Fall 2015



The Official BMW CCA Lone Star Chapter Magazine



Meeting Minutes

9-13-15

New Business: Updates/Direction Focus on the printing of the newsletter Holiday party - and asking if Lincoln Tech will be available January Invite Regional Rep Talking up OktoberFest M-Sport Manager from NJ Invite some other speakers (Valentine) \$2000-\$3000 budget Saturday. (Watch college and super bowl) How to work with other groups >We need to discuss the idea of cooperating with other clubs on combined activities. But the discussion must be on the benefits of doing so, not the negative aspects. I'm sure you all saw the exchanges via email. Especially my final comments as well as what Karen had to say. Another club asked for help in filling an event. Track Events: Some group allows convertibles or not. Nothing to do with insurance. At national - president gave control to a DEC (Driving Events Coordinator) group that defines how things can be run. Should we push for equality for all members (convertibles included). Allowed at AutoCross Coordinating other events, we need to have our common rule sets (so there is no confusion on rules) If another group participates with us, would we force the convertible rules? Can we then run in a mixed setting or do we have to have separate run groups. This could lead to cooperation and gaining bigger purchasing power. Going back to the objection - competition; liability (none). We can share the event on Facebook. When can we send an email: Include in "other car activities" in the monthly emails. Example: Car shows - creating email address lists. Movie Night options National has a library of movies; Renting a movie theater; Consider drive-ins. Possible options. Chapter renting Performance Center >BMW is offering a 1 day M school at Greer for \$20,000 or Palm Springs for \$23,500 for 32 Students. At Greer, this is \$625 and Palm Springs is \$735. I would think we could put this out to the full membership and see what kind of interest there is. National Capital and Tarheel chapters do two a year. Where else can you thrash somebody else's M3, M4 and M5 for a full day of fun. Combine with a Tour? Greer could combine things. Maybe 15 want to drive there? Maybe we get 20 people committed and then drop after that. Do it 6 month opposite from Trifecta. Goal: Aug 2016 on the way to OktoberFest 23-28 of 8/2016; Legends is weekend before (tickets through club) Over CB, do not state your speed; this is a public airwave. Continued on page 21

Board Meetings are held at 2p.m. on the Second Sunday of each odd numbered month at Jack Mac's Swill and Grill in Plano, Tx.

From the Editor

Many things can change in a season. Days get shorter. Leaves fall from trees, and temperatures dip, if only some, in Texas. This season, my son is beginning team sports (he's playing lacrosse, and he's not too bad at it!) My husband is also embarking on a new career. And me? I'm finding my focus is changing. I'm looking at those in my circle, and those I can bring in. How can I make my life richer? How can I strengthen the bonds of friendship, and better myself as a person?

So with all that said, I am stepping down as editor of the dBR; this will be my last issue. I know this may be a bit of a shock to those of you who actually read this, but I feel it's time. I have enjoyed my time with the boys, and Karen at our board meetings. I have also enjoyed what the dBR has become. I take pride in what the publication is today, and I noticed how the new Roundel cover looks remarkably similar to ours. Honestly, I almost changed my mind about leaving **because** I'm so proud of the dBR. But I know in my heart that I don't have the focus that a good editor needs, and that the dBR deserves. As a designer, I also know what can happen to a product when there's no focus.

It is my sincerest beleif that this publication should be handed off to someone who will love it, and will take it to that next level. To that end, I will hand off my InDesign master-files, font files, and standards to whomever desides to take on this role.

So, I say my goodbyes, and I issue you a challenge. Are you the next Editor?

Sarah Hamilton Editor Click

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Introducing the New M4 GTS

BMW Group New Jersey

 BMW announced the new 2016 BMW M4 GTS, giving BMW M GmbH a new and exclusive technological masterpiece which elevates the potential of the BMW M4 Coupe to an impressive new level. With its powerful, motorsport-inspired looks and high-performance technology, the BMW M4 GTS has its sights set squarely on the race track. Thanks to an innovative water injection system helping boost power to 493 bHP and track ready chassis, this Special Edition M vehicle recorded a lap time of 7 minutes 28 seconds around the legendary Nürburgring-Nordschleife, the world's most challenging race circuit, making a clear statement about this model's exceptional dynamic abilities. At the same time, the sharpest BMW M4 of all can also hold its own on public roads. BMW M GmbH is launching the BMW M4 GTS in a special edition limited to 700 units worldwide, with 300 units of this high-performance Special Edition M4 available for the first time in the US market. In so doing, it is highlighting the innovative flair of the BMW M engineers in developing trailblazing M technologies on the powertrain, chassis and lightweight construction fronts.

"Special Edition models sharpen the character of the BMW M brand and embody an emotionally rich and exclusive driving experience. We've taken a radical route with the set-up of the BMW M4 GTS to create a sports machine for the race track that delivers top-end dynamics and inspirational performance. It allows us to demonstrate what is possible today with a road-legal car. Owners can drive their BMW M4 GTS to circuits such as Spa-Francorchamps, the Nürburgring or Laguna Seca – for clubsport events, for example – and then set lap times there that raise the bar to extremely high levels for road-legal cars."

says Frank van Meel, CEO of BMW M GmbH.

Performance boost courtesy of innovative water injection.

At the heart of each and every BMW M model is its engine. The BMW M4 GTS uses the multi-award-winning M TwinPower Turbo 6-cylinder in-line engine from the BMW M4, capable of 7,600 rpm but adds innovative water injection technology to give the 3.0-liter unit a substantial power boost. Unusually high-revving for a turbocharged engine, it offers linear power delivery over a wide engine speed range. An innovative water injection system, used for the first time in a road car, takes this 6-cylinder in-line turbocharged unit to new performance heights by relaxing the thermal constraints on power and torque. The system has already proved itself on race tracks around the world on board the BMW M4 MotoGP Safety Car, this year's lead safety car in the world's top motorcycle racing series.

The engine develops its maximum power of 493 bHP – an increase of 16 percent over the BMW M4 – at 6,250 rpm. Peak torque has been increased by 10 percent to 442 lb-ft, and is maintained over a very wide rev band (4,000 rpm to 5,500 rpm). It accelerates from a standstill to 60 mph in a mere 3.7 seconds, on the way to a governed top speed of 189.5 mph. Despite the significant extra power, the engine also excels on fuel efficiency, providing similar levels to those found in the BMW M4 Coupe.

Innovative water injection system.

The BMW M4 GTS is the first production road car to be fitted with a trailblazing water injection system. With this arrangement, the BMW M engineers have utilized the principle that water absorbs heat from the surrounding air when it changes phases. Water is injected as a fine spray into the intake manifold plenum chamber where it evaporates (phase change), significantly lowering the temperature of the intake air. This action reduces the final compression temperature in the combustion chamber, minimizes the risk of knock and allows the turbocharged engine to operate with higher boost pressure and advanced spark timing. The result is increased power and torque, and a substantial improvement in efficiency. Despite the extra power output, thermal stress on all performance-related components is reduced. All of these features ultimately help to diminish wear and prolong engine life.

Increased power, reduced full-throttle fuel consumption.

The benefits of water injection can be utilized in various ways, depending on engine and vehicle type. In particular the engineers have considerable latitude when deciding how to balance their priorities between increased power and fuel efficiency. If water injection is taken into account in the design of a high-performance engine right from the start, it is possible to use turbochargers with a higher boost ratio and compression ratio. At the same time, power losses due to an increase in ambient temperature (> 68° F) can be compensated by increasing the amount of water injected.

The engineering behind intake temperature.

The output of an internal combustion engine is physically limited by the operating temperature in the combustion chamber. If a given operating temperature is exceeded, this will result in uncontrolled combustion (knock), leading to power losses and, in the worst case, to severe engine damage. This is particularly relevant in the case of turbocharged engines, where the intake air is heated in the turbocharger compressor to as



much as 320° F. Although intercooling can be used to cool the pressurized air, the capacity of intercooling systems is physically limited. Depending on the design and size of the system, and the aerodynamics of the vehicle, it is only possible to use an intercooler to reduce the intake air temperature by as much as 160° F before it enters the plenum chamber. This means that simply rising engine power by increasing boost pressure is not an option as it would mean exceeding the knock threshold.

This is where the BMW M division's solution comes in: if water is injected in a fine spray mist into the intake plenum chamber, it is possible to reduce the temperature of the intake air by an additional 80° F. This further cooling of the pressurized air makes it possible to advance the spark timing closer to the optimal value. This results in a more efficient combustion process, while at the same time reducing the final combustion temperature. An additional advantage is the fact that cool air is more dense which increases the amount of oxygen in the combustion mixture and results in a higher mean combustion pressure, leading to optimized power and torque development. This efficient in-cylinder cooling system also reduces the thermal stress on a broad range of components including not only the pistons, exhaust valves and catalytic converter but also, due to the lower exhaust gas temperatures, the turbocharger.

Water injection raises the knock threshold.

Using water injection to raise the knock threshold also goes a long way towards resolving a fundamental conflict in the design of high-performance engines, caused by the fact that power output and fuel consumption are closely dependent on compression ratio. This is particularly true in the case of highly turbocharged engines like the M TwinPower Turbo 6-cylinder in-line engine. Here, a high compression ratio provides high efficiency and low fuel consumption at low and medium throttle. In the full-throttle range, however, the compression ratio is limited by the knock threshold. Water injection provides a particularly effective way of raising the knock threshold, allowing for a higher compression ratio. The end result is optimized power output over a wide operating range. The BMW M division's engineers opted for an arrangement of three water injectors in the intake plenum chamber where each supply water to two of the straight-6 engine's cylinders. This solution makes for uniform water distribution and a compact system design.

An underfloor compartment in the trunk houses a 1.3 gallon water tank, the water pump, sensors and valves. The pump and all the sensors and actuators are controlled by an expanded engine management system. The pump supplies water to the injectors at a pressure of approximately 145 psi. The injection quantity can be varied depending on load, engine speed and temperature, which helps to keep water consumption to a minimum. Under hard driving on the track, the water tank might have to be topped up every time the vehicle is refueled. However under normal everyday operating conditions, the intervals are much longer. Even in highway driving, the water tank only needs topping up at every fifth refueling interval. Otherwise the system is maintenance-free, for maximum everyday practicality. The BMW M water injection system is equipped with a sophisticated self-diagnosis system. If the water tank runs dry, or in the event of a system malfunction, appropriate measures are taken to protect the engine. Boost pressure and spark timing are adjusted, allowing the engine to continue to operate safely. Even when things are working normally, a variety of



precautions are taken to keep the system fully functional. Every time the engine is switched off, all the water in the hose system is drained into the tank to prevent system components from icing up in sub-zero temperatures. The water tank is frost-proof.

Additional engine highlights.

The BMW M4 GTS turbocharged engine features a very rigid closed-deck crankcase design that makes it possible to develop higher pressure in the cylinder for improved power output. Instead of liners, the cylinder bores feature a twin-wire arc-sprayed coating, which results in a significant reduction in engine weight.

On the track, the high performance capability of the BMW M4 GTS places extra demands on the engine oil supply system. In designing this system, the BMW M division has once again taken full advantage of its extensive motorsport experience. The aluminum oil sump is designed to limit the movement of the oil under the influence of strong lateral forces, while an oil suction pump and a sophisticated oil return system to the turbocharger help to maintain stable oil circulation under extreme acceleration and deceleration.

M TwinPower Turbo technology.

The BMW M4 GTS engine's M TwinPower Turbo package comprises two fast-responding mono-scroll turbochargers, High Precision Injection, VALVETRONIC variable valve lift control and Double-VANOS continuously variable camshaft timing. The result is smooth and efficient power delivery with extremely sharp response.

7-speed M double-clutch transmission with Drivelogic.

The BMW M Division's 7-speed M double-clutch transmission with Drivelogic (M DCT) sets standards in terms of smooth power delivery, lightning quick up-shift gear changes, perfect rev-matching downshifts and track-ready design. In addition to automatic shifting, this highly advanced transmission also enables shifting without torque interruption, using the steering wheel shift paddles or center console mounted gear lever. Manual mode also offers a specially configured Launch Control system that provides ultra-fast acceleration off the line, with optimal gear changes for the subsequent upshifts.



Drivelogic offers a choice of three shift programs.

The Drivelogic program for the 7-speed M double-clutch transmission offers three selectable shift programs, which can be engaged using the Drivelogic button on the center console. These programs differ in terms of engagement speed and the rpm points at which the gearshifts take place. The spectrum ranges from extremely sporty to a more relaxed, yet dynamic shifting. A further M function, Stability Clutch Control, provides assistance in sporty driving situations. It automatically disengages the clutch when necessary to prevent oversteer.

Unbeatable precision and clear feedback chassis.

The BMW M division specializes in developing cars that combine precise steering, outstanding agility with a refined driving experience and superb traction and stability. All BMW M models - including the new BMW M4 GTS - unite excellent track capability that has been tested on the Nürburgring Nordschleife (North Loop), the most challenging racing circuit in the world, with high standards of everyday driveability. At the same time, the BMW M4 GTS's enhanced performance and track capabilities are backed up by additional refinements on the chassis front.

Aluminum and Carbon-Fiber construction support the "Ultimate Driving Machine".

First and foremost, an ultra-dynamic driving experience depends on a suspension system that combines low weight with high stiffness. Just like the BMW M4, the BMW M4 GTS is equipped with lightweight aluminum control arms, wheel carriers and axle subframes. On the double-joint spring-strut front axle alone, this cuts weight by more than 10 pounds compared with conventional steel components. Play-free ball joints and specially developed elastomer bearings provide optimal, direct transmission of longitudinal and transverse forces. The aluminum stiffening plate, CFRP front strut tower brace and additional bolted connections between the axle subframe and body structure all make for a stiffer front end.

At the rear, all control arms and wheel carriers on the five-link axle are of forged aluminum, which reduces the unsprung masses by more than 6 pounds compared with a conventional design. The racing-derived rigid connection between the rear axle subframe and the body, dispensing with rubber bushings, improves wheel location and tracking stability.

Specially designed full three-way M coilover suspension

The BMW M4 GTS features a three-way adjustable coilover suspension with mechanically adjustable compression and rebound settings, with precise independent adjustment of lowspeed and high-speed compression. This allows the suspension to be customized to the characteristics of different tracks. Moreover, the anti-roll bars and support mounts are closely matched to the significantly increased engine power and are specifically designed for the "Ultimate Driving Machine".

Precise engineering also extend to the steering system.

The steering system has also been adapted to the BMW M4 GTS's track capabilities. The steering torque curve, always critical for a smooth steering feel, has been further optimized by modifications to the front suspension kinematics and the incorporation of features such as asymmetric steering support mounts and a motorsport-derived, custom-designed, milled swivel bearing. This design allows optimized axle geometry for lateral dynamics and steering torque, which again translates to enhanced driving dynamics. The swivel bearing also allows the use of 9.5 inch wide front wheels. The higher damper clamp in conjunction with the ball joint in the front axle support mount results in substantially increased camber stiffness. It also provides faster response to lateral forces, which is already enhanced by the wider wheels. For further improved lateral grip, the BMW M engineers have retained the 19-inch front tires, while the rear axle makes use of 10.5 inch wide wheels running on 20 inch diameter tires. The front camber setting has been adapted to a minus two degree setting for increased cornering lateral forces.

Other features helping to add an extra edge to the driving dynamics include the rear differential's hollow lightweight output shafts and the Active M Differential. To optimize traction and stability, the latter uses an electronically controlled multi-plate limited-slip differential, which is adapted to the significantly enhanced performance capability of the BMW M4 GTS. The multi-plate limited-slip differential is proactively controlled with extremely high precision and speed. Its control unit is linked to the Dynamic Stability Control (DSC) system and takes into account accelerator pedal position, wheel speeds and vehicle yaw. All driving situations can therefore be precisely analyzed and an imminent loss of traction at one side of the vehicle is identified at a very early stage. When necessary, the system reacts with split-second speed to vary the locking action, which can be anywhere between zero and 100 percent. This prevents wheel spin on low-traction surfaces, on split-traction surfaces with a big difference in friction coefficient between the left and right rear wheels, on tight hairpin bends or during fast steering maneuvers. The optimized traction also provides superb stability in challenging conditions and allows to optimally transfer the power to the ground while accelerating out of corners.

High-tech carbon construction reduces weight.

Like the BMW M4 Coupe, the BMW M4 GTS has a carbon-fiber-reinforced plastic (CFRP) roof that is more than 13 pounds lighter than a corresponding metal roof. Lightweight, robust CFRP is also used for the hood, which is approximately 25 percent lighter than its aluminum counterpart on the BMW M4. Both of these lightweight components play an important role in lowering the center of gravity (CG) and improving axle load distribution. In the BMW M4 GTS, BMW reaps the benefits of its many years' experience in high-tech carbon construction. The use of CFRP continues under the skin as well, for example in components such as the instrument panel support.

The contoured roof line with the typical center channel carries over into the trunk lid, emphasizing the very sporty personality of the BMW M4 GTS. The geometry of the trunklid, which is made of CFRP and plastic, is precisely designed to optimize the rear aerodynamics and to help direct air to the lightweight CFRP rear spoiler. The spoiler is attached to the trunk lid by two CNC-milled aluminum supports, each consisting of an intricate strut arrangement that optimally combines high stiffness with very low weight.

Lightweight exposed carbon fiber is also on display in the adjustable splitter underneath the BMW M4 GTS's front apron and in the rear apron diffuser. Exterior lightweight design measures continue with the exclusive forged, machine-polished, low-weight BMW M star-spoke wheels in Acid Orange and the M carbon ceramic brakes, both of which not only cut down on overall weight but also significantly reduce unsprung masses. The M engineers have also extended their uncompromising focus on lightweight engineering to the sports exhaust system, which features a titanium rear silencer. The BMW M4 GTS's sports exhaust system produces an authentic racing engine note while providing a 20 percent weight reduction when compared to a stainless steel component.

Extensive weight reduction continues under the skin.

Needless to say, lightweight engineering is not just confined to the visible areas of the body. For example, the BMW M4 GTS's single-piece driveshaft is made of carbon-fiber-reinforced plastic (CFRP), which is even lighter than the corresponding component in the BMW M4. The low mass and high stiffness of the CFRP means that the driveshaft can be produced as a single-piece component, without a center bearing. This achieves weight savings of 40 percent over a conventional component, with a simultaneous reduction in rotating masses. This in turn results in improved powertrain dynamics and better response.

Authentic racing feel in the interior.

The many lightweight features in the interior of the BMW M4 GTS don't just save weight, they also exude an authentic racing feel. This Special Edition vehicle is fitted with different bucket-style M sports seats in Alcantara (including lightweight backrests with cut-outs). In between the seats, the BMW M4 GTS boasts a new, asymmetrically styled lightweight center console that shaves around 30 percent off the weight of the corresponding component in the BMW M4 Coupe.

A further weight-saving measure is the deletion of the rear seats. This area is now trimmed in glass-fiber-reinforced plastic (GFRP), with a carbon sandwich bulkhead to the rear. Both of these elements are designed for reduced weight, a lower center of gravity and maximum stiffness. The across-the-board lightweight engineering approach also extends to the door panel trim and rear side panel trim with modified design geometry and special lightweight construction based on renewable natural materials. Conventional door handles are replaced by door release pull loops, while Alcantara trim makes an appearance only on the armrests. The weight of the door panel trim has been reduced in half compared with standard components.

Three-dimensional front-end design.

Viewed from the front, the visual features that stand out the most are its muscular contours and the prominent three-dimensionality of its lines, which lend it a particularly expressive *Continued on page 22*





Rally, Oh Rally, What Art Thou?

Ray Mimick Photos by Ray Mimick

For the lucky few of us that got to participate, it was a great treasure hunt (at least clues to lead to an answer). There are many types of rallies but the basic definition has been a group of cars driving toward an unknown destination with a series of instructions to lead them to the end point. One type of rally, the Time, Speed, Distance (TSD) rally is very difficult to organize and difficult to excel at. If you ever get a chance to go to BMW CCA Oktoberfest and participate in this type of rally, it's fun but a challenge.

At the end of August, Brian George spent many hours designing our Gimmick Rally. The basic idea is that we started at one place, follow his instructions and look for the answers to the questions he presented and reach the end point. This rally was not timed, so it was up to the driver/navigator team to determine how much time they wanted to spend to find the answers to the questions. When we first announced the rally, we had a lot of interest. As more details came about (specifically the length of time you would need to be driving around), we lost a big group of our participants.

Brian created a 250 mile route and along that route, we had little things to find...here's an example of the instructions

Exit Reverchon Park, Turn Left onto Maple Avenue and continue until further instructed.

Turn Left onto Oak Lawn Avenue and continue until further instructed.

* When was Old Parkland established?

As you look at this question, the easy part is the "turn left" command. Now what are you looking for specifically - probably a year or an exact date. As we are sitting at the light to turn left, you are looking around and trying to enjoy the nice scenery and see the following image:



So there is the answer - 1894, written in stone. OK, so this might not be too bad...

Four teams left Reverchon Park with high hopes of winning this contest.

Our teams: Steven and Kristina Fratus (not sure if they came up with a special team name), Jack and Nicole Lounsbury, Dennis and Kathy Alexander, and Gerald Wineinger and Raymond Mimick (we decided on RayGer as a "team" name).

Brian gave us our initial instruction and sent us off in pairs with a few minutes between each team. Steven (driver) and Kristina (navigator) started off in the black M coupe and we did not see them again until we made it to the half-way point in Sulfur Springs. Then we had Jack and Nicole roll out in their 528i, with Nicole starting out at the driver and Jack as the navigator - we found out later that the "spirited driving" parts were taken by Jack on some of the roads. Dennis (navigator) and Kathy (driver) rolled out of the starting gate with comments about coming in 2nd place in a prior rally, so we have some experienced rally people. The RayGer team left last with high expectations of winning - no other way to go on that one.

Rolling down I-30 east bound, we encountered some light rain that caused us to pause for a Top-Up event. Of course, once we got to Rockwall, Gerald was showing off how fast you can Drop-the-Top. Somewhere along this route we miss the clue "Fill in the blank: Pappa _____ Trading Post." You never realize that you missed it until you get to the next clue and realize the clue follow the route as you move along.

The next clue was "3 Buffalo I see. Come and look at me. Where could the 4th one be?"

Well, here we are standing in front of these. Guess it's time to do a 360 and look around. Oh, there you are... all the way over there at that apartment complex...

And so the clues and instructions go. Some were straight forward, but it was most interesting that you really can't just "Google" the answer - you had to be there to find the real answer.

Gerald and I spent some extra time rolling down FM 514 looking for the answer *"What university does Randy Taylor root for?*"

First pass was quick. Returning over the same road, a little slower. Final trip back on route, we are looking at every mail box, every building looking for any color or any information. Found out a few of the groups asked some residents at the gas station and got the answer "UT." Oh well, win some, lose some.

When we finally met up with Brian at the mid-point check point, the other teams had left or were just leaving. Steven and Kristina were just walking back to their car when they told us we should drive down a little further. Brian found it enjoyable to watch the teams look for the answers to the clues, wishing to say "hotter/colder." No worries, we finally found the answers we needed.







Here we are at noon and we still have four more pages of instructions to go. We've already been traveling for about 3 hours. As we continued down the roads less traveled, more "gimmicks" were related to the historical markers found alongside the roads.

It was quite interesting how "educational" this rally became.

If you had little kids, they might have found some of these interesting. I thought the best one was the Giles Academy and the source of our local Hockaday School for girls. I've worked with these ladies on different Habitat for Humanity houses and the values instilled in this school (and other private schools) are amazing. These students have a high work ethic and are amazing.

Of course some historical markers are in strange places. I think all teams found location of the gimmick "What is the exact title of Historical Marker 6941" interesting. The road was an intersection of all kinds of roads and the arrows the historical marker were pointing all kinds of directions...

Surprisingly, the RayGer team caught up with the Alexanders in the Mini.

We finally made it into Paris, TX and to our destination at Jaxx Gourmet Burgers. There we find two other teams have arrived and Brian is grading the gimmicks. Correct answers give you 1 point.

Brian stated early on that the rally would take about five and a half hours. The RayGer team started about 9:00 am and arrived at 3:15 pm, so about 5.25 hours.



Final results:

1st: Tie with 46 points for Gerald Wineinger/Ray Mimick and Steven Fratus/Kristina Fratus

3rd: 44 points by Jack Lousbury/Nicole Lounsbury 4th: Dennis and Kathy Alexander with 32 points

Congrats to the participants and thank you Brian We hope on the next Rally opportunity you can join us. It's a blast trying to spot these answers as you are cruising down the Texas roads.



Out on Adventures?! Send in your stories.



BMW CCA Lone Star Chapter Opens Store

Gerald Wineinger

 $F_{\rm inally,}$ there is a place where you can buy all your BMW CCA gear, specific to your local chapter. The Lone Star Chapter has opened a new webstore.

The new, online Club Store will allow members to support the Lone Star Chapter while looking great in BMW CCA Lone Chapter gear, accessories and other items! Merchandise has been handpicked to ensure the quality is what members expect! Clothing is easy to care for and comes in a wide size range. Check out all of our Club Gear specially branded items on our Webstore on our Web site. And be sure to watch for new gear as items come available with each season.

Purchases will be shipped to members within 7 business days directly from the supplier.

Click the link below to browse our current offerings!





Sociably Social...

Ray Mimick Photos by Ray Mimick

On a beautiful night at the beginning of August, Jack and Billie opened their house to hosting a Social event for the club. They brought out all the stops: decorations, catering, cars, movie room and being a great host.

As we trickled in, we found a great layout of food and we got to meet a few new people like Alex and his wife from East Fort Worth. Alex has been a member of the club since the very early days. George Zimmerman arrived and started pointing out how Alex had the car everyone admired, back in the day. I think there might be more stories hidden away.

George and Jim Doutre had a personal exchange - Hawaiian shirt for wine. Now, those that know Jim, know he is our resident sommelier (wine expert) but he was pitted against George, our resident expert on all kinds of this and that, moonlighting as a chemical engineer. The exchange went down pool side and both walked away happy.

More people keep arriving, providing an even more diverse mix of friends. One member of the evening led the group to examine the new Corvette C7 body style (hey, we are all car people here, right?). With comparison of the newest Corvette, it lead to the comparison with the BMW i8 and how they look and operate.

A little bit later into the evening, we drew our door prizes and had some enthusiastic winners.

To make the evening even better, Michael Nied brought the BMW Documentary Adrenalin and we all went upstairs and had a great movie night to end a great event.







OMMCHALLOV/EEN



THE NEXT HPDE will be at Eagle Canyon on October 31 and November 1; yes, a Halloween Event. Eagle's Canyoon is repaving the complex, and registration for the event will open July 28 on Motorsportreg.

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Living With the N54

Ray Mimick

For the lucky few, we've been able to purchase an awesome vehicle that we love but sometimes have issues with. When you buy a new car, you expect all good things - the car working perfectly for years to come if we follow the maintenance recommendations from the manufacturer. My own car, a 2008 535i, has been enjoyable but at the same time, needed some repairs.

Based on our last tour to the Talimena Scenic Byway and subsequent social event in August, I've found a number of our cars with the "N54" engine have had similar problems, mostly related to the turbo system.

For those who have never heard of the term N54, BMW names their engines as they are developed.

Obviously, there have been a number of engines developed over the course of BMW's life, such as the BMW M54 engine that drove most of the early 2000 x30i cars (x is 3-series, 5-series, etc). The current engine in the x35i cars is the N55 engine, a single turbo with the "twin-scroll" option. When it was released in 2007/2008 - 2011 model year cars, this engine won the Ward's 10 Best Engine award and overall, we can all see how well it has held up in our fun cars. One of the reasons our engines are so much fun is because they have lots of torque (even stock). Jim Doutre dynoed his @ about 50k miles and it produce 3 pulls of 331 lbs @ the rear wheels. The manual tells you we have 300 lbs @ the flywheel. That's a lot more than the outgoing 8 cylinder m3 put out and total weight is lighter. So what follows is my own experience with a 2008 BMW 535i car (bought in June 2008).

First, when you see "Engine Malfunction. Reduced power," you need to recall the words from that famous book Hitchhikers Guide to the Galaxy when it says "Don't Panic." It took me six years to figure out that every message like this is really a general error warning. I remember the first time it happened going down the highway around 70 mph within the first year of ownership. I hit that "SOS" button pretty quickly thinking that BMW technical support can remotely diagnosis my car. Wishful thinking. We stopped, checked the gas cap, power cycled the car and the error just magically went away. OK, really it didn't go away but that is how you determine if you have a more serious problem or a minor inconvenience. Now, mind you, this was a first year new engine in my car and that comes with all kinds of new possible problems. My first real issue came in May 2009 (9k) related to the Fuel Pump and an engine misfire! A misfire in a modern car? What? Looks like BMW had used a few diesel parts to provide the fuel pressure needed for the turbo functions. After a software update, things seemed pretty good.

A year later, we started noticing longer crank times to start the car. By September 2010, BMW issued a recall on the High Pressure Fuel Pump. That fixed the longer crank times and we moved through another year without engine troubles. In April 2011, the 535i had almost 33,000 miles and we had another recall that replaced the fuel injectors on the car.

So here we are, coming up on four years and in April 2012 at 45k, the car needed the Electronic Throttle Body replaced. This was an interesting problem where you watch the Tachometer

and the engine is doing something entirely different. What in the world? Of course after you notice this is happening, a check engine light is thrown. I will say, so far, I've never been stranded with the car. This is a very good thing.

So here we are, rolling into 2013, 5 years after our initial purchase and we are feeling that we should have this car pretty well shaken out - no more real issues, right?

Oh, it just keeps going.

August 2013 at 61k miles (after an awesome day at the Auto Cross in Mineral Wells), the car generated the Engine Malfunction message. This one was an interesting new problem - the Turbo Charge Air Pipe had to be

replaced. Now, if you've been keeping up on your reading of Roundel, you know that it is recommended to change the spark plugs about this time, too. So, since I'm here, we get the spark plugs changed out and it helped smooth out the rough idle at start up.

Regarding the Turbo Charge Air Pipe – this should have been covered by the extended warranty but if you've had to replace this piece of hardware, you will find out that it is a plastic component and the extended warranty does not cover plastic components. Talking with Michael Nied at our social event, he had this same problem with his 1M coupe at about the same mileage. I replaced the broken plastic component with another factory component. Michael said he replaced his with a lightweight aluminum component. Jim Doutre, during our drive through the Talimena Scenic Byway in July, had the same problem in his 135i (2009 N54 car). Jim replaced it with another factory OEM part. Now this looks like a potential pattern that we all hope you do not experience. If I experience the same problem again, a non-plastic replacement will probably be on my list.

So, moving on to April 2014 (73k), during our trip to the Hill Country, my car generated the dreaded Engine Malfunction this one became the Low Fuel Pressure sensor. Overall, this one

did not affect the running of the engine but was easily cleared by power-cycling the car. Now, as I was having this one fixed, the technician found I had an Oil leak around the Oil Filter housing, so we took care of that issue at the same time.

Now, that should be all the repairs 2014 experience but there's more. I was able to attend OktoberFest in Colorado and that one generated the famous message. This time, I had an O2 (Oxygen) sensor replaced. The N54 engine has 2 physical turbos. That means, the car has 6 O2 sensors - 1 for incoming air, 1 for each incoming turbo air, 1 for each outbound turbo air, and 1 final outbound sensor. Luckily, I only had 1 sensor have a problem in the mountains. I probably could have power cycled and ignored it - this was the Ah Ha moment that we need to just "Don't Panic."

Now we arrive to 2015. This year, I've had a few Engine Malfunctions pop-up during acceleration around town. Easily



ignored as the car did not seem to be negatively affected. That is until you head to Big Bend with a group and your car is the one with a problem. Luckily, we were turning north back toward I-20 on our return trip when I receive the dreaded message and the loss of turbo functionality (sigh).

My April (87k) return to the dealer found a Faulty Exhaust Vanos Solenoid value in the turbo.

It was also recommended to replace the Turbo Vacuum hoses as a preventative measure (since rubber will deteriorate). So far, so good....until August (90k).

This latest (and hopefully last) trip to the dealer had a replacement of the Turbo Bypass Tube - looks like it cracked or had a leak.

Now, this was not written to scare you away from our cars, but more about some planning items. Michael has heard that it is recommended to change your electric water pump somewhere around 60k. I asked my advisor at Classic BMW about this and he said it is not necessary as they fail at random times and no guarantees one way or the other. If you race your car or take long trips, it's something to consider.

We'll see where our next trip will take us, but so far, the main engine has been fine and even when the turbos are lost, the car can move down the road - a little slower but still in comfort.

So, if you continue to keep your car after that 4 year, 50k warranty period, make plans to spend between \$3,000 and \$5,000 for maintenance items as they crop up. Don't forget to enjoy your car and I hope to see you out there and share your story.

Up	<image/> <section-header></section-header>			
11	Fall Tour to Eureka Springs	<mark>Best Western Eureka Inn</mark>		
ост	Oct 11 - Oct 13 · Gerald Wineinger is going	Eureka Springs, AR		
LATER THIS MONTH				
31	HPDE at Eagles Canyon	Eagle Canyon Raceway		
<mark>ост</mark>	Oct 31 - Nov 1 · by Lone Star Chapter BMWCCA	Decatur, TX		
NEXT MONTH				
08	November Board Meeting	Jack Mac's Swill & Grill		
Nov	Sun 2 PM · by Lone Star Chapter BMWCCA	Dallas, TX		
14	Auto Cross #9	Mineral Wells Airport		
NOV	Sat 9 AM · by Lone Star Chapter BMWCCA	Mineral Wells, TX		
15 NOV	Sunday Afternoon Drive Sun 2:30 PM · by Lone Star Chapter BMWCCA			

BMW Announces Member Recognition Program

Throughout the history of the BMW CCA, outstanding individuals, chapters and businesses have supported The Club in many ways. It is appropriate that this passion, enthusiasm and commitment to The Club be recognized. The BMW CCA recognizes and honors individual club members for outstanding achievements and exceptional dedication. Within the structure of the Club, some Chapters go far beyond BMW CCA Minimum Standards. A Chapter that consistently exceeds expectations may be recognized for that achievement. The Club also recognizes and honors members of Industry whose contributions to the Club and its members go far above and beyond normal business practices. If you would like more information, or would like to nominate someone, please go to the national website (<u>https://www.bmwcca.org/recognition-program</u>).

Social

s and busi-



Congratulations,

The BMW Lonestar Chapter would like to congratulations David McBee. He was the lucky winner of the final "Flash Drawing" prize - a BMW CCA Lifetime Membership from COYD!

for Sept)

MailChimp Status

meeting (22 posts; 50 people "engaged" on the Aug 1st)

Monthly Update (Sent/Opened):

Twitter Followers (July 20 followers; 21

Minutes continued

AutoCross Statuses: Past Events - how many events, participant counts, feedback, issues 68 people yesterday and done at 4p 55 last month What percentage of BMW? 40% **Future Events** 2 more events In April as a potential combined with car show and tour New Issues? Financially great; Novice class is doing good. AutoCross email list is growing Loved the new banner How can we get spectators converted to auto cross? Cookout \$2000 for Lone Star 1532 at TMS 200 for Mineral Wells **Touring Status:** Past Events - how many events, participant counts, feedback, issues Talimena Some issues with the N54 engine 20+ people Rally is good 4 cars Loco Coyote 12 cars and 14 people **Future Events** Possible Rally in January Scramble the street names Poker runs... (find the stations to get your cards) Oct 11-13 (Sun-Tues) - Eureka springs Something in Mid-Nov Dec - Toy drive; if the Ferrari club is not doing it, we can consider doing it -WFAA. New Issues? CBs: 3 were given to Michael when he took over. Safety issue. Est \$500; go ahead and purchase. Tourmeisters to monitor and keep track of them. Credit card DE and Club Racing (Bruce Heersink) Past Events Hallet: Mike Ura liked it. Lone Star DE events are missing the social event. Most of our participants are not an all weekend event. 4 Lone Star Members participating. TWS: Large group; 22-24 cars. First session, 2 cars ran off. More intense **Future Events** Eagles Canyon will re-pave; Halloween Weekend; Oct 31st - Nov 1st. No Excuses Driving School.com Need a T-Shirt (see past business to see needs) Maybe a Trunk or Treat event out

there would be good.

Car decorated for racing.

Orange and Black colors.

2002 with Black Bats Skeletons popping out of truck (scary truck) New Hotels in Decatur: Mark W: To provide hotel info. Steve (need to get him to define): Theme Flyer Article Art work - send a broadcast email out; Bill Buck? We need to be doing a better advertising process - email process; Texas Trifecta status Proposed Dates: Extra date Discounted - January, July or August; January event sponsored by Houston at TWS What if we do January and August MSR in June; ECR in Oct January - TWS or COTA April 1-3rd - Trifecta with MFEST June 11-12th - LSC DE at MSR Aug 10-13th - at COTA 23-28th - Ofest Sept 2-4th: Hallet ECR next November Goal: Club racing - needs to have a schedule; 75-150 people participate. COTA at 300 people. Ask Steve to find someone that went from Novice to Excited. New Issues Need: Hospitality chair for DE (make sure water is distributed and you can get free track). Want restaurant/hotel experience; T-Shirt design status for Eagles Canyon Oct 31st-Nov 1st. Approve design - Steve and Matt and Mark. >Sarah needs to know what format EMG requires Past Events Aug 1st: Jack and Billie Rogers: good event and funded by Jack **Future Events**

1156 with 43.5% opens; 3.1% clicks Auto Cross - 307 subscribers; 47.6% opens; 3.6% clicks Touring - 211 subscribers, 57.1% opens; 4.3% clicks Newsletter: ~86 people opened the newsletter out of our 1200 people. How can we get the national magazine people to assist with setting up our newsletters? Can we ask EMG to setup the editing of the newsletter? **Treasurer Status** Chapter Store Sales - \$70.82 from EMG; \$250/year to host site. \$2000 of inventory; \$366 of sold items **Banking Issues** Čredit Card Fraud New Bank Possibility: No move desired. Credit Card for Tour Group Card is destroyed and new user to setup. Current at \$45k **Membership Status** Current Member Count: 1256, up from 1237 How many do not have email addresses: 117 members (9.3%) Feedback from members, etc.

Newsletter Printing DBr Both are about \$2600; negotiate for 4 printings per year. Calendar Getting something from the Club Check Facebook, Twitter, etc. To open emails - better subject line. Status/Articles, content Past or Future DBr Need more contributors Member Interests Why did you decide on your car? Member Recognition Program dBr note Sarah did not have info, therefore not included; Needs to be provided to Sarah. Nomination process Any received responses Financials Included Advertising for Chapter Store Reach out to SMU to see if they have anyone that could help edit Street Survival Full roster - 30 students

Facebook Likes: Increasing (July 722; Sept 750)

Postings created since last

Christmas: Holiday party

Borris Sed

we are OK. Newsletter is coming up.

in different regions?;

Secretary Stand-point

Social Media Status

Post-Chirstmas;

Possible Location: Lincoln

Franco: Mini lunches for different groups

Find some people that might want

to list themselves as the BMW club

Technical January 9th

and setup some events

Any missing National forms/submissions? No,

Next meeting 11/8

Next one: Spring;

Bill is out there

GTS continued

face. Characteristic design elements, such as a cutting-edge design take on the familiar twin circular headlamps with LED technology, the eye-catching front grille with M double bars in black and the powerfully sculpted front apron with its trio of large air intakes, dedicated to cooling the high-performance engine and brakes, immediately set it apart as the work of BMW M and spotlight its even more sportier pretensions. Needless to say, the BMW M4 GTS also features the striking M exterior mirrors in twin-stalk style and hallmark powerdome on the hood. The carbon-fiber-reinforced plastic (CFRP) hood is painted in body color and features a large air outlet. Thanks to the use of CFRP, the hood weighs 25 percent less than an aluminum equivalent, which helps both to lower the car's center of gravity and further improve the balance of weight between the front and rear axle. The air outlet on the hood optimizes the airflow and reduces lift at the front axle. The front end's weight-minimized splitter is made from lightweight exposed carbon fiber, has a contrasting stripe in bright Acid Orange running along its leading edge and can be set in two positions for road or track. The splitter divides the surging air, channeling part of it deliberately under the car to optimize aerodynamics. Here, the airflow is accelerated on its way to the carbon-fiber diffuser at the rear.

Low-slung silhouette, dynamic lines.

The flanks of the BMW M4 GTS pick up the dynamic verve of its front end and extend it rearwards. Hallmark BMW proportions – long hood, long wheelbase, set-back greenhouse, short overhangs – are emphasized by M design elements. Muscular wheel arches and dramatic surfacing translate the dynamic potential of the BMW M4 GTS into tangible form. This potential is accentuated by the M gills – in high-gloss black like the kidney grille surround – which fulfills both a stylistic and functional role. The gills house Air Breathers, which team up with Air Curtains in the front apron to optimize airflow through the wheel arches and enhance aerodynamics in the process.

The combination of a dark-colored, clear-coated CFRP roof and contoured roofline gives the BMW M4 GTS a hunkered-down look, with the cant rails painted in body color perceived as the car's highest point. The flowing roofline lends an extra touch of elegance to the ultra-sporty appearance of the BMW M4 GTS. The large, forged M light-alloy wheels, featuring distinctive star-spoke design in Acid Orange and polished surfacing, appear to fill the wheel arches even more completely and give the BMW M4 GTS a compact, powerful appearance. The car's lines pick up speed again as they stream rearwards, accentuate the body's aerodynamic flow and, at the same time, add muscle to the rear end.

Rear wing and diffuser made from lightweight CFRP.

The back end of the BMW M4 GTS can be distinguished clearly from that of the BMW M4 Coupe. On the trunk lid, for example, an adjustable carbon-fiber rear wing resting on intricate, CNC-machined aluminum struts provides a head-turning design feature. The rear wing can be adjusted through three positions - one for road driving and two others that can be selected according to individual preference on the track. Identifying features of the BMW M4 include the flared rear wheel arches which, together with the car's wide track, underline its confident appearance. The double-chamber exhaust system, with its two pairs of tailpipes, is another signature BMW M feature. Here, the titanium tailpipes - with their 80-millimeter diameter and laser-engraved M logo - are another reference to the standalone character of the BMW M4 GTS. They are framed by a clearly structured rear apron and flank the exposed carbon-fiber diffuser. The diffuser forms a single aerodynamic unit with the rear wing and front splitter, which is likewise made from carbon fiber. They work together to optimize airflow and, in so doing, improve downforce and roadholding

The trunk lid of the BMW M4 GTS also performs an integral aerodynamic role. Its specifically contoured lines channel the air at the rear of the car and improve airflow to the rear wing. In this way, the pair of lines spawned by the powerdome on the hood and extending over the CFRP roof in clearly defined contours

reach their journey's end at the trunk lid.

The rear lights of the BMW M4 GTS are the first of any series-produced vehicle to feature BMW Organic Light with OLED technology. OLEDs (organic light-emitting diodes) generate their light using wafer-thin layers of semi-conducting organic materials. Unlike LEDs, which emit their light in the form of points, OLEDs light up over their full surface with a homogeneous effect.

Pure-bred, exclusive interior offers flawless ergonomics.

The M sports steering wheel, likewise covered in exclusive, anthracite-colored Alcantara, represents a clear nod to motor racing and is exceptionally grippy. A perforated stripe in contrasting Acid Orange at the "12 o'clock" position on the wheel marks the steering's central positon, which comes in handy when the driver is pushing hard on the track. The Alcantara-covered interior trim strip has a perforated GTS badge with Acid Orange highlighting. The interior door panels and rear side panels also include lightweight design elements produced specially for the BMW M4 GTS. These display a new, purist geometry and are made from renewable raw materials. For example, the handles normally found on the inside of the doors are replaced here by pull loops which, like the seat belts, also come in black and feature longitudinal stripes in the signature M colors. Together with the Alcantara covering used for the armrests only, the door trim deepens the stripped-back and purpose-driven character of the interior.

A central feature of the interior is the roll bar, which is made from high-strength steels and mounted behind the front seats. Its Acid Orange paint finish provides another color accent, and its influence is not confined to the interior; visible from the outside, it also helps shape the overall perception of the BMW M4 GTS and signals the car's sense of purpose and racing intent. A fire extinguisher containing two kilograms of extinguishing agent is another safety feature of the interior. It is fitted centrally behind the front seats within easy reach of both driver and passenger.

2014 BMW CCA CHAPTER FINANCIAL STATEMENT WORKSHEET

FEDERAL ID	75-2342801
ASSETS	
Cash in bank accounts	133917.44
Accounts receivable	0.00
Other:	0.00
Total assets	133,917.44
LIABILITIES & EQUITY	
Accounts payable	0.00
Other:	0.00
Equity/retained earnings	133917.44
Total liabilities and equity	133,917.44
INCOME STATEMENT	
INCOME (See NOTE below)	
Membership dues	23508.31
Rebates from National	0.00
Advertising revenue	0.00
Driving school fees	223869.02
Street Survival Rebates/CCC	3372.00
Other event fees (Auto-x)	9659.17
Interest	7.60
Total Misc./other income	937.19
Total income	261,353.29
EXPENSES	
Insurance	8535.00
Driving school expenses	122780.93
Street Survival/CCC expenses	1785.07
Meeting expenses	651.25
Other event expenses (Auto-x)	13623.19
Total Misc./other expenses	1634.34



Lone Star Chapter ВмW Car Club of America



