

Passenger Van Safety Awareness Program



Course Objective



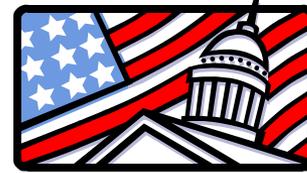
The objective of this presentation is to increase the safety awareness of passenger van drivers, thus reducing the risk of accidents, especially rollovers.

Training Outline



- **NHTSA Report Overview**
- **General Accident Facts**
- **15-Passenger Van Facts**
- **Driving Procedures and Tips**
- **NSA Annapolis/USNA Policy**
- **Check-Out Procedures**

Safety Agencies



**National Highway
Transportation Safety
Administration.**

NSC



***National
Safety
Council®***



Civil Air Patrol Unique Information

- Note – Civil Air Patrol has removed the last row of seats and provided cargo netting for all 15 passenger capable vehicles.
- Civil Air Patrol vans should NOT be loaded beyond cargo net limitations to prevent overloading 15 passenger van conversions. Overloading may result in the same out of balance situation as if the last row of seats were installed.
- Reference *CAPR 77-1, Operation and Maintenance of CAP Vehicles*, for more information.

NHTSA Report Overview

- **15-passenger vans have an increased rollover risk under certain conditions.**
- **The risk of rollover increases dramatically as the number of occupants increases from fewer than five occupants to over ten passengers.**
- **15-passenger vans (with 10 or more occupants) had a rollover rate in single vehicle crashes that is nearly 5 times the rate of those that were lightly loaded.**

Why?

Designed for High Occupancy

Loaded Heavy With Cargo



Higher Center Of Gravity

Long, Narrow Wheel Base

NHTSA Report (continued)

- **Loading 15-passenger vans causes the center of gravity to shift rearward and upward increasing the likelihood of rollover. A shift in the center of gravity will also increase the potential for loss of control in panic maneuvers.**
- **It is important that the van be operated by experienced drivers. They should understand and be familiar with the handling characteristics of their vans, especially when fully loaded.**

NHTSA Reports (continued)

- **Institutions using 15-passenger vans should require seat belt use at all times.**
- **Any load placed on the roof will be above the center of gravity of the vehicle and will increase the likelihood of rolling over.**

Accident Facts



- **25% of all driving accidents are the result of excessive speed.**
- **60% of van rollovers are the result of under-inflated tires.**
- **70% of driving accidents occur within 25 miles from home.**
- **1 out of 4 employees who drive as a part of their jobs experience an accident while at work.**
- **Most people know someone who has died in a car accident.**

15-Passenger Van Facts



- **A speed that may be acceptable in a passenger car could be dangerous in a van.**
- **As the van is loaded with passengers, the center of gravity shifts upward above the wheels. The higher the number of passengers, the greater the likelihood of a rollover, as more weight shifts towards the rear .**

Always fill the front seats first.

- **The shift in the center of gravity will also increase the potential for loss of control in panic maneuvers.**
- **Soft shoulders and culverts pose a hazard in rural areas.**

Driving Tips



- **For all kinds of vehicles.**
- **Defensive Driving Theories**
- **Dealing with aggressive drivers**
- **Backing the vehicle**
- **Highway driving**
- **City Driving**
- **Rural Driving**
- **Emergency situations**
- **Vehicle accidents**



Driving Tips for All Vehicles

- **Drive conservatively.**
- **Avoid excessive speed and abrupt maneuvers.**
- **Don't drive tired.**
- **Don't drive in bad weather, if possible.**
- **Take rest breaks often (every 2 hours is recommended)**
- **Wear seat belts at all times when the vehicle is in motion.**
- **Drive only during the day, if possible.**
- **Require someone to be awake in the front seat with the driver on long trips.**

For All Vehicles (continued)

For trip caravans:

- Radio or cellular phone communications should be established between vehicles on multi-vehicle trips. Use of cellular phones while driving CAP vehicles is not permitted.
- Trip leader to drive lead vehicle and set the pace. . . no other vehicle shall pass.

Safety Belts!

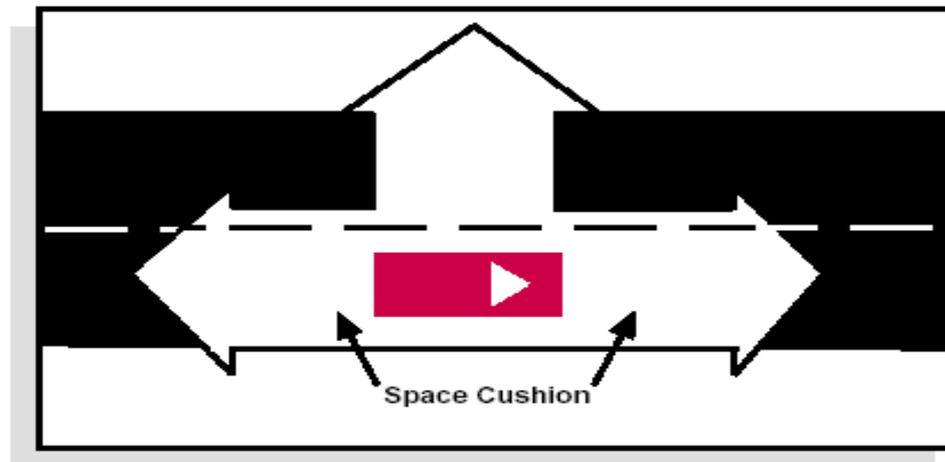


- **According to the NHTSA, 80% of people killed in rollover crashes were not wearing their safety belt.**
- **Many injuries and deaths attributed to large vans are a result of ejection. Once vans begin to roll over, many people are killed because they did not use seatbelts.**
- **This may be due to poor supervision by the driver and senior occupants who fail to ensure that all passengers are buckled up.**

Defensive Driving



- **Drive with courtesy.**
- **Stay calm when driving.**
- **Concentrate - Use reference points to ensure vehicles stays on pavement and in the correct lane.**
- **Drive cautiously, leaving a “safety cushion” between your vehicle and others to avoid having to make sudden maneuvers.**



Dealing With Aggressive Drivers



- **Avoid eye contact.**
- **Don't cut in front of other drivers.**
- **Allow fellow drivers to merge, while keeping a safe distance.**
- **Don't aggravate fellow drivers with hand gestures.**
- **Never tailgate!!!**
- **Use your horn sparingly.**
- **Give aggressive drivers plenty of space to move on without provocation.**

Backing The Van

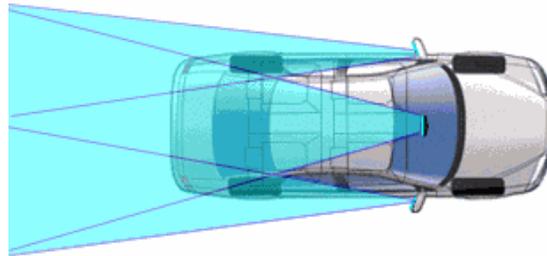


- **Always use a spotter if possible.**
- **Make an allowance for the extended length of the van behind the rear wheels.**
- **Back to the left (driver's side).**
- **Never back up if you miss a ramp/exit. Go to the next exit and return to your intended exit.**
- **Use (properly adjusted) outside mirrors. (adjusted outward so you can see your blind spots)**

How to Correctly Adjust Your Side-View Mirrors:

In a normal seating position, you should not be able to see any part of your own vehicle in the side-view mirrors. *Watch the animated illustration below.*

TOO NARROW



Adjust the side-view mirrors just beyond the point where you could see the side of the car on the inside edge of the mirror.

Highway Driving



- **When driving a passenger van, avoid lane changes unless absolutely necessary. Always use your signals with ample notice to other drivers.**
- **Merges: Signal and move steadily into the drive-lane. Don't cut off other vehicles.**
- **Blind Spots:**
 - ~ **Never cruise in another vehicle's blind spot! If the other driver cannot see you, the driver may attempt a lane-change, causing you to make an abrupt avoidance maneuver which can result in loss of control of the van and potential rollover.**
 - ~ **When changing lanes, use both mirrors and a brief head-turn back. Have the front seat passenger assist you, if needed.**

Highway Driving (Continued)

Slow moving vehicles:

- ~ Allow more distance than usual, as slow moving drivers are likely to brake suddenly or make unexpected maneuvers.**
- ~Also, allow more distance if you are being tailgated. This will enable you to stop more gradually if the driver in front of you stops suddenly.**
- ~ Pass with caution. Again, a slow driver may make an unexpected move which could result in an abrupt maneuver on your part.**

Safe Following Distance:



How do you determine a safe following distance?

- **Look for a land mark alongside the road, such as, a road sign.**
- **When the vehicle in front of you passes the landmark count four seconds by saying: one thousand and one, two thousand and two, one thousand and three, one thousand and four'.**
- **If you reach the mark before you have finished counting, you are too close.**
- **In bad weather, add one to two seconds.**
- **Always make sure there is enough space in front of you and behind you to give you time to react to problems.**
- **If someone overtakes you, readjust your following distance.**

Highway Driving (Continued)

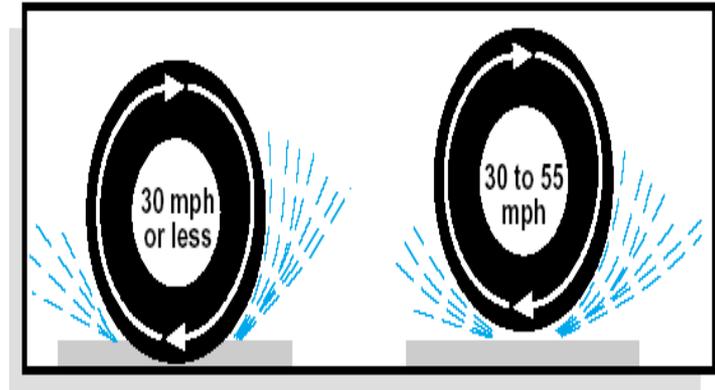
Entrance/Exit Ramps:

- Rollovers can be caused by excessive speed while turning.
- Posted speed limits on ramps are intended for cars. Slow your van to 5 miles-per-hour below the posted speed limit on ramps.

Hydroplaning



- At speeds as low as 30 mph, the tires start to ride up on a film of water like water skis. This is called “hydroplaning”.
- At 55 mph, the tires may be totally up on the water.
- In a rainstorm, tires may lose all contact with the road at 55 mph. If this is the case, there is no friction to brake, speed up, or corner. A gust of wind, a change of road level, or a slight turn can create a skid.
- To avoid hydroplaning, you must slow down in heavy rain, standing water or slush on the road. Do not drive on bald or badly worn tires.



Highway Driving (Continued)

Remember

You are driving a longer, heavier vehicle. When driving on a highway or open road, your responsibility is to be aware of, and avoid situations which may result in the loss of control of your van. Watch the road at least $\frac{1}{4}$ of a mile ahead. Drive slower and leave an ample clearance between your vehicle and others, so that you can avoid abrupt maneuvers and/or hard breaking.

City Driving



Look far ahead at least 1 1/2 blocks for:

- **Stop signs**
- **Stop lights**
- **Yield Signs**
- **Signals**
- **Blind spots**
- **Pedestrians**
- **Bicyclists**
- **Vehicles entering your drive-lane from parking spaces or side streets and alleys**
- **Motorcycles**

Rural Driving Considerations



- **Bicyclists**
- **Walkers**
- **Slow Agricultural Vehicles**
- **Deer**
- **Soft Shoulders**
- **Culverts**
- **Curves, Hills and Narrow Roads**

(Attempting to avoid hitting small animals is not recommended.)

If your wheels leave the pavement...



...never attempt to correct the van while maintaining your speed.

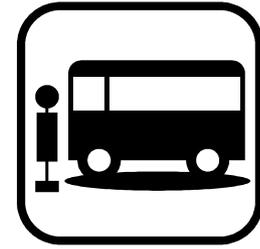
~Due to the weight of the van, inertia will cause the rear-end to try to overtake the front (fishtail). You will lose control of the van and will likely roll.

~Slow down (to a near-stop if necessary) before righting the vehicle.

The result of attempting to re-enter the pavement at highway speeds



Picking up and Discharging Passengers



- Pull off to a non-congested area with excellent visibility.
- If possible, avoid pick-up and discharge locations where passengers must cross a street or highway.
- If passengers must cross a roadway, do not wave them across the road in front of your van. Pedestrians should cross at a crosswalk or other controlled area and make their decision on when to safely proceed.

In Summary:



- **Vans are not cars and don't handle like cars.**
- **Inspect your van before each trip, including all controls and signals, tire condition and pressure (Critical!)**
- **Load your passengers from front to rear.**
- **Ensure all passengers are correctly wearing their safety belts.**

Summary (Continued)

- **Do not exceed posted speed limits.**
- **Drive 5 mph slower than the posted limit on entrance/exit ramps and sharp curves.**
- **Maintain a “cushion of safety” between your van and vehicles in front of, and around you.**
- **Stay out of other driver’s blind spots. Be aware of cars entering or cruising in your blind spots.**

Summary (Continued)

- **Allow more distance between you and the vehicle in front than you would if you were driving a car. For following distances, this means you should be able to count one-thousand and one thru one-thousand and four between the vehicle in front and your van using a fixed reference point.**
- **In inclement weather conditions, allow more distance than normal, at least 5–6 seconds from a fixed reference point.**
- **If your tires leave the paved road surface, re-enter the pavement very slowly to avoid losing control of your van.**

Accident Procedures

- **Never leave the scene of an accident.**
- **Report the accident to the police.**
- **Never admit fault. Provide factual information to the emergency response personnel, i.e., Police and EMTs.**
- **Gather all the facts (date, time, witnesses, phone numbers, etc.)**
- **Immediately report all accidents to your chain of command and the CAP National Operations Center.**





For More Information:

Contact Civil Air Patrol's National Safety Team:

safety@capnhq.gov

Thank you...



...for taking the time to complete this training presentation!

As a “professional” driver, you are responsible for the safety of your van passengers.

Civil Air Patrol National Safety Team
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