



New BIG hardware. I have a new big truck! This is an ambulance chassis which was converted to use for accident reconstruction work. The man who converted it retired after twenty years in the business, and he sold the truck and the associated equipment, including an LTI Ultra Lyte laser measuring system, data collector, and related hardware, plus other accident reconstruction specific goodies, like a drag sled.

There will be at least some change to its appearance; it was lettered with his business name and telephone number, as well as other information which won't work for me. But this will carry more stuff better than my Avalanche, and I have acquired a laser total station system in the process.

I bought this truck from a man in northern Idaho. I would not normally go that far to buy a used truck, but I attended the 2009 IAARS Seminar in Boise, Idaho, from September 14 to September 17, so I simply flew to Spokane, Washington, on September 12, looked the truck and equipment over, bought it, drove it to the seminar, then drove it back to Conyers from Boise. It will take me a while to get it just the way I like it, but I believe it will be a very useful business tool.

The interior of the body is shown to the right. There is an inverter for using 120-volt equipment on board, and there is provision for connecting to exterior 120 VAC power for a prolonged stay somewhere. There is no shower or toilet, though—can't live in it! It has equipment for making a drawing the old-fashioned way. There is a



high likelihood that I will add a printer and a computer as permanent parts of the body, but those components will come after other, more critical matters have been handled. It doesn't get very good fuel mileage, but most of my trips aren't very long, and it uses 87-octane gasoline, so I won't have to be feeding it from the premium trough.

Human factors are a critical part of accident reconstruction. Many reconstructionists, and perhaps many others, only think in terms of the physics of the collision and the post-collision movement, and sometimes perception-reaction times, and sometimes even include factors like lag time(s) associated with mechanical systems. (People with lots of letters behind their names like to call lag time "latency." ☺) In some situations, however, understanding properties of observation and memory can play very important roles in revealing how or why reports from participants or witnesses are at variance with physical evidence; that's an area of human factors which is rarely addressed by accident reconstructionists. I have attended several human factors classes during which experiments in observation and memory were conducted. I have also done independent research into studies on accuracy, validity, and mechanisms of human vision and memory, particularly as they pertain to the driving environment, and I have read (by now) thousands of statements of witnesses to collisions. It is interesting to me that, in a few rare cases, a witness statement will be fully consistent with all details of physical evidence. I have been involved in cases, however, where there have been four or more impartial witnesses, each of whom witnessed the collision from a different perspective, and none of whom gave an account consistent with the complete collection of physical evidence. In general, most witnesses will remember some part of a collision accurately, while other parts may be inaccurate or purely wrong.

One of the unique situations involves participants who say "I never saw <insert whatever vehicle struck theirs>." When the other vehicle was a motorcycle, the problem often was that the observer was looking for a more conventional vehicle and failed to observe the motorcycle which was in plain sight; it was there but it didn't register in the person's mind. Sight is a MENTAL process. We don't see with our eyes; the eyes are simply the organs which gather and focus the light; we see with our minds. If our mind hasn't processed the visual information that the eyes have provided to it, we haven't "seen" it. But another relatively common occurrence of that phenomenon is when the oncoming vehicle is traveling at some outrageously high speed, like twice the speed limit. A driver is preparing to make a left turn where the speed limit is 45 mph and sees a group of approaching vehicles which appear to be 300 or more feet away—seems like plenty of time to safely make a turn and be clear. But if one of those approaching vehicles is traveling at