"The Carousel" - Nelson Ledges' Greatest Challenge:

By Bruce MacInnes*

Nelson Ledges is a fun, fast, and reasonably flat racetrack in northeast, Ohio. This track was originally raced as a dirt road course in 1961. Thousands have raced here for decades in America's most unusual cult races; The Longest Day and most recently, the LeMons (Lamest Day) 24 Hour events. Renegade, grass roots racers from all over the country love this place – For me, it was an honor to race (and fortunately win) three times with teams at The Longest Day. While some are critical of the tapestry of patches pavement changes and bumps, the adage "The only bad racetracks are the ones you're not on" applies here.

Without a doubt, The Carousel is the most challenging turn at this old girl. This is a long, banked, sweeping, reducing radius, right hand corner that eats racecars. There is a swamp on the outside and the tire walls at Nelsons breed mesqetos as big as small aircraft. It's part of the local charm of this place. If you ever spin to the outside (where people have never walked), don't get out of your car – Look around to see what's coming to eat you. Motorcycle racers have learned to limp for cover.

When Mario Andretti brought his sons Jeff & Michael, and later his grandson Marco, to race in our Skip Barber Race Series, he was a great resource for insight into the secrets of his incredible career. When questioned how he was so successful Mario said: "People think the brakes are for slowing up and the throttle is for accelerating". If you think about it, they're also for balance. Cars with front brake bias will never spin with the brakes on unless you have a problem. Mismatching a downshift or pedal snapping off the brakes can spin you in a heartbeat, but cars go straight with front bias. Good drivers control their rotation with the release of the brake. At Skip Barber we call this "Trail Brake Rotation", a term coined by Mark Donohue - The Golden Boy (and my Instructor) of the 1970s.

At the approach to the Carousel we use brake turning and trail braking (yes they are two separate skills) to drive an early apex. While the exit leads to the longest straight and the infamous Kink, entry speed also determines a good lap here. You can then add a touch of power, don't go too high in the marbles, and use throttle control and TTO (trailing throttle oversteer) to rotate the car in the middle. It's important to know where to go slow and use all the road on the exit to launch onto the straight.

The bottom line is that all this is really Fun... For me, it's a car control playground, much like Lime Rock's "Big Bend" where braking and entering, and exit speed are both important. With subtle footwork and high eyes, to pick up mistakes early, the Carousel is a very rewarding corner.

Remember these basic rules:

If you spin instantly lock the brakes and release the clutch: "Both feet in" – The track is fast, but the grass is faster...lock-up is your friend.

It's hard to spin if you have "Jackie Chan Hands" and get the opposite lock in soon enough. Be sure to not leave this correction too long or you'll spin to the outside. Use CPR – Correction / Pause / Recovery as a life-saving spin control technique.

If you drop wheels on the exit, drive through the problem with even throttle. Turning back on and abrupt trailing throttle will spin the car. Statistically, 90% spin to the inside / 70% crash with late lockup.

If you forget all this and hit something, have your excuses lined up early. Don't close your eyes – Some say you'll miss the best part.

* Bruce MacInnes is a Senior Instructor at Skip Barber Racing School. He has held 18 lap records, won two Pro Formula Ford National Championships, and been voted Formula Magazine's "Driver of the Year (twice). In addition to victories in 3 Longest Days, Bruce won the infamous Lime Rock Can-Am with a Lola Chevy (in the rain). Presently he enjoys private coaching, building project cars, and flying his homebuilt RV 6-A with his wife Vikki. You can contact Bruce at <u>www.MacInnesMotorsports.com</u>