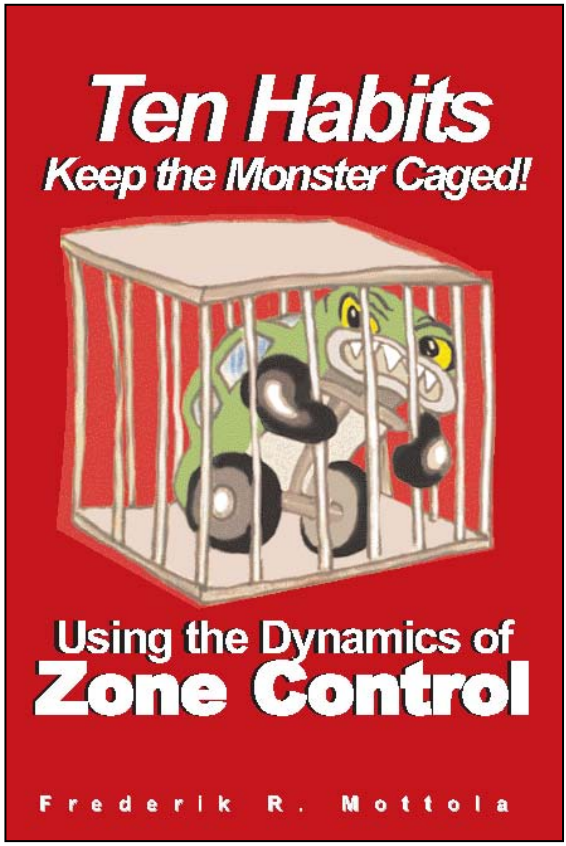
Section Three

Ten Habits of Zone Control



by

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Turn Decisions into Zone Control Actions

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- SOLVE LOS-POT blockage while 12-15 seconds away.
- Get the best speed, lane positioning, and communication.
- Be prepared to make adjustments at 4-second Danger Zone.
- Know your Stopping Distance and your PONR.

Solve a LOS-POT Blockage While 12-15 Seconds Away

By using the effective LOS-POT Search you will be able to solve problems at least 12-15 seconds before you are going to occupy that space. The average driver has only a 3-5 second awareness of the space they will be occupying. When decisions need to be made, you have more opportunity as you have more time.

Answer these questions for each photo.

a. Is the front zone open or closed?
b. Which of the five speed selections would be best?
c. What is the best lane position to be in?

See page 4, if needed, for Speed Control and Lane Position choices.

Answers:

- Photo 1: **a.** the front zone is closed by the red light and by the hillcrest. **b.** apply the brake to reduce speed and give the light time to turn green. **c.** lane position 1.

- Photo 2: **a.** closed. The hillcrest continues to create an LOS blockage, and the left-front zone is closed by an oncoming car. **b.** cover the brake. We are in the 4-second danger zone of the hillcrest. **c.** lane position 1.

- Photo 3: **a.** open. **b.** increase speed. Looking to our target area we have a considerable amount of open road. **c.** lane position 1.

Compare the control we have in photo 3 with that of photo 1.

Using Zone Control Decision Making. From the driver's view, on a two-lane road, the right-front zone is closed by the car ready to pull out, and by the utility poles. We cannot move our car into an alternate lane to the right. The left-front zone is closed by the double yellow line and by the oncoming traffic. We should check our rear zone to know what actions to take in case a stop is needed. With closed left-front and closed right-front zones our best actions would be to cover the brake and take lane position one.

Using Zone Control Decision Making. From the driver's view, on a two-lane road, the right-front zone is closed by parked cars with a pedestrian alongside. We check the rear zone to be prepared for a braking action. We then check the left-front zone to see if it is open or closed. The left-front zone is open; there is no oncoming traffic at this time. We move into lane position two to give us the best separation from the pedestrian.

In which of the three scenes should your speed be the slowest? Which zones are open or closed in each scene? In which of the scenes should you be in Lane Position 1, LP2, LP3? What do you see in your target area? What should you do about it? (Answer before reading further.)

Scene One: Our speed should be the slowest here because our left-front and right-front zones are closed by the oncoming traffic and by the parked camper. The front zone is open because we have more than 4 seconds of space from the vehicle ahead. Lane position one is best. In the target area there is a right curve and a truck parked on the other side of the road, which may cause on-coming traffic to come into our lane when we get into the curve.

Scene Two: Our right-front zone and front zone are open, the left-front zone is closed. Lane position three will be best, giving the greatest separation from the worst problem.

Scene Three: Our left-front and front zones are open. The right-front zone is closed by the LOS-POT created by the parked camper. Lane position two will give the best separation from the LOS-POT blockage. If something came out from in front of the camper you would best be able to see it and have space to clear it by being in lane position two.

Three Stages of Car Control

Prevention Stage

There are three stages of car control. The easiest and best stage to have opportunity for successful car control is the prevention stage. This is the stage where the ten habits provide automatic protection. For example, while approaching a curve you: See it 30 seconds ahead in your target area, reduce your speed, select good lane positioning on your approach, look into the curve, use braking and acceleration controls effectively and all ten habits are working for you.

Detection Stage

The detection stage gives a warning that the driver is putting the car into harm's way. For example, while approaching a curve during rainy conditions, the driver gets distracted while putting the wipers on and speed is too fast. But the driver's good four-second habit easily detects a violation in the danger zone. The driver has time to brake the car while still going straight, and while still within the traction capabilities of the tire's grip to the road.

Correction Stage

The driver goes too fast into the curve and fails to reduce speed until the car begins to slide to the outside of the curve. The monster is out of the cage. The driver now has less than one second to take corrective actions to get the car back in control. *What is easier, to keep the car from becoming a monster, or to get a raging monster back into its cage?*

The control of the car is dependent upon four tire patches contacting the road. Each patch is about the size of your hand. Whether they are managed or mismanaged depends upon your habits. Too much speed, too much braking, too much steering, all occurring at the same time, result in an out-of-control situation. The vehicle is in an out-of -balance condition. The tire patches leave contact with the road, causing the monster to break out of its cage.

The Problem

A driver never knows of all of the risk factors that are likely to combine within a fraction of a second, calling for a demand of more traction. If only one or two risk factors are present they are not likely to result in a crash. It is when there are several risk factors occurring at the same time that the monster gets fed.

The Solution

We need to eliminate those risk factors contributed by our performance and acquire a system of Zone Control habits that can serve to automatically give low-risk behavioral patterns. This will provide protection against an over-accumulation of risk factors. **A driver needs the ten empowering habits, like an insurance policy, to prevent the monster from breaking out of its cage.**

When the *MONSTER* Breaks Out of the Cage!

Three Types of Skids:
1. Loss of Front-Wheel Traction

This commonly occurs when the brakes are applied to the point of wheel lock-up (ABS braking eliminates this type of skid). Also, excessive speed with a front-wheel drive car could cause loss of traction to the front tires when attempting to negotiate a turn or a curve.

The effects you will experience: You turn the steering wheel, with no response, as the car continues to travel straight ahead.

2. Loss of Rear-Wheel Traction

A forceful braking action pitches the front of the car downward, reducing the size of the rear tire patches. Speed, when driving a rear-powered vehicle into a curve, could cause the rear tires to lose road contact. And, in a front-wheel powered vehicle, a deceleration can cause the rear tires to lose contact with the road when traction is limited.

The effects you will experience: The rear of the vehicle will spin to the left or right, causing the front of the vehicle to move off-target from your intended travel path.

3. Loss of Traction to All Wheels

When a rear-wheel skid develops, and the driver is able to stop the spin (by rapidly steering to get the front tires pointing towards the target area), the rear-wheel skid may become a four-wheel slide.

The effects you will experience: The vehicle will slide sideways at an angle (yaw), with the front of the car pointing to the left or to the right of the target area.

Actions to Take to Correct Any of the Three Skids

- Take your foot off the pedals. No acceleration, no brake.
- Steer as rapidly as possible to get the front of the vehicle pointing towards the target area.
- Keep your head pointing to the target area.
- When the skid rotation is stopped, but the car is still sliding, look for the front of the car to begin moving towards the target area.
- When the front tires regain traction, you must immediately straighten the steering wheel.
- **Most important, keep your eyes focused on where you want the front of the car to travel.**

Your car is just beginning to skid off target. What actions should you take?

The skid continues to develop. The actions to take are no pedals and fully steer left to get back on target.

Rainy conditions cause more skids than ice and snow. Don't use cruise control during rainy or slippery road conditions. Cruise control can cause sudden changes in tire traction, resulting in tire spin and loss of control.

Keep the *MONSTER* Caged!

Winter Driving Conditions

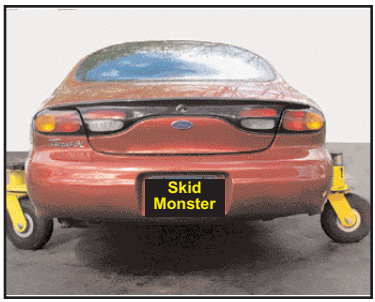
In winter conditions, temperature changes result in melting ice that freezes at random locations. This can catch a driver by surprise. The habit of beginning a braking action early—especially before steering when an icy condition is encountered—reduces the demands placed upon tire grip. When a hard braking and steering action occur at the same time during slippery conditions a skid is more likely to happen. Having good habits is especially important during winter conditions because there are many things working against you.

In winter driving, visibility is reduced. There are fogged-up and snow or ice covered windows that drivers must clear. There are also snow banks at intersections and driveways that create LOS blockages, resulting in drivers being surprised into making harsh braking or steering actions. That can result in an overloaded demand for traction. With the ten habits, problems of winter driving can be minimized by already having a set of risk-reduction habits working for you.

The Ten Habits Work for You to Meet Winter Driving Demands

- You will have vehicle readiness by clearing all snow and ice (LOS blockages) off your car before driving.
- You will plan for turns and curves early by applying the brake at least five seconds before beginning to turn the steering wheel.
- Once the brake is applied, you will keep your foot on the brake with partial pressure until at your transition peg; then accelerate.
- When you get within the 4-second danger zone of an intersection you will search the left, front and right zones to be sure space is open. When it's not, a reduction in speed will take place.
- When entering a traffic flow, a search for a hole or gap to your target area will give you extra time that is needed to get moving when there is reduced traction.
- When stopping to the rear of a car at traffic lights and other situations, you will stop to see its rear tires, which will give you sliding room.
- When moving with a car in front, you'll keep at least 4 seconds of space, which will prevent you from crashing into skidding cars ahead of you.
- Effective mirror usage will prevent skidding while lane changing.
- If a skid does occur, your eyes, mind, and hands will have as habit the behavior of steering toward your target area, which is the single most important skill needed to regain car control. Your foot stays off the pedals.

SKID Monster®



There is no better way to learn the power of the Ten Zone Control Habits than to drive the SkidMonster. It is a specially equipped car that recreates, in a safe training environment, the effects of lost of traction. It trains drivers in use of vision to control the vehicle.

For evaluations or training information:
www.SkidMonster.com
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