

Visual Skills and Preparing to Drive

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Proper Seat Adjustment

- **Position seat as far back as your leg length allows and you are still able to reach controls.**
- **In this position, the thighs are on seat and the arms are flexed.**



Proper Adjustment of Mirrors

- **Inside Mirror –**
adjust mirror to highlight right rear of vehicle and see as far back as possible.
- **Outside Mirror –**
adjust mirror to see several 100 feet to rear using rear fender edge as a reference point.



Proper wearing of Safety Belt

- The lap belt should be worn across the hip bones. It should never be positioned across the stomach or soft part of the abdomen.
- The shoulder strap should be as snug as possible over the shoulder and yet allow the driver to reach important controls. Adjust the shoulder strap so it is comfortable and does not cross the body at or near the neck or face.



9 – 3 Steering/ 180° Input

- **Balance**
- **Ability to see instrument panel**
- **Quick, initial $\frac{1}{4}$ to $\frac{1}{2}$ turn input**



Speed Per Second

Miles per hour can easily be converted to approximate feet per second by dividing the speed in half, then adding that number to the speed

Miles/ Hour	10	20	30	40	50	60
½ of speed	5	10	15	20	25	30
Feet/ Sec.	15	30	45	60	75	90

Reaction Distance

An average reaction time of $\frac{3}{4}$ second results in a reaction distance in feet of miles per hour plus the first digit of speed

Miles/ Hour	20	25	30	35	40	45
1 st speed digit	2	2	3	3	4	4
Reaction feet	22	27	33	38	44	49

Stopping Distance

Stopping distance is measured by multiplying speed in miles per hour times the first digit of speed

Miles/ Hour	20	30	40	50
1st speed digit	2	3	4	5
Stopping feet	40	90	160	250

SIPDE

- **SIPDE is a visual development process that helps drivers learn the appropriate visual skills to become a perceptive driver.**

- **S – Search/Scan**
- **I – Identify**
- **P – Predict**
- **D – Decide**
- **E - Execute**

HOW TO SAFETY SCAN SIPDE

- SCAN BY LOOKING AROUND
- IDENTIFY POTENTIAL HAZARDS
- PREDICT WHAT COULD HAPPEN
- DECIDE IF IT IS A HAZARD
- EXECUTE NEEDED ACTION

Search (Scan)

- **Search aggressively for potential hazards. Scanning provides you with the information you need to make your decisions and take action. You should be scanning some 20-30 seconds ahead.**



Identify

- **Locate hazards and potential conflicts.** The hazards you encounter can be divided into three groups based on how critical their effect on you may be.
- **Cars, trucks, and other vehicles - They share the road with you, they move quickly, and your reactions to them are critical.**
- **Pedestrians and animals - They are characterized by unpredictability and short, quick moves.**
- **Stationary objects - Chuckholes, guard rails, bridges, roadway signs, hedges, or rows of trees won't move into your path, but may create or complicate situations.**



Identify

- **The greatest potential for a conflict between you and other traffic is at intersections. An intersection can be in the middle of an urban area or at a driveway on a residential street - anywhere other traffic may cross your path of travel. Most motorcycle/automobile collisions occur at intersections. And most of these collisions are caused by an oncoming vehicle turning left into your the path of travel. Your use of SIPDE at intersections is critical.**
- **Before you enter an intersection, scan for:**
 - Oncoming traffic that may turn left in front of you.
 - Traffic from the left.
 - Traffic from the right.
 - Traffic approaching from behind.
- **Be especially alert at intersections with limited visibility.**



Predict

- **Anticipate what the hazard might do. The direction of a potential hazard is important. Clearly, a vehicle moving away from you is not as critical as a vehicle moving in your path.**
- **Determine what the hazard might do... where a collision might occur. How critical is the hazard? How probable is a collision? Is there a need to slow down to be able to respond more quickly? This is the "What if. . ." phase of SIPDE that depends on your knowledge and experience. Now estimate the consequences of the hazard. How might the hazard - or your effort to avoid it - affect you and others?**



Execute

- Carry out your decision. This is when your riding skills come into play. And this is where they must be second nature. The best decision will be meaningless without the skills to carry it out.
- Communication is the most passive action you can take since it depends on the response of someone else. Use your lights and horn, but don't rely on the actions of others.
- Adjustments of speed can be acceleration, slowing or stopping.



Execute

- **Adjustments of position can be changing lane position or completely changing direction.**
- **The degree of adjustment depends on how critical the hazard is and how much time and space you have. The more time and space, the least degree of adjustment, the least the amount of risk.**
- **In areas of high potential risk, such as intersections, give yourself more time and space by reducing the time you need to react. Cover both brakes and the clutch and be ready with possible escape routes.**

Managing Visibility, Time, and Space

[note: the below concept of visual scanning was proposed by Ritzel in 1998 and modified in 2005]

■ 20 to 30 Second Visual Search Area

- Search as far ahead as possible to identify potential conflicts

- Objects in Path and Areas of Limited Visibility

- Limitations to path of travel and Limitations to line of sight

■ 12 to 20 Second Visual Control Area

- Identify objects or conditions that require a response or continuing attention

- Look for closed or changing visual zones

Managing Visibility, Time, and Space

■ 8 to 12 Second Response Area

- Identify an alternate path of travel and safe stopping zone
- Evaluate open zones to the side and rear

■ 4 to 8 Directed Response Area (following distance)

- Other than detecting color or movement, the brain receives definitive information (images) from the eyes only when the eyes fixate.
- The eyes fixate only on that which the brain (through practice and experience) directs them to fixate.