

# Safety Alert of THE MONTH

April 2011

PLEASE PASS THIS ON TO PEOPLE AND ORGANIZATIONS IN BC'S FOREST INDUSTRY

## Alert at the Wheel – Operating a lethal weapon

Four doors slammed, the five tired and hungry surveying crew members buckled up for the drive home. One of the passengers in the rear drummed on the seat in front of him "Let's go man, the puck drops at 7. The Canucks are going to win it tonight and I want to watch the whole thing!" The crew started discussing the upcoming game as the driver fired up the F350 and started the two hour drive back to town. As the drive wore on the conversation in the cab lagged and one by one the crew fell asleep.

The driver turned down the music, adjusted the heat and started thinking about the problem he was having with his neighbor. For weeks he had been arguing over fixing their shared fence after the guy had backed into it and knocked out two posts.

*"What a jerk"* he muttered to himself as he pulled off the spur road and onto the mainline. Why should he have to pay to fix it? He was already going to be tight on cash that month after replacing the transmission in his truck. *Maybe he could take him to court? Maybe he should just leave it and let his dog poop all over the guy's lawn?*

His stomach rumbled and he glanced at the clock. He had finished his lunch early and it was approaching 6pm. After he dropped the guys off he figured he would swing by the pub to eat and watch the game. Now even more motivated to get back to town, he depressed the pedal and watched the needle climb up over 90. *It was a straight stretch of road and almost everyone was out of the bush anyway.* He sighed and rubbed his eyes. *As soon as I can afford it, he thought to himself, I'm going to move. That guy is a loser.*

Without warning a deer leapt out in front of the truck, its ears pressed back as it scrambled to clear the road. The driver clenched the wheel with both hands, wrenching it hard to the right to avoid the collision. The truck swayed heavily to the right in response to the steering. *The driver's heart stopped as he sickeningly realized they were going to roll.* As the rear end fishtailed, the tires began to trip on the loose gravel. For a split second the driver was certain he felt the left wheels lift off the road, so he yanked the wheel back over to the left. The truck snapped sharply and after a few dicey sways continued on its course.

Shaken, the driver slowed down and pulled over. Clenching the wheel he turned to look at his passengers, wide eyed and speechless they all stared at each other.

**That was close.**

### What's going on behind the wheel?

Working in the bush, we spend a lot of time in the truck doing things other than driving. Our vehicles are so much more than transportation. It is an office, closet, bedroom, kitchen table, delivery van, living room and storage space.

The trucks themselves give a feeling of strength and security – sitting behind a wheel of a Super Duty truck with its wide hood, raised line of sight, hefty weight and throaty purr of the diesel engine makes you think wildlife and other vehicles would just bounce off the exterior with hardly a scratch.



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Combine this with the fact that out on resource roads we are generally a self-regulating bunch. Since there are few police and very few traffic monitors it can be easy to forget the consequences of a motor vehicle incident are severe with a high potential for property damage, injury and death.

**Many drivers overestimate their abilities and falsely assume they will be able to respond in time to a changing condition in the vehicle or on the road.** Reaction time varies greatly across different tasks and even within the same task under different conditions.

In brief, your reaction to something unexpected while driving can be broken down into 3 stages<sup>1</sup>:

- Mental Processing time – the time it takes to become aware of the hazard
- Movement time – the physical reaction time to press the brake or turn the wheel
- Device Response time – the amount of time it takes for the vehicle to respond.

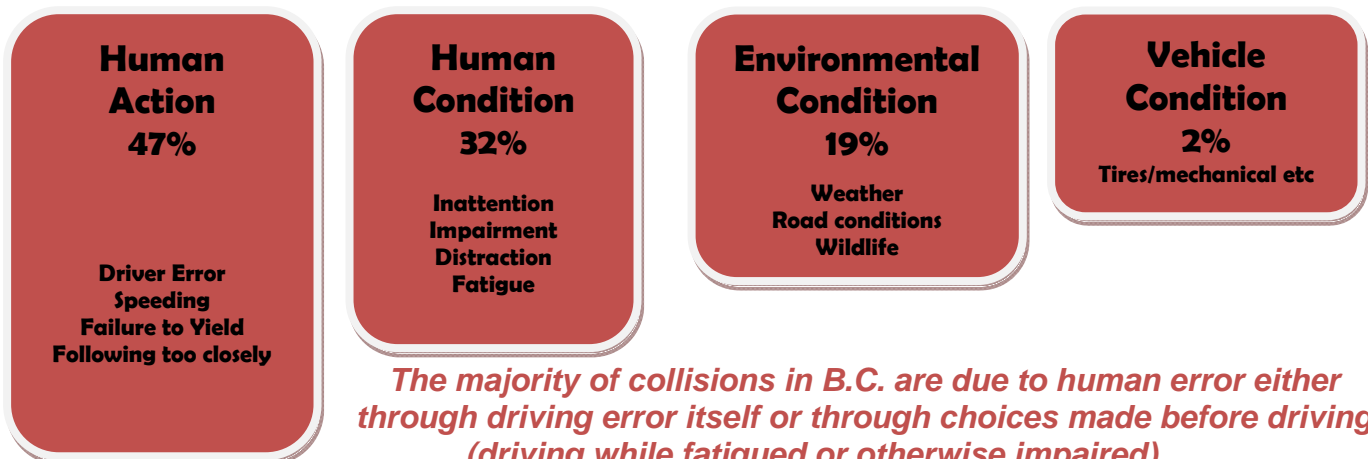
A 1986 study (Olson & Sivak) found that an unexpected circumstance required 1.2 seconds for processing and 0.3s for movement time. If you are traveling at 80km/hr (22.22m/s) and take your eyes off the road for 2s to scroll through an iPod you will have just traveled 45m. If, in those 2s a deer were to appear on the road it would take you another 33.3m (1.5s \* 22.22m/s) before you begin to brake.

***How many of you would willingly close your eyes at 80km/hr and drive for nearly 100m? How many of you would be comfortable as a passenger if your driver did it?***

## The 4 main causes for driving incidents

Driving is a highly complex task requiring extensive cognitive functioning. After years of experience we become very adept at driving with minimal conscious effort. If it weren't for the ever changing variables of road conditions, weather, wildlife, other traffic, vehicle performance and other factors, we might all be able to continually drive incident free. However, since the world outside and inside the vehicle changes moment to moment there is always a risk that something changes and interrupts our ability to maintain control of the vehicle.

According to a report released by the Insurance Corporation of British Columbia (ICBC) the primary causes of vehicle incidents in B.C. in 2007 were:



***The majority of collisions in B.C. are due to human error either through driving error itself or through choices made before driving (driving while fatigued or otherwise impaired).***

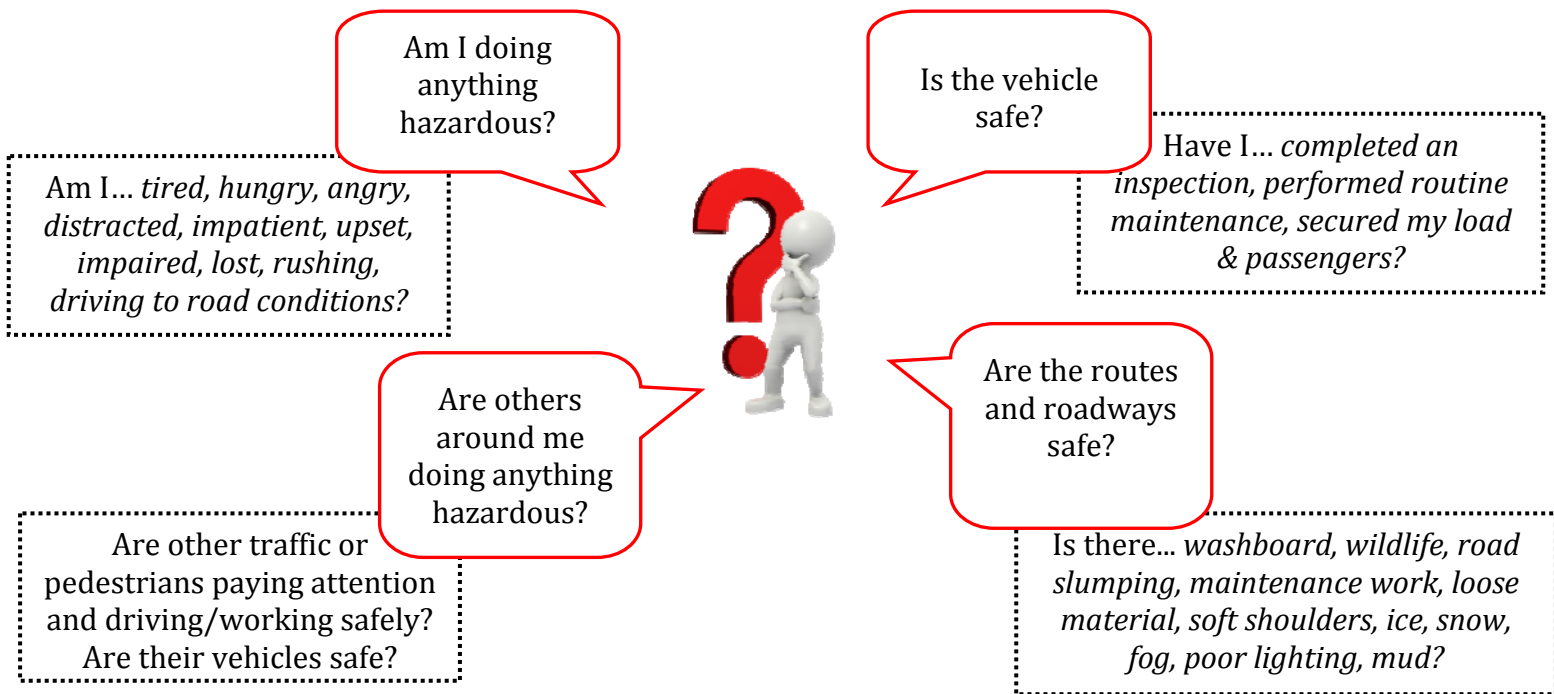


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## Reducing risk for yourself and your passengers

Based on the 4 main causes, as a driver you can reduce the risk of an incident by asking:



**Rarely are incidents caused by one catastrophic failure, rather it is a series of smaller, seemingly unrelated factors that contribute to a major event.**

On any given day you may be rushing or tired while driving on different road types and conditions.

As a driver on a resource road you can improve your own and others safety by:

**Recognizing that there are multiple factors at play and for every risk you can consciously account for there are others beyond your control.**

### Practice RADAR

**Recognize the risk • Assess the hazard • Develop a plan • Act safely • Report**

Even as a passenger you have the right and responsibility to assist drivers in making good decisions behind the wheel.

Passengers in the front seat can keep the driver alert, assist by adjusting temperature or volume, calling kms or being a second set of eyes on the road.

**The responsibility for road safety belongs to everyone.  
 Reduce the risk for yourself, your passengers and others by being aware and making smart choices.**



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## References

- 1 Marc Green Ph.d – referenced from Visual Expert website article “*Driver Reaction Time*”

## Resources

[BCFSC RADAR programs](#) – Hazard awareness and control program with crew talks, presentations, links to additional materials

[Distracted driving game](#) - consider that the ‘legal’ alternative of changing a disc or scrolling through an ipod has the same affect

[Anatomy of a car crash](#) – Article on perception and reaction breakdown

[Human Error in Road Accidents](#) – Article expanding upon human error. Marc Green (Ph.d)

[Workplace Road Safety Guide](#)

[Driving Healthy](#) – Virginia Tech website on professional driver self care with tips on nutrition, fatigue management and safe driving habits

