

Towing for Campers and ATV Trailers

A. General Policy

1. **Equipment.** No vehicle shall be used to tow a trailer unless it meets the minimum towing capability required.
2. **Traffic violations.** The driver of the towing vehicle must comply with all traffic laws of the local jurisdiction. As discussed earlier, the driver is personally responsible for any traffic citations or parking violations received while towing an MWR Trailer.
3. **Distracted driving.**
 - a. Cell phones. The driver shall not take or place calls on a cell phone while the vehicle is in motion. The driver should stop the vehicle in a safe area to take a call, or another person should take the call.
 - b. Meals. The driver should avoid eating while driving with trailer.
4. **Chocks.** Each trailer shall be equipped with appropriately sized chocks that travel with the trailer. These chocks shall be properly placed around the trailer wheels prior to disconnecting the trailer, no matter the load condition of the trailer or the topography of the ground the trailer is sitting on.
5. **Check the brakes.** Where possible, roll forward and apply the brakes several times at increasing speeds to ensure the brakes are operating properly. Do this before committing to the ebb and flow of traffic.
6. **Tires.** Improper tire inflation may cause unstable handling as well as mechanical failure. It is often impossible to determine if a tire is properly inflated by visual inspection alone. Under-inflated tires do not have the same load bearing capacity than properly inflated tires. One under inflated tire will overload all tires of the trailer. Ideally, all tires should be checked with a tire gauge at every stop. A quick assessment can also be made using a tire iron or by feeling the relative temperature of each tire. A tire struck with a tire iron should sound the same as adjacent, properly inflated tires. All tires should be the same relative temperature when touched with a hand. An under inflated tire will tend to be hotter than a properly inflated tire.

7. **Wheel bearings.** Trailer bearings should be inspected and properly lubricated on a regular basis, especially when trailer wheels are immersed in water during boat launches.

B. Spotters and Signals

1. Spotters.

- a. Spotters shall be used whenever trailers are engaged in backing or in close quarter maneuvering situations (e.g., fueling, parking, or boat launching).
- b. Spotters will position themselves such that they can clearly see the hazards present and can convey the location of those hazards to the driver operating the vehicle. Care should be taken to keep the spotter from between a hazard and the vehicle or trailer.

2. Signals.

- a. Both verbal and visual signals shall be used by the spotter. The standard signals.

C. Loading

1. **Appropriate cargo.** Only cargo for which the trailer is designed shall be loaded in or on a trailer. Boats belong on boat trailers, and other cargo belongs in utility trailers. Personnel should never ride in or on a trailer under tow, especially at highway speeds.

2. Stability.

- a. Loads should be low and evenly spread around the trailer bed. An uneven load or a high center of gravity may significantly affect the handling characteristics of the trailer and tow vehicle. Loads must be securely fastened within the trailer to prevent shifting during movement. A shifting load may cause poor handling, an overturned trailer, loss of load (or trailer), or structural failure of the trailer itself.
- b. Ensure the trailer is loaded evenly from front to back, as well as side to side. Too much weight on the hitch will cause the rear of the tow vehicle to sag and may make steering more difficult. This can also cause headlights to shine into the eyes of oncoming traffic. Too much weight on the rear of the trailer will cause the trailer to “fishtail,” and may reduce traction or even lift the rear wheels of the tow vehicle off the ground.

3. **Specifications.** Never exceed the load capacity of a trailer. Heavy items may exceed the weight capacity of the trailer well before the trailer appears full.

D. Pre-Mission Inspections

1. **Equipment.** All equipment shall be inspected before and after the mission, and at all stops along the way, whether for fueling or driver rest.

2. **Lighting.** Trailer lighting problems are often caused by a poor ground connection between the tow vehicle and the trailer.

3. **Checklist.** A pre-mission checklist shall be completed in its entirety each time the trailer is attached to the tow vehicle. If the inspection is interrupted for any reason, the entire checklist should be restarted to ensure no steps are skipped and assumed complete.

4. **Discrepancies.** Discrepancies shall be rectified prior to the towing evolution.

E. On-the-Road Considerations

1. **Safety checks.** The following items should be checked each time the vehicle-trailer combination is stopped for fuel or rest:

- a. Ensure the tires are properly inflated.
- b. Ensure lights and signals on the trailer function properly.
- c. Ensure the brakes work before gaining too much momentum.
- d. Ensure the mirrors are properly adjusted.

2. **Tires.** Tires must be checked frequently. An improperly inflated tire can catch fire, destroying not only the tire, but the trailer with cargo and even the tow vehicle. A quick check can be made by “thumping” each tire with a tire iron or rod to make sure they all sound the same. At each refueling stop, walk around the trailer and quickly feel each tire with your hand. A tire that is getting low will be hotter than others around it. There is no substitute, however, for measuring tire pressures with a tire gage to make sure they are all within safe limits. This must also be done before each trip.

NOTE: The most common causes of tire failure are overloading and under-inflation. Both result in excess flexing of the sidewall which causes heat buildup and eventual failure. Continuing to run with a flat can cause it to catch fire.

3. **Wheels and lug nuts.**

- a. Trailers typically have higher wheel loading than passenger cars or trucks. Never substitute a car or truck tire for a tire for use on a trailer. Always check lug nut torque before each trip.
- b. Wheel lug nut torque is usually much higher than that specified for passenger car wheels. Check the particular trailer’s recommended specifications. **Do not** drive a loaded trailer with a missing lug nut or damaged lug bolt.

F. Driving

1. **Pulling.** Pulling a trailer presents several challenges. More time and distance are required to brake, accelerate, pass, and stop. The turning radius is also much greater; curbs and roadside barriers must be given a wide berth when negotiating corners. Before operating on the open road, the vehicle operator should practice turning, backing up, and

other maneuvering on a level, un-congested parking area. Backing a trailer is a challenge, even for the most experienced drivers, and requires considerable practice.

2. **Accelerating.** The added weight of the trailer and gear will cause the vehicle engine to work harder when accelerating. Allow the vehicle to reach a comfortable driving speed gradually.

3. **Braking.** Use firm and steady pressure on the brake pedal. Slamming the brakes suddenly can cause the trailer to jack-knife. Extra distance is required for braking when towing a trailer.

4. **Cornering.** Drive your vehicle slightly past the normal turning point then begin your turn. Cornering at a wider angle will keep the trailer wheels from clipping curbs or cutting across a traffic lane.

5. **Passing.** Passing with a trailer is not recommended. If you must pass, allow additional time and distance to safely pass the other vehicle, signal your intention to pass well in advance, and make certain your trailer is clear of the passed vehicle before you reenter the lane.

6. **Driving in windy conditions.** Wind can create difficult situations when towing a trailer by causing oscillations or sudden pulling to one side. Crosswinds of 30 miles per hour can blow the vehicle and trailer off the road, especially if there is a sudden gust. If a stiff gust of wind hits the trailer from the left, the trailer will pitch and move to the right. To compensate, the driver must steer to the left. With the trailer now leaning to the right, the centrifugal force generated by the compensating left turn can be enough to tip the trailer onto its side. The only way to lower the risk of tipping while traveling in these conditions is to slow down. Slowing down reduces the centrifugal force when steering to compensate; and if the wind does tip the trailer, slowing down mitigates some of the violence of the ensuing crash.

7. **Wind from passing trucks.** Large vehicles develop a high pressure wave of air ahead of them and low pressure area behind as they go down the highway. Although the effect is variable and depends on the shape of the truck and the existing wind conditions, as the truck approaches to the left, first the trailer and then the tow vehicle are pushed to the right by the truck's "bow wave." As the truck passes, the following low pressure zone pulls the trailer and then the tow vehicle back to the left. The tow-trailer combination must be steered left and then right to counter the effect.

8. **Trailer sway.** Trailer sway is the oscillation induced by interactions of the tow vehicle and trailer and the centrifugal forces acting upon them. If swaying occurs, steer as little as possible while slowing. Because of a natural lag in reaction time, quick steering movements or sudden braking of the tow vehicle will actually make the oscillations increase. If conditions allow it, accelerating the tow vehicle slightly may also help reduce the oscillation temporarily. Until the problem is identified and resolved, travel at reduced speeds.

9. **Other hazards.** A temporary increase in loading occurs at dips or bumps in the road. A severe dip causes increased weight to suddenly be placed on the hitch, axles, and tires. Although hitch manufacturers take this into account in their designs, an overloaded or old, cracked, and rusted hitch or tongue can be suddenly stressed beyond capacity, causing it to fail. Be alert for bumps and large dips in the road and slow down for them in advance. A conservative safety margin in loading will also be helpful in this type of unforeseen circumstance.

10. **Planning.**

a. Routes should be planned and should factor in traffic patterns and time of day, as well as mileage and fuel accessibility. Overhead clearances and road construction must also be considered.

b. Towing teams should plan and become familiar with their route, with possible alternates in case of unexpected obstacles.

c. Driving with a trailer in tow is much more demanding mentally and physically than the same trip in a passenger vehicle.

11. **Speeds.** Trailers increase stopping distances. While towing a trailer, vehicles shall not exceed 5 mile per hour under the posted speed limit. The driver should never exceed the trailer speed rating, or the maximum safe speed for the existing conditions, whichever is lowest. Increased speeds also create higher stress on equipment, leading to premature wear and tear. This is especially true on boat trailers, when equipment fatigue becomes an issue on long-haul trips. Maximum trailer speeds depend on design and materials used in construction. The manufacturer's literature provided with the trailer should be consulted for a particular trailer's maximum speed rating.

12. **Personal liability.** MWR Patrons are personally liable for traffic violations and could be personally liable for property damage if found to be negligent in the operation of the vehicle and trailer. Liability may include fines, arrest and incarceration, and damages arising from lawsuits.

D. Post-Trailerling

1. **Inspections.** All tow vehicles, trailers, and hitch/receivers shall be inspected for damage and wear after each towing evolution.

2. **Stowing.** All equipment should be stowed properly.

3. **Mishaps.** All mishaps should be reported through the appropriate authority and MWR.

E. Maintenance

1. The pre- and post-mission checklists shall be completed before and after each towing evolution.

2. Equipment checks shall be conducted at each stop during the towing evolution.

1. Mishaps

1. The driver of the vehicle-trailer combination must take extraordinary care to prevent injury and equipment damage.

2. State laws regarding stopping at the scene of an accident and the rendering of aid must be strictly adhered to. This obligation applies whether engaged in emergency (lights and siren) or normal operations.

3. The cognizant police authority should be contacted and a police report requested in all cases of personal injury involving the movement of the tow-vehicle trailer combination.

4. Operators shall report any accident or incident involving any MWR vehicle-trailer combination as soon as possible to the appropriate authority.