

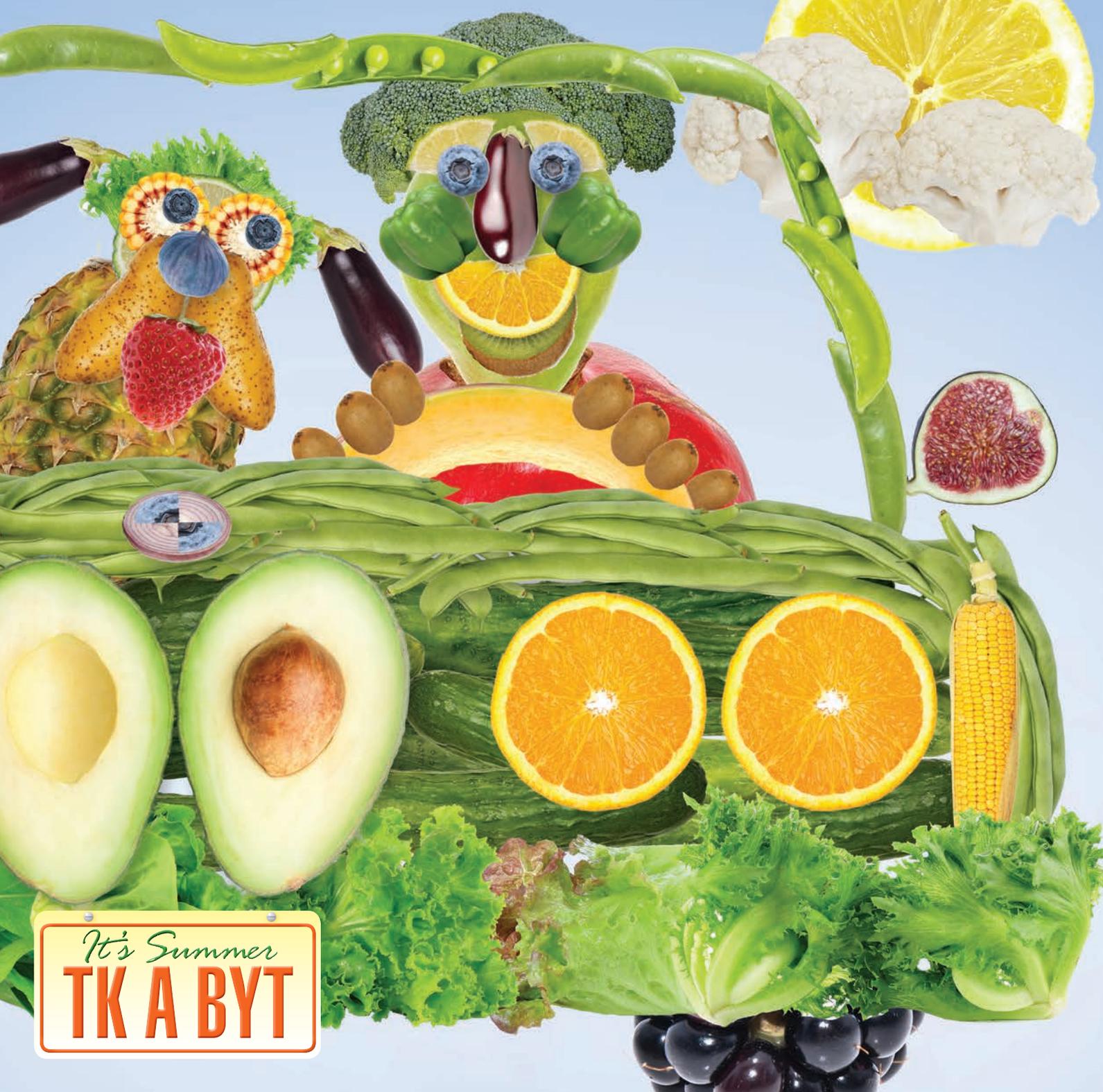
# D R I V I N G

BMW Car Club  
of America  
Buckeye Chapter



News, Views and  
BMW Stuff to Do

SUMMER 2016



*It's Summer*  
**TK A BYT**

It's the Summer newsletter, which means that perhaps we won't have snow or freezing temps any time soon. Once it hits 70 degrees I'm ready for constant warm weather. Which explains why Spring is not one of my favorite seasons (which are Summer and Autumn). But it's Ohio which means it could be 70 degrees one week and 38 degrees the very next day. Warm weather should be

## **PRESIDENT'S UPDATE**

by **George Saylor**

here to stay, starting with June. That also means autocross, driver's schools, car shows, and Street Survival Schools. So it will be a great Summer.

Having driven my beater car through the winter (Jeep Cherokee) I am ready for the E39. I've been driving the 528i every day for past month and am determined to buy snow tires again and drive it through the winter. The Jeep is becoming somewhat worn, and I tire of chasing recurring problems. It has served its purpose, and it's time to pass it on to someone who will relish the opportunity to fix it.

Having recently made that decision, I was driving home one evening when I heard curious noises from the E39. Like metal-on-metal contact of varying pitch and degrees of seriousness. Oh great. Can't be suspension – it's relatively new (absolutely everything up front, including wheel bearings).

Should not be cooling system, everything has been replaced. Front brake pads could be worn, but the sensor should have kicked in. Then it hit me – I just read Mike Miller's tech column in the latest Roundel and someone mentioned the alternator going bad in their E39. The significance of this is that I've gone through this before – everything is fine, then I read about a problem and BOOM! It's happening to my car.

So the next day I hopped in the Jeep to go to work (headliner hanging down, CEL on, curious bearing noise from the engine – for the past 5 years) dreading the next several hours and going home to find out what's going on with the BMW. The time comes finally and I start the E39. And wait. And wait. And... there's no noise. Drive it around the complex and... there's no noise. I come to the realization that I did in fact become victim to one of Mike Miller's columns – one from 10 years ago when someone thought the front end was going to fall off from the horrid noises it was making. It would happen that the problem, for that person, was simply a rock stuck between the rotor and the dust shield. I gladly accepted that as my same issue and moved on.

I really didn't want to work on something that occurred suddenly, as I still have three parts I need to install. They've been sitting in several boxes in the garage for the past four years, so it's just about time.

Not having the Jeep that means I'm down to one vehicle (my wife has her car, but it's from Japan – just as fast as the E39, utterly reliable, but booooo to drive). And, I just sold the Harley. That means I'm down to ONE vehicle. That hasn't happened for decades. My HOA frowns upon vehicles parked outside, so my two-car garage will have just two cars and, perhaps, another motorcycle. Since we no longer tour across the country I can get something like a sportbike. As in a Ducati. Yeah, something that you ride 100 miles and then work on it for a week. Sort of like an E24 but with just two wheels. Sounds great!

I hope everyone has a great summer, no rocks in the front brakes, and all your BMW parts have been installed. Have fun! ■

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# View from The

by **Tim Beechuk**



**W**hat an exciting day. Other than the weather that changed between some type of precipitation and sunshine on the half hour, there were 500+ interesting and hard to find BMW's displayed at a beautiful location in the North Carolina mountains. I say 500+ because there were 500 cars registered, and since I was part of the BMW CCA Foundation booth I was able to sneak in Lance White's well-maintained E34 euro M5 Touring to park by the booth. I know there were a couple of other interlopers parked in the area. This of course doesn't count the large number of "non-vintage" BMWs driven by the many spectators who had to park in the surrounding roads and town. This event used to be called Vintage at the Vineyard, but after Scott Sturdy's event outgrew two different vineyards, it had to move to bigger areas. This year we were in Hot Springs, North Carolina. Interestingly, until the late 1800's this town was called Warm Springs. I guess the spa there wasn't such a big deal until things heated up a bit. Another interesting fact about Hot Springs is there is no cell reception there. Great if you came to relax, but not so good if you are a vendor at an event and want to accept credit cards. It turned into a cash-only day.

■ The cars were truly a sight to behold. I think if it was a BMW produced between the early 70's and the middle 90's it was there, and

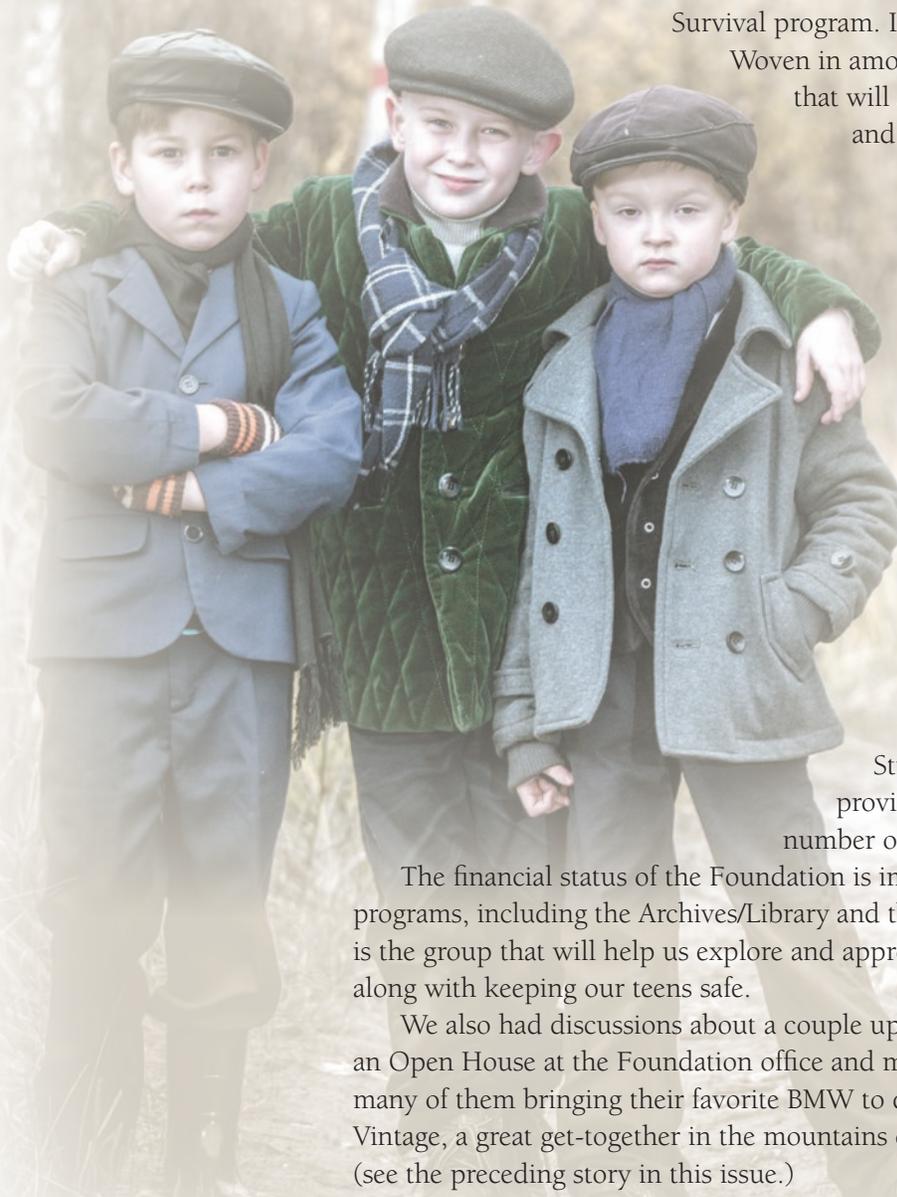
probably in every color combination that was available. Of course, there were also many colors and configurations that were never seen at the factory, because we are individuals, after all. It's really fun to see what each owner does to make their car special in their eyes. There were over-the-top restorations, true survivors, and every variation in between. My biggest enjoyment is seeing a beautiful car that has not been restored but lovingly cared for through the years. Every owner was proud of what they had brought to the event and also they wanted to see everyone else's offering. The crowd moved from car to car with anticipation and questions for anyone who was standing by.

■ It is a great benefit to the BMW community that Scott and his supporters are able to keep this event going year after year. The ability to experience these cars and get information from their owners is a great opportunity for everyone present. The fact that Scott had to cut off registrations at 500, more than a week before the event, shows the interest in events like this. There were a few Buckeyes in attendance, so you might want to think about joining us next year, when the Vintage makes us feel young again. ■



# Hanging with the big kids

by **Tim Beechuk**



In the past, I had attended a BMW CCA board meeting and a couple of BMW CCA Foundation board meetings, but now, due to the Regional Vice President role and work with the Tire Rack Street Survival program, I'm a required attendant at these affairs. And I'm glad for that. I get to see the inner workings of these groups and help shape our future, or at least see what people think our future should be.

I thought I'd relate some of the information I've gleaned from recent meetings. As I am writing this, I'm returning from the latest Foundation board meeting in Charlotte, NC. I know, you are thinking that we are at home this weekend cutting grass and taking the kids to whatever practice and Beechuk is off again to the wonders of the South enjoying luxurious meals and a comfy room at the Embassy Suites. Well, I was, and I also got a tour of the Hendrick Racing facility, where I saw the 30 Jahre BMW M5 that Rick Hendrick bought last year at the Barrett Jackson auction for \$700K, with all of the money going to the Foundation and the Street Survival program. Impressive. He does have a nice collection of cars.

Woven in amongst that were meetings both formal and informal that will shape the future of the Foundation in general, and the Street Survival program in particular. We met the new Executive Director that the Foundation trustees just hired to make the organization run better. We've never had an ED before and this will sharpen the point at the tip of the spear. He is an energetic guy and will be a big boost to the Foundation.

At the meetings we talked about what we believe is the biggest way to expand the Street Survival program and reach five to ten times the teens we do now. We are in the planning stage of adding what is, for lack of a better name at this point, Street Survival Lite. It will unfold using a modified version of the classroom lessons and hopefully incorporate full motion simulators. This, of course, will not be as comprehensive as a full Street Survival day with in-car coaching, but it will provide a good portion of the information to a large number of teens. Stay tuned for more on this.

The financial status of the Foundation is important to the life blood of all of the Foundation programs, including the Archives/Library and the Restoration/Conservation areas. The Foundation is the group that will help us explore and appreciate the history of BMW in The United States along with keeping our teens safe.

We also had discussions about a couple upcoming events for the Foundation. We are having an Open House at the Foundation office and museum. It's fully sold out with 200 attendees with many of them bringing their favorite BMW to display on the grounds. Following this will be The Vintage, a great get-together in the mountains of North Carolina. 500 vintage BMWs are expected (see the preceding story in this issue.)

*(continued)*

Only weeks earlier I was at the BMW Club Board meeting. Yes, yes, another weekend of not cutting the grass and getting to hang out in Dallas, Texas. The big excitement here, other than dinner at one of the best BBQs in Dallas, Hard Eight, was the Driving Events Committee (DEC) congress that followed the Board meeting.

First, the CCA Board meeting. This is where we try and figure out what we can do for the members to make this a desired organization to be a part of, while not spending every cent we have. A lot of the discussion centered on the upcoming gala in Monterey this summer. *Celebrate BMW*, the combination of Legends of the Autobahn, Monterey Festorics and Oktoberfest; honoring 100 years of BMW. If you can find a few extra days of vacation, you should attend all or whatever part of this that you can. Already there are more than 1200 people signed up for what appears to be the definitive BMW get together. Remember, a 100 year celebration only comes once a century.

Also discussed were the future O'Fests, since planning for this type of event takes some effort and time. 2017 will take us to New Orleans, and 2018 is in Pittsburgh, in conjunction with the Pittsburgh Vintage Grand Prix. Along with the planning for these national events, there was discussion of individual chapter problems and situations, many of which are comfortably handled by the Regional Vice Presidents.

The DEC Congress is an opportunity for Driving Events Committee leaders from the individual chapters to get together and discuss new rules, old questions, and what it takes to make these events run smoothly. Serious challenges we face in our driving events are the number of participants and rising prices. It seems every year HPDE's suffer from rental increases at all of the tracks, while numbers are affected by more and more groups doing this type of event. Also, the problem of losing venues for autocross make these activities more difficult to plan. The ability to have meetings like this is important to keep our driving events progressing, as well as safe. A national meeting also helps the Board make sure we are doing what we need to do for the membership.

I hope to keep attending these meetings, because knowing what makes this club function is pretty cool, and I hope that I can do my share to keep the membership happy. ■



## CINCINNATI AREA NEWS

Mark Jeanmougin, Cincinnati Area Governor

Ah! Home, sweet home.

For many people, Summer brings family vacations. Loading up the family truckster (or E91 wagon) for a trip across country. Maybe to see something exciting like World's Largest Ball of Twine. Maybe to see cousin Jackie finally marry her longtime friend rather than that jerk she was with at the last family reunion. Hopefully, you don't get dragged off to something mundane, like Disneyworld.

For a select few, summer brings ATE Super Blue, R Compounds, and Hawk HP Plus's. Some of you feel like the BMW CCA caters to these people too much. You may be right. The best way to counteract that is to email markjx@gmail.com and get involved, propose an activity or just come to a meeting and share your stories! We're tired of hearing about Jay putting his car into the wall at Road Atlanta in February because he was stoopid. :)

For me, summer brings me home. For the first 23 weeks of 2016, I've been on the road for about 17 of them. And two of the remaining six I've been hosting out-of-towners here in Cincinnati. That's four weeks of "normal" out of 23. I think I've worked every company "holiday" and most weekends, too. Summer means that's all done. I finally get to spend nights in my own bed, next to my wife, with my cats on my feet. :)



Left cat

Right cat

(Mark, their expressions suggest some Odor-Eaters wouldn't hurt. – ed.)

Summer means family time, and some relaxed time out of the office. In fact, my wife picked up a tent so we can go camping for the first time ever. I'm not sure that'll help keep the stress low, but "How hard can it be?"

I'm still thankful Tim & Jaynee got me involved with Street Survival. I went to Indy a few weeks ago to volunteer at a school there. What a great group of people! Things went really well, and it was a blast meeting new volunteers!

On the other side of the coin, I helped out with the Cincinnati PCA's first school the next week. It was a little rough, but I'm sure our first school was, too. They'll get it

all figured out. They did manage to have three cars break down. To the PCA's credit, none of the air-cooled cars broke down. I guess that's their field of expertise! :)

FREE BEER!

Just kidding. But that probably got your attention! :)

The Cincinnati Chapter is planning a meeting/tour of the Rhinegeist Brewery. If you haven't been, they've got a cool beer hall. I'm looking forward to it! I always get a kick out of touring factories. I've never toured a brewery, so I'm looking forward to it! Happy Summer 2016! ■

## COLUMBUS AREA NEWS

Mark Borrer, Columbus Area Governor

Hello Columbus BMW CCA Members!

We continue to move forward as a car club, and I'm very happy, but we can do better. New faces continue to attend our monthly meetings and I've been receiving email requests to be added to the distribution list.

Earlier this year we elected Mike Laci as the new Vice Governor and he and I have been working hard to plan events for our members. But I must confess; it's not a two-man car club. It's your BMW CCA! I know we have talented

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people in our membership, so I'm throwing out the Help Wanted signal. Everybody has a gift in life that they can contribute to a group or society. You might be a social genius, a mechanical genius, or have the skills to be the next spokesperson for the club. So I'm looking for people to collaborate with and make this the best year for our members.

The Buckeye Board met earlier this year and we submitted our yearly budget. A request of mine was to give away prizes to our members who attend the monthly meetings. It's a way to give back to you, the members! However, to win the prize you would need to answer the question correctly. Could you have won the prize? *The M Badge has three colors, what do they represent?* Unfortunately, no one answered it correctly, but it led to a great discussion about the BMW brand. Last month's winners were Chuck and Charlie Grafton, who answered the question correctly, and will enjoy their Mothers Clay Bar Kit this summer. I can't wait to see the results in the coming months!



Tall tales and short beers at a recent Columbus meeting

We are planning a few events in the next couple of months. I realize it's sometimes difficult to make it out to the Wednesday night meetings. So Mike and I would like to invite the Columbus Area members to a Governor's Party. Bring the spouses, bring the kids, or heck, even throw grandma in the trunk. It will be a great time to relax and hang out. Plus, it might freak out my neighbors with all the BMWs parked at my house. I will be sending out an email\* to the area members with information and location. *\*You will probably receive an email before you read this column.*

The other event we are planning is to meet up at a Columbus Clippers game this summer. Beers and brats sound so good!

Enjoy the summer and be safe. ■

## DAYTON AREA NEWS

Nick Schumacher, Dayton Area Governor

The Buckeye BMW CCA Spring Kick-Off is in the books, and summer is on its way! Here in Dayton this means a plethora of outdoor activities are on the horizon, including concerts downtown at RiverScape MetroPark, hikes, festivals, food trucks, driving your Ultimate Driving Machine, and hanging out with your fellow Bimmerheads.

Speaking of driving, we had quite a few members make the excursion to our special meeting locations this spring. In April we had an excellent turnout at LaRosa's Pizzeria in Beavercreek, even on a rainy night. The party took up most of the room. We welcomed a couple of guests who were trekking across the country in their vintage 2002s. Our May meeting venue was on the covered patio at TJ Chump's in Huber Heights, right next to the Rose Music Center. Appetizers were provided by the Club, as they will be at the next Dayton area meeting, so you should come.

Also in May was our annual highway cleanup on OH-835 in Beavercreek. We had the biggest turnout of volunteers we have had in many years. Thanks to all you environmentally-minded Buckeyes who donned bright yellow safety vests and withstood the wind and rain to give back to the community! We were able to split into teams and cover a lot of ground. Thanks go to Mike Self as well for organizing the event.



The clean team

After two months on the road, we will be returning to our home base, Brixx Ice Company, for our June meeting. Keep your eye on the Chapter calendar for the latest updates.

This summer we will share a tent with Voss Village BMW and promote the Buckeye Chapter at the Germanfest Picnic in Dayton. This festival is held every year, and features continuous live



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*Remember, your brick order can help Buckeye Chapter win the Chapter Challenge!*

music, authentic German food, a Biergarten and Weingarten, raffles, activities for kids, and plenty of vendors and merchants. It is the weekend of August 12-14th at Carillon Historical Park. You can experience a Dayton Original Event and stand behind the German heritage of the BMW marque. Stop by our tent to see what Voss Village BMW has to offer and pick up some info about the Buckeye Chapter to share with your friends. Grab some schnitzel and a beer while you are there. If you would like to help man the booth, please shoot me an e-mail. Here's a link for the Germanfest:

<http://daytongermanclub.org/?q=german-picnic>

Do you have seasonal allergies and want to take a road trip somewhere outside of the Miami Valley? Then head to Ofest in Monterey and help celebrate BMW's 100th year.

You can also help support the establishment of the new BMW CCA Foundation facility in South Carolina, donate to their capital campaign, and bolster your favorite programs such as Tire Rack Street Survival. Leave a lasting legacy of your love for BMW and the CCA by purchasing a brick that will be laid in the walkway to the new building. You can even gift one to a fellow BMW fan. Here's a link to the ordering site:

<http://www.fundraisingbrick.com/bmw>

Have a friend who likes BMWs and is interested in the Club? Bring them to a meeting! Get connected to the Buckeye Chapter of the BMW CCA online; follow us on Facebook; or subscribe to the Dayton Area e-mail distribution list to get updates on meetings and events. Just e-mail Mark Morris or me and ask to be added to the list. See you at the next meeting! ■

## TOLEDO AREA NEWS

*Phil Ross, Toledo Area Governor*

Toledoans! Springtime is slow coming this year, after a mild winter, too. I sold my rag top BMW, a sterling '96 Z-3 example, to a Dayton Area member in February. My newest BMW is a European Delivery 2003 330iA with Sport and Cold Weather packages. I park it in the winter. When I busted it out of the garage this week, it was going for two factory recalls: a passenger air bag and a taillight grounding

wire. I haven't been driving it very much lately. When I gassed it up, I noticed that I only put gas in it once last year. Hmmmm...

Anyway, my service indicator said I was close to needing an oil service, so I decided to kill two birds with one stone. When I took it in, I asked them to check the intermittent "Check Engine" light – they said that would cost an hour for diagnostics. I had requested a Courtesy Loaner and was fitted with a 2016 BMW 328 XDrive with 1200 miles on the clock, which sounded like a good opportunity to get versed in updated gadgetry. I was pleasantly surprised that a Heads Up display of speed was on the windshield. The engine stopped when I was stopped at a light with my foot on the brake, then restarted when the brake was released. That one wasn't noticed for a few lights, until it lurched. The wheel rims are precariously close to the edge of the tire side wall, making curb rash vulnerability a factor. Yes, those were run-flat tires, with no spare. 10 points off. I found four modes of driving on the knob display: Eco, Comfort, Sport and Sport+, but didn't get to test them properly. The paddle shifters made me feel like an F1 driver. I couldn't find a GPS on the dash display and I missed a backup camera being available. The turn signal indicator annoyed me and my wife with its sharp, child's toy thumb clicker-like cricket sound.

While we were tending to other matters, the dealer called and needed another hour labor to update the software so the diagnostics of the check engine light could be done. ??? The work was done and we returned to pick up our old car after traveling only 12 miles in the Courtesy Car. The check engine light was out, and a high speed miss that I'd noticed before was gone on our way home! Maybe I don't need a new ignition coil after all!

Area members are still meeting at Tekela Mexican restaurant, Perrysburg, the second Tuesday of each month.

No Area activities are planned, because Chapter events have been keeping our needs supplied, though we have gained some new members. You can join the fun too. ■

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## Racing Wheel Engineering 101

By David Schardt and Jim Schardt

One thing is true of every car that competes in SCCA; they all ride on wheels. Whether it's an original Morris Mini rolling on 10-inch stamped steel wheels, or a Porsche 911 GT3 RS with center-lock carbon fiber 21s, we all use wheels and we all tend to take them for granted. But just as much engineering goes into a good set of racing wheels as into any other part of the car.

Racing wheels must meet certain basic requirements, and only a few of these are well-understood by the average racer. First, a racing wheel must have the correct rim width, offset, center bore, lug bolt pattern, and brake clearance. That much we all know. But a racing wheel must also be designed to perform for at least three race seasons or 10,000 race miles without a structural failure.

Additionally, racing wheels should also meet some extra requirements, including light weight, high stiffness, resistance to corrosion, cleanability, repairability, and impact resistance. On top of all that, we'd like them to be good-looking on the car, too. That's a lot to ask, but mostly we just expect it to happen.

### The Life of a Racing Wheel

Many factors can affect a racing wheel's functional life. The average racing wheel goes through far more sets of tires than its street-going cousins, and it operates under much harsher conditions. Wheel life factors include the base material the wheel is made from, the type of tires used, the weight of the car, downforce exerted on the wheels, and any damage that the wheel may suffer. You also have to allow for the occasional manufacturing or materials defect. We'll look at each of these factors in order.

#### Base Material

Materials currently used in racing wheels include cast aluminum, forged aluminum, magnesium, and carbon fiber. Of course steel is still in use, too, but except in classes like Formula Vee, steel has largely been replaced with alloys in SCCA racing.

Wheel materials are selected for several important factors:

- Strength – must be strong enough to withstand required forces
- Elongation – high elongation allows bending instead of breaking
- Fatigue resistance – must withstand many cycles at high stress
- Specific gravity – lower density provides lower weight per volume
- Raw material cost – adds to final price
- Ease of manufacturing – difficult manufacturing adds to price

Figure 1 details the tradeoffs inherent in differing wheel materials. Predictably, wheels with high ratings in some areas have less attractive ratings in others – usually in the form of a high price for materials like carbon fiber, forged aluminum, or magnesium.

	Tensile Strength	Yield Strength	Elongation	Endurance limit *	Specific gravity	Cost	Ease of manufacture	Wheel price range
	psi	psi	%	psi	lbs/ cu in	\$/lb	Easy = 1 Difficult = 10	\$
6061 Forged Al	45,000	40,000	15	14,000	0.100	1.80	6	800-1500
A356 cast Al / Flowform	29,000	24,000	4	10,000	0.100	1.00	3	100-500
AZ91T6 cast mag	40,000	22,000	6	13,000	0.066	1.70	4	1000+
Carbon fiber	200,000	200,000	0	150,000	0.050	15.00	10	2000-3000
Steel 1015	60,000	40,000	35	30,000	0.280	0.30	3	25-75

\* Endurance limit - material will not fail up to 100,000,000 cycles at this stress

### Figure 1 Wheel Materials Comparison

The materials listed in Figure 1 are 6061 forged aluminum, A356 cast aluminum, AZ91 cast magnesium, carbon fiber, and 1015 steel. Tensile and yield strength respectively represent the stresses in pounds per square inch (psi) that would cause breakage or start to deform the material. Elongation demonstrates the percentage of stretch the material would endure before

breaking. Any of these materials would make a satisfactory wheel. However, certain materials would allow a stronger, lighter wheel, but at a higher price point.

#### Editor's note:

Nicky is away on business, but enlisted her brother-in-law, Dave Schardt, President of Forgeline Wheels, and her father-in-law, Jim Schardt, Forgeline engineer and President of Dayton Wire Wheel from 1970-2001, to provide a suitable replacement for her Girls Gone Driving column.

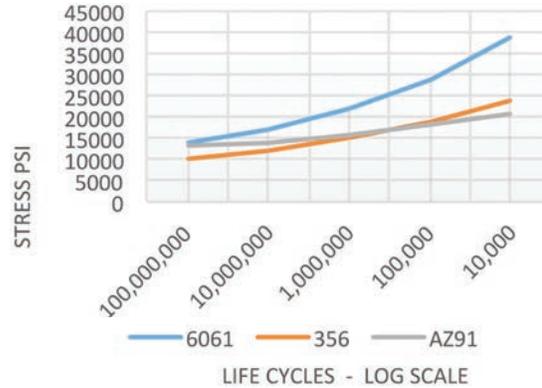
The resulting article is fascinating and highly informative, but unfortunately too long to fit in one issue of the Driving Light. Rather than split it over several issues, the entire article will be posted on the Buckeye Chapter web site: [www.buckeyebmwcca.org](http://www.buckeyebmwcca.org)

An additional way of looking at wheel materials is to determine when the material will break at various stresses. Figure 2 and Graph 2 show the expected life cycles of various materials at different stresses.

**Figure 2 Life Cycles vs Stress**

LIFE CYCLES	6061 Aluminum STRESS PSI	356A Cast Aluminum STRESS PSI	AZ91 Cast Magnesium STRESS PSI
100,000,000	14000	10000	13,000
10,000,000	17000	12000	14000
1,000,000	22000	15000	16000
100,000	29000	19000	18500
10,000	39000	24000	21,000

**Graph 2 Life Cycles vs Stress**



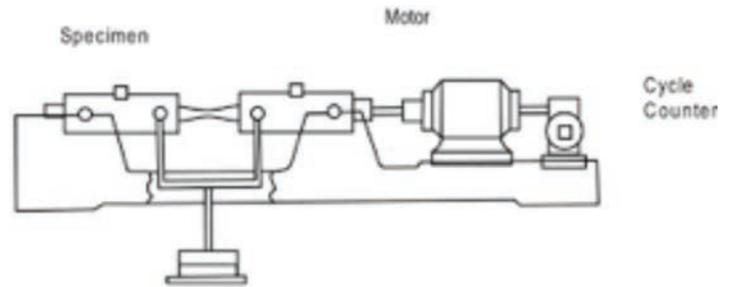
The data is obtained by using an RR Moore rotating beam test machine, shown in Figure 3. A material specimen is machined to a standard size and placed in the machine where specific stresses are applied, and then the part is rotated until it breaks. The number of cycles can then be plotted against the specific stress imposed.

**Figure 3 – RR Moore Rotating Beam Test**

**Tire Stresses**

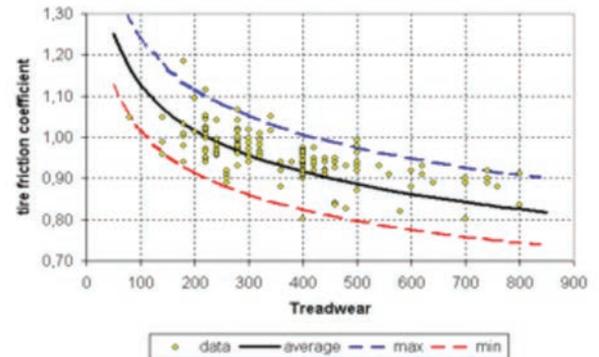
Wheel life is directly related to the stress occurring from side forces generated by tire friction. Tires can be considered to fall into three different classifications: street tires, DOT race tires, and racing slicks.

Street tires can have a friction coefficient from 0.7 to 1.0 depending on the treadwear rating. In the 1970s the tire friction coefficient was generally in the range of 0.7-0.8. However, today's high performance tires can have a much higher coefficient of friction. Tire Rack performed a study between 2002 and 2010 to show the current relationship between treadwear and tire friction coefficient. The results are summarized in Graph 4.



**Graph 4 Tire Friction Coefficient and Treadwear**

DOT race tires are another step up from high performance tires and have a coefficient of friction in the 1.2 range. Race slicks can have a friction coefficient of 1.5 or more depending on construction, compound, car weight, and car speed. Also, note that even though the coefficient may be specified as only 1.5 by the manufacturer, cars with downforce will have an apparent coefficient well above 1.5.



*Continued at [www.buckeyebmwcca.org](http://www.buckeyebmwcca.org)*

**OUTSTANDING CHAPTER VOLUNTEER NORTH CENTRAL REGION**

Earlier this year the National office requested nominations for several awards. These awards were developed to recognize individuals, chapters, and businesses for their outstanding achievements.

One of these awards is the **Outstanding Chapter Volunteer**, which embodies the following characteristics:

- Volunteers at most chapter events, and at Regional and National events
- Promotes membership
- Helps in the planning of Chapter functions /events
- Has a vast knowledge of BMW CCA
- Has a reputation for going above and beyond
- Provides articles for their chapter newsletters/website

The winner was announced at the recent Chapter Congress with one award per National Region. For the North Central region the 2015 Outstanding Chapter Volunteer is our own **Dohn Roush**! Congratulations to Dohn on well-deserved recognition for all your efforts as a member of the Buckeye Chapter.

– George Saylor

BMW Car Club  
of America  
Buckeye Chapter



Buckeye Chapter  
BMW Car Club of America  
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