BMW Car Club of America
Tarheel Chapter

Instructing in Fast Cars…

When looking at the new cars coming to the track, how often have you thought, "**They're just too darn fast** !?" Many of us have become increasingly uncomfortable riding in bone stock street cars barreling down the straights at silly speeds largely unattainable 15 years ago in this class of cars. At times we find ourselves challenged or conflicted to summons non-confrontational techniques to manage scary fast cars. In most cases it's far easier than we might have thought. In short, we need only make them aware of enhanced risks they've likely never considered.

Most students buy these fantastical machines blissfully unaware of the potential issues. They're simply out for laps in their magnificently high-powered equipment. When you initiate the conversation, you'll quickly discover a sobering reality; the thought has never crossed their minds, "***this cabin is not a track prepped safety cell***". They're flying along at race pace without race safety. Fully intoxicated by the pace and apparent stability of the car, they rarely get to the uncomfortable realities of the additional risks they've incurred.

It is often as simple as a brief dialog discussing and acknowledging things happen quickly at high rates of speed on the straights. We incur additional risk and exposure if any number of rare but very possible events beyond our control happen around us at very high speeds. Things like wildlife crossing the track, fluid or other debris from another vehicle, or an unforeseen mechanical failure of our vehicle can happen at any instant. If we're hauling the mail above 130+ mph into one of these adverse events without a track-prepped safety cell with roll cage, harnesses, HANS, etc., we're likely in for a bad day. And that's if we're lucky. ***Factory cabins are not designed or tested to protect at these speeds***.

Have your student think for a moment about their objectives for HPDE and where they most improve on track. Virtually all the ***real improvement occurs in the brake zones and twisty bits***. We really don't get much more than adrenaline spikes and large fuel and brake bills for maximizing straight line speed. It's also exponentially hard on the tires and driveline while increasing exposure to situations possibly unsurvivable without a proper safety cell. Come back with a caged and safety prepped track car and all these concerns take on a completely different complexion. Let's consider the benefits of maybe driving a bit slower on the straights; ***not slow***, but closer to the reasonable limits of the factory safety cell and harnesses that can potentially save us in the event of unforeseen incidents.

Once you have them thinking about high-speed risk management, it's at this point you ask the student next time around on the straight to choose a top speed they believe manages

the risks better. We won't call it "safe" because what we're doing here incurs a certain amount of risk, but we can call it ***risk management of the available safety equipment***. Most students will pleasantly surprise you by choosing a speed in your typical comfort zone. A select few might choose slightly quicker than you'd like. The good news is they already did the heavy lifting here. It's now a very easy conversation to negotiate dialing it back just a bit more. They've now largely owned and bought into the master plan, a significant straight line speed reduction in line with our comfort level.

It should go without saying, this technique for reducing top speed is not limited to street cars. While the predominance of this issue presents with ultra-fast street cars, this can still be used with safety-cell enhanced track prepped vehicles if needed. Be forewarned you'll likely need to approach the risk management conversation a bit differently based on the student. Experienced Group A and B students who've committed to track prepped caged cars are aware of the enhanced survivability of their equipment. They've likely already adjusted their risk model to incorporate the safety cell they're now in. In this circumstance you'll need to be frank about your personal risk model. Request they reduce the straights to a pace you're both comfortable. The second circumstance, with an inexperienced driver in a track prepped car, is more straightforward. Novice and Intermediate students won't rebel against a direct request to reduce their top speeds commensurate with their skill and ability to stay ahead of the car. Discuss potential adverse unsettling aerodynamic effects (like insufficient downforce) that may occur with wind gusts at high speeds that may exceed their current skill level to recognize or recover.

Take this opportunity of lower speed and reduced adrenaline on the straights to improve their brake zone mechanics and rhythm. This is the low hanging fruit of improvement. Things are happening much slower now (up to 20 percent) from brake marker 6 to the apex, so they reclaim significant fractions of seconds to improve all aspects of brake zone mechanics from heel-toe to properly loading the front at turn-in.

We've now significantly lowered the risk and everyone's more comfortable. They're now thinking about something they hadn't previously, and the speed reduction is accomplished through education and partnership, not edict. They're now more likely to focus on acquiring a dedicated track car with safety cell, rather than beefing up that street rod any further. It's a win, win. Happy lapping.

Tarheel Chapter Driving Events
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(rev 20250416)