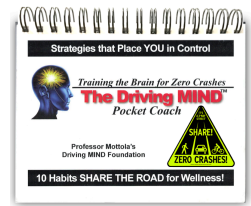




Principles and Strategies

for Zone Control Space Management Habits

Professor Frederik R. Mottola - National Institute for Driver Behavior
professor.Mottola@NIDB.org



General Strategies

1. Use Selective Attention Matrix (SAM) to search to your Target Area (A Zone); visualize your Path Of Travel (POT); evaluate its condition as “open” or “closed;” determine if the best approach speed is a “go” or a “slow.” Detect oncoming vehicles in LP2. When detected, look for opportunity to be courteous.
2. Search to FIND LOS-POT’s and CRITICAL SECONDS at least 15 seconds away.
3. When the A zone is closed, adjust speed to arrive into an open zone.
4. To best control your Path-Of-Travel (POT), keep the most open space away from the worst problem. (With closed C Zone and open B Zone, take LP2).
5. When a LOS-POT (Line-Of-Sight, Path-Of-Travel) zone change is detected, check the opposite zone for additional information and for an escape path.
6. Use the acceleration, steering and braking controls in such a manner as to achieve a smooth balance of the vehicle.
7. SOLVE LOS-POT blockages and Critical Seconds with best speed control, lane positioning, and communication before reaching the 4-second danger zone.
8. Before entering the 4-second danger zone, reevaluate it for best CONTROL.
9. Cover brake at the 2-second PONR (Point of no return).
10. When both the left (B) and right (C) zones are closed, time your arrival to have at least one open side zone. If both are closed, take lane position one (LP1).
11. Any time LP1 is required, reduce speed.
12. Reduce speed as open space to the B, A, or C Zones is decreased.
13. Check the rear zone before, during, and after taking a braking action. Determine if rear zone is Open, Closed, or Unstable.
14. Identify tailgater type: Charger, One Pacer, Habitual. Use best communication.

Strategies for Approaching Intersections, Curves and Hill Crests

15. When approaching an intersection, look for open left, front, right zones before entering. When moving, search LOS-POT at 45-degrees. When stopped, search 90° for a Hole or Gap to enter.
16. Search the left, front, right zones of intersections in a sequence from best to worst LOS-POT condition.
17. When approaching a curve, use lane positioning to best separate from traffic and to best see into the curve.
18. When approaching a curve be able to see at least 4-seconds of the road. If not seen, reduce speed.
19. Search through the curve, or over the hill crest, for open or closed POT.
20. Approach a hill crest in LP1. Evaluate the left-front zone and know if LP3 is available as an escape option.
21. When approaching a curve, evaluate speed before reaching the apex. See if a speed reduction is needed to gain best traction control. Use Slide Space on the straightaway.

Strategies for Making Turns and Lane Changing

22. Before changing side position, check the outside rearview mirror. If necessary, make a forward head movement view of mirror to check blind area, or check the convex mirror.
23. When making turns and lane changes, use the least amount of space.
24. Before turning the steering wheel, turn your head in that direction to evaluate your POT.
25. Before turning the steering wheel, check your outside rearview mirror.
26. Use central vision to the target area. When fringe vision is aligned with the transition peg, accelerate.

Separation Space from Vehicles Ahead

27. When there is a vehicle ahead, keep four-seconds of separation space.
28. When the vehicle ahead reduces speed, adjust your speed for gradual closure.
29. When stopped, be able to see the rear tires of the vehicle ahead touching the pavement.
30. When the car ahead moves, see its open space to avoid making a false start.