

Ralph's Accident Reconstruction Newsletter

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Another aspect of vehicle performance which is not addressed as frequently in accident reconstruction is the concept of lateral stability, or handling. As we all know, some vehicles can negotiate a curve at a higher speed than others. Handling characteristics are a complex mix of chassis and suspension design, center of gravity height, tires, and other factors. The VC3000 measures and records accelerations which are perpendicular to the vehicle's normal direction of travel, providing a numerical evaluation of the handling capabilities of the vehicle in which it is mounted. This aspect of vehicle performance is frequently not given much notice; often, a primary purchasing concern for a consumer is the rate at which a vehicle will accelerate, with braking capabilities a distant second. Fuel efficiency is also a factor in the purchasing decisions of most buyers, but, in this age of technically advanced engines, more power is provided by smaller engines with better efficiency than ever before. The rate at which a specific vehicle can traverse a turn or curve may be a very important aspect in evaluating and reconstructing a particular incident.

In the early days of accident reconstruction, deceleration during skidding was presumed to be constant; there were no high-resolution, accurate accelerometers at that time. Some of the equations developed during those early years of crash testing are now demonstrated to be inaccurate. Instruments like the VC3000 show that hard braking, by ABS or by locked-wheel skidding, is a very dynamic event. Proper use of data can now define speed losses over distances covered with greater precision and reliability than ever before. The state of the art has made substantial steps forward.

As I enter my fifth year as an independent consultant, I find that I need to increase certain rates. My hourly rate will increase to \$150.00, and my mileage rate will increase to \$0.50. Also, my source for crush coefficients has raised his rates faster than I can print new fee schedules; I am changing my source for crush coefficients, which change will mean varying prices depending on the vehicle.

I hope all of you have a joyous and safe holiday season, from Thanksgiving through and into our next year.

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