





ff-road vehicles aren't exactly sports cars. In fact, just the opposite. We can't safely drive them the same way as our family car. They take longer to stop, are less stable in fast turns, and sometimes have poor visibility. Poor drivers (the bottom 25%, or 1 in 4) don't realize this. They often don't allow us space (much less a semi) to stop, turn, etc.

Anecdotally, I figure I drive only about 10% of any four-wheeling trip off-road. That means 90% of my driving time is on paved roads. That's probably true for you as well.

This means we must substitute reading terrain and picking lines with defensive driving and avoiding road rage for a greater distance.

Our Defensive Driving Philosophy

To another driver on the road you are not a person but just a vehicle occupying space traveling at a certain speed. So, if you get cut off it is not personal. They are not talented drivers like you are. They are all idiots and they are likely to make mistakes (errors in judgement) right in front of you. And who is screwed if they make a mistake? You are. But as a brilliant driver it is your responsibility to make sure you pay for fewer of other people's blunders by leaving more space.

Do you really want to drive close to idiots? Leave space. Practice defensive driving.

When someone cuts you off or takes aggressive action that says, "my time is more valuable than yours", does that frost your butt? Do you want to signal your displeasure? Before your let road rage take over, think about this.

Do you believe that your action will teach them anything? They are already idiots. So, leave space, be polite, and try to anticipate the actions of other drivers.

Leave Space:

Ok – so we know, vehicle after vehicle is going to try to fill in that front space! But try to keep at least a 3-second gap between you and the vehicle ahead—much longer during inclement weather. Double the space in front if someone is tailgating your vehicle.





Anticipating actions of others:

This is the fun part of highway driving. How often can you detect impending situations, subtle behaviors of the driver or the position of the vehicle and correctly call out the action? Why is the driver in front and one lane to your left continuously looking over his right shoulder? If he changes lanes without

signally, did you call it? If the front right wheel of the vehicle beside you is creeping over the centre divider, is he drifting or about to cut in front of you? Score if you get it right! Double score because you avoided an accident. But of course, watch for turn signals, brake lights and other signs of an impending move.

If traffic is bunching up, it could

indicate an accident or road condition up ahead. If at a lighted intersection, pause for a second or so after getting the green light. Make sure all the cross traffic is stopped or visibly slowing down, no one is running a red light, or thinking of turning in front of you. Watch for bikes, smaller motorcycles and pedestrians.

Aggressive drivers: This was the leading cause of accidents until smart phones popped "distracted driving" to the top of the list. Don't let aggressive drivers get to you. Let the idiot pass so he can get out of your space. Stay focused on your drive, and avoid the temptation to offer the one-finger salute. You risk escalating the situation to a case of road rage.

Speaking of smart phones, don't pick the highest risk area (like approaching intersections) to succumb to temptation and look at your messages.

"Stale" Green Light

Cruising at 100 kph you're coming upon

a green light you didn't see change, but wonder if it'll change soon. Contrary to popular instincts, you don't accelerate. There are clues to help you decide if there is still time or if it is about to turn. If the road ahead is clear and the on-coming pack of cars is well past you, the light has been green quite a while (at least in the life cycle of a green light). If traffic going in the other direction is piling up at the red (6 or more) or the left turn is stacking up, it has been green for quite a while. In these cases, you have only 1 - 3 seconds of green left. Just a few seconds left and you're not quite to the intersection. Do you take it or slow down for the yellow light you know is coming? At what point do you make that decision?

What Happens If?

We put a lot of stress on our vehicles off-road. Critical parts can be a hair away from failure. For all problems, you find there are others for which no visual check can detect before getting on the road. These parts failures and the remote highways we drive, means you're



going to face challenges while behind the wheel. There are many, and I'll address a collection of them here.

Normally we find the broken lines and leaking fluid in our 360 checks of the

vehicle before getting back on the road. (BTW, there are two absolute items you very much want to check. One is you can steer, and two is you can stop).

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No Brakes

There are problems that will not show up in a 360 check. Hard lines running the length of the frame can be rubbed thin after 400,000 kilometres of hard use. Drum brakes packed with wet sand will grind your brake pads, making them ineffective in as little as 160 kilometres.

So if you find yourself driving down the highway and can't stop, quickly determine if anything has rolled behind the brake pedal. Pump the brakes to help build pressure. Stab and hold the brake pedal while downshifting. Apply the emergency brake, and steer off the road. As a last resort, scrape the side of the vehicle (another advantage of having rock sliders!) against the guard rail or roadside brush; this could slow the vehicle. If there's an exit lane on your side of the road especially a truckers' runaway lane—take it. I have always wanted to try one of these but without the terror of really needing it. Coast to a safe spot off the road.

Steering Failure

This can be scary at 100 kph in the middle lane of a three-lane highway. Grip the wheel as steering will be difficult. Apply steady pressure to the brakes, and find a safe place to pull over. Steering failure can be caused by several factors, including loss of tire pressure, as well as a broken belt, hose, tie rod end or track bar. The worst is a tie rod end disintegrating or a track bar letting go. Without these items as a fulcrum, turning the steering wheel has no effect. There are known cases of an adjustable track bar braking in half where the threaded rod was welded into the bar. I assisted a driver, who lost the bolt on one end while driving 130 kph on the highway. Luckily, he made it to the shoulder. All I did was provide a new ½ x13 bolt so he could get home.

Tire Blow Out

And speaking of steering difficulty with loss of tire pressure ... God knows we abuse our tires off-road. For a tire blowout, accelerate slightly to maintain speed. (Yes, I know this sounds odd.) Counter steer



to offset the pull caused by the blowout. Once in control, slow down and look for a place to exit. Pull over on the same side of the blowout so you can safely replace the bad tire.

Sudden Acceleration/Stuck Throttle

Stab the accelerator several times, and shift into neutral. Stand on the brakes—use both feet if necessary. If the vehicle goes into neutral, it's best to leave the engine running so the steering and other systems continue running until you are in a safe spot. Newer "drive by wire" vehicles may not respond to shifting to neutral so try to kill the ignition. A built in override of three jabs on the start button might do it. If that doesn't work, press and hold for several seconds (check your owner's manual – now– not during the crisis).

Animal Collisions

Take extra precaution if driving in an area or at a time when animals are likely to be on the move. Reduce speed at dusk and watch for wildlife along the roadside (and the telltale shining eyes). If you see a large animal by the road, lay on the horn—deer, in particular, will often flee (deer also tend to move in small groups, if one crosses the road, expect more to follow).

Don't take unsafe evasive action to avoid an impact, except for large animals like moose and elk – well maybe skunks too. Reduce your speed as best as possible, and aim for where the animal is coming from. You're hoping for a glancing blow. Let off the brakes just before impact.

Crisis Stop

Our 4x4 vehicles are designed to turn off ABS when we engage 4WD. Some turn it off for both 4-high and 4-low, others only for 4-low. Remind yourself which mode you are in. If your vehicle has ABS active, stomp and hold pressure on the brake pedal. Try to steer clear of the situation. If you don't have ABS active, you can simulate it by pumping the brakes. Keep a solid grip on the steering wheel so you maintain control of the vehicle.

As a veteran driver, you have most likely faced many of these situations (I know you've encountered aggressive drivers). Take the time to thoroughly read and internalize this information. Visualize how you would react should you face any of these situations. That mental exercise can pay dividends. You can't do anything about other drivers or nature's hazards, but you can put the odds in your favour with proper education and preparation.

Tom Severin, 4x4 Coach, teaches 4WD owners how to confidently and safely use their vehicles to the fullest extent in difficult terrain and adverse driving conditions. Visit www.4x4training.com to develop or improve your driving skill.