a direct bearing on safety and on the cost of maintaining fleet equipment.

#### 31.05 - Definitions

Adjustment for Elevation. For towing applications, the manufacturer's gross combination weight rating (GCWR) shall not be exceeded, and must be adjusted for elevations above sea level at the rate of 2 percent per 1,000 feet above sea level per manufacturer recommendations.

Curb Weight. The curb weight (CW) is the actual weight, in pounds, of a vehicle or trailer, including all permanently attached items and a full tank of fuel. It does not include the cargo, driver, or passengers. Obtain the curb weight by weighing the vehicle on a public scale.

Driver and Passengers. The average weight of the driver and passengers (DP) per number of seat belts used for calculation purposes is 175 pounds per individual. Fire engine calculations must use 250 pounds per seating position as described in National Fire Protection Association (NFPA) 1906, Standards for Wildland Fire Apparatus which includes estimated weight for personal firefighting gear.

Federal Motor Vehicle Safety Standards. The Federal Motor Vehicle Safety Standards (FMVSS) are identified in 49 Code of Federal Regulations (CFR).

Fifth Wheel Trailer. A fifth-wheel trailer is any trailer design that places the pivot point over the vehicle's rear axle instead of completely behind it. Fifth-wheel trailers typically have a cargo floor extending over the tractor or towing vehicle frame.

Fleet Equipment. All agency owned (Working Capital Fund and project), rented and leased (General Services Administration and commercial) vehicles and equipment.

Fleet Point of Contact (FPOC). An employee at the Unit or Subunit level who is designated certain fleet management responsibilities on an as-needed or collateral duty basis. The FPOC is not a Fleet Program Manager.

Gooseneck Trailer. A gooseneck trailer derives its name from its shape. A gooseneck trailer uses a kingpin, ball and socket coupling or other similar trailer connection method located above and forward of the rearmost axle of the towing vehicle.

Gross Axle Weight Rating. The gross axle weight rating (GAWR) is the maximum weight, in pounds, that each axle system (front and rear) is designed to safely carry. An

axle system consists of the axle, springs, wheels, rims, and tires. The lowest rated component of the system determines the GAWR. Modification of axle or suspension components through the use of lift or leveling kits and other components, or attempts to adjust final manufacturer identified GVWR is prohibited, unless performed by a final stage manufacturer per 49 CFR Part 568.

Gross Combination Weight Rating. The gross combination weight rating (GCWR) is the combined maximum weight, in pounds, of a fully loaded vehicle and fully loaded trailer, at which the each is designed to operate. The total fully loaded weight of the vehicle and trailer must never exceed the GCWR.

Gross Trailer Weight Rating. The gross trailer weight rating (GTWR) is the maximum fully loaded weight, in pounds, at which the trailer is designed to operate. The total weight of the loaded trailer must never exceed the GTWR. (Some trailer manufacturer's labels will use GVWR in lieu of GTWR. The acronyms are synonymous.)

Gross Vehicle Weight Rating. The OEM or Final Stage Manufacturer established gross vehicle weight rating (GVWR) is the fully loaded weight, in pounds, at which the vehicle is designed to operate. The total weight of the loaded vehicle, fuel, cargo, driver, and passengers must never exceed the GVWR.

Load Capacity. Load capacity refers to the maximum amount of weight a truck's springs, chassis, and bed are designed to safely carry.

Lunette Ring. A type of trailer hitch that uses a ring configuration instead of a ball and works in combination with a pintle hook/hitch on a tow vehicle.

Original Equipment Manufacturer (OEM). The OEM is the vehicle or trailer manufacturing company that produced the vehicle or equipment and certifies the gross vehicle weight limit. Not necessarily the Final or Secondary Stage Manufacturer.

Payload. The payload is the maximum weight, in pounds, that a vehicle or piece of equipment is designed to carry. Cargo includes the weight of the driver, passengers (Fire or non-Fire), trailer tongue or hitch weight, and any supplies or tools the vehicle or piece of equipment is expected to carry. Rough Road Factors (RRF) apply to reductions in payload capacity only.

Pintle Hook/Hitch. A towing device attached to the chassis of a vehicle for towing in combination with a lunette ring. Provides a more secure coupling, desirable on rough terrain, compared to ball-type trailer hitches. Commonly seen in heavy towing applications such as agriculture, industry, and the military.

Public Road. A road that is:

1. Available except during scheduled periods of time, extreme weather, or emergency conditions.
2. Passable by four wheeled standard passenger cars; and

3. Open to the general public for use without restrictive gates, prohibitive signs, or regulation other than restrictions based on size, weight, or class of registration. (FSM 7730, 23 U.S.C. 101(a)(27); 23 CFR 460.2(c) and 660.103).

Regions/Stations/National Job Corps Center (RSC). Acronym for Region, Station, and/or National Job Corps Center. Historically called “RSA,” before the “Area” portion became obsolete. Acronym is in transition from RSA to RSC as of this revision.

Rough Road Factor (RRF). A rough road factor reduces the payload only, due to the dynamic loads and stressors imposed on the vehicle and/or trailer from off-road conditions. Smooth all-weather surfaces on public roads may have an RRF of 1.0 and require no adjustment to payload, while rough, gravel covered, or primitive unsurfaced roads may have an RRF of 0.9 (an approximate 10 percent reduction in payload capacity) for safe operations.

Extreme off-road conditions may require further reduction in payload. Refer to FSH 7709.59, Section 62.32 – Maintenance Level Descriptions, for specific definitions and reference in determining how to estimate RRF for specific applications.

Society of Automotive Engineers (SAE). Establishes internationally recognized automotive standards and testing procedures.

Secondary and Final Stage Manufacturer. Refer to 49 CFR, Section 567.5 for requirements for manufacturers of vehicles built in two or more stages.

Straight Tongue Trailer. A straight tongue trailer derives its name from its shape. A straight tongue trailer can also be referred to as a bumper pull trailer. This trailer uses a frame-mounted ball and socket coupling, pintle hook/hitch type, or other similar trailer connection method.

Tongue Weight. The actual vertical load carried by the towing hitch of a vehicle or piece of equipment. Never exceed the maximum rated tongue weight of the towing hitch components

Trailer/Tow Hitch. A device typically bolted onto the chassis of a vehicle or piece of equipment for towing. Consists of a portion that mounts to the frame of the vehicle that has a rearward-facing opening that accepts removable ball mounts and other hitch mounted accessories. See standard SAE J684 Ratings for various trailer hitch configurations.

Trailer Weight (TW). The trailer weight is the actual weight, in pounds, of a loaded trailer. The TW equals the curb weight (CW) plus the payload.

Unit. One organizational level lower than RSA/RSC, such as Forest, Grassland or Zone.

Vehicle Weight (VW). The vehicle weight is the actual weight, in pounds, of a vehicle that is fully loaded and fueled, including curb weight, cargo, driver, and passengers per number of seat belts used.

Weight-Distributing Hitch. A load-leveling hitch that uses spring bars and chains under tension to distribute part of the trailer hitch weight from the towing vehicle's rear axle to the front axle and to the trailers axle(s). These can help reduce trailer sway/fishtailing.

### 31.1 - Vehicle Ratings

Nominal Ratings. Always refer to GVWR when specifying truck size and necessary capacities.

Determining Cargo Limitation for Vehicles: Calculate the maximum cargo load (CL) for each vehicle in the fleet using the following formula:

$$CL = RRF * (GVWR - CW) - DP$$

Where:

CL = Maximum Cargo Load

DP = Weight of driver and passengers per seat belts used (250lbs ea. – Fire; 175 lbs. ea. - Non Fire)

RRF = Rough road factor based on expected road conditions

GVWR = Gross vehicle weight rating

CW = Curb weight

Example: Determine the maximum allowable cargo load for a pickup truck having a GVWR of 6,300 pounds and a CW of 3,800 pounds. The vehicle is to be operated mostly on rough roads and has a driver and one passenger.

$$CL = RRF * (GVWR - CW) - DP$$

$$CL = 0.9 * (6,300 - 3,800) - 350$$

$$CL = 0.9 * (2,500) - 350$$

$$CL = 2,250 - 350$$

$$CL = 1,900 \text{ pounds}$$

### 31.2 - Load Limits and Distribution

1. Maximum Cargo Loading Limits. The Unit Fleet Program Manager shall calculate and enter the maximum permissible cargo-load that can be hauled using the 0.9 rough road factor (RRF) on Form FS-7100-2a, Equipment Identification Card. These must be placed in the vehicle log book, or on a label for each vehicle or fire engine. Due to potential liability, Fleet Program Managers and drivers shall use the 0.9 RRF as a default; however, they shall consider all possible road conditions encountered and adjust permissible payload (per RRF) prior to departure.

2. Load Distribution. To prevent the potential impacts to vehicle handling, the center of gravity of all heavy loads must be ahead of the rear axle(s) so that up to 25 percent of the load weight is carried on the front axle in most truck configurations. General loads must be secured as far forward in the bed or cargo space of a vehicle as possible to minimize forward load shift during sudden braking.

3. Vehicle Performance. The load, drive train, and terrain affect vehicle performance. Drivers shall consider road conditions, cautionary speed limits, extended stopping distances, reduced MPGs, and so forth; and exercise caution whenever operating a loaded or towing vehicle.

### **31.3 - Trailer Towing Requirements**

Operators shall preform pre-use inspections each day that the trailer is used.

State trailer towing regulations (height, width, brakes, trailer chains, towing combination minimum braking distance, emergency brake away systems, and so forth) vary. When crossing State lines, drivers are cautioned to be knowledgeable of the applicable State laws and reciprocity agreements (or lack thereof).

See trailer towing worksheet in the [EM 7130-4, Forest Service Desk Guide for Fleet Management](#) for more information for determining actual load limits.

#### **1. Selecting Trailer Towing Combinations.**

- a. Consult OEM recommended capacities when selecting vehicle and trailer towing combinations. If a manufacture's recommendation is not available, contact your RSA/RSCC Fleet Program Manager for assistance.
- b. Do not exceed the gross combination weight rating (GCWR) of the towing vehicle.
- c. Components of the towing vehicle must be designed to support towing operations on the expected road conditions. These include and are not limited to:
  - (1) Appropriate towing mirrors when trailers are wider than towing vehicle.
  - (2) Electronic trailer brake controller with manual actuator.
  - (3) OEM vehicle towing options for adequate power and systems cooling.
  - (4) Vehicle stability control when available.
  - (5) Anti-sway control when available.
  - (6) OEM or commercially installed receiver hitch and/or gooseneck hitch.
- d. Determine elevation of mountain passes traveled and allow for reduced GCWR accordingly.
- e. Towing with sedans, station wagons, or minivans is prohibited.

#### **2. Brakes and Braking.**

Trailers with a GTWR of 1,500 pounds or greater must be equipped with trailer brakes without exception.

### 3. Straight Tongue Trailers.

Ensure the trailer hitches and hitch receivers are of a class equal to or higher than the class of trailer being towed and the actual weight ratings on the components meet or exceed the GTWR requirements. When manufacturer's recommendations are not available, the maximum GTW that may be towed must not exceed 75 percent of the GVWR of the towing vehicle. The actual loaded weights must never exceed the GAWR. The tongue weight at the hitch must not be less than 10 percent or exceed 15 percent of the loaded trailer weight or as directed in the OEM owner's manual.

Load distributing and/or equalizing hitches must be used for towing applications when the trailer exceeds 50 percent of the GVWR of the towing vehicle and/or for trailers exceeding 6,000 GTWR. Independent, dependent, or active sway controls must be used when towing trailers over 6,000 GTWR unless the towing vehicle has an active trailer sway control system.

Do not exceed the manufacturer's actual weight limits marked on all trailer towing components. The lowest rated component dictates the maximum towing capacity.

Ensure sufficient clearance is provided when using weight distributing hitch assemblies for the roads traveled on.

Hitch class weight ratings (SAE J684) are below:

- a. Class I systems (bumper or 1 ¼ x 1 ¼ inch receiver hitch opening) accept up to 200 pounds tongue weight, 2,000 pounds trailer weight.
- b. Class II systems (frame mounted with a 1 ¼ x 1 ¼ inch receiver opening) accept up to 350 pounds tongue weight, 3,500 pounds trailer weight.
- c. Class III systems (load distributing with 2 x 2 inch receiver opening) accept up to 500 pounds tongue weight, 5,000 pounds trailer weight.
- d. Class IV systems (load equalizing with a 2 x 2 inch receiver opening) accept up to 1,000 pounds of tongue weight, 10,000 pounds trailer weight.
- e. Class V systems (load equalizing with a 2 ½ x 2 ½ inch receiver opening) accept up to 1,800 pounds tongue weight, 18,000 pounds trailer weight. (Class V is marketed by manufacturers and not listed in SAE J684.)

All frame mounted hitch receivers must be commercially manufactured and installed in accordance with written OEM specifications and requirements for secondary and final stage manufacturers (49 CFR 567.5).

### 4. Gooseneck and Fifth Wheel Trailers.

Do not exceed the manufacturer's specified GCWR of the towing vehicle and trailer or the GAWR of either. The weight on the gooseneck (coupler) must not exceed 25 percent

of the trailer weight if the towing vehicle is a light truck (up to 19,500 pounds GVWR); and 33 to 50 percent of the trailer weight if a truck tractor with a fifth wheel coupler is used.

The gooseneck coupler must be located forward of the rear axle of the towing vehicle. Determine the exact location using vehicle and hitch manufacturer's standards.

Ensure adequate body clearance between gooseneck trailers and towing vehicles.

#### 5. Other Requirements.

- a. Ensure that all trailers with a tongue weight heavier than 100 pounds have appropriate trailer tongue jacks or landing gear with appropriate foot plate(s) designed to support the full GTWR. Immediately replace damaged trailer tongue jacks. Do not place trailer tongue jack ends onto bricks, rocks, boards, or other unstable supports.
- b. All parked trailers must be secured with wheel chock blocks.
- c. Ensure that all trailers have operational taillights, marker lights, backup lights, turn lights, and stoplights per State and Federal regulations.
- d. Equip all straight tongue and gooseneck trailers with safety chains with a load strength equal to or exceeding the GTWR or as required by State law, whichever is greater.
- e. Ensure that wooden decks are maintained and do not have any broken or missing planking.
- f. Ensure that forged solid ball platforms are utilized with tandem axle bumper pull trailers. Do not use hollow tube ball platforms on other than single axle trailers.
- g. Ensure that all trailer tires are ST, LT or industrial designated tires only. P (passenger) designated tires must never be used on trailers.

### **32 - Hauling Permits**

Legal vehicle loads on National Forest System roads are generally controlled by bridge capacities and are addressed in the Federal Bridge Gross Weight Formula (23 CFR Part 658.17) and State laws. Refer to FSM 7736.52. Obtain State permits for overweight and overwide loads to move on highways as required. The Forest Supervisor, with the concurrence of the Regional Bridge Inspection Program Manager, is responsible for issuing overload permits on National Forest System Roads in accordance with the requirements, procedures and guidance of the Forest Service Bridge Inspection Guide (BIG Chapter 5). Except in emergencies that pose an immediate risk to health, life, property, or the environment, the Forest Service shall operate its equipment and shall secure permits for moving restricted loads in accordance with State and local laws and regulations. Make advance arrangements with local or State officials for prompt movement of overweight and overwide loads for fire and other emergencies. It is the driver's or

operator's responsibility to procure and carry the necessary certification, authorization, and permits.

When non-Government vehicles move Government-owned or Government-rented equipment, the person or firm providing this service shall obtain the necessary permits.

### **33 - Fleet Equipment Security**

Supervisors are responsible for ensuring that Department and Agency policies regarding the security of all fleet equipment are met.

All fleet equipment must be secured to prevent theft, vandalism, damage, and to maintain a favorable public image.

#### **33.1 - Unattended Fleet Equipment**

Secure unattended fleet equipment and their contents from theft and property damage. Never leave the keys or credit card in the fleet equipment, even if parked in a secured area. When motor vehicles are parked in commercial facilities that require surrendering the keys to the attendant, remove and secure the fleet credit card.

Fleet equipment must not be parked or stored near areas or businesses that could project an unfavorable image such as bars, amusement parks, shopping malls, or casinos.

#### **33.2 - Field Security of Fleet Equipment**

1. Use a secured area, if it is close by.
2. Park out of public view.
3. Use theft and vandalism protection such as lockable access panels, fuel caps, and cabin doors on construction or industrial equipment.

### **34 - Long-Term Storage**

Equipment scheduled for further use that will be idle for more than 60 days must be stored in a secure location. When placing equipment into secured storage, refer to and use information provided in EM-7130-2, Driver Operator Guide and the OEM manual.

Periodically inspect all fleet equipment in storage and perform corrective services, winterization where appropriate, and preventive maintenance as necessary (to include appropriate fuel treatment or fuel tank drain).

### **35 – Multiple passenger Vehicles and vans**

#### **35.1 – Transporting Passengers**

1. Drivers operating vehicles designed to transport more than 16 passengers (including the driver) shall have a valid state Commercial Driver's License (CDL) and be enrolled in the Department of Transportation Federal Highway Administration Drug and Alcohol Testing Program. Additionally, an OF-346 (US Government Motor Vehicle Operator's Identification Card) displaying the size and type of vehicle being authorized is required.
2. A 15-passenger van may not be purchased, leased, or rented for use by the Forest Service. Transportation needs must be met through the use of smaller passenger vans or larger passenger buses.
3. Limit the use of roof racks on passenger vans to carrying light loads, not over 60 pounds (for example, ladder rack, survey poles, rowing oars, and so forth) so as not to affect the vehicle center of gravity.

### **35.2 - Safety Practices.**

Every passenger carrying vehicle must meet appropriate standards for carrying passengers. All passenger vans must provide a seat belt for each passenger.

### **36 - Transporting Service animals and pets**

#### **36.1 - Non-Law Enforcement Service Animals and Personal Pets.**

Transporting personal pets in a Government Owned Vehicle is not authorized without written Line Officer approval. Transporting non-Law Enforcement service animals shall be addressed in a job hazard analysis or risk analysis that identifies the individual and is signed by a Line Officer. All animals shall be restrained/constrained during transport to safeguard driver and animal in the event of a collision.

### **37 – All-Terrain Vehicles (ATVs) and Utility All-Terrain Vehicles (UTVs)**

#### **37.04 - Responsibility**

1. Project leaders, Supervisors, and Managers shall:
  - a. Ensure that only qualified and authorized employees and volunteers operate ATVs and UTVs (see FSH 7109.19, ch. 61).
  - b. Ensure that a Job Hazard Analysis (JHA)/Risk Management Assessment (RA) is prepared for each type of all-terrain vehicle (ATV) and utility-terrain vehicle (UTV) activity.
  - c. Ensure all employees follow this standard whenever operating an ATV or a UTV, or riding as a UTV passenger on all operations, tasks and jobs when on duty on and off National Forest lands.

- d. Ensure that ATV's are not authorized for "industrial use" activities by Forest Service employees (see definition in sec. 37.1 e).
2. Forest Supervisors and Assistant Directors for Research and Centers shall:
    - a. Ensure that training and testing program for all vehicles and equipment (including ATV/UTV) is carried out.
    - b. Designate a Point of Contact (POC) to manage the training and testing program.
  3. Fleet Program Managers have the primary responsibility for managing WCF ATV/UTVs. Program POCs are responsible for Project owned ATV/UTVs. They shall:
    - a. Maintain all maintenance and inspection records.
    - b. Ensure all UTVs have certified Rollover Protection Structure (ROPS).
    - c. All ATV/UTVs are to be maintained, serviced, and inspected as per manufacturer's direction and Fleet Equipment Management policy.

### **37.05 - Definitions**

All-Terrain Vehicles (ATVs). Any motorized off-highway vehicle 50 inches or less in width, traveling on four or more low-pressure tires, having a seat to be straddled by the operator and handlebar for steering control.

ATV Trainer. An individual who has completed an ATV instructor course or identified as a technical equipment expert for the unit or sub-unit.

Industrial Use. An activity that includes activities such as pesticide/herbicide applications, firing device applications, or using a pumper attachment; or transportation of greater than 15 gallons of liquid cargo. ATVs are not authorized for industrial use by Forest Service employees. Industrial use does not include the following:

1. Transporting the operator plus solid cargo that does not exceed weight limitations of either the cargo racks and/or a combined weight of the operator and cargo that does not exceed vehicle limitations.
2. Transporting the operator with liquid cargo less than 15 gallons that does not exceed weight limitations of either the cargo racks and/or a combined weight of the operator and cargo that does not exceed vehicle limitations.
3. The use of a utility trailer to transport cargo, within towing and weight limits of both the ATV/UTV and the trailer. Operating equipment (spraying or firing devices) on a trailer is industrial use and is not approved when towing with an ATV.

Maximum Manufacturer's Cargo Rack Weight Limitation. Limits specified by the manufacturer in the ATV or UTV operator's manual for the front and rear of the vehicle.

Maximum Manufacturer's Towing Capacity. Capacity specified by the manufacturer of the ATV or UTV in the operator's manual for the vehicle.

Off-highway vehicle. Any motor vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain.

Over-snow vehicle. A motor vehicle that is designed for use over snow and that runs on a track or tracks and/or a ski or skis while in use over snow.

Risk Management Assessment (RA). Risk analyses to examine the hazards activity, in order to develop effective strategies to reduce the level of risk and approved by a Line Officer.

Rollover Protection Structure (ROPS). ROPS, or rollover protective structure, is a cab or frame that provides a safe environment for the operator in the event of a rollover. Only certified ROPS will be installed on Forest Service UTV's.

Utility-Terrain Vehicles (UTVs). A motorized vehicle designed for off-highway use capable of maneuvering over uneven terrain, having four or more low pressure tires, designed with side-by-side seats or a single seat, seatbelt(s), steering wheel, and equipped with certified rollover protection structure (ROPS).

UTV Trainer. An individual who has completed a UTV or Recreational Off-Highway Vehicle Association (ROHVA) instructor course or identified as a technical equipment expert for the unit or sub-unit.

### **37.1 - Qualifications**

1. For maintaining and tracking of certifications and re-evaluation requirements, refer to FSH 7109.19, chapter 60.
2. Only qualified and authorized employees shall operate ATV/UTVs. Qualifications include:
  - a. A valid Operator's Identification Card, OF-346, which documents qualifications on the type of ATV/UTV being used and trailer towing limits as applicable.
  - b. Certification training every 4 years by a trainer. Document the date of this training in the employee's development folder to establish the time period for re-certification of the ATV/UTV operator. This requires successfully completion of:
    - (1) ATV—USDA Forest Service National Technology and Development Program ATV operator training course or equivalent.
    - (2) UTV—USDA Forest Service National Technology and Development Program UTV operator training course or equivalent.

(3) Being familiar with the Forest Service Driver-Operator Guide and the ATV/UTV manufacturer's operating manual.

3. Operators shall be trained and authorized for hauling UTVs/ATVs with a trailer as needed.

### **37.2 - Personal Protective Equipment (PPE)**

1. Identify PPE and field equipment required for ATV/UTV use in the JHA/RA. At a minimum the following PPE/field equipment shall be used:

a. First aid kit as outlined in FSH 6709.11, sec. 21.22 with bloodborne pathogens equipment.

b. A properly fitting motorcycle helmet with chin strap properly secured for ATV operators, UTV operators, and passengers.

(1) Helmets must meet requirements of the Department of Transportation (DOT), ANSI Z90.1 standard, or Snell Memorial Foundation (SMF) standards.

(2) Helmets must be replaced as recommended by their manufacturer or sooner if significant wear or damage from an impact or accident is evident.

c. Eye protection. Safety glasses, goggles, or sunglasses that meet the ANSI Z87.1 standard or face shield.

d. Field work attire of long sleeved shirts, long pants, field boots, and gloves

### **37.3 - Loading and Hauling**

1. Loading and unloading are high hazard operations and injuries are likely to be severe. For this reason, all required PPE shall be worn while loading and unloading ATVs/UTVs to and from vehicles and trailers. This also applies to winching operations, even though the operator is not on the vehicle.

2. Transport vehicles must have the adequate rated capacity and capability to haul the ATV/UTV without exceeding the vehicle's gross vehicle weight rating (GVWR). Follow direction in FSH 7109.19, chapter 30 for maximum trailer and vehicle loading capacities.

3. When transporting an ATV/UTV on a trailer, the trailer must have the appropriate rating, ensuring that the load does not exceed combined gross vehicle weight and trailer rated capacity.

4. Only pickup trucks or larger vehicles that have room for all four wheels of the ATV/UTV to rest on the bed of the truck will be used to transport ATVs. Total cargo carried (including passengers, gear, and ATV/UTV in a truck) may not exceed the limits in FSH 7109.19, section 31.1.

5. Trailers shall be the only way to transport UTVs over 50 inches wide.

6. Trailers are the recommended method for transporting off-highway vehicles.
7. Check the ATV/UTV owner's manual for maximum loading or unloading slope capabilities.
8. Transporting an ATV/UTV in a pickup truck has the following requirements:
  - a. Pickups may transport only one ATV/UTV loaded in the bed.
  - b. Under no circumstances will an ATV/UTV be loaded into a vehicle when the ATV/UTV must be driven over the wheel wells.
  - c. Pickups and utility bed trucks transporting ATV/UTVs must be equipped with rear cabin window protection.
  - d. When transporting an ATV/UTV in a pickup truck, it is strongly recommended that the tailgate be completely closed at all times. If the tailgate cannot be closed, all four tires of the ATV/UTV shall rest on the pickup bed at all times and not on the tailgate.
9. Operators should consider the following methods to reduce the ramp angle for loading ATV/UTVs onto pickup trucks:
  - a. Ramps may be of one- or two-piece design, rigid, or folding. Hinges must be factory installed.
  - b. Ramps must be adequately rated to support the combined weight of the vehicle, the operator, and any cargo that cannot be removed from the machine for loading.
  - c. Wooden ramps may not be used.
10. Loading ramps must be secured to transport vehicle with two tie-down straps, chains, steel cables, or mechanical fasteners, and capable of supporting the ATV/UTV and associated equipment.
11. Secure ATV/UTVs using four tie-downs, two in front, two in back, to prevent forward, backward, and sideward movement. If a commercially manufactured restraining device is used, two tie-downs may be used in lieu of four, provided the use of the device is addressed in the JHA/RA. All tie-down straps must be in good condition, free of frays/splices/knots, and be of sufficient capacity to secure the weight of the equipment being transported.
12. All materials, equipment, or gear in the pickup bed must be secured from movement at all times.

#### **37.4 - Operations**

1. Passengers are prohibited on all ATVs.

2. Carry no more passengers in a UTV than the number of seats with seatbelts installed by the manufacturer. The operator and each passenger must have their own helmet and fully functional seatbelt and it must be fastened and properly adjusted at all times when the vehicle is in motion.
4. Roof cargo racks are prohibited for use within the Forest Service on UTV equipment.
5. When transporting external fuel containers, it is required that each UTV have as a minimum, a secured Class 5-BC fire extinguisher, as stipulated in the “Interagency Transportation Guide for Gasoline, Mixed Gas, Drip Torch Fuel, and Diesel” published by the National Wildfire Coordinating Group. Refer to UTV owner’s manual for fuel transportation prohibitions.
6. Pre-ride Inspection. Operators shall perform a pre-ride safety and mechanical inspection prior to the start of each shift. Exhibit 01 provides a guide to using the “TCLOC” inspection method.

## 37.4 - Exhibit 01

### ATV/UTV OPERATOR Pre-ride Inspection Checklist

Warning: If a proper inspection is not done before each use, severe injury or death could result. Always inspect the ATV/UTV and PPE before each use to ensure the equipment is in proper operating condition.

**T = TIRES & WHEELS:** Tires—Check air pressure and condition. Wheels—Check rim bolts (lug nuts), axle nuts, and wheel bearings.

**C = CONTROLS & CABLES:** Controls and throttle—Locate and check workability. Brakes—Check adjustment and fluid level. Recoil Start and shifter—Check workability.

**L = LIGHTS & ELECTRONICS:** Ignition switch, engine stop switch, and lights—Check workability.

**O = OIL, FUEL, FLUIDS, & AIR FILTER:** Oil—Check level and for leaks. Fuel—Check level. Coolant—Check level and for leaks. Air filter—Check condition (clean and not torn or blocked).

**C = CHASSIS, DRIVESHAFT, SUSPENSION, & EXTERNAL EQUIPMENT:** Chassis and suspension—Shake handlebars, footrests, racks, and so forth, to be sure nothing is loose. Drive shaft—Check for oil leaks and missing nuts and bolts. Check fasteners for tightness and racks for cracks. External equipment—Check winches for proper operation, damaged cables, fairlead, hook, and controls. Check tool boxes and other external equipment and loaded items are secured and in good repair. Check trailer hitches are secured and the proper size and capacity.