

FVEAA NEWSLETTER FOR 2003

An Independent Not-For-Profit Corporation associated with the National Electric Auto Association

NEXT MEETING: Friday, July 18th at 8 PM, Triton INDUSTRIAL CAREERS BUILDING, (East Campus), and Room 108

DISCUSSION TOPICS: 1. Seminar Report. 2. Car show appearances. 3. How's my EV doing? 4. Open Topics.

MEMBERSHIP INFORMATION

Any person interested in electric cars is welcome to join the Fox Valley Electric Auto Association. The cost for a full year's dues is \$ 20 which will entitle members to receive our monthly Newsletter that contains useful information about electric car conversions, construction, news, policies, and events. Membership is not required to attend our meetings. Dues for NEW members joining in August will be \$ 6.

To obtain information about the FVEAA you may:

Visit the FVEAA Website at www.fveaa.org

Or contact FVEAA President William H. Shafer

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PRESEZ

After the routine business is taken care of we will have a discussion about the September Seminar. Seminar Manager Ted Lowe has set the admission fee at \$ 5 per family. The original Seminar set the fee at \$10 per individual. Which schedule does the membership prefer? Other aspects of the event will be discussed.

The FVEAA failed to have any cars participating in Independence Day Parades. We will discuss this matter, as well as car displays at local municipalities during the Summer. Have participation in these events produced new interest in electric cars or new members for the FVEAA?

A few members have reported problems with their conversions. The final scheduled discussion item will address this subject.

Electric Car Organizations all seem to have difficulty getting out the message that electric conversions are a great hobby. After the collapse of electric car commercial production efforts there is little about this subject in the press or on TV. There will be an opportunity to express your thoughts on this subject under Open Topics.

November will be election time for FVEAA Officers. I have been the FVEAA President for over ten years and the Newsletter Editor for longer than that. I will not be a candidate to continue as President. I find it difficult to properly conduct a meeting due to my hearing impairment. I also cannot function well in telephone conversations. I am willing to continue as the FVEAA Vice President and Newsletter Editor if that is the wish of the membership. It is time to chart the future direction of the FVEAA.

BILL
6/26/03

MINUTES OF THE JUNE 20, 2003 MEETING

The meeting at Triton College was called to order by President Shafer at 8:10 PM. Fourteen members and three guests attended. Jim Hallenbeck of Downers Grove, Chris Schembari of Darien, and Doug Butchart from Elgin all joined the FVEAA. Jim is restoring a Fort Model T and converting it to electric power. He noted the car body had to be sandblasted to remove accumulated rust. Fortunately the metal was much thicker than found in today's cars. It will be a challenge for the wooden-spoke wheels and tires that have to deal with the battery pack weight. It was the first meeting for Richard Miller of Oak Lawn who is also a new member.

The minutes were approved as published and the Treasurer's report was accepted.

A report was given about the EPA reimbursement symbolic checks presented at a recognition breakfast at the Meridian Hotel in Chicago. Four members received these; John Berton, Todd Dore, Paul Harris, and Tim Moore.

Seminar Manager Ted Lowe gave a progress report on the September Seminar. He distributed copies of a Poster announcing the September 10th event. There will be two sessions, the first 10AM and the second at 2PM. These will be in Room 106, the 100-seat classroom in the Industrial Careers Building. Information about the Seminar is posted on the FVEAA website, www.fveaa.org. Registrations made on the site will receive preferential seating. Telephone information is at (630) 260-0424.

President Shafer asked if cars would be available to enter Wheaton's July 4th Parade. He noted this was the biggest parade in the suburbs with lot of politicians and participants. Ted Lowe, a Wheaton resident, checked out the requirements and found there was a suggested \$25 donation to the Wheaton JAYCEES who put on the event. This would be no problem but a minimum of three cars in the parade could not be arranged.

President Shafer reported he contacted the Elmhurst group that has weekly car shows in their downtown area. They will welcome our participation and asked us to select a date and let them know how many cars will be there.

Member Matt Remec gave an update on the scooter development project where he is the principal consultant.

Member John Emde noted the next few weeks would be extremely busy for the Net Gain dragster, *Bad Amplitude*. They had difficulty at the Joliet track during the first test run with a new motor installed. There was a misalignment of the commutator that caused a failure. This is being remedied and the company may be able to compete at the Hagerston, MD race and other locations this summer.

Member George Gladic has a new set of Trojan 8-volt replacement batteries installed in his Nissan. The Club's kWh portable meter was moved from George's car to Tim Moore's Escort for data gathering.

The meeting was recessed to the lab where vehicles were on opportunity charge. These were particularly interesting to the new members.

The meeting was adjourned at 10:30 PM.

June 28, 2003

Prepared from the notes of Bill Shafer, in the absence of Secretary Tim Moore.

FROM OTHER EV NEWSLETTERS AND ARTICLES AFFECTING ELECTRIC VEHICLES

The May-June issue of the national newsletter, *Current Events*, featured barstool racing. In this competition a standard bar stool is equipped with an electric motor. Other unusual objects that have been motorized include a love seat. There is a website featuring the "sport"; www.geocities.com/RainForest/Vines/5565/barstool.html It has links to other websites. The issue has a good photo layout of electric vehicles attending the Phoenix show on March 29th. Bob Oldham has an article about "Neighborhood Vehicles". It lists eight of these, including two from the now-defunct Ford TH!NK program. This is the first issue that shows the FVEAA as an affiliated chapter. Mike Brown's conversion workshop has step 16 – connecting the battery pack. DEVA member Frank Ginnandrea had photos of the electric go-cart he built. Finally, the issue contains a presentation made to the *California Air Resources Board (CARB)* about the California now-defunct electric car mandate (Killed by the GM EV-1).

EV Circuit from the Ottawa Group in their May/June issue had a report of the *Electrathon* they sponsored on May 31st. It was a format different from the preceding events. Instead of an endurance race around an outdoor oval track this year's event was held at Canada's Science & Technology Museum in Ottawa. The event first had a rigid technical inspection and evaluation of the competing vehicles. Each vehicle was demonstrated on a closed parking lot track. There were nine teams entered.

Seven technical seminars were presented. These were followed by an Electrathon Round Table. The event also included lots of outdoor displays. \$1050 in prizes were awarded to competing teams. The event turned a small profit.

The issue also had photos of Ted Lowe's revised Chevy S-10. Rick Lane of the Ottawa Group and Ted occupied adjacent exhibit spaces at last year's Solar Race that started at Chicago's Science Museum. This year's race started there on July 6th.

David Behn authored two articles about fuel cell use in for automobiles. In the first he raises questions about this application. A recent MIT study concluded that a fuel cell vehicle would be no better than a diesel hybrid in terms of energy use and residual gas emissions. This ignores other gasses such as CO, NO, S, and particulate matter.

In the second article the author presents the following process efficiencies: Electrolysis- 75%, Liquefaction 60%, Bulk storage 97%, Vehicle storage 97%, Fuel cell 40%, supplementary supercapacitor for acceleration assistance 98%. Put these all together and the overall energy efficiency is 16%.

The author cites data from provided by existing Fuel Cell Vehicles (FCV). The Honda FCX uses a Ballard fuel cell with a peak efficiency of 58% at about 18% load where a passenger car operates most of the time. At 80% load it is 42%. Auxiliary equipment efficiency is usually about 90%.

The author gives the overall efficiency of a *FC Vehicle* (Excluding the hydrogen preparation, transportation, & storage efficiency) at 33.8%. This is slightly below the 37.3% overall efficiency of a battery-electric vehicle (BEV).

He argues the BEV is simpler and less expensive than a FCEV – so why not use it?

FROM OTHER EV NEWSLETTERS – Concluded

The remainder of the EV Circuit analysis of fuel cell vehicles will appear next month.

The Denver Group's June Newsletter reports Israeli development of a magnesium alloy that allows this metal to be formed into thin sheets for battery use. It consists of 4% Al and 1% zinc. They also report on a new Alpha Gel-Cell battery that can be recharged in 15-20 minutes. The trouble with this you can't get that kind of energy from a standard 15-amp, 120-volt outlet (1.8 kW max). The battery was the original invention of a Chinese inventor and has been patented in 15 countries. The issue reports there were 35 teams participating in the Kansas recent Electrathon event.

Once again the EEVC (Eastern Group) had the Cinnimanson High School car entered in the *Tour de Sol*. A surprise entry was the Helbao produced in China. The winner was a diesel car running on vegetable oil.

The May 29th issue of *The Chicago Tribune, (Car Section)* had an article about the *Tango*, a 39" wide one-passenger EV using 25 batteries at the bottom to keep it from tipping over. Rick Woodbury developed it in Spokane WA. The car weights 3,050 pounds, and has a roll-cage. The vehicle has an 80-mile range (Test conditions not provided). The 0-60 time is 4 seconds. Rick received a \$300,000 support loan from a friend to develop the vehicle. He intends to first sell it as a kit to be assembled by the buyer. This avoids the highway safety requirements of commercially manufactured 4-wheel cars and crash tests. The problem will come when an owner tries to get insurance for the vehicle.

In case you haven't already seen this, Ohio State University students hit a 241-mph in the first run of their electric racer. The battery pack was made up of 12,000 nickel-metal-hydrate batteries. The world' record for electric cars is 246 mph.

Special Note to the FVEAA:

Last Friday while working with the computer I suffered a *Transient ischemic attack* about an hour-and-half into an extended session. The AMA describes this as a temporary blood clot caused by a clump of blood cells blocking a small artery in the brain's cerebellum that controls motor activity. I awoke from unconsciousness on the floor of the computer room not knowing what happened. Spent two days getting a MRI that detected only a stubborn streak.

I am again functioning but until this matter is resolved, I am barred from driving a vehicle.

Please overlook the abbreviated length of this newsletter.

BILL

July 14, 2003