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# EDITOR'S NOTE

**JOHN ARMSTRONG**



This issue of *Velocity* is loaded.

Of course, we have our usual batch of entertaining reports on the first quarter's driving events at The Streets of Willow Springs, WSIR, and Spring Mountain.

These are the staple

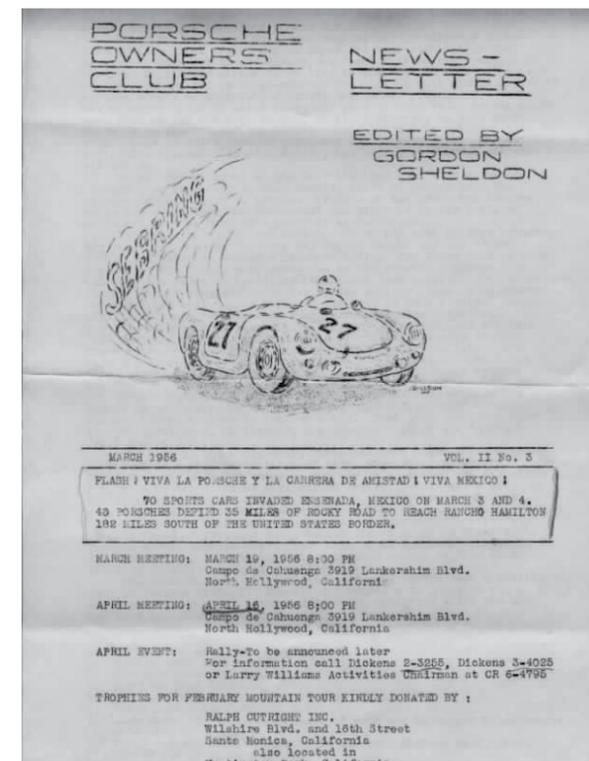
of every issue of the magazine, and I want to thank Paul Young, George Meeker, Andrew Weyman, Bradley Pierce, and Amber Keegan for stepping up and contributing.

We've made a little change to our format. In order to free up more space for articles and photos, we've decided to eliminate the results charts. You can always find complete results at [porscheclub.com](http://porscheclub.com) and [mylaps.com](http://mylaps.com).

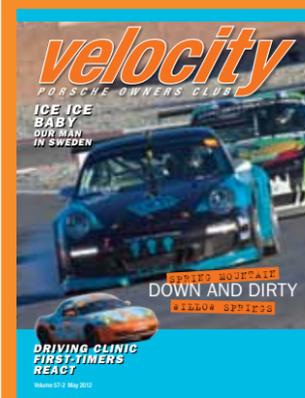
As for the other articles, this is the most eclectic and engaging bunch that I've seen in *Velocity*. We've got Matt McFadden confronting his fear of driving on slippery surfaces by attending an ice-driving/racing school in Sweden. There's Jim Pierce, esteemed builder of rollcages, telling us everything we didn't know about that most critical safety feature. Carl Tofflemire, the sales head at Pacific Porsche when he's not racing, describes his experience as a participant in Porsche's nationwide launch of the amazing 991 at El Toro. We interview Cass Whitehead, lead instructor for the Porsche Sport Driving School. And a self-proclaimed

nerdy astronomer, Glenn Orton, takes us down his unlikely path to becoming a racecar driver with the POC.

Speaking of unlikely paths, who would have thought that this modest little pamphlet below, published in 1956 by a fledgling group of Porsche aficionados, would evolve into *Velocity* and still be around in 2012 as the mouthpiece of the Porsche Owners Club?



Take a moment of silence for the passing of the inimitable Ferdinand Porsche, and for all we owe him.... Now let's go racing. 🏁



**On the Cover:**  
Jesse Menczer gives Jon Levey the blues at Spring Mountain.  
**Photo:** Cathy Robson/Virtual Access Photo

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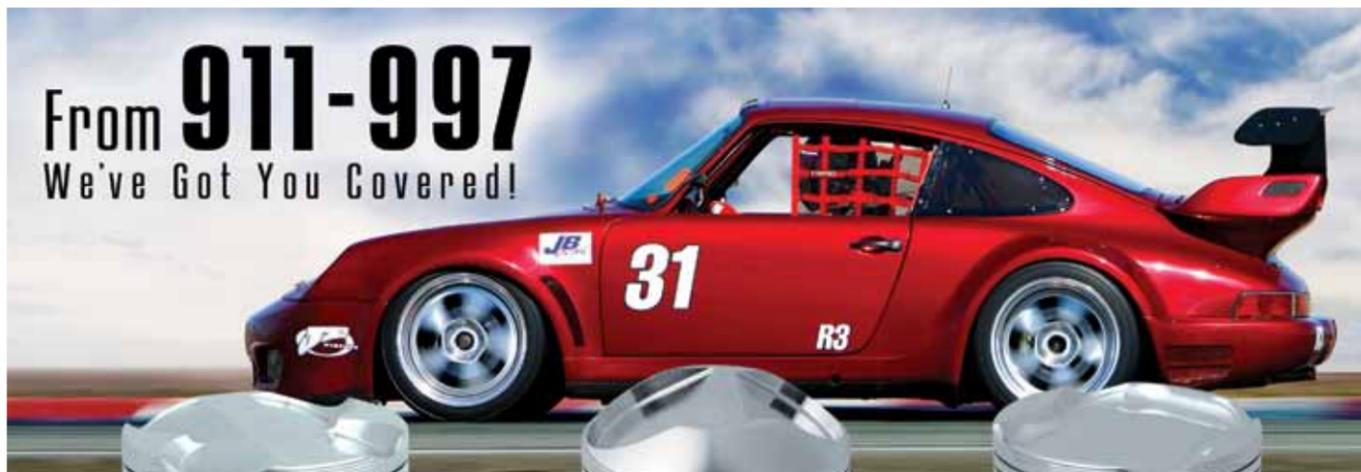
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# FROM THE PRESIDENT

MIKE TAKAKI



Change. Almost nothing stays the same, and this holds true for our club. Kip is trying out new racing venues, with Thunderhill last year and Infineon this Fall. Next year, maybe Chuckwalla and Miller? We asked about interest in

Miller at the Triple Crown drivers meeting and a lot of hands went up. A second Laguna event this year in October is scheduled. And by the way, unlimited sound! Mr. Waterhouse has been a very busy boy. Thanks, Kip for the fantastic job with our event schedule.

The racing groups are changing too. More cars are entering the GT classes, which are in the third year now. I would anticipate the numbers in GT to grow steadily. There are some cars now in GT5 and GT6, which is great. Boxster Spec is thriving, and work is well underway on the second-generation Boxster Spec rule-set for the post '99 cars. The Competition Committee should have finalized the new time trial classes for the

newer 991s and other models by the time you read this. And speaking of time trials, how about the new open passing with point-by policy? Who would have thought? In the Performance Driving Series, we have changed the format of the clinic over the last year. I think the changes have improved the learning experience for our drivers. Thanks to Dave Gardner for those. Well, you get the idea - there is a lot of change happening. Hopefully you find our remodeling to be positive. I think change is necessary for an organization to thrive, but changes can be unsettling at the same time. If you have any comments or suggestions, please contact me.

There are some things that remain the same. I still see smiling faces on drivers as they get out of their cars after a race, time trial, or PDS run. I still see people borrowing things from buddies, or drivers helping other drivers fix cars. Laurie continues to get the drivers registered and the event administration handled. Katie and her crew still do a great job for us. Aaron still provides fabulous timing services. I hope these things never change.

My lap times don't change either, but I am hoping to change those. ■

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## PORSCHE OWNERS CLUB CALENDAR

DATE	TRACK	EVENT
June 1-3	Auto Club Speedway, Fontana "Tribute to LeMans"	4-hour Enduro, Cup Races and Time Trial #7, PDS exhibition (Sunday only)
June 23	Hergesheimer Motor Sports	Instructors Clinic
July 28-29	Pomona Fairplex	PDS #8 and #9
August 24-26	Mazda Raceway Laguna Seca POC Charity Fundraiser	Cup Races and Time Trials #8 and #9
September 8-9	Streets of Willow	PDS Drivers Clinic #2 Saturday and PDS #10 Sunday
September 29-30	Auto Club Speedway, Fontana	Cup Races and Time Trials #10 and #11
October 13-14	Auto Club Speedway	PDS #11 and #12 and Time Trials #12 and #13 (Infield Road Course)
October 13-14	Mazda Raceway Laguna Seca	Cup Racers - Unlimited Sound
October 27-28	Infineon Raceway	Cup Races #12 and #13 with PRC and NASA
December 1-2	Willow Springs Raceway	Cup Races and Time Trials #14 and #15, Racers Clinic #2

Interested in advertising in Velocity? Please contact Andrew Weyman at velocityprodmgr@gmail.com.

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# Dirty Dancing in the Desert



James Buck and Evan Flaxman with instructors in a Friday practice session.  
 Photo by Cathy Robson/Virtual Access Photo

Words: Paul D. Young

1. Harry Blazer, two-time overall Red Race winner, followed by Drew Waterhouse, who won GT2 twice.  
 Photo by Cathy Robson/Virtual Access Photo
2. John Gordon en route to two GT3 victories.  
 Photo by Cathy Robson/Virtual Access Photo
3. Former ALMS teammates Doug Baron and Loren Beggs won their classes both days.  
 Photo by Cathy Robson/Virtual Access Photo
4. Dan Burnham leads Bill Earon under the bridge.  
 Photo by Cathy Robson/Virtual Access Photo



1



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3



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**Oddly enough**, our lone out-of-state event is not the most distant from the metro Los Angeles area – we travel farther to Thunderhill, Laguna Seca, and Infineon. Still, Spring Mountain does not seem to garner its fair share of entries. This year the attendance was a bit over 100 – not quite up to the usual WSIR or Auto Club Speedway numbers. Shame, this is a great track with a lot of interesting sections, variety, and challenges. At 3.4 miles, it is the longest track that POC frequents. And it is a track that will improve your driving. Besides, it offers a wonderful change of scenery and a feeling of escape, more so than some of the “closer” tracks we frequent.

Spring Mountain is a private Club facility, and they are gracious enough to allow POC to hold an event there. In turn, we invite Spring Mountain Club members to run with us. Their race-licensed drivers participate in our Red Cup Race group, while the others drive with our time trialers.

The facility is ever-changing, ever-growing, and has evolved from a 2.2-mile test track with a tent to a world-class facility for serious drivers. New this year was a condo complex just inside Turn 1. Some of the POC drivers were able to rent units and have a walking commute, a convenience comparable to camping out in the paddock. I opted for the city of Pahrump, only about four miles away, but only because it is about a mile closer to the track than the Chicken Ranch.

One of the large garages in the new condo building was used for our meeting room. Very nice, except it smelled a bit of Corvette.

Interestingly, we had a large number of parent-and-progeny entrants at Spring Mountain this year: Ed and Cory Muscat, John and John Payne, Jr., Mike and Randy Takai, Dave and Chad Elliott, Bob and Jack Ehrman, Behr and Bayan Salehi, Jim and Regan Steedman, Gunter and Andrew Enz, and of course, Kip and Drew Waterhouse. Some of the parents weren't actually driving, as their offspring had signed up to participate in the Racers Clinic in their dads' cars.

Overall, I noticed that lap times seemed measurably slower this year (except for everybody else's). The weather, though, was near-perfect, with temperatures around 24°C (that's near 75°F for you Corvette owners). Just a bit of wind on Saturday and Sunday, but not like we've experienced at Willow. The track surface is in great shape; it lends itself well to experimenting with different lines and affords many opportunities for effective passing in race situations.

The Australian Pursuit Fun Race held traditionally at this event on Friday afternoon enticed a larger group of entrants than last year (26 versus 20). While I was fortunate enough to win the 2011 event, I was out of energy, out of tires, and out of gas, so I decided to just watch this year. It was indeed an exciting race from the spectator's standpoint. Although it was a bit tough to determine who was leading at any given time, that actually proved to be part of the excitement and drama.

The Pursuit Race starts out with the slower class cars first, followed at intervals by successively faster class cars. The concept is that if everybody drives close to the lap record time in their class, all the cars will theoretically cross the finish line together at the end of one hour. Otto Silva started out alone in the first group running R9S (944 Spec). The second group, featuring R6, R7, GT5 (would have been me), and Boxster Spec cars, started about a lap after Otto. A couple R6 Porsches and a pair of Boxster Spec racers were joined by two more BSRs who got a bit of a late start. The third group, starting another three minutes later (six minutes after Otto in the 944), was large with an even dozen cars. This entourage included R3-R5 (all the V3 cars), GT3, and GT4. The final group of seven racers, including all the Cup cars, R1, R2, GT1, and GT2, roared off 3½ minutes later (9½ minutes after the first car).



**1.** Kip Waterhouse and Steve Parker perform ambitious field surgery on Drew Waterhouse's engine.

*Photo by Paul Young*

**2.** Joel Le Poutre leads the Fun Race en route to a confusing victory. Behind him are Regan Steedman and Michael Holgate.

*Photo by Paul Young*

**3.** New board member Andrew Weyman in his signature Gulf Boxster.

*Photo by Cathy Robson/Virtual Access Photo*

The race was punctuated by a number of full-course yellow flags, allowing only 16 laps to be run in an hour instead of the projected 20 laps. None of the incidents were serious thankfully (just folks playing in the dirt), but it did tend to bunch cars up. If a faster group car had just passed (lapped) a car from an earlier group when the yellow came out, that would be to the faster car's advantage as it could speed around the track to bunch up behind the leaders. On the other hand, if a driver had been about to pass somebody, he would spend a few more laps having to wait for the green to pass. Fascinating!

Jon Levey and Jesse Menczer were duking it out in their Cup cars, and it would be interesting to see if they could unwind enough laps in time to catch up to the leaders. Jesse eventually developed a

flat tire and had to bow out. Mike Monsalve, running V3, was another promising contender but also retired early.

It seemed that Joel Lepoutre in a BSR was leading towards the end, when he pulled into the pits after one of the full-course yellows went green. Turns out they had his number on the leader board (yes, he was leading), which was located at the black flag corner. Since he saw his number on the board, and they happened to be waving a black flag (at another car it turns out), Joel came into the hot pit lane to receive his punishment. When Gabe at the black flag station told Joel he wasn't the perp, Joel charged back out onto the course. But it was too late. Mike Holgate also in a Boxster Spec, had taken the lead, and a lap later he took the checkered flag.

After review by the 9th Circuit Court of Appeals, Joel was awarded the victory, as it was fairly clear that he had just been following orders when he pitted. Rounding out the trophy winners were Mike Holgate graciously taking second, and a fast-charging Doug Turnquist (R6 944 Turbo) in third. What a race!

Saturday was another beautiful day, with the rugged mountains showing a bit of snow in the contrasty early morning light. The wind was a bit more than Friday, but still nothing to be concerned about.

There were a fair number of folks with mechanical issues throughout the weekend. Drew's Cup car had its engine out with Kip and Steve Parker making repairs. Andrew Weyman was experiencing gearbox woes, but managed to set some rather amazing laps anyhow. Eric Olberz twice had trouble with throttle cables, but again, thanks to many hands helping out, he was able to run the races.

Some of Friday's chaos spilled over into Saturday. The Orange-Green Race was fairly clean with just a few dirt excursions, and yes, I was guilty of one of those. Spring Mountain actually has good runoff in most areas, although your Porsche will get dirty. Mike Monsalve (V3) handily qualified on the pole, with Mark Mitchell next to him heading up GT4. The two classes intermixed back through 13th spot on the grid where Joel Lepoutre qualified first of the BSR brigade.

Monsalve led flag-to-flag, with Steve Parker finishing second. Mark Mitchell bowed out early on, so GT4 was contested by Vali Predescu and John Payne. John was driving a "Buick," so designated because after competing for so long with his GT2 "Killer Bee," that's what he said this car felt like to him. He did quite well, but Vali prevailed by nearly three seconds.

Personally, I was still a bit fatigued Saturday afternoon and thought I would just drive past the halfway mark to get credit for the race. I got a good jump at the start and wound up in the middle of the BSR pack, charging through the turns. We were dicing it out, changing lines and positions all the way. It was invigorating – and just what I needed. By race's end I felt energized!

Saturday's Red Race had problems at the start and needed a second pass to satisfy the starter. Drew had his Cup car back together and was battling with Harry Blazer for the overall lead (Harry had nabbed the pole in qualifying). Dan Aspesi was close behind, waiting for the opportunity to capitalize on any mistake the leaders might make. Harry eventually triumphed, with Drew a few seconds back and Dan right behind him.

Meanwhile, the GT3 class was turning out to be very exciting as well, with John Gordon and Duane Selby trading spots for lead of that class. Duane flew in from the East Coast where he has been working, and anxiously waited for his car to show up. When it did, he wasted no time in putting it at the top of GT3 on the starting grid. While they were back and forth for several laps, John eventually got ahead of Duane and put several seconds on him by the checkered flag. All in all, a great race.

Saturday evening featured an enormously classy buffet dinner at the enormously classy Spring Mountain clubhouse. There I chatted with a number of POC drivers, many of whom had not been to Spring Mountain before. All were exclaiming about how interesting and challenging the course is. And all agreed it was worth coming back to. We also discussed the 800-plus horsepower Camaro that was thundering around the track (belonged to a Spring Mountain Club member). While it made a glorious noise, it was no faster than many Porsches with less than half the power. Hmm....

On Sunday we were assaulted by a premature sunrise, thanks to Daylight "Shavings" time. Thankfully there was no drivers' meeting, but still it felt awful stinkin' early. The wind was a bit stronger Sunday, but a smart driver could take a wee bit of advantage, braking earlier in some places, cornering a bit harder where the wind helped, and waiting a bit later to brake into the wind.

As usual, I qualified my GT5 911-SC "Snickers" mid-field for the Orange/Green Race. Monsalve was on the pole again, with Vali second, but Steve Vandecar was third. Steve had been struggling with ignition issues, but finally got it working. Steve Parker unfortunately "Dirty Danced" into John Payne, so was out for the event. Vali Predescu's GT4 Boxster developed an unfixable issue before the race. But the Ubiquitous Sheriff graciously loaned his 911 to Vali so he could at least compete (though just in class EX). What a sport Parker is – he's always helping somebody out.

While Doug Turnquist was pressuring me in mid-field during the race, Joel was hounding Gene Sigal in BSR. Gene eventually prevailed, but by less than two seconds. Meantime, Mike Monsalve won V3 and overall, but second place was an ecstatic Steve Vandecar in GT4. Another exciting race!

The Red Race featured Dan Aspesi on the pole with Harry Blazer second and Drew third. Unfortunately, Bob Ehrman slid into the dirt and tire barrier on the second lap, causing a longish caution. Several racers developed problems (like tires), so the competition wasn't as intense as Saturday's race. Harry and Drew again took the one-two positions, with John Gordon easily winning GT3, as Duane had tire issues.

The Time Trials went well, with a number of new records set Saturday, only to be beaten again on Sunday. While the results aren't official as of this writing, there were a number of noteworthy times posted. Chet Kolley set a course record of 2:52.298 in his sweet Cayman CSX. Behr's son Bayan outdid dad in GT3 with a sizzling 2:36.132, which should be better than the old record. Guido Rietdyk turned a fast GTC-3 time of 2:29.770, while Eric Olberz turned a 2:39.162 for what should be a new V3 record.

It was a great weekend, and if you were there, you know that's true. Beautiful scenery, awesome track, phenomenal weather, and great racing with the best of friends. If you haven't been to Spring Mountain, you really owe it to yourself to make the medium-distance pilgrimage to this truly great track. They have plans to grow the facilities and track, making it all the more inviting. ■



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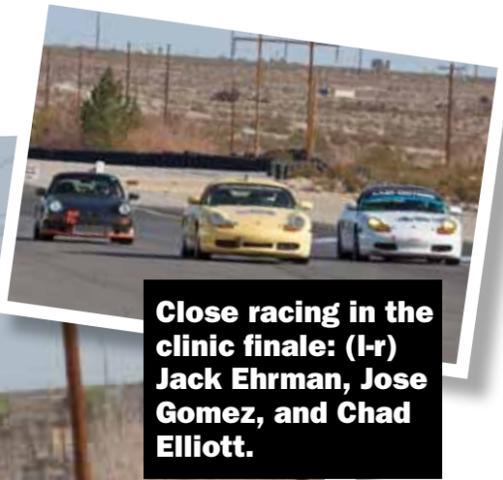
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# Rocking the Racers Clinic

Words: *George Meeker*  
 Photos: *Cathy Robson/Virtual Access Photo*



**Close racing in the clinic finale: (l-r) Jack Ehrman, Jose Gomez, and Chad Elliott.**



**Randy Gates leads the charge as clinic practice goes green.**



**Graduation Day**



**George Meeker chases Andrew Enz in a clinic drill.**

**Welcome to Pahrump.** Located somewhere in the high desert between Las Vegas and Death Valley, Spring Mountain Motor Resort and Country Club is just what it claims. It offers a great racing facility in a country club atmosphere, out in the middle of nowhere. It is the perfect place for a race track – except for all those rocks.

The weather was perfect, the crowds and cars were abundant, and the racers were excited. Brad Keegan was so excited to participate in the Clinic that he instructed the doctor of his nine-month pregnant wife Amber to give her drugs so she wouldn't go into labor during the weekend. Upon Brad's return Sunday night Amber went into labor, followed directly by the birth of their second son. Needless to say, not all of us were that excited. But it sure felt that way.

Although we were anxious to go racing after our introductory classroom session, we were at first unable to transfer our excitement to the track.

That is to say, the first Racers Clinic of 2012 got off to a very slow start from the perspectives of our very astute and capable (read, "fast") instructors, Marty Mehterian, Dave Gardner, and Drew Waterhouse. They were rather concerned by our lack of speed on the track. This was evidenced in the timid execution of specific drills – and the rather slow times posted – by the 27 drivers who took to the course on Saturday morning.

The consensus around the classroom by midday was that the drivers believed they were pushing their cars and themselves to the max. However, the belief of our instructors was that we were all "dogging it."

Consequently, some of the scheduled clinic exercises were shelved in favor of putting the class into race situations earlier than usual. So out we went, with several reverse starts and practice starts. And by late Saturday afternoon, we had indeed picked up the pace. But Marty was still not convinced we had the right stuff to make racers.

Sunday the pace picked up straightaway. Andrew Enz stated, "I was thoroughly impressed by how quickly everyone started to push each other. The number of door-to-door battles I witnessed between completely mismatched cars was truly a testament to our determination to race with the big boys. After this weekend I feel comfortable and confident that I can go into a turn with anyone from our class and race to the full extent of our abilities, while leaving racing room!"

We lost Steve Radenbaugh on Sunday due to mechanical failure – or rocks. The rocks were everywhere. Although the sweeper crew was constantly trying to keep the track clean, the number of offs due to rocks was at an all-time high.

It was really great to see the POC family come to the rescue of many of us. Blown radiator hoses, broken transmissions, and way too many parts (especially on Drake Kemper's car) were all replaced by generous club members wanting to get us back into the race. What a club!

Because of the continuous prodding and pushing by Marty, Dave, and Drew, by Sunday afternoon the excitement was infectious. We were all enjoying the practice starts and the reverse starts, while pushing ourselves and our cars harder than we had ever done.

Everyone was now moving dramatically faster. In fact, all 25 drivers had decreased their times over their starts on Saturday – some by as much as 25 seconds. And by the end of the traditional Racers Clinic Race Sunday afternoon, all but one driver (another mechanical), had decreased their times by enough to graduate from the course.

After much anticipation, Evan Flaxman won the race. Evan was so fast he turned in the Fastest Time of the Day both Saturday and Sunday in Time Trials, even beating the time of the racers in the Red group. Pretty awesome for a rookie.

According to Greg Trigeiro, who was tracking the speeds of his 12 closest competitors, "The average speed for these 12 was 1.66 seconds faster than any previous lap during the weekend. No one was holding back during this race."

At the end of the race, we were all congratulated by our instructors and the full dots and several half dots were awarded.

Whether any of us other than Evan will rise to the challenge to race competitively is yet to be revealed. I can tell you this: there are 25 new racers who are out to do just that. I can't wait!

It has been said that by the time a driver transitions from PDS to Cup Racing he/she has been helped by 14 other POC members. I can attest that the number is indeed much higher. The friendship, caring, and camaraderie shown me by everyone I have met in the POC over the past year have truly been gifts. I know we call the POC a club, but to me it is family.

A big special thank you to Marty Mehterian, Kip and Drew Waterhouse, and Dave Gardner for giving up their weekends to see that two dozen neophytes learn the skills necessary to successfully move to the next level. Welcome, THE CUP RACERS.

PS: I found Pahrump the perfect spot for a cigar and a Scotch after the race. ■

# ROLLCAGE 101

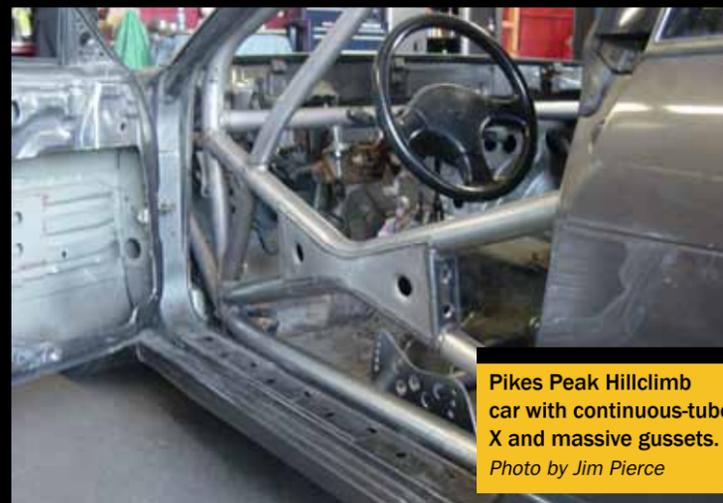
Words: *Jim Pierce*



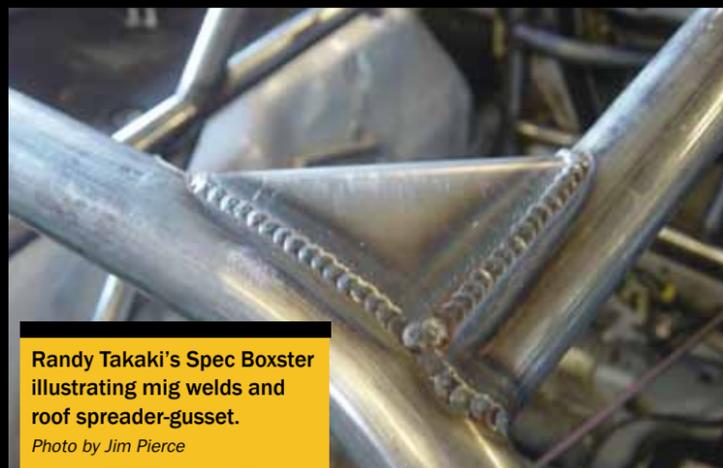
**Jim Pierce welds a rollcage. An average cage for a touring car involves about 260 mitered tube cuts, 28 tube bends, and over 1600 pulse welds. From beginning to end, the build takes about five days.** Photo by Mike Carson



**Koni Challenge ST Class Boxster with NASCAR bars on the side.** Photo by Jim Pierce



**Pikes Peak Hillclimb car with continuous-tube X and massive gussets.** Photo by Jim Pierce



**Randy Takaki's Spec Boxster illustrating mig welds and roof spreader-gusset.** Photo by Jim Pierce

**Y**ou know what the biggest bummer in motorsports is? After you've poured your heart and soul, countless hours of preparation, and of course barrels of money into your racecar, it's gonna fail! That's right, from the moment of creation every system is literally trying to destroy itself. Every shift chews up synchros, gears, and clutches; every lap wears out rings, bearings, rotors, pads, and tires. Nearly every component will eventually just give up and quit on you! Of course you try to develop every system to "make it to the end," whatever that particular end may be, and oftentimes at the finish line it's the guy with the least amount of problems and failures on the top step of the podium.

As drivers we sort of mimic our racecars. We try to develop our skills to match our desired racing goals. We'll read books, watch videos, go to driving schools seeking professional instruction, maybe hire private coaches, even exercise – all trying to make ourselves a bit faster and hopefully, safer. However, the number one thing we need to reach our goals in motorsports is seat time. Now this is where the second biggest bummer in motorsports lies: the more time behind the wheel we spend, the closer we are to our next crash! I hate it, but it's the god honest truth, and I don't know many folks that are successful in motorsports that haven't had an "off" or had someone "put them off." Now I'm not suggesting that any of you fine folks reading this ever make driving errors or go over the limit, but those other guys, darn it, well, you've just got to watch out for them....

Over the years, various trends in motorsports have stood out. There were the 80s with crazy aerodynamics, the 90s with forced induction, and the 21st century with affordable data acquisition and video. But I think a trend that has really peaked over the last 10 years has been safety. If you look at the average driver at a club event today, he's wearing nomex socks and underwear, a two-layer driving suit or better, and he's strapping on a full face helmet just after sliding on his HANS device. When he gets in the car he's most likely in six-point harnesses and a halo seat with a window net – and he can reach both fire and kill switch buttons. In addition his car is equipped with a full rollcage. We've come a long way from leather lapbelts and goggles, and rollcage design has evolved as much as any other safety feature. Let's take a look at what's involved in the design of a modern rollcage.

The premiere racing organizations spend a fair amount of resources investigating the best and safest designs, and the professional sanctioning bodies have a rule-set already in place defining the basic design of the rollcage. We directly benefit from a trickle-down effect. Fortunately, all our clubs have adopted the basic design, which makes it possible for you to race your car with the POC this weekend, and then race with another organization the following without having to make any changes.

That said, there's still a fair amount of freedom given to the builder to create something unique both in safety and strength. I used to get calls that went something like this: "Hey, what's the bottom entry level price for a rollcage, and what does it weigh?" People today are very educated about safety and design, which makes for safer and stronger racecars. So the first questions now are, "How much rollcage do I need, and how can we make the

**"Well, how hard do you plan on crashing?"**

car stiffer while minimizing weight?" I always joke with, "Well, how hard do you plan on crashing?" It's an educated guess, but I start by assessing risk, looking at the car's overall speed, and then considering the character of the racing series.

For instance, the amount of tubing needed in a 165 mph GT3 is greater than what the Spec 944 car is going to need. The GT3 is typically going to go off at a higher speed than the 944. Now if you're racing in a series that's modeled after a bumper-car race like the British Touring cars or Grand Am's feeder series, Continental Sports Car Challenge, then you're going to need massive amounts of protection. If you're racing Spec Miata at Infineon raceway up north where you can hit a wall and destroy a racecar in nearly every turn because of the track's nature, you're gonna need more bars. Finally, if it's a more complex build where the car has been acid dipped and cut to shreds to remove weight, then adding more cage helps strengthen and stiffen a flimsy shell.

The first freedom we're given (in most instances) is the type of material used. In America you'll come across three different types – mild steel, DOM, and chromoly.

## ROLLCAGE 101



**Top:**  
Spec Boxster floor plate welded to three surfaces for load distribution.

Photo by  
Jim Pierce

**Left:**  
Tight fit with good notch.

Photo by  
Jim Pierce

The differences among the three are in the processes by which they are made, and the amount of carbon/alloy in the material. Mild steel – also known as ERW – is typically a flat sheet which is rolled and then electronically welded together, leaving a visible seam. DOM goes through a similar process and then is cold-drawn over a mandrel giving it more integrity, and the seam is hidden so the tubing appears seamless. Chromoly is extruded, and along with DOM is much truer in thickness and diameter than the ERW.

Weightwise, the three types are nearly identical. There is a common belief that chromoly is lighter – it's not. Strengthwise, however, there is a huge difference between the mild steel and the other two. The mild steel has a low carbon count, making it more

bendable, while the DOM may have more carbon and has been "trued up" by the mandrel, making it much stronger; and finally chromoly has alloy blended in with an even higher carbon content, giving it a tad more strength and rigidity than DOM and nearly twice that of ERW. ERW has not been legal to construct with for over 10 years now, but I wanted to include it to show how much stronger DOM and chromoly are.

So that leaves us with DOM and chromoly. The moly is a bit stronger and more rigid than the DOM. This has both benefits and drawbacks. It does make for a more rigid chassis, but it has more tendency to crack during an impact; and more importantly, it transfers more energy to the driver during a hard crash. DOM, being less rigid, absorbs

more of the impact, giving more "cushion" to the driver. Perhaps that's why several organizations don't allow chromoly anymore for new builds. We build probably 30 DOM cages to every one chromoly (for off-road racing cages the ratio is one-to-one).

The second freedom is tubing size; for most of us it's going to be a choice between 1 3/4" x .095 wall and 1 1/2" x .120 wall tubing. Generally speaking, the larger 1 3/4" diameter is going to be stronger in both tension (trying to pull a tube apart) and compression (trying to compress it from the ends). Also it's just a tiny bit lighter. However it's more difficult to fit into tighter cars because it's bent using a larger radius die, and it's not as strong in shear, meaning the tubing will crush easier in side impacts. It's a tossup for most of us, and I can tell you it's much easier to get the 1 1/2" into tighter, smaller cars, especially when larger drivers are involved. Considering that the wild end-over-end flips that SPEED likes to showcase during commercials are rare compared to driver-side door impacts, it makes the decision more challenging. We build 60% of our road race cars from 1 1/2" tubing and 40% from 1 3/4" tubing, but we build nine out of ten rally cars with the stronger 1 3/4" material.

The third freedom given to the constructor is the choice of welding. For most of us it's going to be either MIG or TIG welding. MIG uses steel wire fed through a "gun" mixed with argon/CO2 while TIG uses a rod and "electric" torch with various gases cleansing the weld area. A TIG welder has a little bit better control of the heat, which can be modulated during the process, while the MIG welder's temperature is fixed before the process is started. The MIG joints usually have a wider weld bead covering more area of the joint, while the TIG process requires a cleaner material and more precise notch, leaving a much smaller weld bead and affected area.

Done correctly, both processes are equally strong and safe, and both are pleasing to the eye. I think as racecar drivers we enjoy looking at pretty weld beads – it's in our DNA. Over the years, I've discovered it's much easier to hide an improper TIG weld than MIG joint, and consequently we've seen more failures in TIG welds in crashed racecars. In my shop we primarily construct our cars using the MIG process (probably 25 to 1) because of the safety and cost savings that are passed on to our customers.

Although the design of the cage is usually determined by the sanctioning body, there's certainly room for creative freedom. First off, to maximize the envelope of safety for the driver, the cage has to be fit snug up against the car's shell, against the A-pillars

and the B-pillars, and all around the driver. You want the most clearance around the driver's head and body. Having the cage up against the shell also helps reduce flex and stiffens the chassis. I see cars in which I can stick my fist between the roof and mainhoop, or worse, between the A-pillar and mainhoop by the driver's head. To me a poor fitting design is a sign of a lazy or inexperienced fabricator.

The joints have to be mitered correctly and welded completely all the way around. This takes some skill. If the cage is touching the body or roof where it's supposed to be, there's no room to weld! We'll usually build either a box under the mainhoop and A-pillar or drill a hole in the chassis so that we can lower the cage down, weld the tops, then raise it back up on the box or slide a floorplate under the cage, covering up the hole. Additionally the floorplate or box needs to be on at least two surfaces (floor or sill, and rocker panel top or side) and have adequate surface area to distribute the force applied in the crash so as to not tear through the unibody.

From years of seeing roofs crack and cars roll, we've realized that the roof area up front is the first to fail and crumple, so we like to use gussets in the roof spread-

## ROLLCAGE 101

er area. A gusset more than triples the strength of the joint, adding significant safety for the driver. If allowed, we tie the A and B-pillars to the chassis; triangulation throughout the cage is a must to help spread the applied forces of an impact. Doorbar design on the driver's side in a car that races wheel-to-wheel should have a NASCAR doorbar or a gusseted X, period. We prefer the NASCAR design, and when we do Xs we use two continuous bars rather than a broken X so the driver doesn't get skewered during a hard hit.

Ok, so you've decided on a 1 3/4" x .095 DOM, MIG-welded, triangulated, gusseted rollcage with a pretty two-tube, GT3 style boxed-in X in the drivers door going through the front bulkhead, tying into front and rear strut towers. That's a mouthful. So what's this thing gonna cost, you ask? I can tell you that 1 3/4" DOM is between \$5 and \$6 a foot, and a typical cage uses about four 20-foot sticks, while the "fancy" cages use five sticks. At \$100 a stick for tubing, plan on a \$400-\$500 material cost. When you show up with a gutted car (interior removed), labor for a bare bones MIG'd cage at our shop is about 20 hours or about \$1500.

So an entry level cage would be in the neighborhood of about \$2000. The cage de-

scribed above is about a 32-hour build, or about \$2900 with material. A complete rallycar FIA cage, which requires an extra stick of tubing, is about \$3500. Add \$750-\$1000 more for a TIG'd cage, and another couple hundred if you want chromoly. These prices are pretty standard throughout the industry. I'd be nervous about a shop that says they can do the whole job for \$1500 and suspicious of the shops charging \$6000 unless they're removing interior pieces and installing seats and other safety equipment.

The bottom line is, you usually get what you pay for, and in the end, what's your safety really worth? ■

*Jim Pierce is one of few driver/constructors in the world to have won major championships in desert, stadium, rally, and road racing, which gives him a unique perspective into the design and safety of modern race cars. He owns Advance Automotive in Torrance, CA (310 542-2977, piercemotorsports.com), where he prepares off-road, rally, and road-race vehicles.*

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# CLINICAL



Birds of a feather in White group: Ron Pomplas, Peter Mow, and Brett Reyenter.  
Photo by Cathy Robson/Virtual Access Photo

**Sponsored by Pacific Porsche** and under the supervision of Dave Gardner, the first PDS Drivers Clinic of 2012 was held in late February at the Streets of Willow Springs. Structured much like the other Clinics we've held in the past, classroom instruction reviewed the basics of car control and defined the goals for the weekend. The braking and apex exercises proved to be very practical illustrations of the laws of physics. The track walk and lead/follow laps offered students the opportunity to learn the fastest line through the track.

There was a slight change in the way we ran the skidpad exercise. The skidpad was set up as a seventy-two-foot diameter circle. Students drove around it revving between 4000 and 4500 rpm in second gear. The created force is approximately .89g in most cars. As the car breaks loose, the goal is to use the throttle to steer by varying the pressure on the pedal. An early 911 can be brought up to this release point fairly easily, with little or no effect on the tires. The 996 and 997 GT3s can slip and slide all day with very little effort. Mid-engine cars, like the 914, Boxster and Cayman accept a lot of driver input before they lose traction. It's a testimony to the design and layout of these models.

We increased tire pressures on some of the Caymans and Boxsters so that the exercise was more meaningful for their drivers. The mid-engine cars are so well balanced it's really difficult to get them to break loose. Increased tire pressure effectively decreased the contact patch, allowing

them to slip and slide. Cayman and Boxster drivers got to experience what drivers of front and rear engine cars enjoy: oversteer, understeer, and use of the throttle to control the direction of the car.

Smiling faces were everywhere, and the atmosphere was filled with excitement. Students and instructors shared their passion for speed and discovering the limits of what they can do with their cars. On Saturday, I caught up with some of our members in the pits. Here's what they had to say.

**Troy Evarts**, 2012 Boxster S: "This is my first POC event. The skidpad was incredible. I loved learning where to put the car in the apex exercise."

**Margie Evarts**, 2012 Boxster S: "This is my first Clinic. Now I really understand the difference between a late apex and an early one."

**Jackson Harvey**, 2000 Boxster: "This is my second event with the POC. It's my first Drivers Clinic. Learning how to steer the car with the accelerator was an absolute revelation. It was the funnest thing I've ever done."

**Andy Dickerson**, 2012 Cayman R: "I discovered the POC through Rennlist. People on the forums agreed that the POC was a more 'track-based' group than other organizations. I had some track experience about 20 years ago and I want to get back into it again. It was nice to have instructors supporting me to find the limits of the car, and not holding me back. The instructors tailored their supervision to individual needs. I liked that."

**Neal Lawrence**, 2002 Mustang GT: "I first heard about the POC at the Long Beach Grand Prix. I met Don Matz there and he told me about it. I've done two other POC events this year. This is my first Clinic. I've enjoyed learning about how to use all of the track and how to find the braking points."

**Tom Lawrence (Neal's dad)**: "I really like the program. There are great people here. A lot of gentlemen racers. They really know what they're doing. It's a good environment for Neal to learn. I told him if he wants to drive fast, he's got to do it on the track and know what he's doing."

**Walt Chenoweth**, 1969 912: "This is my first time out with the POC. I used to do Time Trials with the PCA about 25 years ago. My kids are now in college and I'm glad to be able to pick this up again as my hobby. I'm having a great time."

**Duke Susilasate**, 2003 Nissan 350Z: "This is my first time at a track. I was introduced to the POC by Alex Bermudez, who lives in the same complex. I had no idea what my car is capable of. The on-track exercises have given me some perspective on what my car can and cannot handle. I have a new respect for it."

**Dana Kemper**, 1998 Boxster BSX: "I'm driving my son Derek's car; he couldn't be here. My son Drake is instructing. This is my chance to actually drive rather than be their pit crew. It's an absolute blast."

**Howard Kuzminski**, 2005 Boxster S: "This is my first event at any track. I found out about the POC through my friends Matt McFadden and Jennifer Gilroy. My favorite exercise on Saturday was the skidpad. It allowed me to find out where the balance was between understeer and oversteer."

**Hans Schiff**, 1997 993: "I'm driving Todd von Mende's car. He and I met through our kids. I've enjoyed learning how to link corners together. There's so much to be think-



The family that races together... India Favell and dad Kevin.

Photo by Cathy Robson/Virtual Access Photo



Henry Hinck, J1 class winner, keeps the rubber fresh on his daily driver/track car. Photo by Todd von Mende

**"I particularly liked the skidpad exercise – trying to hold it at the limit, pushing it a little bit over, and bringing it back. The braking exercise allowed me to get into the ABS, which I had never done before."**



Dana Kemper steals the opportunity to drive his son Derek's car.

Photo by Cathy Robson/Virtual Access Photo

ing about. It's been unbelievable. It's been great having my friend instruct me. I've been smiling all day."

**Robin Zander**, 2008 Carrera: "This is my second POC event. I heard about the club from my friend Dave Bruder. I'm learning how to handle the car. One of my instructors told me that the car is capable of anything I tell it to do, and more. The skidpad was so much fun. At first, I was so afraid of it. I feel so much more comfortable now."

**Chew Oon**, 2002 Boxster S: "I've been running with the PCA guys for a while and I read about the POC and noted that you have a more extensive track program. I live in Lompoc. I drove over 200 miles to be here. I'm very glad I did. The braking and skidpad exercises have been very informative."

**Ron Pomplas**, 2011 Cayman S: "I've learned that I don't know everything. The event has good structure and I can feel my progress."

**Ray Risman**, 2007 Cayman S: "This is my second POC event. I'm learning so much more about the car. It has more capabilities than you think it does. It's so fun."

**Mike Schaible**, 2011 Cayman S: "This is my first event with the POC. I found out about the club on Google. I particularly liked the skidpad exercise – trying to hold it at the limit, pushing it a little bit over, and bringing it back. The braking exercise allowed me to get into the ABS, which I had never done before."

On Sunday, PDS #3 was a very exciting, well-attended event. The Fastest Time of the Day went to Loren Beggs in GTC-4, with a time of 1:19:679. The other class winners were as follows: AS – Walt Chenoweth, BSR – Brian Green, BSX – Drake Kemper, CI – Richard McLeod, GT1 – Donnell Cameron, GT3 – Nick Richards, GT4 – Steve Radenbaugh, GT5 – Tom Lawrence, GT6 – Scott Marshall, HP – James Bailey, IP – Matt McFadden, IS – Jeff Cordill, J1 – Henry Hinck, JP – Brad Keegan, JS – Hamid Saghatchi, KI – Joel Silverstein, KP – Hans Schiff, KS – Brett Ryenger, LS – Farshad Saghatchi, MI – Andrew Dickenson, NI – Robert Buchheit, NP – Derek Lyle, NS – Anwar Thompson, V2 – Jeremy Bernath, EX – Mary Ann Friermor.

As a volunteer instructor at the event, I found the Clinic to be an opportunity to give back to the club that has given me so much. Led by Patrick Brass, volunteers included Marty Mehterian, Jim Steedman, Nick Richards, Dennis Bennett, Loren Beggs, Don Neville, Gunter Enz, Regan Steedman, Eric Oviatt, Carolyn Pappas, Jim Bailey, Drake Kemper, Todd von Mende and many others. Thank you all! As always, we owe a very special 'thank you' to Miss POC Laurie Taylor for keeping everything running smoothly. ■

# FINDINGS

Words: Andrew D. Weyman with reporting by Dennis Bennett

# Laponie

One of the great things about being a driving nut in Southern California is that we get to drive all year round. One of the bad things is that it almost never rains when we're at the track. "What?" you say, "It's great that it doesn't rain!" Well yeah, unless someday down the line you wind up in a situation where your inexperience on wet surfaces could place you at a distinct disadvantage. Even our friends just slightly to the north get to drive in the rain on a more regular basis than those of us in the Southland.

As someone who is always looking for the next challenge, I've always been bugged by this. In almost twenty years in the POC I think I've driven in the rain two, maybe three days, and only in practice. I've managed to find myself confronted with this challenge in other events, in other places, and I've always felt more than a little aware of my shortcomings in this area. I have looked for any chance to practice some high-performance rain driving, and often this presents itself as either illegal or dangerous. Most likely both.

Then a couple of years ago I saw an ad in a British magazine for a school called Laponie Ice Driving. It seemed incredible – driving Porsches on a giant frozen lake in Sweden! Just the kind of thing that I would love to do, but it seemed as though it was just too far away and too expensive.

It just kept rankling me though, as these things will – and I'm sure many of you can identify. As time went by, I continued to crunch numbers and evaluate other options. Work was good; I was feeling confident... I did some more research and even spoke with my friend Mark in Germany about whether it was something that he might want to do. Once he said yes, out came the credit card, and I was on my way to Arjeplog. You know, about an hour's drive north of Arvidsjaur.

The operation is located on a gigantic frozen lake about 50 miles south of the Arctic Circle. The lake, and in fact the entire region, is used for winter vehicle testing by a lot of

different companies such as BMW, Hyundai, Audi, Mercedes, and yes, Porsche. (I think I saw a "new" 991 Turbo on the road, but I can't be sure.) Laponie's part of the lake is big enough, and it's only a portion of the space being used by one group or another. There are at least six "circles" which can be used independently or together as ovals or figure eights. There are also two larger "fast" circles for once you've worked up to it. Then there are two small "road course" tracks; one that is fast and flowing, and another that is fiendishly technical and tight. If that isn't enough, there is a full-size replica of the Silverstone Grand Prix track, and not one, but two full-size replicas of the F1-spec Paul Ricard "Le Castellet" circuit. The GP circuit replicas are a bit narrower than a real track, but that only means you have to be more precise, and it does keep your corner entry speed down a little. Which isn't a bad thing.

Since this was maybe a once-in-a-lifetime experience, we signed up for the full four-day program. They do offer shorter programs, but I was flying halfway around the world, after all. The first day started with clear skies, and we would be driving a Cayman S. In this, and all the cars, all the elec-

tronic assists have been defeated, presenting you with an array of warning lights and fault indicators. No help from new-fangled technology! Each day consists of four half-hour sessions in the morning with a half hour off between each, then a two-hour lunch break, and finally four more session rotations in the afternoon. I had come prepared for arctic-like cold, but it's a dry cold, and by the first week of March the temps during the day were in the low to mid-20s. There is a small hut that you can wait in between sessions. It may not look like much at first, but it is heated and has coffee and cookies, WiFi, and satellite TV. There is only an outhouse however, and it's oddly designed for standing only.

The first day starts on the small circles so that the instructors can see just what your skill level is, and then progresses from there. These guys are very good at instructing and helping you to improve faster than you might have thought possible. The ice, as you can imagine, is incredibly slippery, but the tires do have small spikes in them, so you do have some element of, uh, "traction." Learning to drive the car in a constant, sideways drift around the circle is quite a challenge, as subtle throttle control is so critical. My instructor commented that I was using between 60 and 90 percent of throttle when I should be using between 70 and 75 percent! It's not as easy as it sounds. Soon we were doing all kinds of things on the ovals and figure eights, and for a Sun Belt guy, I felt I was doing OK.

As the day went on, we eventually wound up on some of the other tracks, and I was having a blast! The small, technical track, although not one of the fastest at the facility, was one of the most challenging. I found myself wanting to come back to it over the course of the four days even once I had graduated to the bigger tracks. The main thing I learned was how important it is to look as far ahead as you can, and to always remember to look where you want to go, no matter what happens. All that talk about "keeping your eyes up" and the evils of "target fixation" are really highlighted when doing this. So much to learn, and your mind just can't take it all in. Due to the short winter daylight hours, we were driving in the dark by the last session, which is really a challenge!

The second day we moved up to the GT3s. Clear skies made it easy to pick out our markers and reference points, and many of the things that seemed difficult yesterday now seem to be almost second nature. Each day you have a different instructor, and each one has his own favorite tricks, styles, and techniques that he likes to focus on. Today we were driving on the bigger tracks and even on the Paul Ricard circuit. By now, I could drive sideways around the biggest circles at speed without too much difficulty.

Words: Matt McFadden

Photos: Courtesy of Laponie Ice Driving

GT3 with spotlights for the dark sessions.





Aerial view of Laponie's thirteen ice tracks. Several auto manufacturers, including Porsche, also have ice tracks in the area for testing.



Drifting at speed on the big circle.

Various brake and throttle techniques to move the car where I wanted it were coming more easily. I was really starting to have fun and feel that I was getting the hang of it.

The third day dawned overcast after overnight snow. Ice with a fine coating of dry snow made for a particularly challenging surface. To make matters worse, the diffused light made it more difficult to make out reference points or sometimes to even see the track. But by now my comfort level had increased quite a bit, and the GT3 was just so awesome to drive that I adapted very quickly. Now I could drive around the big circle sideways, in third gear at high RPM, pretty much one-handed, while carrying on a conversation. My instructor even had me do gear changes up and down the box while drifting, which required more subtle changes of input than I might have been capable of just

two days before. By the end of the day, I was driving on the Silverstone track, which I was more at home on since I've watched enough races on it, and I was really starting to feel comfortable applying all the things I had learned. Over 100 mph on the straights on ice was pretty exciting, too. One of the hardest things to do is to control the wheelspin while driving in a straight line.

The fourth and final day was again overcast. Today we would be driving Corvette Z06s. Well, 500 HP, more weight, and a longer wheelbase made for a difficult learning curve after the wonderful GT3s. Still, by lunchtime I had come to grips with this beast pretty well and my instructor was quite complimentary, if I do say so myself. It was a nice car, with great brakes, too. It still wasn't the GT3, however, and Mark and I were both happy when we

were given the choice of finishing out the day in either the Corvette or the Porsche. Both of us quickly chose the GT3.

After almost four days of incredibly strained concentration, the physical demands of throwing the car around all day and the effects of jet-lag had finally caught up with me. After lunch I started making mistakes and had some trouble doing things that had been easy before. My instructor said he thought it might be better if the four-day program was scheduled over five days, as it would give the students a chance to recuperate. Maybe three days is enough?

So, sound like fun? It was. But be warned: all this is not cheap. I mean, for those of you with 40-footers and such it may not seem like much, but for those of us that are drive-to-track types, it is a bit of a commitment!

Car damage and safety questions? Well, I can't imagine how one could get hurt. The tracks are plowed out of snow on the ice, so the only thing you can hit is a low snow bank. The banks, if the weather has been a little too warm on occasion, do melt and freeze up and can be hard enough to cause some minor panel damage. You are responsible for some damage, but they are very forgiving it seems, and there is a deductible, so your liability is not that great. I think you'd have to drive like a bit of a buffoon to really do anything major. But be prepared: you will make mistakes, and you will get stuck in the snow. I had to get towed out three times. It's all part of the process.

If you choose to try it, be aware that it's a haul to get there. I met up with Mark

in Frankfurt, then flew first to Stockholm, then to Lulea, and then drove three hours to Arjeplog. There are some flights into Arvidsjaur, and Laponie offers shuttle service from either airport. Mark and I rented our own car just for the adventure. Was that worth it? Maybe. It was nice to have our own transportation, and it gave us more flexibility in our comings and goings. But, it's not like there's much to do up there in the evenings or anything. If you're hoping for five-star hotel accommodations you're out of luck. The host hotel, The Hornavan, was fine but basic. Everyone was really nice, and the Swedes all speak English really well. And as a touristy bonus, I saw the Northern Lights three of the nights during my stay.

I was very happy with the whole experience and my own performance. I learned

so much, and it definitely has eased my fear of driving on wet surfaces tremendously. I think a lot of what I learned would be specific only to driving on ice, perhaps as a rally driver, but all of it relates to understanding throttle, steering, braking, and weight transfer in any low traction situation. If you're up for something that is truly a memorable, exciting, and valuable experience, I can't recommend this enough.

For all the info, check out the school's website at [laponie-ice-driving.com](http://laponie-ice-driving.com). ■

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*Matt McFadden drives a '79 SC in IP/R7. He's been a POC member since 1992 and was Driver of the Year in '98. He works as a TV and film boom mic operator, and he plays the bass.*

Season Opener at

# Willow Springs



1



2

Words: John Armstrong and Bradley Pierce Photos: Catby Robson/Virtual Access Photo

The 2012 Cup Racing and Time Trial season got underway February 11 and 12 with a slow thaw at Willow Springs International Raceway. A lot of drivers showed up for the Test and Tune day Friday to try out their new, new to them, or newly freshened race machines for the first time. They were greeted by temperatures in the mid-60s, but as is so often the case at Willow, with howling winds as well.

Friday night the mercury dipped into the mid-20s, and we returned to the track Saturday morning to find our windshields iced over. More than a few of us were glad we had added a little anti-freeze to our radiators. The thermometer never did rise above the low-50s, and the stiff breezes continued throughout the day. But action on the track certainly heated up.

One hundred thirty drivers registered for this first event of 2012. Because of the slightly smaller than usual turnout on this wintry weekend, Kip Waterhouse, Director of Motorsports,

decided to run two race groups instead of the customary three. GT4 was bumped up from the Orange group into Red, and all the classes that normally run in the Green group were folded into Orange.

If you're reading this magazine for the first time please note that we report on the overall race results, especially when there are battles for the podium, but what really matters to the drivers is how they place within their classes. In the Red group these days, almost all the cars are in the GT classes, which are based on the cars' ratios of weight to horsepower. The lower the ratio, the faster the car and the class it fits into. Thus, a guy who finishes 25th overall in the race might be ecstatic because he actually placed first in his class.

On Saturday, Canyon Racer Motorsports made their annual appearance with their portable dyno machine to officially establish the horsepower of all competing GT cars. Comp Chairman

Steve Parker also had his scales laid out in the paddock, as he does at every event, so most of the GT cars were able to get their official weight-to-horsepower ratios and classifications for the season.

In the Orange group, more by coincidence than design, most of the cars are classed according to certain specifications that all cars of certain vintages adhere to. For example, all the cars in the Boxster Spec class (BSR) are required to be exactly the same and must even run on the same tires. On the other hand, all the cars in the V3 class (and the several R classes), while not required to be identical, are allowed a limited number of modifications based on a point scale. Each mod is assigned a point value, and each class allows a maximum number of points. It gets complicated, but the goal of all three of these classification methods – GT, Spec, and V3/R – is to create parity within car classes to maximize competition.

That out of the way, here's what happened in the weekend's races. In Saturday's Red Race qualifying, Dan Davis put his blue #271, 700 hp turbo monster GT1 car on pole with a scorching 1:24.198. Dan Aspesi (GT2 class) qualified second in his newly-built 996 street stripper with Cup motor, just .35 off the lead.

When the green flag dropped for the 33 cars in the 12-lap Red Race, Aspesi got by Davis right away and held the lead for a little while; but Davis got it back after a few turns and kept it. Aspesi stayed close the entire race, and in the final turns of the last lap, he made things exciting. He managed to pass Davis in Turn 5, but Davis got him back in the kink known as Turn 7. Undeterred, Aspesi re-passed Davis on the outside in the high-speed Turn 8 sweeper. But as they came around Turn 9 onto the home stretch, Davis reminded Aspesi of the difference between 700 and 340-horsepower cars. In the final quarter-mile straight, Davis

pulled away for a two-second margin of victory. Chris Chamberlain finished third overall in his 2010 Cup car (GTC-4 class), a mere .2 second behind Aspesi, and Doug Baron took fourth in his GTC-3 Cup car. That's our club: the first four finishers, all in different classes, all took first in their respective classes.

In GT3, Duane Selby had qualified his Cayman S third overall in 1:24.881, a startlingly fast time for a GT3 car. But John Gordon, who qualified a full second behind Selby with his 996 racer, doggedly pursued him throughout the race. In the last lap, Gordon tried to go inside Selby on Turn 1, but couldn't get it done. Gordon then tried to go outside in Turn 2. Selby drifted out in response, but he went too far and put two wheels off. Gordon saw his opportunity to cut in and literally left Selby in the dust to take the GT3 win.

Vali Predescu, like the aforementioned theoretical driver who might finish 25th overall yet have an outstanding race,



3

1. Tyson Schmidt heads a pack of V3 cars in Sunday's Orange Race.

2. Mike Takaki followed by Eric Olberz in the V3 class.

3. Dan Davis, overall winner of Saturday's Red Race, chased by Guido Rietdyk, Dan Aspesi, and Chris Chamberlain.

finished 25th overall and had an outstanding race, beating Mark Mitchell for the GT4 win by almost four seconds.

There was an incident at the end of the Red Race that changed the rest of the day for everyone. (And no, we're not talking about a certain editor's "off" in lap 10, which only changed the weight of his wallet in the following weeks.) On the last lap, Kent Harmon lost control of his GT4 car in Turn 2 and started sliding back and forth across the track while trying to rein it in. Dave Gardner was right behind him and couldn't avoid a collision. Both cars were damaged. Gardner parked his, but Harmon, not realizing the extent of the damage to his car, continued all the way around the track to pit-out, leaving a trail of oil the entire way.

The track had to be shut down for over an hour while course workers and POC volunteers poured 45 bags of Speedy Dry over about 1.7 miles of track to soak up the oil, then swept,



1



4



2



3

and swept some more. Fortunately, the POC enjoys a great relationship with Willow Springs management, and they agreed to keep the track open until sunset in order to run a complete Orange Race.

In Orange qualifying earlier in the day, three V3 cars had set times below 1:27: Kevin Roush (1:26.240) on the pole in Steve Parker's #16 car, Mike Monsalve (1:26.322), and Athan Aronis (1:26.634). Roush was in Parker's car because Parker had had the bad luck of bumping Monsalve in the morning session, and had given himself a 13/13. Roush won the pole without the benefit of morning practice.

Now Roush led the 38 cars in the Orange group around the track for two tentative warm-up laps in that Speedy Dry-induced cloud. Racing is not for the faint of heart. But even the heartiest of the bunch were uncertain of the track conditions for the 12-lap race. Once the green flag dropped, however, there was no hesitation. The first five laps were crazy because the drivers had to race off-line; most of the oil and Speedy Dry were on the racing line, covering over half the track.

By the time the drivers hit about lap seven, the sun was pretty low and in their faces in Turn 2 and worst of all, Turn 9. By lap 10 the sun was almost gone and the sunglasses had to come off.

The race was great. Roush led from the green and Monsalve

spent most of the race less than a second behind, even as they raced through other cars involved in their own races. Throughout the race, the top V3 cars drove through the field. As they came up on slower cars they would bunch up. Monsalve nearly got Roush in Turn 3 a couple of times, and Roush used the slower cars as "picks" on more than one occasion. At the end, Roush pulled Monsalve at the line by less than two-tenths of a second, and Aronis took third.

Saturday's R6 race went to Dave Elliot, with Vern Buwalda right behind. This was the first race for them since they both dropped to JP class and had to remove their big rear wings. They both commented on the big difference the lack of rear downforce made. Gene Sigal took BSR in his flat black #7 with a solid finish over Steve Weiler.

Sunday's weather was a reprieve for the club. Morning dawned with the mercury at a "balmy" 40 degrees and the wind greatly diminished. By race time, the temp was pushing a comfortable 60.

The Red Race on Sunday was a 15-lap thrill-a-minute. Jesse Menczer, the wunderkind with the brand new Cup car (classed as GT2 somehow), qualified on pole with the really fast time of 1:23.478, over half a second faster than Blake Rosser in GT1 and .7 second faster than Saturday's overall winner Dan Davis.

But when the race started, Menczer mis-shifted and Rosser jumped him, then Davis jumped them both for the lead. In Turn 4 Rosser challenged and overtook Davis, and after that Menczer, Doug Baron, and Dan Aspesi passed Davis as well! Five laps later, Davis dropped out of the race with a broken something-or-other. His car seems to be plagued with mechanical gremlins, probably because of all that horsepower.

Menczer rode Rosser's tail for eight laps, then managed to pass him. With three laps to go, Rosser passed Menczer again and held on for the overall and GT1 wins, while Menczer staved off Dan Aspesi (who, let's just say, had been delayed in traffic) for the GT2 win.

Once again, there was a ferocious battle in GT3. Selby outqualified Gordon for the second time, by almost half a second. When the green flag dropped, Gordon got a good start and actually passed Selby in Turn 1. But when Gordon was unable to move him over and pinch him on the inside of Turn 2, Selby regained the lead and kept it throughout the race. On the last lap, Gordon tried one more time to take Selby inside on Turn 1, but Selby was having none of it, and Gordon got a little sideways. Selby held on for the win. Bob Ehrman, coming back from a disappointing Saturday race, was part of that GT3 dogfight, as was GT2 driver Jon Levey, who has been getting better with every race.

In GT4 Vali Predescu prevailed once again over Mark Mitchell despite starting at the back of the grid due to the fact that his transponder was off during qualifying. Chris Chamberlain took first in GTC-4, and Doug Baron got the win in GTC-3.

In the Orange group on Sunday, Kevin Roush threw down the gauntlet early in practice in V3 with a time of 1:27, a full three seconds faster than the rest of the group. However, by the time qualifying was over, Mike Monsalve had won the pole, with

Roush sitting number two by a tenth of a second.

The 15-lap Orange Race was much less eventful than the 12-lap affair the day before. At the drop of the green, Monsalve caught Roush snoozing in first gear and on the limiter. Monsalve easily cleared him in Turn 1. At the exit it was on, as Turn 2's outcome would make it a long, tough race, or a just a tough race. Roush was able to get to Monsalve's rear bumper at the entry to 2, where Monsalve took the inside while Roush went in fast on the outside, in the marbles. Roush was able to trap Monsalve on the bottom as they went side

onds. Athan Aronis, who had been running with Monsalve and Roush for much of the race, had a tank slapper and accidentally released his belts saving it! He had to pit to re-secure his belts. Third in V3 then went to Drew Waterhouse.

The Orange Race, from Roush's car, is posted by Canyon Run Video at [youtube.com/watch?v=kdWk\\_6N5eSc](http://youtube.com/watch?v=kdWk_6N5eSc). This is the five-camera production that Bruce Wells mentioned at the driver's meeting, and it's well worth studying.

In R6, Vern Buwalda scored the win with a new set of tires and a better grasp of the handling characteristics of his new rear

**1. The new GT3 threat Duane Selby, closely followed by John Gordon and Bob Ehrman. Selby took a first and a second over the weekend.**

**2. Hose-B Alvarez leads Carolyn Pappas in the battle of the 914s.**

**3. GT4 double winner Vali Predescu. How about the uprights on that Boxster?**

**4. Kevin Roush, filling in for Steve Parker, begins to run away from the field in Sunday's Orange Race.**

by side all the way around 2, the 2-3 straight, and into Turn 3 about 10" apart, with Roush now on the inside. They left each other enough room to exist, but just enough. Once Monsalve hit the off-camber bit mid-Turn 3, he had to lift to stay on the black stuff, and Roush was able to get to the standard line.

There were two or three cars off in bad spots a couple of laps into the race, and when it went full yellow everyone got another shot at their rivals. When we re-started a couple laps later there was no warning. Roush clearly anticipated the green and got a good restart. Meanwhile Monsalve became concerned about wheel bearing noise and decided to bring home a sure number two rather than go for broke and risk no points. As a result Roush's margin of victory was big – 22 sec-

wing set-up, switching places with Saturday's winner Dave Elliot. Seven cars ran a solid BSR race where Gene Sigal closed the deal for his second straight victory ahead of Saturday's number two Steve Weiler.

In Time Trials this weekend, three club members broke track records. On Saturday Rick Yap set a new benchmark in KS class with a time of 1:36.636, and Jason Huang established a new CSX record with the time of 1:34.770. On Sunday, Sandy Isaac lay down a new best time for GT6 with a 1:42.934 in his now-famous Datsun Z-car. Fastest Time of the Day on Saturday went to Dan Davis with that qualifier of 1:24.198, and on Sunday to Jesse Menczer with his 1:23.478 qualifier.

All in all, it was an auspicious beginning to another great season of POC racing. ■

# FIRST



Photo by Carl Tofflemire

Words: Carl Tofflemire

# HAND

## Pretty maids all in a row. 991s ready for the Porsche sales launch at El Toro.

**P**orsche first called to me as a 13-year-old, when I opened the latest issue of Road & Track to find that the 1976 model year heralded the arrival of the Turbo Carrera. The wild fender flares, that awesome picnic table-sized whale tale, and the fire-breathing 234 horsepower 3-liter, flat-6 turbo made me totally crazy! So crazy the Turbo 911 replaced the centerfold on my bedroom wall. So crazy I used to ride my bike down to Vasek Polak every weekend just to drool over the new inventory. If only I would ever get the chance to drive one, I thought.

Fast forward to '87. It was time for me to finally get a real job after a succession of hits and misses importing grey market cars, and Porsche seemed like the perfect place. I'd gotten my wish to drive the turbo, as I'd imported several by now, but a more stable environment with regular paychecks was needed. So back to Vasek's I went, resume in hand. In fact I went back several times before they would give me a shot. I started as the junior salesperson, eventually became Sales Manager, and for the last 12 years I've been the General Sales Manager of what is now Pacific Porsche.

When I became GSM I felt it was time for me to do more than talk about how good a driver I was. It was finally time to actually do it. That's when I bought the #39 with its wild flares and picnic table spoiler and joined the POC. I've been racing almost nonstop ever since and regularly attending Porsche Factory driving events as part of the job. Most of these Factory events are boring exercises to a racer, but occasionally there are some that rise above. Such is the case with the launch of the new 991.

Every three to five years the average auto manufacturer replaces its existing models with entirely new products. Out with the old, in with the new. Porsche, not being the average car maker, designs and builds its products very differently. As one of the most recognized automotive brands worldwide, Porsche is identified almost exclusively by the iconic 911. It's one of the only marques that races the actual cars that

it sells to the public. Over the last four decades the Porsche 911 has more overall victories than any other single model in the history of sports car racing.

But as a remarkably small company for the image it projects, Porsche simply cannot afford to design and replace its products on the schedule of the automotive giants. Accordingly, Porsche is obliged to build a product that can remain competitive for years on the track and in the marketplace. Hence the launch of the newest iteration of the 911 is immensely important to the marketing guys and the racers alike.

The outgoing 911 – the 997 – had its roots in the water-cooled 996 model line introduced in 1998. The 996 was the first all-new 911 since the introduction of the original 911 in 1965 and a landmark achievement for the brand. This bold new sports car was an instant street and track success with over-achieving models like the Turbo, Turbo S, GT2, and the race car for the street, the GT3. Variations of the GT3 began dominating the sports car racing world in 2000, and they've never looked back.

**Porsche draped the existing chassis in sexy new bodywork.**

In 2005, the 996 was updated and re-introduced to the world as the 997. With a requirement to surpass the unmatched success of the 996, Porsche draped the existing chassis in sexy new bodywork, crafted a luxurious new interior, and updated the powertrain. The second generation of the 997 followed in 2009 with subtle improvements to the styling along with entirely new direct-injected engines and drivelines, including the brilliantly refined PDK dual-clutch transmission (which had debuted in the 956 and 962 racecars in the 80s).

The development of the next generation 911 – christened the 991 by Porsche – carried a host of challenges that could not be met with the existing chassis, so early on it was determined that a radical new chassis was needed. Made with a variety of exotic materials, this new 911 has a four-inch longer wheel base and a two-inch wider track, weighs almost 100 pounds less, and sports new technologies that vastly improve performance in every area of measure. The most remarkable changes are not in the styling, which is evolutionary, but in the ride quality and comfort afforded by the new chassis and interior, along with a giant leap forward in overall performance.

To launch the groundbreaking new 991, Porsche had to find the perfect venue that would enable 1100 Dealer Sales and Service personnel to fully experience the thrilling levels of performance and to come to grips with the revolutionary enhancements to driver comfort and ergonomics. The former Marine base at El Toro was selected as the site for the driving portion of the launch, while the host hotel was the over-the-top Pelican Hill Resort in Newport Coast. This event was staged in several waves from mid-January through early February, each consisting of a three-day curriculum of classroom and driving activities.

El Toro proved to be an ideal location for this massive training event. The interconnecting runways and taxiways allowed for multiple course layouts to fully explore the limits of the new 991 alongside its predecessor and a variety of competitors from Maserati, BMW, and Mercedes Benz. Two courses were created on the tarmac: a very technical autocross that focused on the handling characteristics of the 991 vs 997, and a long course that allowed the attributes of the 991 to show themselves against the competition. The autocross circuit consisted of a series of sweeping esses leading into a decreasing radius right hand hairpin, followed by a six-turn slalom, more sweepers, and finally ending in a full ABS stop.

After driving the course you made a driver change and experienced the course

# THE 991 LAUNCH



Carl Tofflemire in sales mode with a new 991. Photo by Dan Azamfirei

from the passenger's seat. Next it was into the "old" 997. Immediately the enhancements to the new car jumped out at you. This car just flat-out sticks like Velcro; it has amazing turn-in with virtually no under or oversteer. The subtle influence of the traction aids, including Porsche Stability Management (PSM), kept the car on course while not ruining the party with oppressive throttle reductions. The newly introduced Porsche Dynamic Chassis Control (PDCC) had the 991 completely flat in the tightest corners. The PDCC created an added bonus of incredible tire wear. By maintaining a flat contact patch at all times, the 991 consumed Pirelli P Zero tires (newly designed exclusively for the 991) at half the rate of the 997's tire consumption. Finally, the PDK transmission was amazing, shifting in milliseconds both up and down at just the right moment, and more importantly, never making a costly missed shift mistake.

The long course consisted of two runways (long and longer) connected by a high speed sweeper, followed by a technical road course section, ending in another modest straight. Here the competitors' cars were sampled, along with the Carrera S. Beginning with a rolling start on the "short" runway, we saw speeds as high as 130 mph prior to the brake zone leading into the third gear right-hander. Full power before the apex

and a nice drift led you onto the long backstretch. A wild bump at the halfway point generated grin-inducing wheelspin at 140! The superior handling of the 991 on the backside of the course allowed it to completely dominate the other makes.

After the road course we were off to the classroom. The Porsche Academy set up a spectacular, temporary, high-tech, training facility that looked as if it were dropped from Architectural Digest. It was truly an

amazing "tent." Here there were several technical briefings on all aspects of the 991's design and systems. Lunch was provided by a variety of the hippest "roach coaches" in SoCal, which was mind blowing for many from parts east where this culinary phenomenon has yet to emerge.

Following lunch it was our turn to sample the new 991 on the "street drive." Pre-flight instructions included a warning that the Porsche Academy would not be covering any

speeding tickets and that we were expected to conduct ourselves in a "manner befitting our status as representatives of Porsche!" This speech left many with the impression that we were headed out for a leisurely cruise.

They were in for a cool surprise. We made a quick blast down the I-5, then jumped onto the legendary Ortega Highway, where we were quickly transported into some of the most striking country in Southern California. The highway is one of the best driver's roads in the southland, and the 991 felt as if it were made with this place in mind. Here the 991 showed off its new split personality as a world-class GT car and top-flight canyon carver. No longer is it necessary to sacrifice comfort for performance – with the 991 you get both in spades. We ran to the summit where we enjoyed a quick pit stop and made a driver change before heading back to El Toro. The views looking down on Lake Elsinore and the surrounding Temecula valley were simply awesome. This is a drive everybody should do at least once.

In 25 years with Porsche I have attended countless training events. Most of these were mediocre affairs at best with limited driving and little or no opportunity to explore the edges of the high-limit cars we sell. At this event Porsche raised the bar for the entire automotive industry to a level never before seen for a car and a brand.

This car just flatout sticks like Velcro.

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Dealer for:



# An interview with Cass Whitehead

By: Andrew D. Weyman



I recently had the opportunity to catch up with Cass Whitehead, Lead Instructor for the Porsche Sport Driving School. I first met Cass in 2002 when I attended the school, then called the 'Porsche Driving Experience.'

**ADW: When did you become Lead Instructor?**

CW: We started the school in late 1999. I was one of the original members of the crew. I became Lead Instructor in 2003, when we moved the program from Road Atlanta to Barber Motorsports Park.

**ADW: Does it ever become boring for you?**

CW: Everyday is a little different. You're dealing with different people, different personalities, different comfort levels, different learning curves. Actually, I learn something new every time I do the program. We really have to be on our toes. We have a lot of responsibility. There's never a boring moment.

**ADW: Are there any patterns you've observed regarding your students?**

CW: We see a lot of people who have always wanted to try this but really don't have any background or experience with it. The thing that's fun for us is watching them get excited about it, the same way we do. They come in the door not quite sure what to expect. By the time they leave, they're just over the top with the experience.

**ADW: That was me. Now I'm Cup Racing.**

CW: There are also groups of people coming through the advanced program who are already doing club events. They come thinking this is going to be a review of what they've been doing. Often, they'll come up to me at lunchtime on the first day and say, 'Why did I not do this years ago? I've already learned so much and we're not even halfway done.'

**ADW: What role did you play in the launch of the 991?**

CW: I was involved in the world press launch that was held in November 2011 in Santa Barbara, CA. Journalists from every country in the world attended. I was in charge of the performance driving part of that. We set up a course at Santa Maria Airport and also did a lot of street driving. I had the opportunity to drive the car extensively. I also participated in the sales training event that took place during January and February at El Toro.

**ADW: What is your take on the new steering system engineered into the 991?**

CW: It feels a little bit different. I think the average driver probably wouldn't even think about it when they drove the car. The bottom line is, is the steering giving you the feedback that you need to judge the grip and the traction at the tire contact patch? The answer is, yes, you can feel that just fine. It responds very quickly. It has a nice feel.

**ADW: What about the rest of the car?**

CW: The 991 is one of the most impressive cars I've ever driven. It's really shocking. I think back to the changes from the 996 to the 997. We had really gotten comfortable with the 996 and we said, "Wow, this car's incredible." And then we drove the 997 and we said, "oh my gosh, they've totally rewritten the laws of physics here." The 997 is spectacular. They pulled that trick off again with the 991. It blows my mind. They've widened the spectrum of what this car can do. On the grand touring side of things, the car is much nicer going down the road. It's quieter. It's smoother. The wheelbase is a little longer. The interior is nicer. Everything about it is more like a grand touring car. Usually, when you do that, you do it at the expense of performance. Somehow, through a lot of little changes, the performance side of the car has also been stepped up. The performance of a 991 Carrera S is equal to the performance of a 997 GT3. That's a lap time at the Nurburgring of seven minutes and forty seconds for both of those cars. That's a huge improvement over the previous Carrera S. They made the car more comfortable and more luxurious on the grand touring side. They also made it significantly faster and more responsive on the track. That is a trick that is very rarely pulled off. They've taken it to a new level.

**ADW: What do you think is the most important skill for novice drivers to develop?**

CW: A sense of smoothness. Making all of your inputs blend together smoothly, not being abrupt and choppy with anything. In order to drive your car at its limits, you need to approach those limits gently and gradually. You must be looking in the right place. Get your eyes ahead of the game. Look where you want to go.

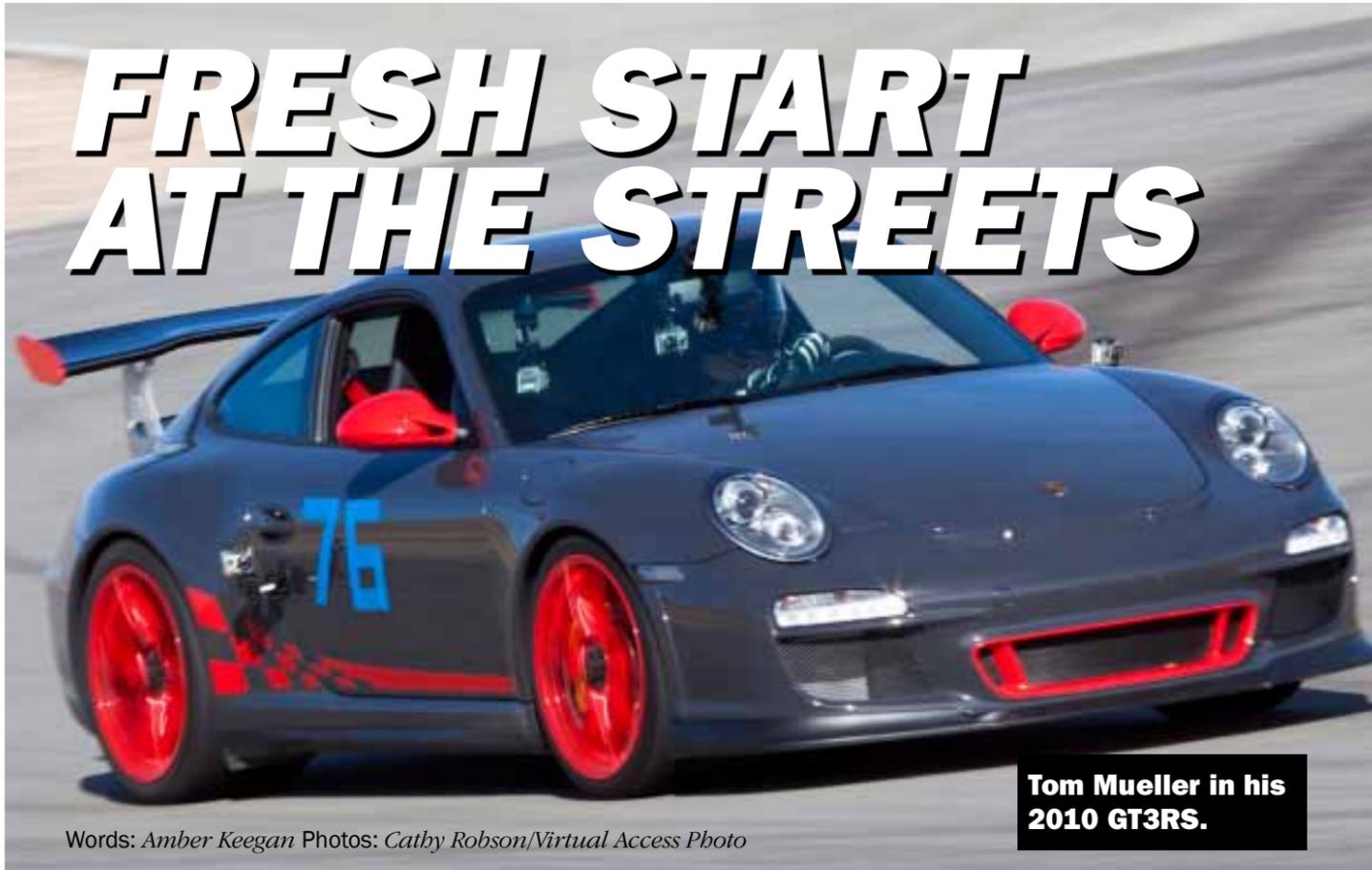
**ADW: Every time I get on a track, I learn something new. What's the last thing you learned while on the track?**

CW: Oh my goodness. Wow. Every time I drive a car on the track there's something. Even if it's a street car. I'd have to say the last thing I learned was about entry speed into a corner. I saw another racer carry a little more speed into a corner than I thought I could do, and it still worked out. The driver was able to increase his exit speed. In the beginning of learning how to drive, we focus on the exit speed out of corners. Once you master that, the real difference becomes entry speed. To be able to enter, maintain momentum, and have excellent exit speed without compromising the exit is what it comes down to. It's difficult. Once you enter a corner too fast, you have your hands full real quick.

**ADW: Been there. Done that. You helped light the fire under me. My life is changed forever. I can't thank you enough.**

CW: I love hearing that. It's my passion. I've been involved with racing and cars my whole life. It's so great to see other people get excited. As long as you don't have to sell your house or anything! ▀

# FRESH START AT THE STREETS



**Tom Mueller in his 2010 GT3RS.**

Words: Amber Keegan Photos: Cathy Robson/Virtual Access Photo



**Great moment while it lasts for Richard McLeod in his two-liter 914, with the GT3 of Derek Lyle in pursuit.**

The first PDS event of 2012 started off with clear skies, warm rays, and the wind showing a bit more mercy than I'm used to at Streets of Willow – the beginning of a perfect race weekend for me, considering I attend all events with my two-year-old in tow to support my husband.

We were quite excited about the start of the season, having heard tidbits about certain tune-ups and modifications here and there. Everyone was proud to show their little touchups on the track. A bit of the buzz was about the RA1 tires a few people were using. From what I could make out, those who were using them were merely a hair from each other on the time sheet, trying to figure out how much

## Richard Kline working with an instructor.



pressure was going to put them right where they wanted to be.

But what impressed me possibly the most was how many newcomers we had this weekend. Just standing among them I could feel their excitement, anticipation, eagerness, and certainly their fear of the unknown. I even received a confession of intimidation.

Usually after an event I sit with my personal favorite driver, Brad Keegan, and question him about every turn, every pass, every little wiggle of a back tire. It's quite a thrill to take in his passion and joy for what he does, and for what the POC offers him. So when I volunteered to write this article, I immediately knew that I wanted to explore others' experiences. And who better to talk with than a grinning newbie hot off the track?

Someone who quickly caught my attention was 16-year-old Nealsen Lawrence driving his Mustang GT. Over the weekend he claimed second place in the GT5 class both clockwise and counterclockwise. Not only was this young man all smiles, he soaked up the learning experience and applied it as he handed it to the track! I

caught up with Nealsen and asked him about the event.

### AK: How was your experience compared to how you thought it might be?

NL: It was a lot better than I thought it was going to be. I got a lot of instruction, and I got a lot faster by the end of the day – which was really cool for me.

### AK: Were you able to get a good feel for how your car can perform in ways you did or did not expect?

NL: It got a lot looser than I'd expected it to. The tires were a lot less grippy than I thought they'd be. But with what I got it ran pretty well.

### AK: At the age of 16, how is it to be able to run and learn from drivers with more experience and higher skill?

NL: I think it's pretty cool. I like the instruction. They teach you to take it slow at first and then get faster as you go. And car control is one thing they stress, so in turn

it'll help me become a better driver on the street as well as on the track.

### AK: Could you feel yourself able to better control your car as the day went on?

NL: Oh yeah, oh yeah.

### AK: Are you going to come out again and run with the POC?

NL: Definitely!

At the end of the second day I caught up with Nealsen again and asked him about running the track in the opposite direction.

NL: I enjoyed the second day more because it was faster. Or at least it felt faster. Also, the grip going in the counterclockwise direction seemed to be better than going in the clockwise direction the day before.

I also sat down with first-timer Mike Parks who brought out his new (to him) 2002 996 C2, his first Porsche. He mentioned several times what a great time he was having, although he bet it would be

more fun to have a car built for the track instead of his personal vehicle. Nobody wants to hurt their baby, right? He also shared with me how different driving on pavement is from what he is used to, which is off-roading. He owns SMP, a shop in Burbank that fabricates roll cages, suspension, auto/truck frames, off-road vehicles – anything that has to do with metal and welding. SMP also sponsors Brad and put together his other race car.

Mike and his wife admired the club's organization and appreciated how respectful the other members are toward not only each other, but new members as well. Along with all the fun Mike had, he mentioned the experience being a bit intimidating, especially when he looked up to find "a rear view mirror full of green GT3." Mike's instructor was Brad. They've been friends since high school, and Brad had encouraged Mike to try the POC experience.

The student's point of view wasn't the only one I was interested in, so I found an instructor – conveniently, the one in my own house. I asked Brad how he feels teaching students to better understand their cars and their own abilities.

BK: There are two types of students: those who want to learn their car better and understand how it works as well as drive fast on the track; and those who want to become racers. I enjoy helping both achieve their goals to the utmost of their ability.

### AK: I witnessed two drivers asking you to ride with them to help improve their driving skills both at this event and future events. How is it to know that others value your own experience?

BK: It makes me feel great that people value my experience and want my help improving their own driving skills. It's great to know that a first-time student I had previously instructed progressed from never having driven over 70 mph in a car to handling her car at the peak of her ability, as well as turning excellent times. I'm glad that the experience has encouraged her to participate in another PDS event and request me as an instructor.

### AK: With so many great highlights during the event, which stood out the most for you?



**Top: Brad Keegan at pre-grid. Keegan prevailed twice in JP over the weekend.**

**Left: PDS Student Peng Chew Oon leads Bob Primes.**

BK: This being my first event running in the Red Group, the highlight for me was running bumper to bumper with Patrick Brass in his 911 JP. We were able to stay with each other through the whole session, changing positions three times, with the result that our times were only two-tenths apart.

And lucky me considering all the things that keep a new Chairman busy, I was able to catch Patrick Brass for a couple minutes and ask about his first weekend as PDS Event Chairman.

**AK: So Patrick, first event of the season. How's it going so far and what are some of the responsibilities that come with the new title?**

PB: Craig Trask so graciously campaigned for my taking this spot and relieving him after his wonderful two years of duty. He told me that the thing just runs by itself, and it's the easiest job. And I'm finding out that it's a little bit of work. I think the closest thing I can compare it to is conducting an orchestra, making sure we're all headed in the right direction. It's all about delegating and working with people to get specific tasks done. After I figure all that out, it should be a little smoother for me.

**AK: There were quite a few people here today.**

BP: Yes, there were! A lot of our goal at this point is to get people out, because most people, once they get a taste of it, they're hooked. I try to give everybody attention where it's needed, make sure that their day is going good, that their questions are answered in a timely manner, and that they're having a safe time – and that they're not tearing their car up or having a problem with anyone else out there.

**AK: I spoke with a first-timer who was impressed with how organized, safe, and respectful more experienced members are toward those who are new.**

BP: We have the best interests of the club in mind, and its survival is key. Also, realistically, I keep in mind that these new folks are potentially people that I'm going to be racing with a year, two, or three down the line. They are going to be in that corner going 100 mph, two inches from my bumper. I have to make sure that they're in a good safe learning environment, and that they learn the right way to handle things. ■

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# How a Nerdy Astronomer Became a Nerdy Astronomer Who Races a Porsche

Words: Glenn Orton



In front of an Atlas V rocket the day before it launched the Juno spacecraft to Jupiter.

Photo courtesy of Glenn Orton



Glenn racing his 2007 Cayman, which is both his track vehicle and daily driver.

Photo Cathy Robson/Virtual Access Photo

## The nerdy astronomer.

I'm living the dream of my seven-year-old self by becoming an astronomer with a specialty in planetary atmospheres. I think of it as a more sophisticated version of my science-fair projects. I'm working at America's leading center in planetary exploration, Caltech's Jet Propulsion Laboratory. I've had the privilege of working on several interplanetary spacecraft projects and observatories in space. So there is a very fuzzy line between what I do for work vs. what I do for fun – I'm really being paid to do my hobby. My 8-inch Celestron is gathering dust in the back closet, but I've gathered data from almost all of the world's giant 8-meter (and larger) telescopes. My wife is a laboratory molecular spectroscopist whom I met at JPL. She also loves her own research, so we find ourselves "playing" at JPL on many weekends.

## Glenn's driving a what?

Even simply owning a sports car was way out of the box for me. It started with a chance quip from my son during a family dinner on his winter break from college in 2008. He was commenting on a few changes in my habits that might more or less define a mid-life crisis (which I hope means that I'm living to 120).

"Dad, I just don't know you any more," he said. What's next – a trophy wife and a sports car?" I assured him that I'd had the trophy wife for nearly 30 years (Linda gave me that "right answer" smile), and I brushed off the idea of a sports car. But the seed of an idea had been sown. The previous 24 months had included some of the worst times in my life, ending with the unexpected death of my last surviving parent. So the idea of doing something just for fun was extraordinarily appealing. On a lazy Sunday afternoon a few months later, my sympathetic wife suggested I try test-driving a sports car, just to see if I'd enjoy one.

"Really?" I replied, as nonchalantly as I could. But I hadn't smiled that broadly in many a moon.

True to my nerdy self, I test drove eleven different sports cars over the next three months, realizing I now had part of an unexpected inheritance in hand. One day I thought I'd go a little crazy and just see if Porsches were really as good as their reputation. Oh, the smile on my face and the beat of my heart when I drove a Cayman! At Rusnak Porsche in Pasadena I found a good deal on a vehicle that had been used as a demo for 300 miles.

So an inheritance, a casual joke from my son, and a sympathetic wife landed me in a Porsche.

## It's educational!

Along with the Porsche came a brochure inviting me to join the Porsche Club of America, and my first thought was, "I sure don't need to belong to another social organization!" But the local PCA San Gabriel Valley Region website offered Driver Education events, so I joined. My first event was at the Pomona Fairplex track in pouring rain, and I had no idea what I was going to be doing. This was my first experience at any kind of a track as spectator or passenger, let alone driver! A rain delay for the novice group encouraged me to ride as a passenger in one of the demo cars that Porsche N.A. had

brought. It turned out not to be so much exciting as purely terrifying. This @#\$\$@#\$\$ car is going sideways! How the hell am I going to drive anything like this with my precious Cayman?

But I calmed down with the gentle and encouraging approach of a volunteer instructor. I then took what now seem like baby steps toward driving with control in ways I'd never dreamed possible – particularly on a rain-soaked pavement. When the timed runs were suspended because the track was too wet, I ended up just going around the track. And around, and around, and around! I got home that night and was floating. I could not dream of having so much fun doing anything else that was legal and outdoors.

The next day during the Driver Ed event, my serpentine belt broke; I was waiting for Porsche Roadside Service and going into clinical depression every time my run group was called out. It was clear that I was hooked.

Then, my friends, the slope became more slippery than I ever thought possible. At the local PCA holiday party, POC member Greenwood Gum donated a charity auction item: a one-year membership in the Porsche Owners Club and two free track days at the Streets of Willow Springs. I had no idea what the POC was, but the free track days thing was a no-brainer. I kept outbidding everybody else with my poor wife looking on. They made a lot of money off me with those free track days.

I looked up the website for the POC Drivers Clinic. End of January, great! Performance Driving Series – sounds like something I can try. Time trials on a big track. Dunno about that one, but driving fast has

its appeal, of course. Cup racing! Oh lordy, where is this leading? Still I registered.

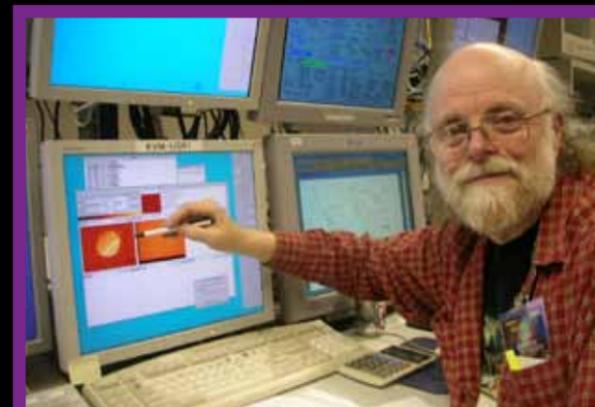
## On a track.

On January 28 I found myself at the Streets noting that some of these "novices" had painted racing numbers and other decals on their cars, harnesses, and racing seats.

"What am I doing here?" I wondered, as clearly some of these drivers were far, far from the green novice that I was.

Chalk and talk time with Dave Gardner, then jump in the back of a truck and start looking at the track. Then find my color group at threshold braking: drive as fast as you can in first and second gears, brake at the first cone, try to come to a stop at the second cone. If it's a baby carriage, then what you want to do is just kiss the baby. OK. Well, I'm stuck even before I start, trying to get the borrowed helmet on at the same time as my glasses, whose frames I never seem to loop over my ears. Drive as fast as you can. Uh huh. Everyone else seems to have no problem with this. I can imagine them in abandoned parking lots, just trying it out. I've never taken the Cayman out as fast as I can.

Don't I get an instructor? Ok, someone hops in. "Drive on," he says, and I squeeze down on the throttle as far as I've gone in either gear and, just as I feel I'm up to speed, I see the first cone and stuff my feet down on the brake and clutch, feel the ABS come on for the first time ever, and miss the second cone by about five feet. "Real good," says the instructor. "Next time brake a little later, OK?"



At the console of the Subaru data room looking at one of the best thermal images of Saturn.

Photo courtesy of Glenn Orton

Glenn on the summit of Mauna Kea on the Big Island of Hawaii, a typical worksite for him. Behind him are some of the world's largest telescopes: (l-r) the Subaru, the W. M. Keck I and II, and the NASA Infrared Telescope Facility. Photo courtesy of Glenn Orton



I kept my lunch down, but I couldn't keep my hands from trying to steer when my foot should have been doing all the work.

Later? How much later? Got to test it out. OK, grid up again. I fire off and hit the brakes five feet after the first cone (isn't this just a linear transformation?) but somehow still manage to stop a foot too short. One more time and I kiss the baby pretty well. But then they up the ante by adding a swerve to the right and swerve to the left after the brake, followed by another acceleration. I don't do quite so well, but I know what I have to work on. Next is apexing around the bowl, both right and left-hand turns, using a double-apexing approach that seemed to be avoided by nearly all of my subsequent track instructors. Then lunch and the skidpad. Just my luck to be in that order.

I kept my lunch down, but I couldn't keep my hands from trying to steer when my foot should have been doing all the work. One instructor tells me, "Lift! Lift!" And I think, hmmm. Does he mean (a) lift your foot off the throttle, (b) the back of the car is lifting and you're about to experience a spin, so you'll not soon forget the traction limits of the car, or (c) you're such an awful driver, I'm praying to God to lift me for "the rapture" right now! I guessed (a).

### Getting it all wrong.

Then my first time on a real track. Putting it all together was clearly going to take a long time. I managed to confuse my first track instructor by following his advice about not letting my hands move from the 9 and 3 o'clock position, but I thought he meant with respect to the car, so I kept shuffling the wheel with my hands always across from each other in a parallel line. "Um, what are you doing?" Then I truly unglued him by letting the wheel spin out on its own after coming around a corner. "No! Don't ever do that."

Seems like I could do nothing right, and I was really discouraged. But between that first run and my second time out, I managed to put things together. Hands on the wheel at 9 and 3 o'clock; no reason ever to take them off on this track. My second instructor noted that I really was putting things together. Despite my slow speeds, I managed to capture the joy of putting it all together and started having real fun. There was hope after all.

The next day I discovered the pleasure of having a single instructor all day, in this case Henry Hinck, who knew a lot both about driving and about the mechanics of the car. And I discovered just how slow we had all been driving the previous day. "Wow," I admitted to him, "this is intimidating."

"At this stage in your driving," he noted, "if it's not intimidating, I don't want to be in the same car with you!"

I started getting more confident as the day wore on and really anticipated the next runs. Henry mentioned he was glad that I hadn't panicked and slammed on the brake when one of my rear wheels

went off the track once in the beginning of the bowl. My only reaction then was, "Hell, I'm not going to get any traction this way," not realizing at all how differences in the traction on the right and left sides of the car could have really put me into a spin. In retrospect, this remains a lesson on how not to panic as an instructor. He let me drive alone when there were few cars on the track during the final practice runs. That's when I regained that floating sensation.

I also started a combination of physical therapy and personal fitness training. I was driving so badly on that single day in the autocross that I pulled muscles in my shoulders and back. The difference between a track video game, or watching someone's YouTube video and the real experience is all those lateral forces that I'd been totally unprepared for, especially when I was frantically shuffling the steering wheel "uphill" against them.

### The journey continues.

As I write this, I'm still floating. I'm a regular at PDS events, and I'm driving in anything else I can find with the PCA, from autocross (at the old El Toro Marine Air base) to pretty challenging DE events (Buttonwillow Raceway). I have driven 40-odd track days of one sort or another. I've taken driving instructor sessions so that I can give back in some small measure – particularly to those novice drivers who are as nervous as I was – the pure joy I've gotten from the people in the clubs who have helped me.

And I still thoroughly enjoy "work," so I feel doubly blessed. This part of me will continue, with my current space adventure the Cassini mission still orbiting Saturn, and my next one the Juno mission that will arrive at Jupiter in four years – when I still intend to be "working" and driving. To the POC, I'm the nerdy astronomer. I've even conducted observing runs from the wifi in the Streets of Willow garage and Loren Beggs' 911 Design in Montclair.

I've talked to observatory staff and other astronomers and JPL colleagues about my driving. To them, I'm the astronomer who races. There's a picture of me in a magazine published by the Gemini Observatories accompanying an article about my work on Jupiter's atmosphere. I'm in a racing helmet.

So for some of us, life's adventures can still start in our sixties. And when I'm on the track on Sundays, my friends at church know that I'm heeding the words of the good book: "Set aside every care, lay down your mistakes, and run with patience the race that is set before you." **V**

Glenn took second place in KS class in the Performance Driving Series last year. He has been known to give mini-tours of JPL to POC members, so let him know if you're interested.

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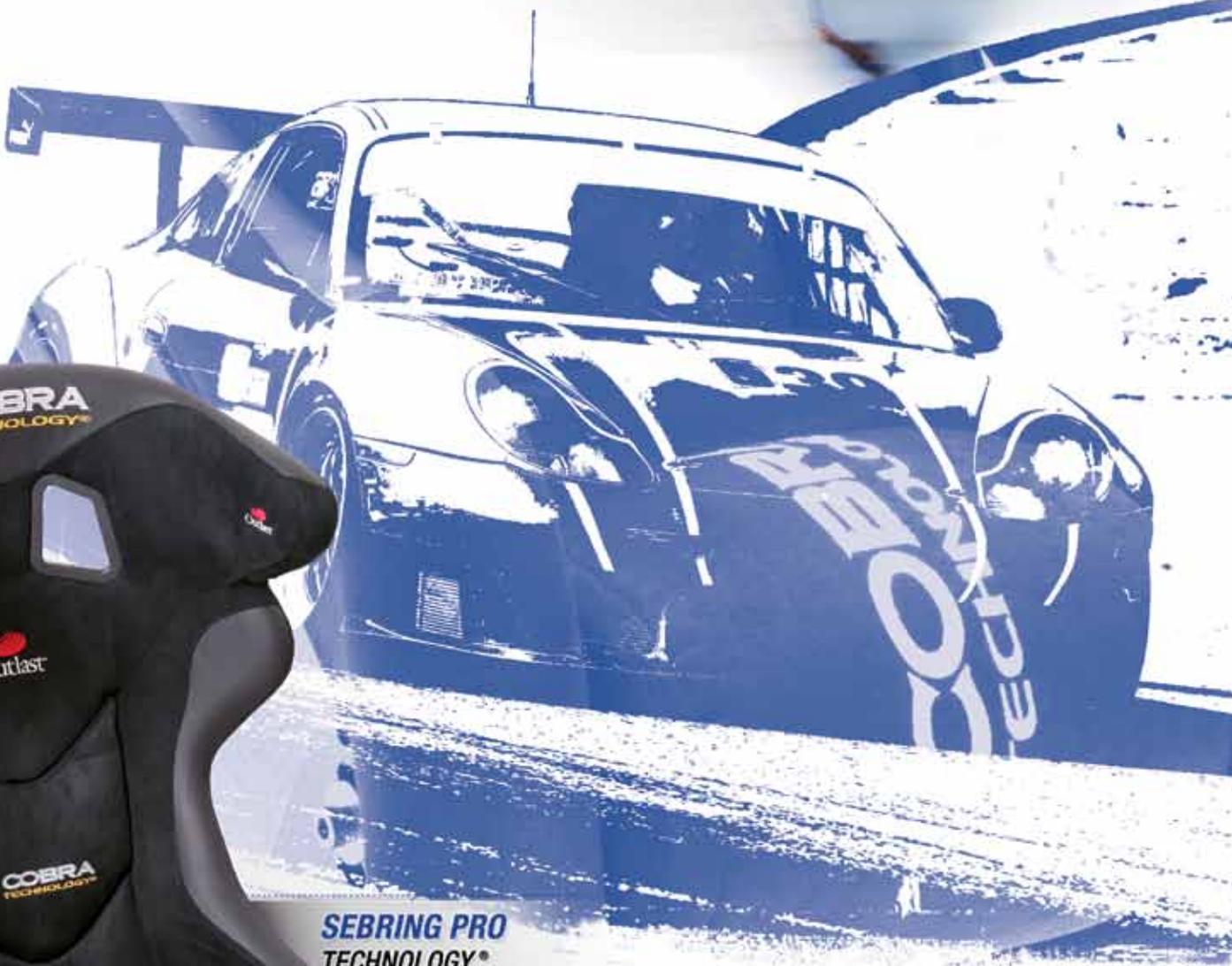
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