

08/20/2004

At Rally School, Left foot brake, right foot 'onthegasonthegasonethegas'

KRISTIAN GOVE

There's a bright red Audi Quattro poised and idle atop a gravel crest in the White Mountains. The nose points downward, through the trees, toward the unraveling forest road below. The engine runs furiously, tach needle jabbing at the redline. Hot dust blows in through the open windows as the clouds darken. There's a madman at the wheel.

I sit in the back seat, cowering mostly, bracing myself against the door, cinching my harness as tight as it will go, triple-wrapping my camera strap around my wrist, and wondering just why the hell I felt the need to see my life flash before my dust encrusted eyes. I try to scream like a Girl Scout (well, maybe more like a Brownie), but my noggin overrides the urge and decides to keep my mouth shut so I don't bite off my own tongue.

The Quattro rear-ends the VW GTI in front of us and the madman shouts out the window.

"Let's go!"

In the rearview, I see his eyes grow bigger and his smile - injected with high-octane adrenaline - quickly broadens across his face.

A voice comes back over the Audi's dash-mounted two-way radio.

"Okay, we're going hot!"

Welcome to Team O'Neil Rally School.

Tim O'Neil, 44, who owns Team O'Neil Rally and Driving School and happens to be a five-time U.S. and North American rally champion, jumped on the accelerator and all four tires bit into the gravel, ripped down the hill and gave chase to the GTI.

Let's clarify one thing, Tim O'Neil is actually no madman, rather, he's a man who controls the madness.

And there's plenty of madness.

The first order of madness in taking one of Tim's rally classes is to take just about everything learned in a high school driving school class and toss it out the window (preferably at 'ludicrous speed'). Team O'Neil offers two, three, four and five-day rally racing and vehicle handling classes at the school in Dalton, New Hampshire, the campus deep in the White Mountains. A rally fan for years before I even had my license, I chose the four-day class intent on learning everything I could about the sport.

Rallying is a lot harder than it looks. If you have ever seen rally on television, you've probably seen drivers and co-drivers (also called navigators) ripping through the European countryside at crazy speeds in cars that cost crazy money. To get to that point, one must start with the basics. The two-day class at Team O'Neil teaches students to abandon that pre-learned notion that drivers brake with their right foot. No. To win at rally, the driver must brake with the left foot. The steering wheel steers the front of the car and the brake steers the back, like the rudder on a boat.

Be one with your left foot

There were eight students in the class and Tim designed our very first exercise to break us of the right-foot braking habit (every class begins with 90 minutes of 'chalk-talk' which explains proper procedure). The first exercise started on the gravel skid pad, a couple hundred feet wide, with three instructors and a fleet of 12-year-old A2 Volkswagen Jetta's and Golf GTI's (you didn't expect Team O'Neil to send a bunch of testosterone-laden men out in the woods and away from their wives for a week in a \$350,000 rally car for the first time did you). For the first time of every exercise, an instructor would drive and call out his movements as he performed them, then each student would take a turn behind the wheel.

Eight students in three cars took to the skid pad to learn how to left-foot brake at about 20 m.p.h. just to get the feel for how the car handled. I handled very well at 20 and if rallying actually happened at 20, I could be the world champion.

Once we all stopped jabbing at the brake pedal like we were finishing off a fiery dragon and started caressing the brake like it was our faire maiden's hair, we moved on to slalom runs on a ¼-mile run on part of the gravel practice course. Orange traffic cones symbolized bends in the road, rocks, trees or whatever other obstacle one might find hurtling through the forest trying to get from start to finish.

Turn before the turn, or you'll prove you're mother right, and end up in a ditch...

In rally, the driver must perform most of the turning maneuvers well before a turn. For example, if the driver zings along at 75 m.p.h. in the woods and decides to wait to turn when the turn actually comes up, the driver and co-driver will most likely later be plucked from their tree-embedded car like mystery meat from a Spam can. So, the driver must turn in, brake, and counter-steer about, depending upon speed, 50 feet from the turn.

I flattened more cones than I care to remember. For my very life, I could not come up with the ability to work through the cones without smashing them into the earth.

Driving instructor-less once, I came down Turnaround Hill and launched into the cone slalom. Near the end of the slalom, the cones were placed progressively closer, so the driver needed to perform each maneuver longer, i.e., stay on the brake longer, turn longer, etc. However, near the end, I lifted off the gas again and promptly crashed the car into a ditch, complete with running water and a rather large, rather solid embankment.

When I arrived back at the skid pad, I apologized about the incident to Chris Komer, 40, one of our fearless instructors. I had dented and scratched a few body panels (on the car that is) and dug up some grass with the front bumper.

"That's okay," he said, gesturing toward the embankment that ran the length of the course. "There's plenty of Volkswagen prints in the dirt all up and down here."

One of our other instructors, 'Young Wyatt' Knox, 20, told me I was lifting off the gas too much and wasn't looking down the course instead of straight at the cone. Chris told me I lifted off the gas too much, did not brake hard enough, I threaded the needle (like clipping the apex in road racing) and I turned too late and...and then, despite my earlier plunge into his well-manicured landscaping, Tim got in the car with me.

Tim just retired from rally racing last October, but the adrenaline was still hot - boiling hot - and now he was my co-driver.

Gulp.

Tim, who has been racing since the mid-1980s and teaching for close to 10 years, said he would cure me of my lifting problem. Silently, I doubted he could, because I had the instinctual mental block of high school driving classes taken so many years ago.

"Go ahead!" he said, with that now familiar smile.

I hit the gas, shifted up to second, and off we went. The first cone came quickly.

"Onthegasonthegasonthegas," he said, but around the first cone, the inevitable occurred.

"You're lifting, you're lifting," he said.

I tried again on the second cone.

"Still lifting!"

Around the third cone, again, I felt my running shoe come off the gas. A half-second later and gunning toward the next cone at 50 m.p.h., Tim unbuckled his harness, reached down, grabbed my foot and jammed it into the floorboard - pinning the accelerator pedal between my foot and the floor - and shouted directions with his face just inches from the dashboard.

"Turn, brake, counter-steer," he said. "Turn, brake longer, counter-steer. Turn, brake, counter-steer..."
After what seemed like three seconds - or an eternity - we made it to the top of Turnaround Hill alive.

After that unorthodox (yet highly effective) teaching technique, you can bet your billy goat I learned to left-foot brake in a damned hurry...and I no longer have a lifting problem.

After the run, I felt the warm bubbly of adrenaline turn up the corners of my mouth and I too began to smile the wild smile.

I love rally school.

First love, then marriage, then a moose, and a baby carriage

After we learned the basics of left-foot braking, understood the five types of skids, learned what in the heck understeer and oversteer was/were/is (the former is when the car goes straight no matter how much the driver turns the wheel and the latter is when the car turns too much, usually resulting in a spin), we got to learn some public highway avoidance techniques.

Sounds rather dry on paper, however, this was perhaps one of the more difficult techniques for me to perform because it involved standing on the gas while aiming directly at Tim as he stood in the middle of a cone array assembled to mimic a disabled tractor-trailer or the funny little critter they call a moose up there in North Country. Atop Turnaround Hill, O'Neil instructed students to scream down the hill straight at him (in second gear at 7,000 rpm) and when he gave the signal, the student was to either get on the brake then turn, or just turn at the last minute.

Controlled madness.

Team O'Neil used to use a baby carriage as an obstacle in this exercise but legend has it that the thing was plowed over so much that it was actually ground into the dirt by speeding Volkswagens and is now part of the track. Does this mean he replaced that baby carriage with his own body? That's an answer only Tim could articulate.

Spank the Volkswagen

Eight exhausted men showed up for Day Two of what Tim lovingly refers to as "Spanking the Volkswagen".

I lovingly refer to it as "Crashing the Volkswagen" as I crashed every single car I drove that week.

Admittedly, it took me quite some time to let go of my conscious self, lose my instinct, and fully trust Team O'Neil's year's of experience. Others picked it up right away and had little or no problem. I took the slow path, but once I got it, once I knew - instinctually - that the instructors were there to teach me, not kill me, I was able to fully appreciate the course.

Near the end of Day Two, ripping through the forest at high speed, my instructor's directions finally began to sink through years of habit. In fact, it was only when I did not listen to instruction, did I crash. I crashed in the ditch on Day One, I crashed head-on into a culvert off the skid pad, and I crashed hard uphill at a 75-degree angle near the school's garage. Unfortunately this crash had an audience, with much pointing and laughing (after taking inventory of my extremities, I laughed as well).

Fortunately, damage to the car was very (somehow) minor, which is always good for those of us with thin wallets.

As in real rally, I was able to just back my race prepped GTI off the grassy knoll and continue on with my run (try backing a Formula 1 car off a grassy knoll and continuing on with the race...not gonna happen). What caused this crash? I lifted off the gas and instinctually jumped on the brake when I felt the car getting away from me. Instead, I should have been onthegasonthegasonthegas.

Back at the start Tim advised me that I needed to drive the car, and not let the car drive me.

At the end of Day Two, I was a little frustrated by my shortcomings, but insistent that I learn the proper techniques.

On Day Three, the door finally opened.

Look for Part Two in next week's edition, where Courier editor Kristian Gove will highlight two more days of an intensive rally racing course. In the mean time, check out Team O'Neil's web site at www.teamoneil.com.

08/27/2004

Rally School Part II - When all else fails, Pendulum Turn!

KRISTIAN GOVE

This is the second of a two-part series highlighting a rally racing experience at Team O'Neil Rally School.

At the beginning of my four-day rally class Tim O'Neil said we would have fun. What he didn't say, was that we would also generate a mild addiction to a little something called the 'pendulum turn'.

From outside the car, safely on the banks, the pendulum turn looks as graceful as an Olympic skier on a gold-medal downhill. The car moves this way, then that, turning gently again moving along the track, spinning, dust pluming from under its tires.

From inside the car, on my first ride-along (with you know who), the pendulum turn felt like a nasty fall off a dusty cliff (as opposed to those not-so-nasty falls off dusty cliffs). The car swung one way and my body slammed against the harness (if one doesn't properly tighten the harness a minor accident could result in a slew of broken ribs). Then the car swung the other way, and the gravel tires shot rocks, dust and other woodland bits into the open windows of our VW Jetta. Then it swung back yet again and this time more dust and water from a nearby sprinkler splashed in my face, and the g-force strained my already tensed muscles.

When the car finally came out of the turn, only four seconds later, I wasn't sure what had just happened, but sure as sugar, I wanted to do it again.

Executing the Pendulum

Pendulum turns were designed to allow drivers to get through sharp turns with as much speed as possible. Pendulums require no less than eight moves to complete successfully. Try this at home and you might end up seriously dead.

On a rally course with proper instruction, here's what the driver needs to do when coming into a 45-degree sharp left hander deep in a Scandinavian forest (or any forest for that matter): First, get the car humming along at 45 mph on the left side of the road when it enters the turn (not the right like in road racing). Twenty-five meters from the apex, lift off the gas (it's okay to lift, actually essential, in this instance), turn the wheel 90-degrees to the right, brake until 13 meters away from the apex, release the brake, turn the wheel left 180-degrees, blip the throttle, counter-steer back to the right, then accelerate gently out of the turn. Simple right? Try doing all of that in four seconds - one step at a time - before the corner. Hand/eye coordination is one thing, but this rally thing requires hand, eye, leg, arm, ear, brain, pancreas, foot, and neck coordination, not to mention a heavy stomach lining.

As confidence builds,
so too does horsepower

Rally specific techniques work better with a little more juice under the hood. At the beginning of Day Three, prior to our quick chalk review, Team O'Neil mechanic Mike Barley, 42, had ushered out more enhanced machinery in the form of rally prepped GTI's, complete with engine modifications, heavy-duty suspension, complete roll cages, and racing seats. The third day, coincidentally, was also the first helmet day.

Again, atop Turnaround Hill, I found myself strapped into a German-built mini asylum staring down through the slalom and toward the skid pad, where the pendulum turn cones had been set up earlier. As Tim shouted the directions over the screaming engine, I proceeded to plow over most of the cones (which meant, theoretically, I had hit a few rocks, old-growth trees and countless spectators, who flew across my hood screaming Why! Why? seemingly in slow-motion).

Tim looked down at the floor and shook his head.

"Let's try it again," he said, his voice tinged with optimistic disappointment. His adrenaline-injected smile slackened.

My next attempt was a little better, then better still on the next. Tim's smile perked up again. After a break to allow water truck driver Greg Auger, 22, to hose down the course (which kept most of the dust down), a student instructor, Emilio, got into the car to see if he could help cure me of my cone-plowing problem.

Emilio was a calm, patient man, who, despite my growing reputation, never showed fear when he rode shotgun in a rally car piloted

My ditch episode unfortunately also had an audience of other students and instructors. As they drove by one by one, the other students learned from my mistakes (when people learn things they tend to point and laugh, right?).

At the very least, I avoided total humiliation by being able to drive the car out of its half-grave and continue with the hot lap.

The WRX might have survived my run-in with the old ditch action atop Turnaround Hill, however, it wasn't long before I finally put the thing in the hospital. This time, with Young Wyatt, I braked too late in the hairpin next to the office (and when I say next to the office, I mean next to the office...as in 45 mph 12 feet from the front door).

Because I was late on the brake, I swung the car wide and introduced Wyatt to another rather large embankment. I hit it so hard that it forced rocks into the bead of the tire.

Wyatt stopped me as soon as he heard the hissssss of a Pirelli P-Zero going flat.

There were no tires available for the WRX at that moment, so I had to embark on a Walk of Shame back to the skid pad to pick up another car.

The Last Day

By my fourth and final day, I had grown so accustomed to what I was doing that it began to feel natural, almost as if the fifth day would have found me sitting on the starting line of a real race. I used the same helmet over and over again, I figured out to work the radio and I knew which cars I liked best.

I also got to know my instructors and how the teaching system worked. Tim made sure that every student had a chance to work with all of the instructors, because each instructor brought something new to the experience and could show something in a different way. As I mentioned before, Tim cured me of my lifting fear. Chris showed me how to look up instead of directly at the cones. Wyatt showed me that there's still part of a fearless 20-year-old living inside me, and Emilio was able to diagnose my pendulum turn problem. The teaching method at Team O'Neil is a group effort that yields significant, lasting results.

When you go...

...you'll have several choices in classes.

The 2-Day class costs \$1,650 and covers left-foot braking, using throttle and brake for steering, crash recovery, cornering, gear choice, accident avoidance, and the peculiarities of different drive vehicles, i.e., rear-wheel drive, front- and all-wheel drive.

The 3-Day costs \$2,950 and builds on the 2-Day class, but adds even more track time, more personalized attention, and the ability to practice what you learned in the 2-Day.

The 4-Day costs \$4,150, builds on the 2- and 3-Day, and adds more narrow road handling practice and a wider selection of vehicles.

Team O'Neil also offers 'real-world' driving classes including a winter driving class that allows students to bring their own cars to learn how to drive them safely in winter conditions.

From experience, while most of the rally class techniques transfer to the real world, if rally racing is your thing, the 4-Day is the class for you. The 4-Day allows complete immersion into the sport and, if you listen to your instructors, you could come away with a solid foundation for a career in rally.

In the mean time, remember: Left foot on the brake, right foot on the gas on the gas on the gas!

You can reach Team O'Neil by calling (603) 823-5558, or visit their web site (which is quite extensive) at www.teamoneil.com.