



PERFECT TOGETHER

BMW FANS FIND A NATURAL RACING HOME WITH AMERICAN ENDURANCE RACING.

BY **BEN GREISLER**, PRESIDENT, DELAWARE VALLEY CHAPTER

Watkins Glen, 2014: Turn Two before the Esses. Foot to the floor and dive in. Up the hill and wind it out until the braking zone for the Inner Loop. *Note to self: Upshift to fifth before T2; that four-five shift halfway up was sketchy.*

My E36 has the number 272 on the door and a minty-fresh BMW Club Racing "circle X" sticker on the trunk, indicating my rookie status. I've been around this track hundreds of times over the past 25 years at BMW CCA driving schools, but this time was different: I was in a real race car, doing a real race, and doing it with my real friends as a group effort.

The black 1993 325is was built for amateur endurance racing by a cadre of Delaware Valley BMW CCA members, including past presidents Dave Flogaus and Martin Bullen, chapter treasurer and chief instructor Mike Dion, and

long-time member and track hound Ed Narewski. I jumped in as the project progressed. (I'm pretty sure they let me in because I had access to a welder.) We raced #272 with three different sanctioning bodies that year, including BMW Club Racing, but it was with the newly minted American Endurance Racing (www.americanenduranceracing.com) that Team Mancave found its primary home.

It happened that way because, as we quickly saw, BMW race cars and AER are a match made in heaven—or the race track, as the case may be.

The Delaware Valley Chapter of BMW CCA has a long history of being a driving-oriented chapter. Named after the Delaware River Valley, not the state, the chapter is advantageously located in the Northeast megalopolis centered on the Philadelphia metro area. It is rich in access to some of the best race tracks

in the country, a population that loves their BMW cars, and people willing to help organize how to get people and their cars to the track. For years, DelVal has organized high-performance driving events, BMW Club races, and other ways to enjoy BMWs; it's not surprising that DelVal members John Kolesa and Ed Tatios decided that they could add to the rich history of our region and found what has become one of the most respected and exciting amateur endurance-racing series in the country.

Kolesa and Tatios looked at the amateur endurance-racing landscape and liked the concept of racers driving affordable race cars in a format that minimized costs. While they enjoyed the racing, they felt that there was an opening for a new approach to the format. American Endurance Racing (AER) was founded in 2013, and the first green flag was dropped at New Jersey Motorsports Park in 2014. Two more races rounded out the



Ruby Archuleta

season with events at Watkins Glen and Lime Rock Park.

The two took a hands-on approach recruiting race teams for the new series. Standing next to your race car at a BMW CCA driving school, or maybe a Jeffapalooza, the next thing you know, an AER beanie is in your hand. “Hey, we’re putting this new racing series together. You might want to check it out. It is called American Endurance Racing.” Next event, another AER beanie and the same speech—but now with venues and dates. After a while these efforts paid off, and a collection of teams from BMW Club Racing, LeMons, and Chump Car began gathering for the first race. The amalgamation of teams was wide-ranging, from “real racers” to “Hey, what are you doing this weekend? I’ve got an idea!”

Along they way Kolesa and Tatios added fellow racers Justin Stone and

Alex Rubenstein to the AER ownership group, each for expertise he could add. This helped fill out the management of AER and build on the strengths of the leadership. They now had visionaries, automotive-industry experience, and the technology experts to achieve their goals.

Take a walk up and down the grid at the start of an AER event and you will be struck by the sheer number of BMW race cars. Currently the marque accounts for roughly half the cars at any AER event. This is not by accident. In the beginning there was the standard collection of E30 and E36 race cars. Most were prepared for ChumpCar, LeMons or BMW Club Racing and the teams took a “sure, we’ll give it a shot” stance on the new series since it required practically no changes to their car prep. This was by design.

The AER gang were smart when creating the rule set. The original rule book was six pages of AER-specific

rules while leaning on the rules of other accepted sanctioning bodies, which meant that if you had a car that was legal for BMW Club Racing, it was legal for AER. This approach made it simple for an existing race team to jump into AER with minimum hassle. The rules also allowed freedom to build your car they way you wanted and not have to adhere to class specific rules; this was miraculous for teams that wanted to build what they wanted, without traditional class-rule restrictions. Anyone who has been around racing knows that this is the opening that allows huge budgets to prevail, potentially ruining the concept of “cost-controlled” racing—but AER had a few tricks up their collective Nomex SFI and FIA-approved sleeves, all aimed at making the racing costs manageable. The rules dictate that street tires of at least 180 treadwear rating had to be used, but no size or brand restrictions. The treadwear rule reduces

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the cost of tires, since you don't need special race tires and the street tires can last the entire weekend on some cars.

The cost savings didn't stop there. The rules call for a minimum number of pit stops, at three minutes per stop. This provided a *de facto* maximum driver stint time, limiting the time the car is out on the track at one shot but with flexibility in the exact timing. This made fancy fueling rigs and huge fuel cells unnecessary for most cars. In fact, the average stint worked out to be about how far an E36 race car can go with the fuel available in a stock fuel tank. It may have been coincidence, but many a BMW race team is very happy for it!

A standard AER weekend consists of practice Friday morning, qualifying on Friday afternoon, an eight-hour race on

A successful AER weekend: two First-In-Class awards and a First Overall trophy.

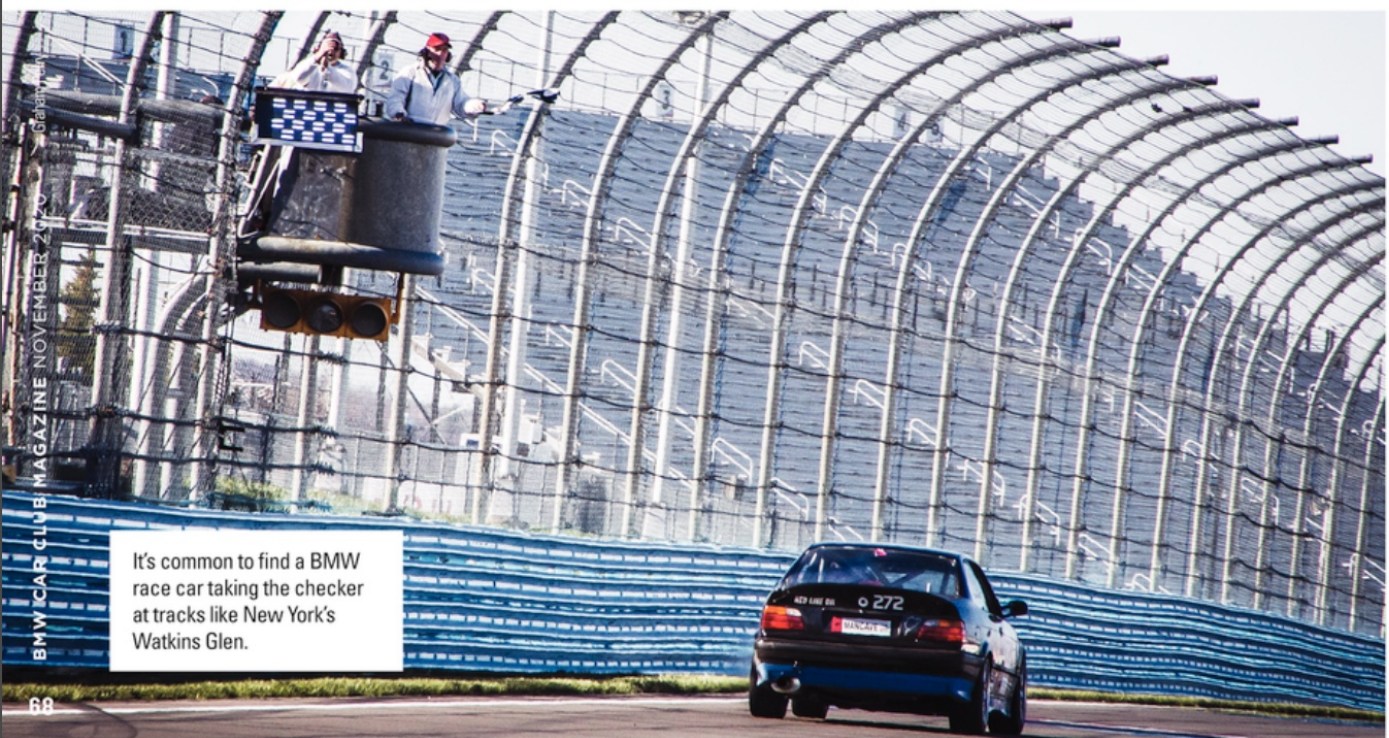
Saturday, and another eight-hour race on Sunday. Many teams can go the whole weekend of racing on one set of tires and brake pads due to the 180 treadwear rule. Actual race timing can be adjusted based on the track and local rules.

As the seasons progressed and more teams joined AER, you could be driving an ex-LeMons E30 and share the track with a factory M4 GT4, a slew of M235-R factory race cars, and C-Mod BMW Club Racing cars. Once again AER made some wise choices: Rather than build a rules-constrained class system, they designed a performance-based class configuration. How it works is very straightforward: A team sends each of its drivers out during qualifying; the lap times for each team are collected, and AER runs the results through a series of

algorithms and human review. Teams with similar lap-time ranges are grouped together in classes for that weekend. Most teams that have run with AER have an idea where they will end up in the classes, but it is possible to find yourself up or down a class based on the exact mix of cars that showed up on that weekend. If your performance during the race itself shows that an adjustment is needed, the team is notified that they have been bumped up or down a class. This prevents teams from gaming the system by qualifying in a slower class and then dominating it during the race. This system also means that you are only racing within your class; there are no overall results, just class placement. This means that a 600-horsepower monster car might be tearing up the track, but the 160-horsepower Spec E30 dicing with

The instrument panel minimizes driver distraction.

The ubiquitous E36 is one of the most popular platforms in AER.



It's common to find a BMW race car taking the checker at tracks like New York's Watkins Glen.



Graham Perry

It takes a village! The drivers may get the glory, but the crew makes the team a success.



Graham Perry



Graham Perry



Rusty Archuleta

Sharon Caldwell developed the pit-stop processes for the Mancave racing team.

AER racing means kidney grilles as far as the eye can see!

the J-S 325i E36 is the real race to watch.

Coming from the BMW world, it is easy to take for granted that there are so many BMWs on the grid. But the proof is in the performance. Paul Sparta and Ron Lipson are the team principals of Random Vandals Racing, based in New Jersey. The RVR team grew into a two-car effort with full-time staff servicing their formidable E46 M3 and factory M4 GT4, which typically runs in the fastest AER class. Sparta didn't come from the BMW world, but was an F2000 open-wheel racer with a stint in Radicals. After some suggestions from friends to try out an E46 M3, and finding a great deal on a 2002 model, he discovered that the grin factor was high—and they had found their AER car.

That same year Sparta took a BMW Club Racing school to add to his previous experience. The team grew to include notable drivers such as Al Carter, Nelson Canache, Sean Rayhall, Kyle Tilley, and Randy Pobst. Indy driver Conor Daly has made a few appearances, too; AER thus offers racing against a wide range of drivers, from the guy down the street to the names you see scrolling across the TV screen during pro race coverage. That might seem intimidating, but with the rules the way they are, smart driving, combined with a great pit strategy, can make an amateur team competitive with the pros. It happens at every AER event.

At the other end of the field is a group of friends from the Wyndmoor,

Pennsylvania, area, running an E30 that got its start as a LeMons-legal car. Like many other teams, they decided to try AER and ended up sticking around. Their car is maintained by the team members as time and finance allows. Over the years, the team known as Rally Baby Art Car has had its ups and downs, but has ended up being one of the dominating teams in Class One, which is at the opposite end of the performance range from the cars of Random Vandals. They might be in a class with slower lap times, but this doesn't mean that the racing isn't every bit as close and nail-biting. In fact, some of the best racing happens in the lower classes due to larger fields and more closely matched teams. The budgets tend to be lower in the slower classes, but the skill needed



Ed Narewski has been the Mancave crew chief from the team's earliest adventures.

You can find almost every BMW 3 Series represented at an average AER event, from the E30 on.

to run a race weekend is equal across the board—and that allows more teams to join in.

It is easy to concentrate on the drivers and cars of auto racing, but endurance races are often won or lost in the pits, with the drivers simply trying to keep the car at the pointy end of the field. Teams will show up with a support crew of friends and relations tasked with everything from car prep to keeping the team fed. Walk Pit Road and you will meet many of the same people you will see at BMW CCA driving schools. This lends a family atmosphere and sense of camaraderie across teams.

While the crews can often be seen helping other teams, when their car comes in for a stop, it becomes all business in a flash. Pit timers track the in-and-out time for the cars; they ensure that the minimum three minutes of stop time is met, not going under the mark and not taking any longer than needed. Over the wall goes a fueler, handling the mandated five-gallon jug, with another crewperson on the fire bottle. A driver-

assist crew helps the incoming driver out of the car and preps the harnesses and seat for the outgoing driver. Once the new driver is in, the assist person helps connect the harnesses, the radio plug, and the driver-cooling water, along with a drink tube and helmet air hose.

Now that fueling is done, other team members can jump over the wall, check tires, add new ice to the cool-shirt cooler, clean the tire marks off the windshield, and make sure that the car is ready for another stint. All tasks completed, everyone heads back over the wall and under the canopy. The pit chief checks with the driver over the radio, giving the command to fire the engine. The pit timer calls out the countdown over the radio as the three minutes wind down. Without a competent crew, there is no hope for a good performance from the drivers or cars, regardless of how fast they might be. The crew members are the real heroes of the race.

If you find yourself at an AER race, you will find the event staffed by more BMW CCA folks. From the pit marshals

to timing and scoring, there is BMW CCA representation. While it isn't all BMW CCA people, the strong driving programs that the club offers make it easy pickings when recruiting workers; they already knew how track events run, and love being at the track.

Located in Louisville, Kentucky, Zakspeed.us is an independent BMW repair, restoration, and racing shop owned by ten-year Bluegrass Bimmers member Zach Ketring. He knew that he wanted to be a racer from a young age, and picked an E30 as his first car. A few mods here, a few mods there, and he was off to the autocross. Through connections with local racer Richard Bratton, Ketring managed to borrow a SpecE30 to participate in his first driving school. Time went by, and he connected with SpecE30 champion and DriveFasterNow.com owner Anthony Magagnoli to hone his skills; later he learned from BMW Club racer Thomas Rossi of the GTR endurance team. That team became a consistent AER race-leader with Ketring doing car preparation and trackside support, and



Zach Ketring and Proctor Teague have run their E30 with just the two of them driving—and winning!



The green Random Vandals Racing M4 GT4 has already been quite successful.

with his help, the podium became the easiest place to find the team.

Ketring spent a decade making other people's cars fast, reliable winners, so when he set his sights on having his own team, it was natural that he would go back to his roots, take a BMW CCA Club Racing school, and prep an E30 for battle. The AER team includes Ketring and racing partner Proctor Teague in car #387, which stands for "3er, 1987" and reflects their belief that it represents the best of the breed.

Peter Agapoglou, owner of AutoSport Fabrication (<http://www.autosportfab.com>) in Plainville, Connecticut, wasn't always a BMW guy, having worked on Porsches for the better part of a decade, but a Cosmos E36 M3 changed his ways. Like Ketring, Agapoglou dipped his toes into performance driving with autocross. The E36 outperformed the Porsches he had been running, and the reliability of the platform was in contrast to the series of 911 engines he had to feed his Porsches.

While Agapoglou was a hell of a pro wrench, it was the need for another driver for an AER event at NCM Motorsports Park in Bowling Green, Kentucky, that put him in the driver's seat. He had a fine first-ever stint, doing wheel-to-wheel racing—if you call 100-plus minutes of rain, misted windshield, and no visibility fine. He must have done something right: He gained five places for the team!

There was also the time the gearbox managed to lose most of its gears, forcing him to drive in fifth for the rest of the race. Even with that handicap, the effectiveness of the BMW race car meant that he only lost a few seconds a lap.

Running with AER, Agapoglou appreciates that the leadership of the sanctioning body views the racers as friends and clients, not subordinates to march in line. It allows AutoSports Fab to build the best cars they can, win races, and have a great time. Unlike some other teams that got their start with BMW CCA-related driving

WHO'S IN CHARGE AROUND HERE, ANYWAY?

Starting and running a racing series poses unique challenges. The two things that racers care most about, venue and date, are exactly the two things we have the least control over. Because of the long-standing tradition of "date equity" at race tracks, it is very hard to get dates at most race tracks in the country, let alone dates when people want to race. We do our best to get good dates at great tracks, but we also focus our attention on the things that we have more control over. At the top of that list is how we run our events.

We do everything we can to make our events easy and welcoming for racers, and provide the most track time we can. We hate seeing racers waiting in lines at race tracks when they could be turning laps, so we send out yearly e-waivers, which include a self-gear-check agreement to eliminate the need to sign paper waivers and check gear at the track. We created a quick check-in process that our staff can use on their phones, which further speeds things up. We leverage the relationships we have with our partners to put on cookouts and provide event shirts, photos, prizes, and podium awards—and even candy! We have a committed staff that works hard to make everything run smoothly, including pit marshals who are focused on safety and do their best to politely educate racers on ways they can be safer in the pits.

AER has made a substantial investment in technology. Creating our own registration system from scratch may not seem necessary, but it has allowed us to do things that nobody else can do. Our system generates event-spotters guides on www.americanendurance.com with custom car illustrations and drivers' names, including country flags—just like the pros do! We also created our own RFID system, which employs small stickers on helmets and windshields to read cars and drivers as they enter and exit the pits. Together, these systems allow us to make everyone's lap times instantly available and sharable on social media. With all these stats easily accessible, we can do fun things like inducting drivers into the AER 1,000 Lap Club when they reach that milestone at an event.

We haven't tried to reinvent every wheel, but we are always looking closely at how things are done—and how they have been done—to find areas to improve. We hold a drivers' meeting at each event to welcome new drivers and to have a conversation about AER rules that may be different, and tell drivers what we expect of them on track. I end each of those meetings by telling everyone that we try to be great at everything. If there's something we weren't great at, I want to know.—John Kolesa, president, AER



Three-minute pit stops help level the field and give enough time to fuel the car without compromising safety.

Every BMW 3 Series generation makes a suitable AER platform!



events, Agapoglou and his team were led to BMW Club racing after racing with other groups. The AutoSports Fab logo will soon be showing up at BMW Club Racing events, and the team is excited to take it on.

Not every race team in AER started as a shop, or with childhood dreams of being Fangio—although, really, who hasn't dreamed of being a race-car driver as a kid? Douglas Wardell is an engineer by trade, and a garage warrior at night. He is a member of the National Capital Chapter and can be found participating in club events with the Delaware Valley and New Jersey Chapters. His love for BMWs started with his grandfather's 5 Series, and matured into the eventual acquisition of an E46 M3.

Like most good men, Wardell has a better half standing beside him, and on his 30th birthday, he received a BMW CCA driving school as a present. Fuse lit, he did fifteen track days that year, and the following year he participated in a BMW Club Racing school. Of course, this led to the construction of an M50-swapped E30 for use in AER—but an unfortunate first-lap incident led to the

car's demise before it saw competition.

One door closes, another opens: Wardell got the chance to be part of an AER team that raced an ex-Koni Challenge E90 328i that was built by Turner Motorsport. That scratched the itch for a while, but only an S54-swapped E36 built to BMW Club Race C-Mod specs—a nod to running AER in the top class—could sate the need. Throughout this journey, Wardell saw the need for an easy-to-install Mk60 ABS swap system, and he founded RacingHarnessesTechnologies.com in order to supply stand-alone ABS systems to other racers. The S54 E36 is the proving ground for new products and technologies, and will prove to be a beast on the track.

Named by one of the team wives, Mancave Motorsports is a two-car effort, with AER as our primary sanctioning body. If there is a great example of BMW CCA membership participating in AER, Mancave is it. The first car, #272, was built for another racing series, but saw additional action in AER and BMW Club Racing as a J-Stock car. The team members include those

listed at the beginning of the article and the father-and-son team of Geoff and Russ Ehrman, plus a stint by Gregory Lockman. Eventually it was joined by #172, another E36. Both cars got upgrades and found a home in AER. The drivers of #172 include Jeff Caldwell, Chris Faust, and another father-son team, Steve Herchenrider Senior and Junior. The two cars have been driven (or wrenched on) by four BMW CCA chapter presidents, a Regional Vice President, a chapter treasurer, and about ten driving-school instructors—and most are BMW Club Racing school graduates and participants. The team has been joined at events by pro racers like James Clay, Lee Carpentier, Tyler Pappas, and Cameron Evans. The crew consists of Sharon Caldwell, Ed Narewski, Graham Perry, and Nick Faust—plus a rotating staff of volunteers. All are friends who met through the BMW CCA in one way or another.

American Endurance Racing has become the de facto home of amateur BMW endurance road racing. Its roots are in BMW CCA chapter members and its soul in the desire to make racing as fun as it can be for all.

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