



Basic Emergency Vehicle Operators Course

Basic Control Task

Non-Emergency & Emergency Mode





Objectives

By the end of this module students shall;

- **Identify movements that frequently contribute to emergency vehicle collisions.**





Basic Control Task

Driving movements frequently contributing to emergency vehicle collisions are:

Backing

Parking

Lane Positioning

Lane Changes

Driving Too Fast For Conditions (RECKLESS DRIVING)

Following Distances

Driver Distractions





Basic Control Task

Backing:

Most backing accidents are relatively minor.

Over 50% of all non-emergency related collision occur while the vehicle is in reverse

Maneuvering in reverse necessitates a slightly different application of road position. Primary consideration is swing of the vehicle's front end during turning maneuvers.

Limited area maneuvering due to roadway width, space between obstacles or both.

Backing a vehicle is a required skill set and should be practiced all the time.





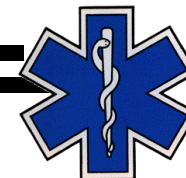
Basic Control Task

Backing:

The following methods are suggested to aid the driver when completing reverse maneuvering:

Straight line backing

- a. Drivers body should be turned
- b. Driver is looking out of the rear window or use spotter.
- c. Driver's right arm is over the front seat.
- d. Driver's left hand at top center of steering wheel
- e. Have a clear view to rear or spotter in sight
- f. Light acceleration
- g. Little to no movement of steering wheel





Basic Control Task

Backing:

The following methods are suggested to aid the driver when completing reverse maneuvering:

Turning while backing

Properly position hand (s) on the steering wheel.

Driver's body is turned to look to the rear in the direction the rear of the vehicle will travel. If turning to the right, look over the right shoulder. If turning to the left look over the left shoulder.

Frequent checks of the front corner of the vehicle to ensure swing of the vehicle before turning.

Turn steering wheel with firm control and hands always on the steering wheel.

Have a clear view to rear or spotter in sight

Light acceleration





Basic Control Task

Parking (Three types)

Perpendicular or Stall Parking

Backing into a perpendicular parking space is recommended

Angle Parking

Angle parking is usually used when there are 45 degree angle parking spaces marked or painted out.

Parallel Parking

Parallel parking is used for backing between two vehicles that are parked parallel with the curbing / roadway



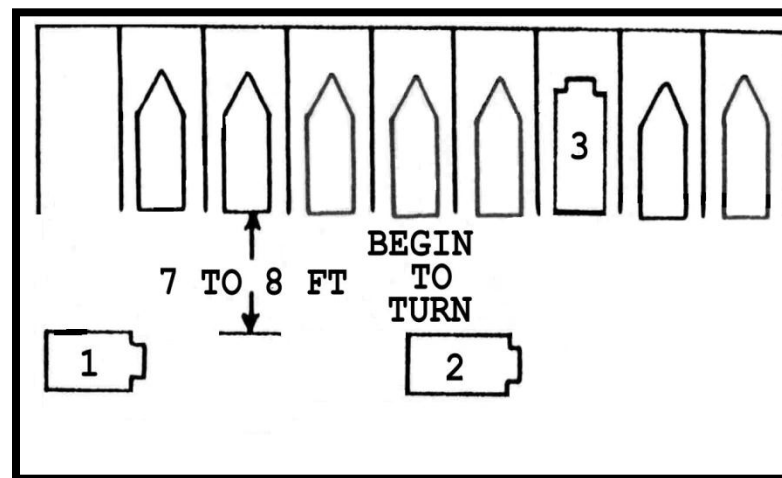
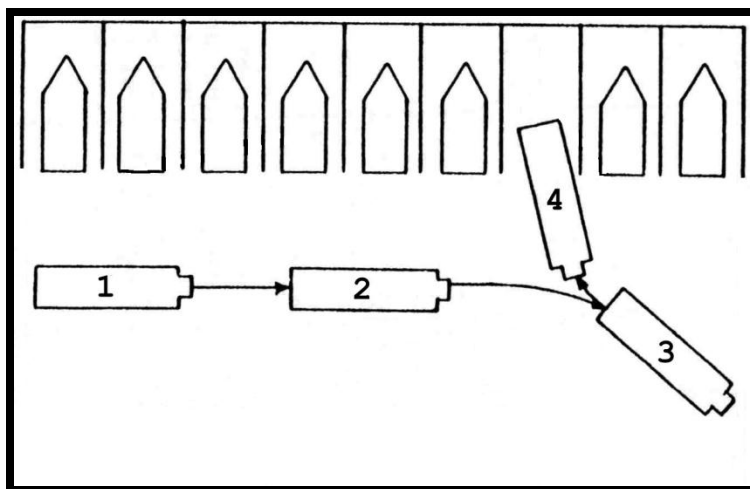


Basic Control Task

Parking

Perpendicular or Stall Parking

Backing into a perpendicular parking space is recommended



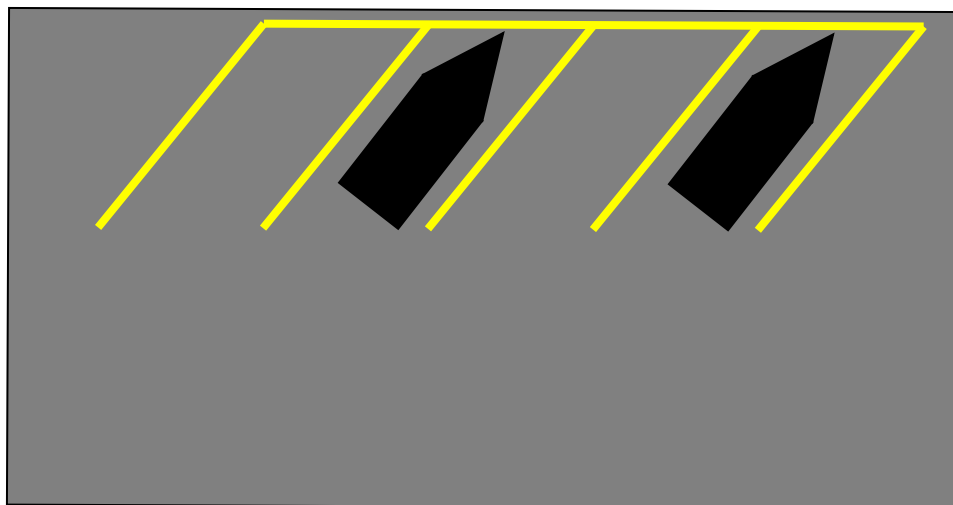


Basic Control Task

Parking

Angle Parking

Angle parking is usually used when there are 45 degree angle parking spaces marked or painted out.



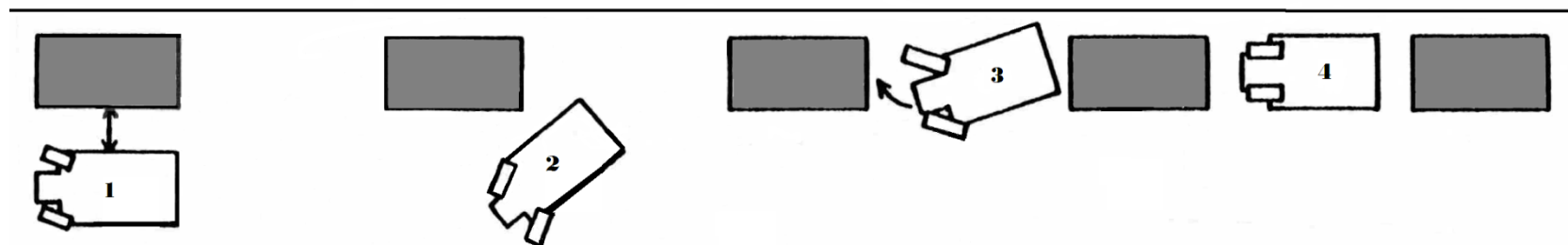


Basic Control Task

Parking

Parallel Parking

Parallel parking is used for backing between two vehicles that are parked parallel with the curbing / roadway





Basic Control Task

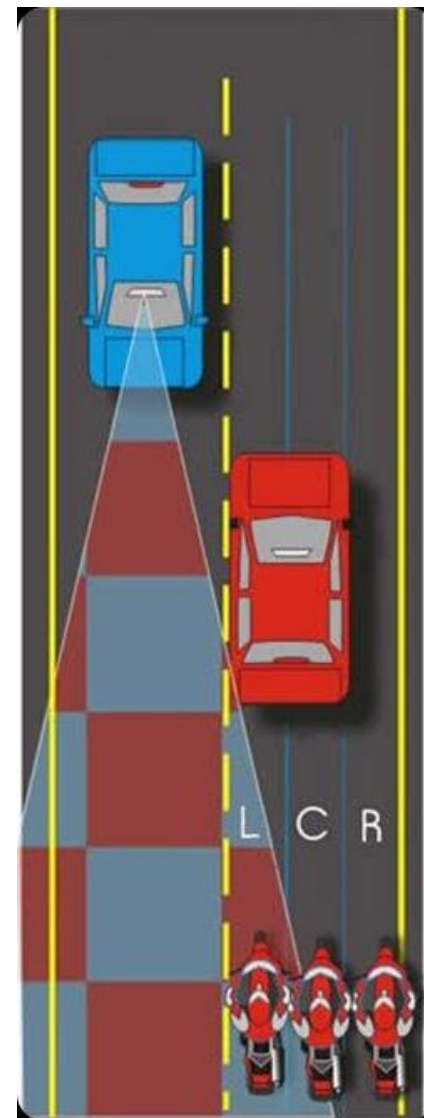
Lane Positioning

Lane positioning is the position of the vehicle on the road to best facilitate:

Your line of sight

The negotiation of a turn or curve at a safe rate of speed.

The best use of the available roadway to its fullest advantage with the least amount of steering.





Basic Control Task

Control Considerations

Cornering Methods

Search at least 12 seconds ahead

Have lane position adjustments done prior to reaching corner

Have braking completed before entering curve

Smooth steering with gradual inputs

Accelerate after crossing the apex and exiting the curve





Basic Control Task

Making Left and Right Turns:

Signal intentions

Check mirrors and blind spots

Scan intersection to the left, right, left before beginning to make the turn

Ensure new path of travel is clear

Maintain traction control

Use PUSH-PULL steering

The Different Types of Turns will be covered later in the lesson plan in the module dealing with Turn & Turnabouts.





Basic Control Task

Lane Changes:

Check other lanes for problems and a clear path

Signal intentions

Check mirrors to find an opening, check with partner

Head check

Slight turning of the steering wheel

Adjust speed as necessary





Basic Control Task

Driving Too Fast For Conditions:

Collision data for emergency vehicle crashes result from driving too fast for conditions when.

Approaching intersections

Approaching hills

Approaching curves

Passing vehicles

Following vehicles

Passing slower traffic





Basic Control Task

Driving Too Fast For Conditions:

Approaching intersections

Observe the intersection early

Check the mirror for an update of rear traffic

Select the best lane and positioning for negotiating the intersection

Scan left, front, right of intersection location for potential or actual conflicts, especially restrictions to the lane

Get the best speed control by either covering the brake or applying the brake if any conflicts are present or if there are line-of-sight restrictions.





Basic Control Task

Driving Too Fast For Conditions:

Approaching Hills

Determine the hill grade by observing cars disappearing

Check area to the right for possible escape path from oncoming traffic

Check mirrors for closeness of fast approaching vehicles

Keep proper following distance

Avoid extreme movements to either side of the lane when visibility is restricted

Reduce speed to gain more time to see over the hill crest

Try to determine immediately, while driving over the hill crest, if the path of travel is “OK” or not “OK”

Search ahead and see what the next conflict might be





Basic Control Task

Driving Too Fast For Conditions:

Approaching Curves

For purpose of speed control in a turning maneuver, consideration must be given to accelerator and brake application in relation the vehicles position within the driving lane.

This is accomplished by dividing the driving line into zones of activity regarding accelerator and brake usage.





Basic Control Task

Driving Too Fast For Conditions:

Approaching Curves

The following rules apply to rounding curves

- Determine sharpness of curve ahead
- Check mirrors for condition to the rear
- Keep proper following distance
- Check area to right for possible escape path from oncoming traffic
- Establish effective speed before entering the curve





Basic Control Task

Driving Too Fast For Conditions:

Approaching and Passing Slower Vehicles

Look ahead of the vehicles to be passed.

Observe the traffic conditions to determine the best passing location

Make mirror checks, head checks, and signal intentions

Check location to the side

Accelerate smoothly and quickly

Always pass to the left of the vehicle and keep as far away as possible for best visibility and separation.





Basic Control Task

Following Distances:

There are three major reasons why an acceptable following distance should be emphasized for emergency vehicles.

- 1. The emergency vehicle may be traveling faster than other vehicles, which means the closure rate of the EV to the vehicle in front will be rapid.**
- 2. The motoring public, after seeing a EV approaching from the rear (not in the emergency mode) will often slow down or make unexpected braking action which could increase the closure rate.**
- 3. EV operators are often scanning the surrounding area, which creates distraction away from the front of the vehicle.**

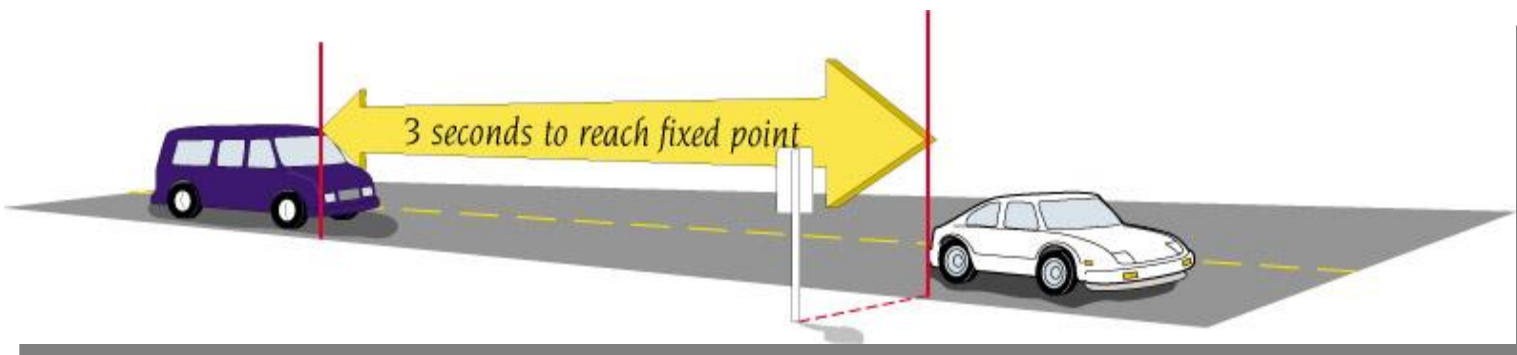




Basic Control Task

Following Distances:

Establishing a proper following distance.



Measure Between Two Fixed Objects

2 seconds at lower speeds and heavy traffic

3-4 seconds highway speeds & limited visibility





Basic Control Task

Driver Distractions:

Driving is a skill that requires your full attention to safely control your vehicle and respond to events happening on the roads around you. Driving involves constant and complex coordination between your mind and body. Events or things that prevent you from operating your car safely are distractions. There are three types of distractions and they are anything that takes your:

eyes off the road (visual).

mind off the road (cognitive).

hands off the steering wheel (manual).





Basic Control Task

Driver Distractions:

According to the NHTSA and VTTI study, the principal actions that cause distracted driving and lead to vehicle crashes are:

cell phone use.

reaching for a moving object inside the vehicle.

looking at an object or event outside of the vehicle.

reading.

shaving / applying makeup.

GPS Units

MP3/iPod Players





Basic Control Task

Driver Distractions:

What are some likely driver distractions related to emergency vehicle operators:

cell phone use.

reaching for a moving object inside the vehicle.

looking at an object or event outside of the vehicle.

Outside noise

Talkative partner

Radio / MDT Data

GPS





Basic Control Task

Driver Distractions: Other Driver Distractions.

Specific Distraction	% of Drivers
Outside person, object or event	29.4
Adjusting radio, cassette, CD	11.4
Other occupant in vehicle	10.9
Moving object in vehicle	4.3
Other device/object brought into vehicle	2.9
Adjusting vehicle/climate controls	2.8
Eating or drinking	1.7
Using/dialing cell phone	1.5
Smoking related	0.9
Other distraction	25.6
Unknown distraction	8.6





Basic Control Task

Summary

There are many situations which have a high frequency of collision involvement for emergency vehicle operators.

This unit dealing with turnabouts and turns presented a sequencing of driving task that are divided into measurable steps.

If followed, these steps can help operators acquire specific behaviors and develop good driving habits.





Basic Control Task

REVIEW QUESTIONS

1) What driving movements frequently contribute to EV crashes?

2) What percentages of all non-emergency related crashes occur while the vehicle is in reverse?

3) What are the three zones of consideration when approaching a curve?

4) What method do you use to establish a proper following distance?

