

Guidelines for Free Driving

ACTSAFE SAFETY BULLETIN #43

This bulletin provides guidelines for “free driving.” Free driving applies to situations where the driver or passenger in a vehicle is being photographed by cameras attached to the outside or inside of the vehicle, or hand-held by a camera operator inside the vehicle. Free driving also applies to situations where the camera is used to film external shots from inside or on the vehicle. For example, the camera may be attached to the exterior of a vehicle on a door mount (hostess tray), hood mount, or mechanical-track system.

This bulletin does not cover insert-car or process-trailer operations.

GENERAL CONSIDERATIONS

Production should consider all available options (e.g., camera cars, process trailers, alternative driving systems) before deciding that free driving is the most appropriate method.

Driving safely is the first priority. Acting or getting the shot is second. If it's not possible to operate a vehicle safely, use an alternative, such as a process trailer or tow vehicle.

Unsecured equipment

When using unsecured equipment such as hand-held cameras, consider crew and performer placement to ensure the equipment will not become a projectile that could cause injury if there is an incident.

Airbags

Airbags and other automatic devices may need to be disabled for safety, depending on the placement of personnel and equipment. If airbags are disabled, implement alternative safety measures, such as restraint harnesses. Before disabling airbags, consider safety measures such as road closures or reduced speeds.

Airbags should only be disabled by someone who is trained, qualified, and authorized to do so.

Other considerations

- Type and condition of vehicle
- Intended speed and manoeuvres
- Other vehicles operating in close proximity to the free-driving vehicle, including aircraft flown in close proximity
- Scene action (e.g., stunts, performance, special effects)
- A driver's ability to simultaneously perform, drive, and be aware of clearances required for rigging or equipment that extends beyond the vehicle body
- Controlled or uncontrolled environments — closed courses versus open roads with intermittent traffic control (ITC)
- Location permitting requirements, such as road closures, ITC, or driving grids
- Load capacity, centre of gravity, and counterbalance
- Equipment weight, placement, and use (e.g., camera, lighting, props)
- Lighting options, including placement and power
- Visibility conditions for the driver (e.g., cameras, mounts, dust, spray, smoke, lights, restrictive coverings over the windshield)
- Communication system (e.g., walkie-talkies)



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PRIOR TO OPERATION

Rigging and equipment

- When vehicles are used for filming, all rigged equipment must be securely mounted. If cameras are mounted to any part of the vehicle (inside or out), a qualified member of the crew must securely install them with the appropriate mounts and restraints.
- Make sure equipment mounted inside or outside the vehicle will not obstruct the driver's view or distract attention while the vehicle is in motion.
- Don't use lighting inside the vehicle that could impair the driver's vision or distract them.
- A qualified person should perform all rigging of the vehicle and equipment, including cameras and lights. This should be done in an area that is free of known hazards, including other vehicle traffic.
- After rigging cameras and other equipment, do a test drive in a secluded spot or on a private road to make sure the clamps won't come loose through vibrations. Do this each time you stop filming as a secondary check.

The driver

- The driver must be qualified to operate the vehicle and should have an appropriate licence. A licence may not be required by law, but drivers may need special training to be qualified to drive an unfamiliar vehicle or course.

- Do a walk-through with the driver to familiarize them with the characteristics of the vehicle and its controls. Confirm that the driver can operate the vehicle safely while filming is taking place.
- Establish communication between the driver and support vehicles (e.g., walkie-talkies).
- Brief the driver on the proposed filming plans. Make sure the driver is confident with the route and is aware of where the cameras will be positioned.
- Have the driver test drive the vehicle to get familiar with the filming plans and where to drive during the scene.

Other considerations

- Foreseeable emergencies (e.g., deployment of vehicle airbags) must be taken into account when positioning the camera operator.
- Check the weather and road conditions.
- Establish the route, make sure it's clear, and allow enough time for rehearsals before filming.

INSPECTIONS

Make sure the vehicle is roadworthy, suitably maintained, and mechanically inspected at the start of each day — and more often, if necessary.

Examples of vehicle inspection items are:

- Brakes
- Steering
- Tires
- Engine

- Drive train
- Electrical system
- Connection points
- Equipment placement
- Safety equipment

Any items not fully functioning must be repaired by a qualified person before use.



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SAFETY MEETINGS

The first assistant director, and the stunt coordinator when necessary, should hold a shot-specific safety meeting, as needed.

Discuss the shot sequence and route, including stunt action such as crossovers, head-ons, and near misses. Include information on vehicle speed, number and proximity of other vehicles, crew and camera placement, background performers, and property.

Other topics for safety meetings

- Using a convoy of safety buffer vehicles for a cushion zone, plus slower travel speeds
- Walk-through or dry-run
- Environmental conditions (e.g., weather, wet or slippery surfaces)
- Route conditions (e.g., curves, inclines, crowns, and clearances; obstacles; length and width; paved, gravel, or dirt surfaces; flat or hilly topography)
- Possible changes due to hazards
- Authority to abort, including signals to be used
- Equipment considerations (e.g., rigging, cameras, lights, microphones, airbags)
- Communication systems (e.g., intercom, designated channel)
- Signalling system to alert workers that the vehicle will be moving
- Visibility
- Special effects
- Personal protective equipment (e.g., harnesses, seat belts, helmets, eye protection)
- Traffic and pedestrian control (e.g., street closures, ITC)
- Emergency plan (e.g., escape routes, contingency plan)

If there is a substantive change in the choreography, equipment, or personnel involved in the shot, those involved should decide if there should be a subsequent safety meeting and rehearsal.

OPERATION

Depending on factors such as the road conditions, speed, and weather, consider the following during rehearsals and takes:

- Only essential personnel required for the shot should be allowed on or in the vehicle.
- Equipment and personnel should not distract the driver or compromise the safety of the vehicle operation.
- Performers and crew riding in the vehicle must be provided with a safe and secure place to ride.
- While filming from inside the vehicle, personnel should be restrained with suitable straps or harnesses. Secure cameras and gear properly.
- If using batteries with or without an inverter, make sure they sit flat and are secured in an upright position. Don't place batteries against anything combustible.
- When possible, use a remote ON/OFF switch to run and stop the camera when it's door or hood mounted.
- Don't ask the performer to "slate" if the vehicle is already in motion.
- Use comms/walkies to communicate.
- Keep within legal speed limits and drive within the law, safely and responsibly.
- Do a general inspection after each run to make sure all equipment is secure. If a camera or other equipment is deemed to be unsteady, stop filming and make any necessary adjustments.



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REGULATORY REFERENCES

- [Section 4.3, Safe Machinery and Equipment](#)
- [Section 16.1, Definitions](#)
- [Sections 16.3, 16.5, 16.7, 16.8, and 16.10, General Operating Requirements](#)

RELATED RESOURCES

- [Guidelines for Alternative Driving Systems](#) (Safety Bulletin)
- [Guidelines for Traditional Camera Cars and Process Trailers](#) (Safety Bulletin)
- [Seat Belts and Harnesses](#) (Safety Bulletin)
- [Traditional Camera Cars: Addendum B — Camera Boom Vehicles](#) (Safety Bulletin)

Actsafes Safety Association

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