



Basic Emergency Vehicle Operators Course

Intersections

Non-Emergency & Emergency Mode





Intersections

Objectives:

By the end of this module, students will be able to:

Identify the correct percentage of emergency accidents that occur at intersections.

Select the appropriate method for checking traffic before attempting to cross an intersection.

State the kind of turn (left or right) which requires a larger gap in cross traffic and explain why.





Intersections

Factors:

Intersections or intersection related are the most likely type of roadway crash.

Intersections controlled by a traffic signal experienced the highest number of these crashes.

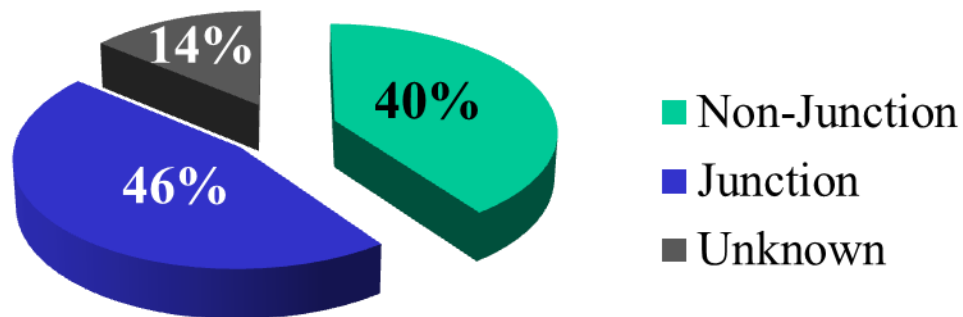
Non-Junction roadway crashes

- No traffic control devices**
- Vehicle left the road**
- Rear end collisions**

Unknowns / Others

Better reporting has lowered the amount of unknowns but really how many of these may have been intersection related?

Crash Data



•NHTSA FARS DATA 2010





Intersections

Factors:

Responding in an emergency mode

Some motorists become confused at multi-lane intersections when responding to an EV.

Many motorists may not always hear or see the approaching EV. (Responses are unpredictable.)

Two or more EV's, responding to same call, often "meet" at intersections.





Intersections

Techniques:

Before crossing an intersection, EV operator must make sure there is an adequate gap in traffic.

From a full stop, EV needs about four seconds to cross an intersection 30 feet wide.

For larger vehicles, the time varies according to the size of the vehicle and its acceleration factor.

Cars approaching from either direction should be about six seconds from the intersection.





Intersections

Before Crossing any Intersection

Check:

Posted Speed Limit

Traffic Control Devices

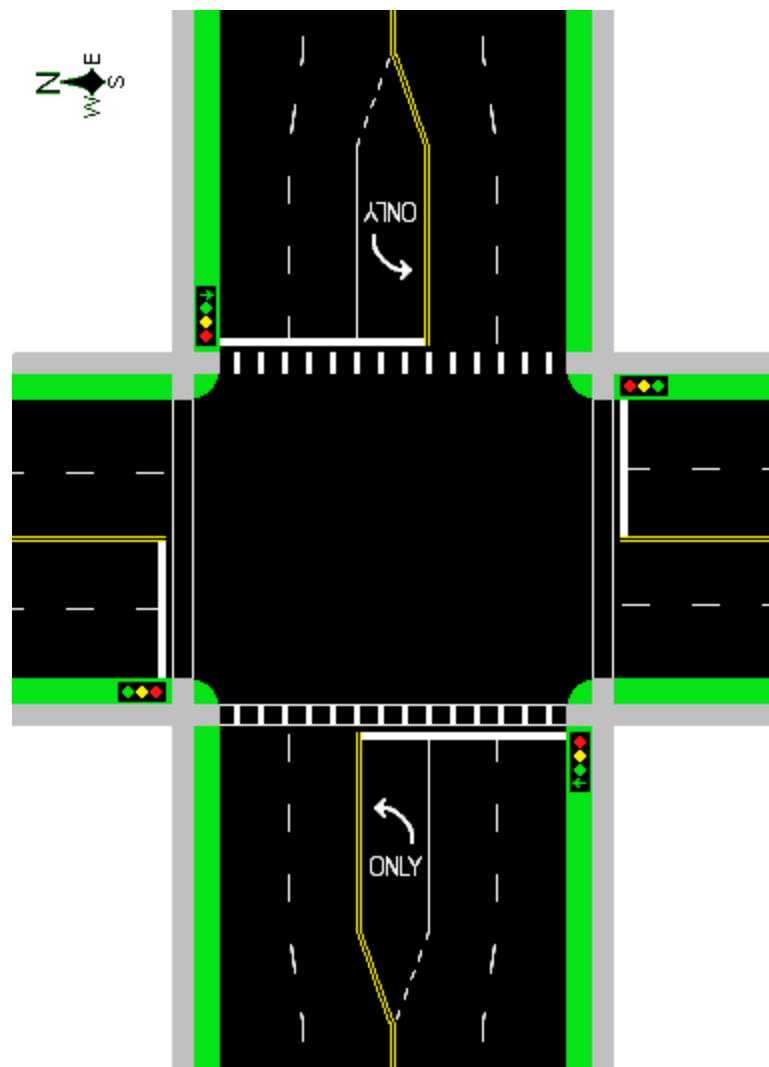
Flow of Traffic

Motorcycles

Pedestrians

Blind Spots

Look LEFT, RIGHT, LEFT





Intersections

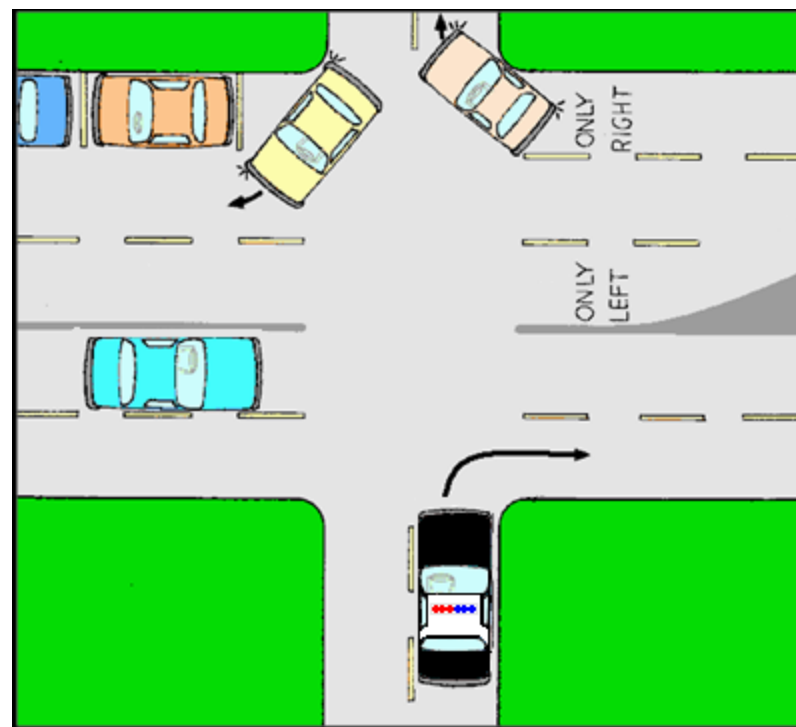
Techniques:

Right Turns at an intersection.

From a full stop, EV needs about six seconds to turn right and accelerate to 50 MPH.

When the operator begins the turn, any vehicle approaching from the left should be at least 8 seconds away from the intersection.

In faster traffic, a larger gap is required for safety.





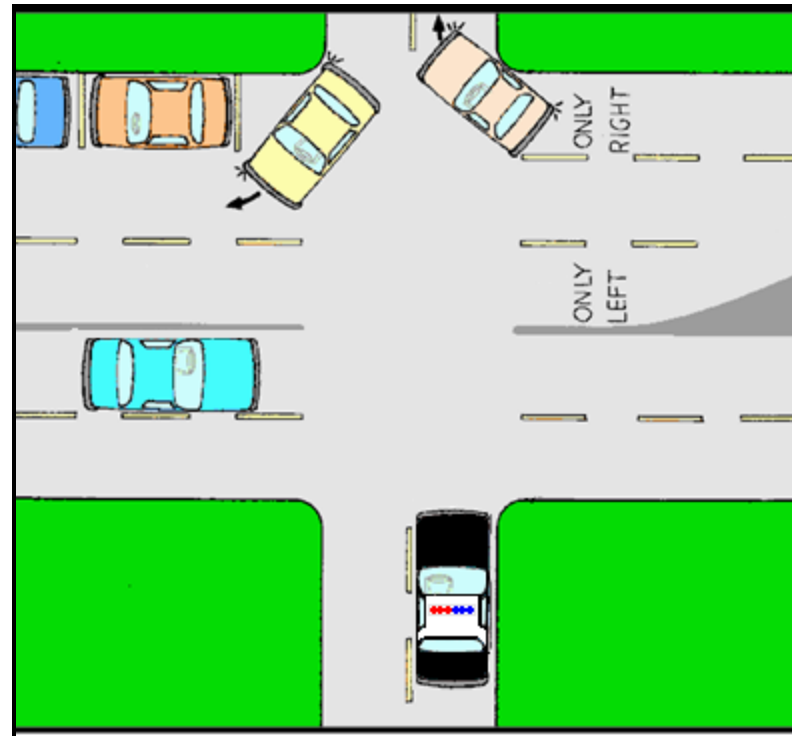
Intersections

Techniques:

Left Turns at an intersection.

Left turns require a larger gap than right turns because of the need to cross multiple traffic lanes.

For larger vehicles, the time varies according to the size of the vehicle and its acceleration factor.





Intersections

Emergency Mode Considerations:

Siren should be varied for a short period of time

EV operator should use all means of signaling

Lights

Siren

Turn signals

Hand signals

Eye contact





Intersections

Emergency Mode Considerations:

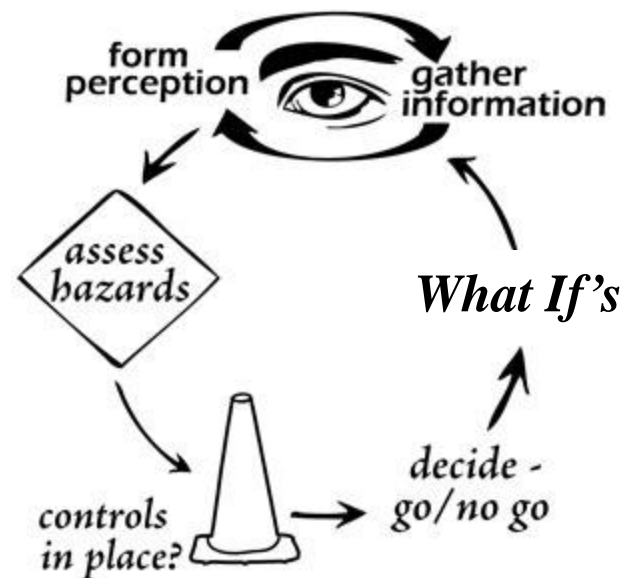
Check for traffic control indicators in advance of intersection.

Traffic signals

Stop or Yield Signs

Lane markings

Crosswalks





Intersections

Emergency Mode Considerations:

Check for hazards well in advance of intersection.

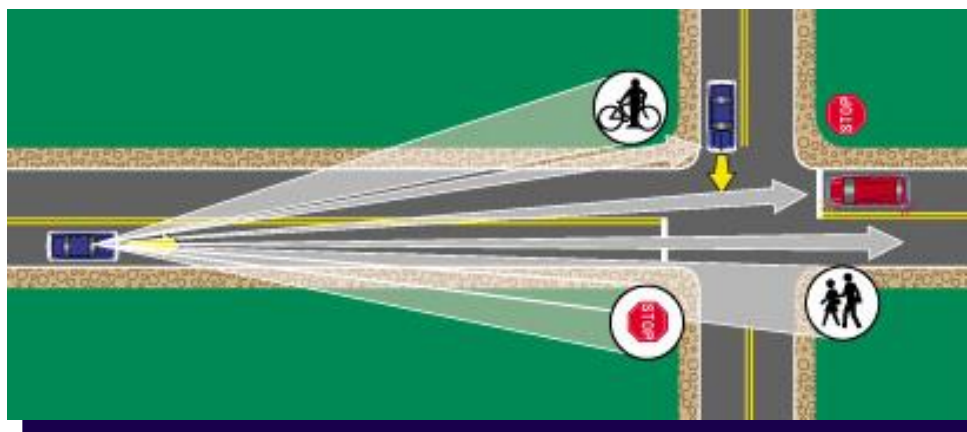
Pedestrians

Bicyclist

Construction Workers

Motorist

Road Hazards





Intersections

Emergency Mode Considerations:

Approaching an Intersection

Identify the hazards.

Select the best lane and positioning for negotiating the intersection

Scan the intersection

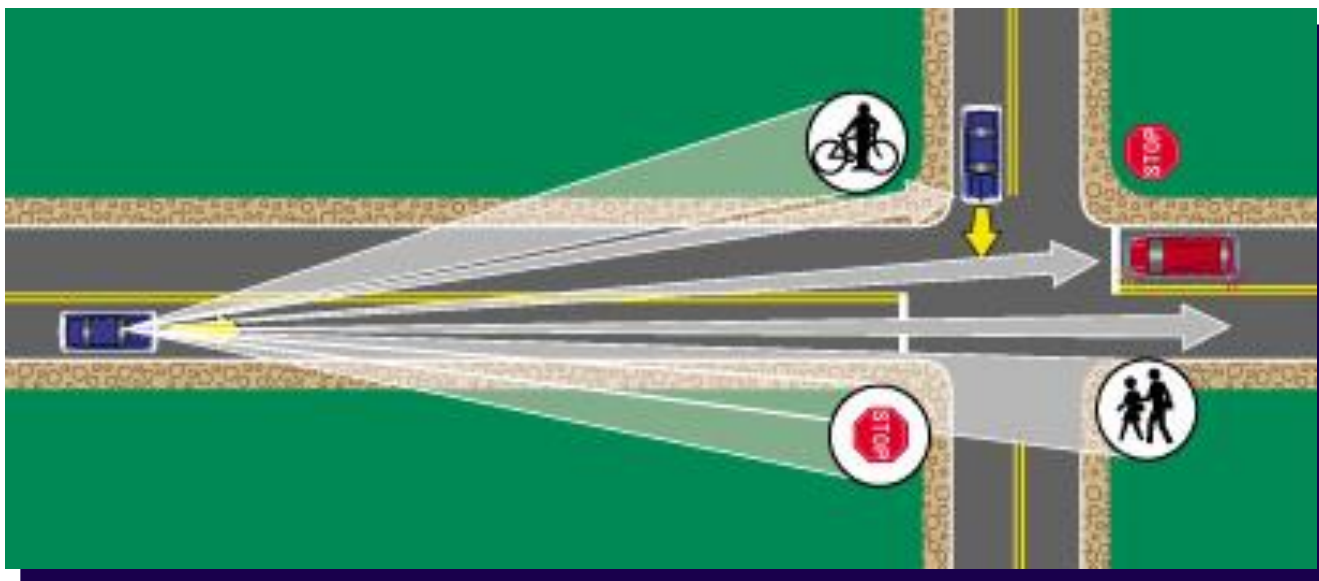
Get the best speed control by covering the brake or applying the brake if necessary





Intersections

**Emergency Mode Considerations:
Limited Field of Vision.
Identify the hazards**



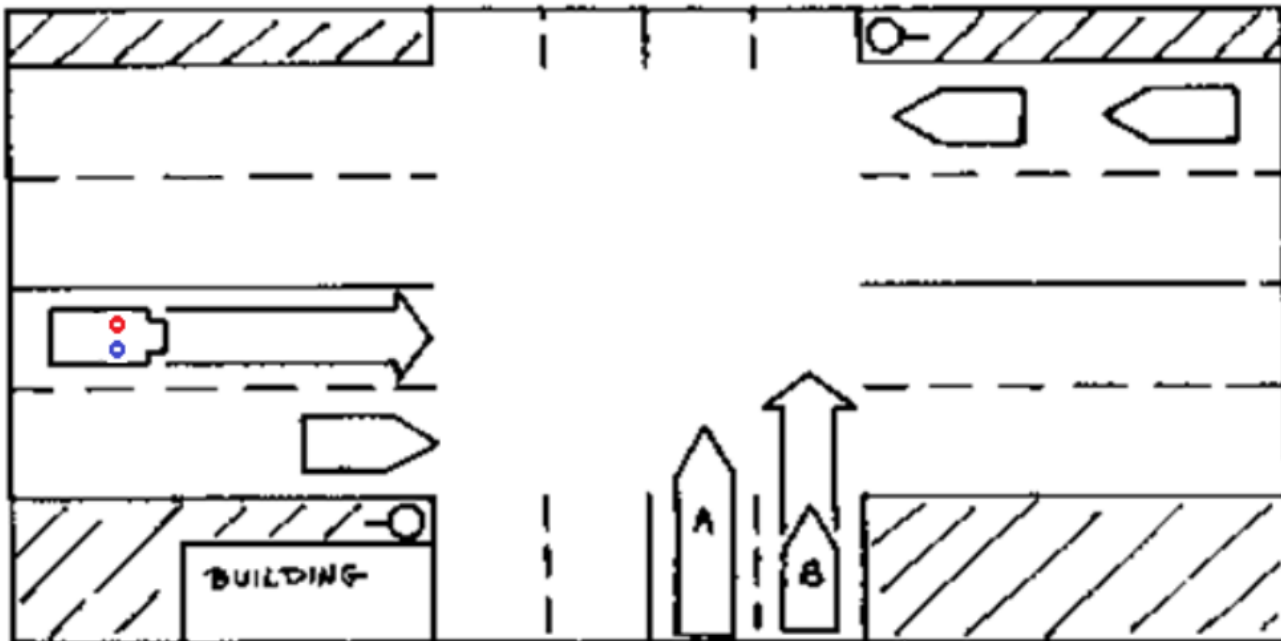


Intersections

Emergency Mode Considerations:

Limited Field of Vision.

Identify the hazards



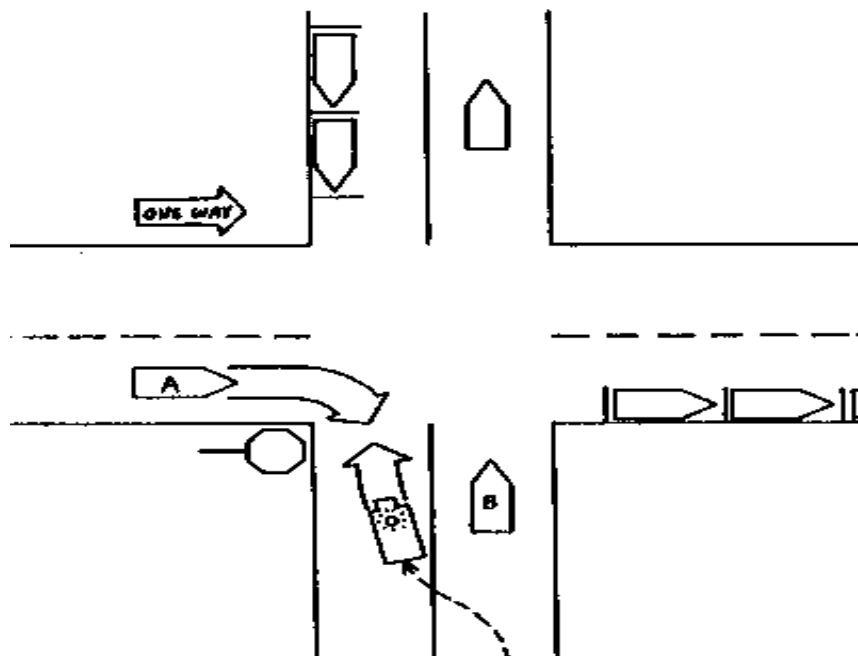


Intersections

Emergency Mode Considerations:

Passing on the LEFT.

Identify the hazards



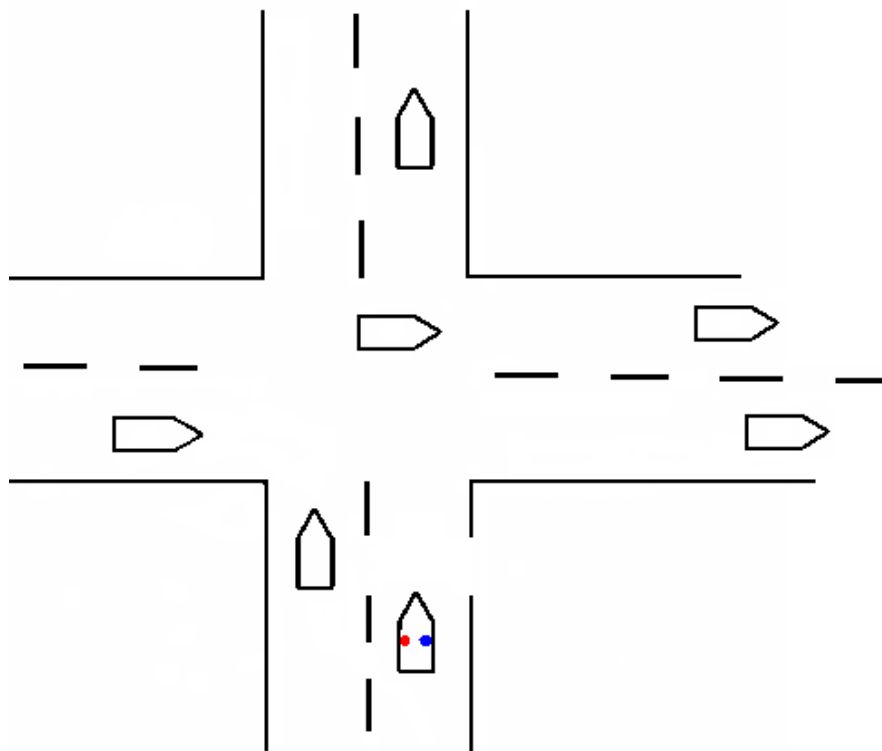


Intersections

Emergency Mode Considerations:

Passing on the RIGHT.

Identify the hazards



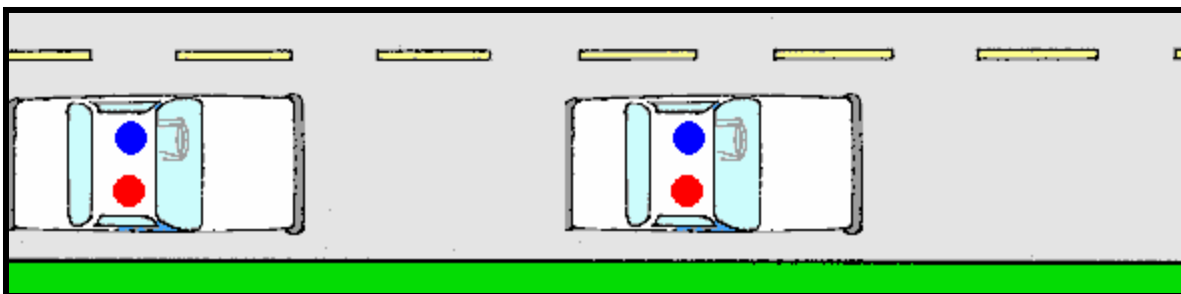


Intersections

Emergency Mode Considerations:

Following another EV thru the intersection.

Identify the hazards





Intersections

Summary

When approaching an intersection always keep in mind

Observe the intersection early

Check the mirrors for an update on traffic to the rear

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





REVIEW QUESTIONS

1) How many seconds minimum does an EV require to cross an intersection 30' wide from a full stop?

2) What are some of the things you should check before crossing an intersection?

3) What are some of the hazards associated with negotiating an intersection when one EV is following another one?

4) What should the driver/operator of the second EV do to reduce the chances of a crash at an intersection when following another EV?

