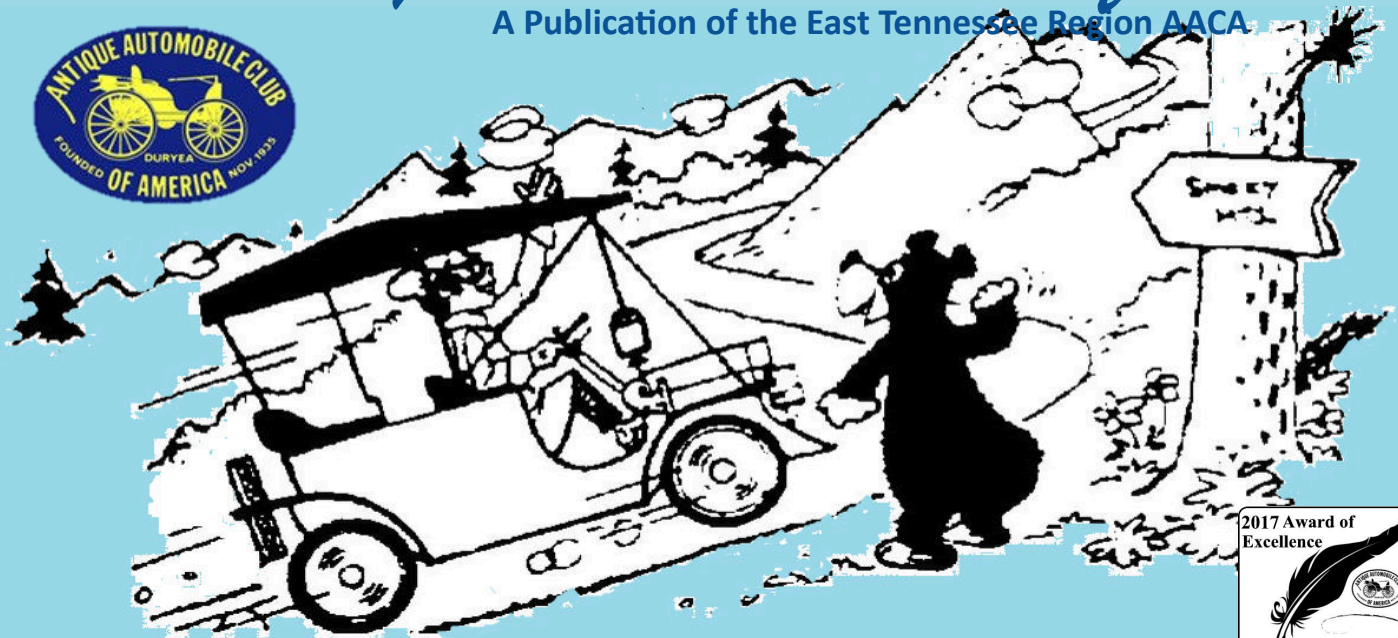


# Smoky Mountain Antiquer

A Publication of the East Tennessee Region AACA



January—February 2018

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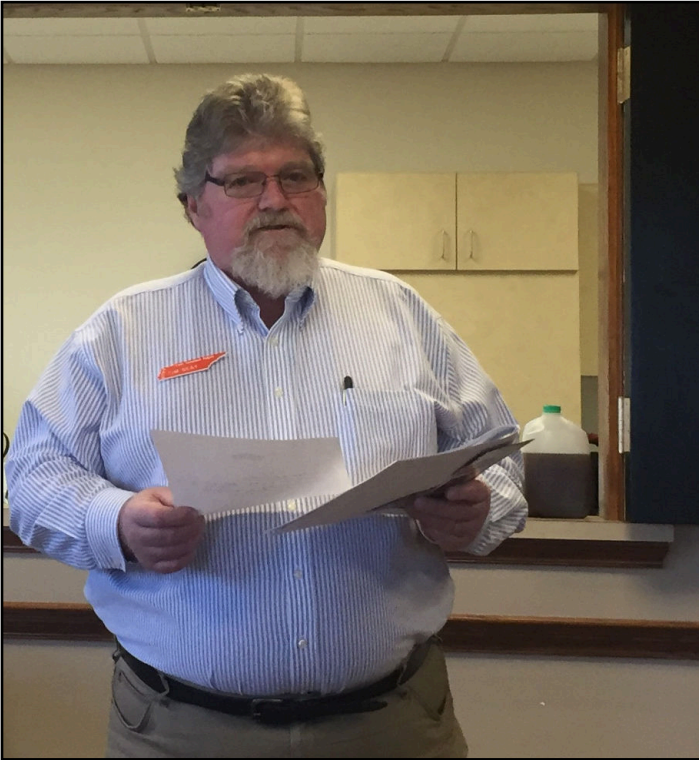


This magnificent 1926 Willys Knight, owned by Robert Broeze of Yardley PA, was among the classic cars on display at the AACA 2018 Annual Meeting. Mr. Broeze has just completed a 10-year restoration of the automobile.



# January Planning Meeting Results in a Calendar Full of Tours and Events for the East Tennessee Region

The meeting room was filled to capacity as members of the East Tennessee Region gathered to plan the key events and tours for 2018.



President Tim Seay calls the January Planning Meeting to order and makes announcements to the group.

Prior to the business of the day, everyone enjoyed soups and desserts provided by the great cooks in the club. The soup supper is a welcome tradition during the annual planning meeting.

After supper, Events Coordinator Sherry Seay took the floor and requested volunteers and ideas for the upcoming year. Tom and Nancy Trame were the first to step up. "Put us down for July," Tom Trame said, "The rest is a surprise!"

With that ice-breaker, more volunteers stepped up and the calendar filled quickly with interesting tours and events, including: an overnight tour to Nashville, hosted by the Varadys; a June trip to the Newport Car Show, hosted by George Hodges and the Williams; a technical presentation and tour of Daniel Paransky's machine shop, hosted by Daniel; and an August tour to the Summer Nights in Somerset KY, hosted by the Seays.

Other events include a tour of Denzo Manufacturing on March 21, hosted by the Quillins, and a driving tour to Cumberland Gap National Park, hosted by the Lewallens and the Frazees.

A complete listing of the 2018 tours and events is shown on page seven.

During the meeting, Blake McCampbell expressed his appreciation for the outpouring of love from club members after the loss of his mother. He also gave an update on Sue McCampbell's progress with her chemotherapy treatments. Blake then took the opportunity to read a tribute to his late friend and ETR Historian Randy Moats.

Also during the meeting, Treasurer Charlie Simpson provided a report on his recent trip to the Barrett Jackson auction in Scottsdale AZ. Charlie assured members that the club treasury is still intact and that he refrained from using the region's funds to bid on the cars at Barrett Jackson.



Treasurer Charlie Simpson (left) and John Payne enjoy Charlie's report on his recent trip to the Barrett Jackson Auction.



# A Full House for the Cabin Fever Therapy Event!

By Sandra Quillin

*Editor's Note: We sincerely appreciate the work that the Quillins and the Seays did in hosting this event; as well as the participation of everyone who provided exhibits and shared their expertise with the club.*

Wow! We had a 3-hour meeting scheduled but members did not want to leave after 4 hours! We were having fun, learning so much about our fellow members, learning a ton of ETR history, sharing automotive recollections and discussing automotive history.

Members shared in a very exciting, educational afternoon!

Those who spoke to the group included:

- ◆ Tim Seay: Miata memorabilia, models, etc.
- ◆ George Hodges: Knife collection
- ◆ Tom Howard: Automobile scrapbooks, rare auto models, memorabilia from national years and national tours, some early ETR club items
- ◆ Sis Howard: Paintings she painted, salt & pepper shaker collection



Ray Yates talks about his photography hobby and explains his photo of an F4 Phantom fighter.

- ◆ Blake McCampbell: Early ETR AACA shirts and jacket, belonging to his parents
- ◆ Bill Jurkonie: T-Bird memorabilia
- ◆ Sharon Jurkonie: T-Bird model cars and T-Bird story



Sis Howard displays a few of her original paintings and shares the stories associated with them.

- ◆ J.W. Weeks: Collections of mementos, photos, models, tabletop juke box
- ◆ Pat Weeks: Ladies Head bud vases
- ◆ Robert Quillin: Pocket watches
- ◆ Sandra Quillin: Wall hangings and other crafts
- ◆ Dr. Ray Yates: Photographs during his military experiences
- ◆ Art Fensod: Toy soldiers, hood ornaments, WWI tank, model cars, political figures
- ◆ Daniel Paransky: Model trains, yellow Sprint car that Dan built
- ◆ John Ross: Soda bottle collection
- ◆ Diane Ross: Model car collection
- ◆ Jerry Hodge: Unusual license plate collection
- ◆ Tom Christenberry: Zenith Award he won at AACA and information about his Corvette
- ◆ Len Royston: display of his 2016 Packard showing at Keeneland Concours d'Elegance and Founders tour experience

*Continued next page*



## February Cabin Fever Therapy Event

*Continued from previous page*

This event was held in the community room at TN Bank which was filled to capacity! 41 members attended this event and 19 members displayed their hobbies, mementos, collections, and pieces of ETR history.



Art Fensod shares some of his political memorabilia with the group.

We saw numerous model cars, photos, portraits, hood ornaments, railroad models, toy soldiers, crafts, license plates, automotive awards, banners, ETR shirts and jacket, knives, soda bottles, pocket watches, salt and pepper shakers, Lady head bud vases, and many automotive books, scrapbooks, and manuals.

We had many compliments about the event and numerous requests to repeat this activity again in the future! If we do repeat this activity, we will have to find a larger space!

We appreciated the many compliments about the day and the efforts by so many members who willingly brought numerous items to display and who shared such great stories and memories of early ETR AACA and automotive history!

## Kidde Fire Extinguisher Recall

By Victor Varady



After reading about the Kidde Fire Extinguisher recall and hearing about it from several friends I decided to do a survey of my home and vehicle fire extinguisher collection. This took some time as I did not collect all the required information at the first pass and I had to make a second pass to get all the models, manufacturing dates and serial numbers. After I gathered all the required information I called Kidde (1-855-262-3540) and spoke with a Customer Service Agent. They gave me a Case ID number and took my information. She said that it would be after Christmas and before the end of January that I would be getting replacement units. Sure enough, the first four came right after Christmas and the next seven came two weeks later. It took about a week for me to gather the old units and repackage them in the boxes that the new ones came in. I applied the shipping labels (with hazzardous designation) and called FedEx for a pick-up. They arranged for the pick-up the next day.

All of the affected units had plastic valves and were not refillable. On most of the units the needle on the pressure gauge showed a reading in the red area. None had been discharged by use. A few looked good. Of all the units in my house and garage, all were Kidde except for two. Both of those other ones were in the red zone. The replacement units have metal valves and the box says that they are refillable. I have not called one of the local fire extinguisher refill shops to verify this.

Kidde made fire extinguishers for many brands including Fire Away, Fuller Brush, Home, Mariner, Montgomery Ward, Sanford, Sears, Traveler, Volunteer, XL and others. A complete list is available on the Kidde website. Kidde is one of the United Technology companies that manufacture Otis Elevators and Pratt & Whitney jet engines and many other things..

Home Depot (Kidde), Lowes (First Alert-Ansul) and Wal-Mart (Kidde) carry various sizes. You should check your house and vehicles and replace what has been recalled and get new ones where you do not have any.

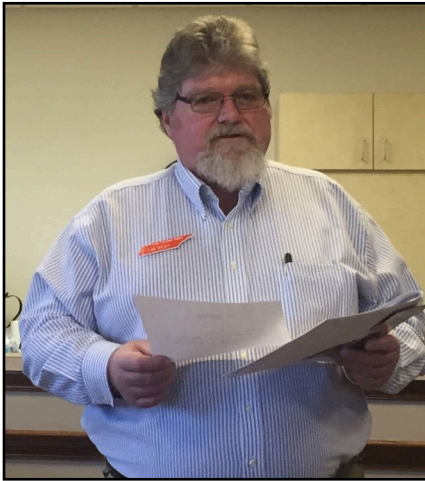
I gave one to my son who lost a car in New England some years ago due to a transmission oil line spraying fluid on an exhaust pipe. He did not have one in the car and the restaurant that we stopped at had a large one that was empty. I will be checking all my other cars to make sure they all have operable units.

The new units have metal valves are guaranteed for 6 years. I put a sticker on each new unit with the month and year that it was put in service.



## As the Wheel Turns

Brought to You by Our President, Tim Seay



It seems like only yesterday that we were basking in the traditions of the holidays. The special experiences that we look forward to each year during Christmas and New Year become the traditions that bring us comfort and joy. The monthly club meeting that was held February 25<sup>th</sup> stirred me to think about traditions of the

ETR, those that have been long standing and perhaps some that could become new additions.

The hosts of the meeting, Robert and Sandra Quillin, asked members to bring items or information about hobbies or collections that they would like to share with other club members. Response was very enthusiastic as evidenced by the large attendance. What a wonderful way to get to better know fellow club members.

The East Tennessee Region Chapter of the AACA is one of the oldest, being founded in 1957. During the February meeting, I developed an even greater appreciation for the ETR's traditions and rich history. One of the members since 1957, Blake McCampbell, was in attendance as were two former national presidents, Tom Howard and Jerry Hodge. Many stories of bygone traditions were shared.

Maybe a meeting of this type can become a new tradition to include in our calendar of events.

One of the things I hope to accomplish during my term as president is to develop a plan for the club to acquire, preserve and share artifacts and memorabilia pertaining to the ETR's long and illustrious history that members would like to donate or loan to the club. I hope every member will share my passion for this project and will join my efforts to make this dream become a reality.

**Visit [WWW.ETR.AACA.COM](http://WWW.ETR.AACA.COM) for the Latest News and Updates for the East Tennessee Region AACA**

## Editors' Corner

From Editors Jan and Roger Frazee

"Go where the cars are!" That sentiment echoed in the halls during the 2018 AACA Annual Meeting in Philadelphia.

It is always fun to gather with friends in the club and it's great to get our old cars out and tour the back roads together. While we often

attract the attention of other motorists and bystanders, we can and should do more to promote the antique car hobby and let the public know there is an antique car club in the community that is alive, energetic, and welcoming of new members.

There is a thriving group of young car people in our community who enjoys gathering at cruise-ins, car shows, and cars-and-coffee events. Although they may not be driving the cars of our youth and they may not be driving purely-stock automobiles, they are having fun with their rides. And, they love to talk about their cars, and learn more about ours.

The nostalgia of an older generation can be a new frontier for younger folks. Many young car enthusiasts would welcome the opportunity to learn about our strange devices, like carburetors, drum brakes, and three-speed column shifters.

How do we connect with them? First, we need to bring our cars out to the events that attract other gearheads. And once we're at a community car event, we need to introduce ourselves to the other car owners, hand them an ETR brochure (available on our website) and invite them to our next club event. Setting up a table and displaying the club banner would take our outreach a step further and would be a great way to sign up new members, especially young members.

Too often, antique car people are seen as "old fuddy-duddies" or elitists who turn their noses up at street rods or newer collectable cars. But the truth is, most of us enjoy seeing and learning about other cars. And, most other car owners enjoy seeing and learning about our antique iron.

Finding a common ground with other auto enthusiasts is easy. We just need to get out there; meet, mingle, and talk with them.





## East Tennessee Region AACA Planning Meeting Minutes

TN BANK MARYVILLE

January 21, 2018

President: Tim Seay, Present; Vice President: Tom Howard, Present; Secretary: Sharon Jurkonie, Present; Treasurer: Charlie Simpson, Present; Lafayette Williams, Past Pres, Absent; Bill Jurkonie, Director, Present; Robert Quillin, Director, Present; Robert Quillin, Director, Present; Vic Varady, Director, Present; J.W. Weeks, Director, Present; Roger Frazee, Newsletter Editor, Present; Jan Frazee, Newsletter Editor, Absent; Sherry Seay, Events Coord, Present.

**CALL TO ORDER:** The meeting was called to order by President Tim Seay at 2:15 p.m.

**PRESIDENT'S WELCOME:** Tim Seay welcomed all of the members and introduced the Officers and Board members present. There was a total of 34 members at the meeting.

Tim mentioned the ETR windshield flyers are available on line. He also had the AACA car shaped brochure for those who wanted a supply.

Blake McCampbell updated us on the health of Sue. Blake also read to the members his thoughts about losing his good friend, and ETR member, Randy Moats. Randy was the club Historian. Tim would like the club to preserve any of the data Randy had collected.

Tim also commented on the passing of Tracy Rollin's father asking the club to keep he and Loretta in their thoughts.

**FOOD:** At 2:30, J.W. Weeks offered the blessing for the food. We all enjoyed the soups, sandwiches and sides as well as the many desserts all prepared by the wonderful ETR cooks. Tim asked that the tables be thinking about tour ideas as we ate.

**2018 EVENT PLANNING:** At 3:20, Events Coordinator, Sherry Seay, took over the planning portion of the meeting. She explained one \$50 award would be for the 'official' Saturday/Sunday driving tour with food in the month. She also said those first time hosts could ask any of the Board members or seasoned hosts to co-host with them. Sherry will be posting the events to the members when she has put it all together.

### January Board Meeting Summary

By Sharon Jurkonie

New ETR President, Tim Seay, conducted his first Board meeting on January 17.

One of the main topics for discussion was unpaid ETR and National dues. Dues were due the end of the year. We must, according to National mandate, drop anyone who has not paid their dues to National or ETR. We always hesitate to do that as folks get busy and forget. Some of you received a personal phone call in order to keep you on the roster. Thank you for following through.

Roger and Jan Frazee, our Antiquer Editors, are looking for tech articles for the newsletter. If you happen to come across an article in another publication that you feel would be of interest to the members, let Roger know. He will get the necessary permission to put it in the Antiquer.

Sherry Seay is putting together all of the tour ideas for a great year of events in 2018. Watch your email for the listing.

The Board is currently looking into scholarship programs with regard to automotive restoration, mechanics, etc. to attract youth to the hobby.

New membership for Beverly and Robbie Gray was approved by the Board. We look forward to meeting them.

**March 21**

**ETR Tour of the Denso  
Manufacturing Company**

**Hosted By Robert and  
Sandra Quillin**

**Check the ETR Website for  
Details as they Develop.**

**DENSO**



## ETR 2018 Calendar of Events

### 2018 Officers and Board

**President:**

**Tim Seay**

([timaseay@gmail.com](mailto:timaseay@gmail.com))

**Vice President:**

**Tom Howard**

**Secretary:**

**Sharon Jurkonie**

**Treasurer:**

**Charlie Simpson**

**Immediate Past**

**President:**

**Lafayette Williams**

**Board Members:**

**Robert Quillin**

**Bill Jurkonie**

**J. W. Weeks**

**Vic Varady**

**Events Coordinator:**

**Sherry Seay**

**Newsletter Editors:**

**Roger Frazee**

([rkfrazee@gmail.com](mailto:rkfrazee@gmail.com))

**Jan Frazee**

**Webmaster**

**Roger Frazee**

**March 21, 2018:**

Denso Tour. Hosted by Robert and Sandra Quillin

**April 21, 2018:**

Spring Driving Tour to Cumberland Gap National Park. Hosted by Roger and Jan Frazee, RG and Sherry Lewallen

**May 19, 2018:**

Driving Tour/Tech Day (not confirmed)

**May 20, 2018:**

Event Date confirmed (details to follow)

**June 16, 2018:**

Newport Car Show. Hosted by George Hodges

**July 14, 2018:**

Mystery Tour. Hosted by Tom & Nancy Trame

**August 25, 2018:**

Somerset Car Show (Kentucky). Hosted by Tim and Sherry Seay, Robert and Sandra Quillin

**September, 2018:**

Lane Museum-Nashville-Overnight (no date at this time). Hosted by Vic and Linda Varady

**October 13, 2018:**

Auto Fest (Smokies Stadium). Hosted by Bill & Sharon Jurkonie

**October 20, 2018:**

Bald River Falls/Fish Hatchery w/Classic Ford Club

**November 12:**

Knoxville Veterans Day Parade

**November 18, 2018:**

Business Meeting. Hosted by Tim and Sherry Seay

**December:**

Christmas party. Hosted by Sylvia Witt and Janice Williams



## 2018 AACA National Events

**March 2018**

22-24 National Winter Meet, Mobile AL., sponsored by the Deep South Region

**April 2018**

5-7 - Charlotte, NC - AACA Southeastern Spring Meet, sponsored by the Hornets Nest Region

20-21 - Tucson, AZ - AACA Western Spring Meet, sponsored by the Tucson Region

**May 2018**

11-12 - Auburn, IN - AACA Central Spring Meet

31 - June 2 - Greensburg, PA - AACA Annual Grand National, sponsored by the Western PA Region

**June 2018**

25-29 -Lock Haven, PA – Eastern Divisional Tour – hosted by Bob Giles and Tom Roberts

**July 2018**

11-14 – Gettysburg, PA – AACA Eastern Spring Meet, sponsored by the Chesapeake Region AACA

**August 2018**

20-24 – Geneva, NY – AACA Reliability Tour, sponsored by Genesee Valley Antique Car Society Region AACA and Wayne Drumlins Region AACA

**September 2018**

12-15 – Texas Panhale, TX – AACA Central Divisional Tour, sponsored by Amarillo Region 16-21 - Twin Falls, ID Revival AAA Glidden Tour

**October 2018**

10-13 - Hershey, PA - AACA Eastern Fall Meet, sponsored by the Hershey Region AACA

21-26 - Metropolis, IL - Founders Tour, sponsored by S. Illinois Region & Ohio Valley Chapter

**November 2018**

5-9 - Natchez, MS - Sentimental Tour, sponsored by Louisiana Region (Progressive Tour)



# Remembering Charter Member Mary McCampbell



Mary and Emory McCampbell drove their Nash Metropolitan on a National AACA Founders Tour.

Mary McCampbell and her husband, Emory, were charter members of the East Tennessee Region and were the first of four generations to participate in the activities and success of our club.

Mary passed away in January at the age of 96. She was a resident of Townsend TN.

A graduate of Alcoa High School, she attended Maryville College and worked at ALCOA in the lab during WW II. Married in 1944, she was a proud wife, mother, grandmother, and great grandmother who enjoyed a career at Blount Memorial Hospital in the Medical Records Department, where she retired after 24 years of service.

Mary and her husband, Emory, were very active in regional and national events. Their son and daughter-in-law, Blake and Sue McCampbell, continue to be active members of the club as do their granddaughter Angie Kizer, her husband, Preston, and their daughter, Lindsey.

The McCampbell's leadership in the AACA began in 1956 when Emory answered a classified ad that Charlie and Kenneth placed seeking members of the community who would be interested in forming an antique car club.

After joining the club and assisting with the AACA charter, Emory and Mary purchased a Model A roadster from an owner in Wisconsin and began the restoration of the car. The Ford has now been restored for the second time and is driven

regularly during ETR events by their son and "charter brat" Blake McCampbell.

"Dad worked the graveyard shift," Blake said "so Mom would drive the A Model on tours." Blake recalled the day when, as a boy, he was riding with his mother in the 1930 Ford. Suddenly the skies opened up in a torrential rain storm. Mary and Blake quickly put the side curtains on the car in order to stay dry.

"I'd rather get wet than to ride in a Model A with the side curtains on," Blake recalled, remembering how muggy it can be inside a closed-up roadster.

The second antique car Emory and Mary owned was a 1961 Nash Metropolitan convertible. Together, the couple drove



Mary and her son Blake McCampbell celebrate the 1958 Hillbilly Homecoming in the Model A Roadster that Blake still owns.

the Nash on many national tours including Founders Tour in Georgia. They also drove the little car to a Metropolitan convention in Wisconsin.

As an active member of the East Tennessee Region, Mary McCampbell worked to organize the 1969 Glidden Tour and later, a national meet hosted by the club. She also participated in bake sales and other fundraisers for the young club.

Today, the legacy of Mary and Emory McCampbell lives on in the East Tennessee Region. In addition to the Model A and Nash Metropolitan that Blake and Sue now own; Angie, Preston and Lindsey can often be seen driving the red Oldsmobile 442 that Mary and Emory purchased new in 1968.





# Annual AACA Meeting Focuses on New Headquarters, Youth Involvement, and Membership Growth

Fly Eagles Fly! Those words echoed in the streets of Philadelphia as hundreds of AACA members converged on downtown Philadelphia for the 82nd annual meeting.

Many meeting attendees arrived while the Eagles Superbowl Celebration was in full swing just outside the doors of the Philadelphia Sheraton Hotel. The revelry of the Eagles fans added energy to the atmosphere of the meeting, where youth involvement in the AACA was one of the major themes of the gathering.



Incoming President Chuck Crane (center) introduces the new board, including VP of Judging Jim Elliot (left) and VP of Web Site Development Mary Bartemeyer (right).

The meeting included two days of seminars which featured dozens of automobile topics, from garage art to the history of the Ford V8 engine. Many seminars ran concurrently, which often made it difficult to choose between meetings.

One seminar of particular interest was presented by the Alfred State University Student Chapter, AACA. A group of Alfred State students formed a chapter of the club and proceeded to restore a Dodge Power Wagon wrecker. Once the project was finished, they entered the vehicle in the Great Race events of 2016 and 2017. The group plans to drive the tow truck in the 2018 race, which will begin in Buffalo NY and terminate in Nova Scotia, a trip of 2,200 miles.

After the seminars concluded on Saturday afternoon, the attendees participated in the official AACA Membership Meeting. The 2018 officers were installed during the meeting, as was the new Board.

Outgoing president Tom Cox outlined plans for renovating the club's new headquarters. The move is expected to occur in 2019. The building, which the club acquired last year, will house both the administrative offices and the Library and Research Center.

Executive Director Steve Moskowitz briefed the membership on plans to affiliate the AACA with various museums throughout the country. The club has just secured an affiliation with the Simone Foundation Automotive Museum in Philadelphia. Mr. Moskowitz envisions the day when the AACA will be represented in automobile museums throughout the country.

In his acceptance speech, incoming president Chuck Crane, from Hendersonville NC, stated that his emphasis in 2018 will be on increasing AACA membership, and sees untapped membership opportunities in the central and western areas of the country. Mr. Crane also said he looks forward to handing out dash plaques during the national meets and tours, and meeting many AACA members in the process.



The AACA Merchandise table was a popular stop at the Annual Meeting Trade Show.

The annual meeting concluded with an awards banquet in which dozens of awards were presented to car owners, newsletters editors and webmasters. The East Tennessee Region was recognized during the ceremonies with a Master Webmaster Award for the 2017 ETR website. The Smoky Mountain Antiquer received an Award of Excellence.

All attendees of the Annual Meeting enjoyed the opportunity to meet members from other regions, exchange ideas and just talk cars.

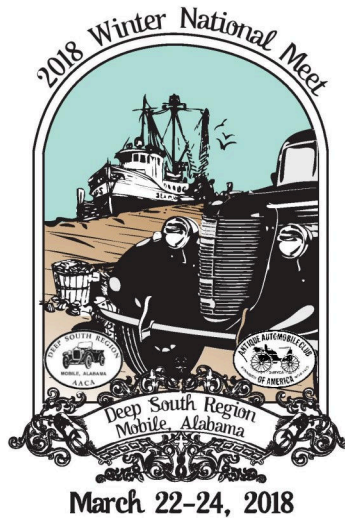


# News from National Headquarters, AACA

## 2018 Winter Meet, Mobile AL

*Reprinted from The AACA Speedster*

The Deep South Region is excited to host a winter meet in Mobile, Alabama, from March 22-24! The meet will be held at Cooper Riverside Park. This 3-acre park along the Mobile River has outdoor sculptures, paved walking paths & benches. It will be a great setting. The host hotel will be the Renaissance Riverview Plaza Hotel at [64 S. Water St.](#) in Mobile. Rooms will cost \$119 per night and you can call [251-438-4000](#) to make your reservations.



## Southeastern Spring Meet Charlotte NC

### Registration Deadline March 16

*Reprinted from The AACA Speedster*

The Hornets Nest Region extends a cordial welcome to all fellow AACA members planning to attend the Southeastern Division National Spring Meet. April is a great time of year to visit Charlotte. The AACA Meet is being held during the Hornets Nest Region's Charlotte AutoFair (produced each April & September) at Charlotte Motor Speedway.

Free tickets to Charlotte AutoFair will be provided to each AACA owner registering a vehicle and to each registered AACA Judge.

Host Hotel Information:

Embassy Suites, 500 John Q. Hammons Drive N.W.  
Concord NC 28027, Phone 704-455-8200



## Welcome New Members John and Rhonda McMurtrie

Welcome new ETR AACA members Rhonda and John McMurtrie.

Rhonda is a retired preschool teacher and John is retired from the FBI. After retirement, they moved from their home of



New members Rhonda and John McMurtrie relax with their grandson, Henry.

twenty years in Franklin TN, to join their family in Knoxville. Originally from Pennsylvania, John and Rhonda married in 1985 and have two daughters and three grandchildren.

The McMurtries own a 1971 340 c.i.d. Dodge Dart. They have owned the Dart since 2006 when they purchased the car on eBay from a seller in Texas. While John has plans to eventually repaint the vehicle, he has focused on making mechanical repairs. John's love for Dodge Darts began at the age of 16 when his parents purchased a 1970 model.

John and Brenda were members of the Battlefield Region Middle Tennessee AACA prior to their move to Knoxville, and are looking forward to touring in their Dodge Dart with the ETR members.



# Reading Spark Plugs

By David Sheffey

*Editors Note: This article was adapted, with the author's permission, from the Internet article Spark Plug Reading 101 by Mike Cantor.*

We have often heard that one's eyes are the windows to the soul. Similarly, the spark plug can be viewed as a window into the combustion chamber. To a trained eye much can be derived about the engine's condition, air/fuel mixture, timing, fuel distribution, and more.

A spark plug is a device for delivering electric current from an ignition system to the combustion chamber of a spark ignition engine to ignite the compressed fuel/air mixture by an electric spark, while containing combustion pressure within the engine. A spark plug has a metal threaded shell, electrically isolated from a central electrode by a porcelain insulator. A figure has been provided at the end of the article to help understand the narrative.



Your sparkplugs have a story to tell. Learn how to read them.

The center electrode, which may contain a resistor, is connected by a heavily insulated wire to the output terminal of an ignition coil or magneto. The spark plug's metal shell is screwed into the engine's cylinder head and thus electrically grounded. The center electrode protrudes through the porcelain insulator into the combustion chamber, forming one or more spark gaps between the inner end of the central electrode and usually one or more protuberances or structures attached to the inner end of the threaded shell, designated the "side", or "ground" electrode (strap).

Spark plugs are typically designed to have a spark gap which can be adjusted when installing the spark plug, by bending the ground electrode slightly. The gap may require adjustment from the out-of-the-box gap. The same plug may be specified for several different engines, requiring a different gap for each. Spark plugs in automobiles generally have a gap between 0.035"–0.070" (0.9–1.8 mm). A spark plug gap gauge is a disc with a sloping edge, or with round wires of precise diameters, and is used to measure the gap. Use of a feeler gauge with flat blades instead of round wires, as is used on distributor points or valve lash, will give erroneous results, due to the shape of spark plug electrodes.

A spark plug is said to be "hot" if it is a better heat insulator, keeping more heat in the tip of the spark plug. A spark plug is said to be "cold" if it can conduct more heat out of the spark plug tip and lower the tip's temperature.

Spark plug manufacturers use various systems to denote the heat range of their spark plugs. The heat range of a spark

plug is typically specified as a number, with some manufacturers using ascending numbers for hotter plugs and others doing the opposite, using ascending numbers for colder plugs. Cross reference/interchange charts are available.

By examining "hotter" and "cooler" spark plugs of the same manufacturer side by side, the principle involved can be very clearly seen; the cooler plugs have a more substantial ceramic insulator filling the gap between the center electrode and the shell, effectively allowing more heat to be carried off by the shell, while the hotter plugs have less ceramic material, so that the tip is more isolated from the body of the plug and retains heat better.

If the tip of the spark plug is too hot it can cause pre-ignition or sometimes detonation/knocking and damage may occur. If it is too cold, electrically conductive deposits may form on the insulator causing a loss of spark energy or the actual shorting-out of the spark current.

It was common, before the modern era of computerized fuel injection, to specify several different heat ranges for plugs for an automobile engine; a hotter plug for cars which were mostly driven slowly around the city, and a colder plug for high performance/sustained high speed highway use. This practice has, however, largely become obsolete now that cars' fuel/air mixtures and cylinder temperatures are maintained within a narrow range, for purposes of economy and limiting emissions.

More importantly and to the *Continued on Next Page*



# Reading Spark Plugs

Continued from Previous Page

point of this article, just what can reading a spark plug tell one? The following areas should be inspected (see figure).

### The ground strap

The negative electrode should show a color change in two spots on the 90 degree bend.

The first plating mark furthest from the plug body show the initial (or base) timing

The second indicates total timing. If the second mark is all the way to the base of the ground strap where it attaches to the plug body, this is a sign the plug got too hot. An ideal 'safe' timing range is when the total timing discoloring is located just past the bend.

No color mark on ground strap: If the porcelain shows good color but the ground strap fails to show an indicator, then the plug is too cold. Go up 1 heat range.

### The threaded area

Plug threads should show a dull burnt-looking color change indicative of heat range, 2-3 threads being ideal.

To increase the number of burnt threads, increase the heat range of the plug.

If 4-5-6 threads show a burnt color, install a colder plug.

### The air/fuel ring

Indicators for the air/fuel ratio can be found in two spots, one spot known as the air/fuel ring or "jetting."

On the air/fuel ring, a complete 'full turn' of discoloration –lightly colored soot- is ideal. A richer air/fuel ration indicates a richer mixture. If the engine is tuned for maximum horsepower, the ring should be very light and not make a full circle around the base of the plug.

### Porcelain coloration

The second place to inspect for the air/fuel ratio is the porcelain. Being too rich leaves light to dark color rings on the porcelain. Ideal conditions leaves the porcelain like new to shiny white.

Black or brown specs are an indication of detonation usually caused by a heat range that's too hot. The plug

gets so hot that it will start to detonate the fuel before the ignition fires. This causes a double flame front and reduces the efficiency of the combustion process as these two flame fronts collide with each other. Go one or two heat ranges colder and it should go away.

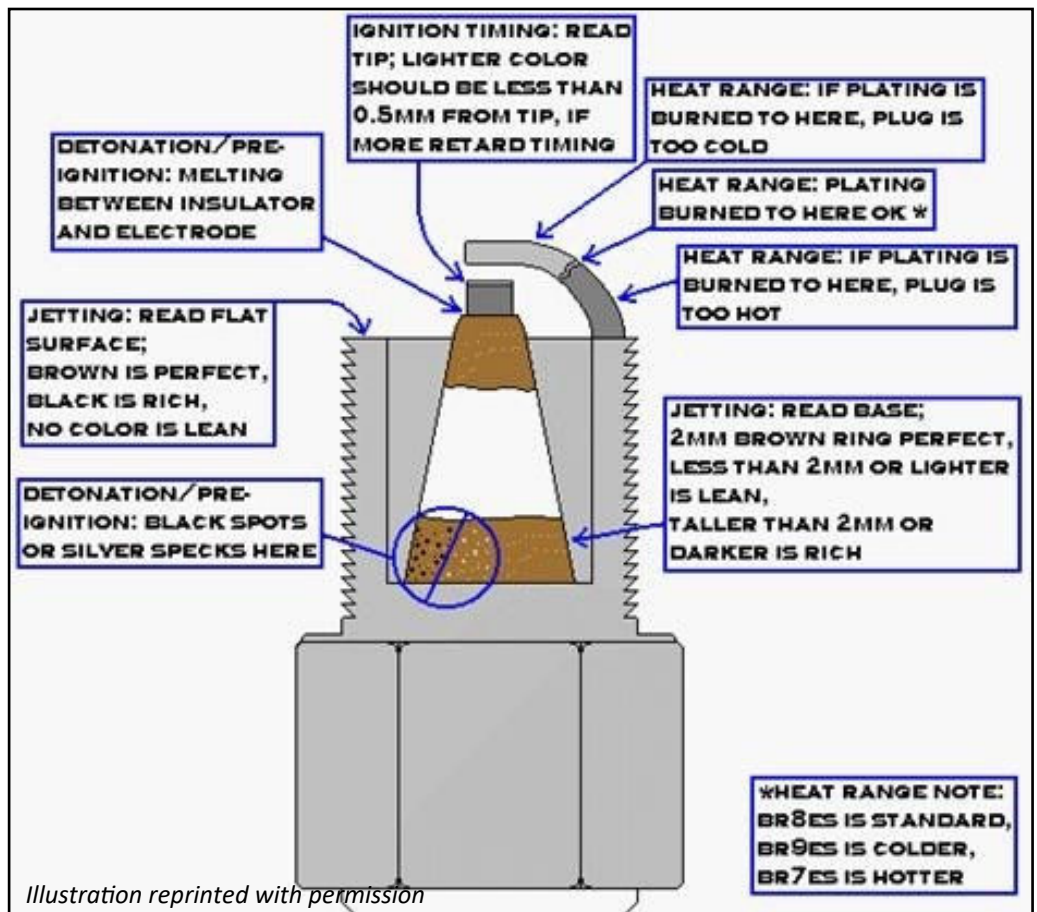
Look for a colored ring at the base of the porcelain. The color will vary depending on the type of fuel:

Unleaded E10 pump gas will leave very little color because of the additives, e.g., detergents as well as the alcohol. If using higher octane gasoline, a light tan color should materialize.

If the ground strap is showing a good color line but the porcelain is showing no color at the base, the plug may be too hot. Drop down a range.

A thin oily deposit at the bottom of the porcelain is caused by oil in the combustion chamber due to worn or improperly seated rings or bad valve seals.

The figure below will help with understanding the locations and signs indicative of engine health.





## Welcome New Members Beverly and Robbie Gray



Welcome to new ETR AACA members, Beverly and Robbie Gray, from Spring City, Tennessee.

Their membership is sponsored by Beverly's brother, R. G. Lewallen and his wife Sherry.

The Gray's antique car collection includes a 1957 Chevrolet and a 1941 Chevrolet. Bev and Robbie also own a 2008 Shelby GT 500

Mustang, and are members of the Tri-Five Car Club.

Originally from Winchester KY, Robbie is a retired TVA engineer. Beverly, who is a native of Robbins TN, is a retired accountant. Married since 1975, Robbie and Bev's family includes their son Ernie, his wife Bethany and their children Molly, who is 3 years old, and Bo, 1 year old.



Robbie Gray eases the rebuilt engine into his '57 Chevy.

Currently, the Grays are putting the finishing touches on their 1957 Chevy in preparation for the upcoming Southeastern Division National Spring Meet, which will be held in Charlotte NC in April. While in Charlotte, they plan to spend time camping with the Lewallen's.

Thanks to RG and Sherry for sponsoring Robbie and Beverly Gray.

## Remembering East Tennessee Member Tom Eustis

East Tennessee Region member Tom Eustis passed away last month at the age of 77.

Tom was born in Norwalk, Connecticut. He graduated from Loomis Chaffee University and the University of Tennessee. Tom not only achieved an Engineering degree at UT, but also played defensive end with the football team.

According to his obituary, Tom loved sailing. He held a Captains license and enjoyed cruising the Atlantic Coast with his friends.

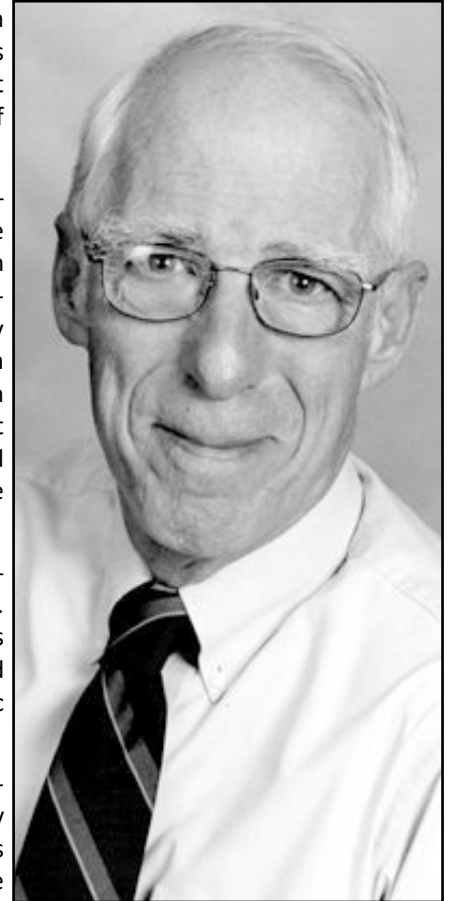
He also loved fly fishing in the Smoky Mountains, as well as offshore fishing in the Bahamas.

Tom loved antique cars, and was a friend and neighbor of Randy Moats. They enjoyed their antique Fords together. Occasionally, Tom would travel with Randy to the Eastern Fall meets in Hershey.

ETR member Blake McCampbell recalled that Tom's cars included a 1929 Model A and a 1937 Ford Phaeton. He drove a 1937 Ford Phaeton while attending the University of Tennessee. Although that first car got away, he was able to purchase a second '37 many years later.

After his retirement, Tom remained very active in the Foothills community. He was a member of Trout Unlimited, The Blount County Community Action Agency, Foothills Community Development, Habitat for Humanity, the United Way, Children's Advocacy Center, Rotary Club, and the AACA.

Tom is survived by his wife, Margie (Weaver) Eustis, and sons Thomas Chadwick Eustis MD, and Erik Edwin Eustis. He is also survived by grandchildren Sarah J. Eustis, John E. Eustis, and William C. Eustis; as well as a brother, Christopher Eustis PhD, a sister, Cecily (Eustis) Robinson, and several nieces and nephews.



**Smoky Mountain Antiquer**

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[WWW.ETR.AACA.COM](http://WWW.ETR.AACA.COM)

**Parting Shots from the ETR Cabin Fever Therapy Event**



*Photos by Robert Quillin*

J. W. Weeks, Daniel Paransky, and George Hodges share their hobbies with other ETR members during the February Cabin Fever Therapy Event.