

FOX VALLEY ELECTRIC AUTO ASSOCIATION NEWSLETTER FOR OCTOBER 2002

NEXT MEETING: Friday, October 18th at 7:30 PM in the Triton INDUSTRIAL CAREERS BUILDING, (East Campus), Room 108

DISCUSSION TOPICS: 1. Report on the Joliet Seminar. 2. Officer nominations and membership renewals. 3. World of Wheels for 2003? 4. Open Topics

MEMBERSHIP INFORMATION

Any person interested in electric cars is welcome to join the FVEAA. 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 October will be \$ 2.

To obtain info about the FVEAA you may contact either Past-President Ken Woods or President Shafer

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PRESEZ

We will have a report on our seminar presentation and display at the Illinois College & High School Auto Instructors annual meeting in Joliet the week before.

Our new fiscal year will begin November 1st. We will elect our officers at the November meeting. We need a director to replace Bob Munroe who resigned due to family medical considerations. We should also have an additional director. These positions are required by our State Not-For-Profit Charter. The President and Past President make up the nominating Committee and should be notified if you are willing to serve.

November is also membership renewal time. The 2003 application form will be included in the next Newsletter. There are now 62 paid members. We need at least 50 to sustain our annual activities. There is always attrition; some lose interest in electric cars and drop out, circumstance change for others. I expect our April 2003 Seminar will provide new members.

Articles about electric car commercial developments are scarce – if non-existent. The Ford abandonment of the THINK program and termination of Ranger conversions was the latest development.

This leaves the EV groups where they were a decade ago, converting and using electric cars proving they can be both a great hobby and useful for transportation. There will be resurgence when gas lines return or gasoline prices next rise.

BILL

MINUTES OF THE SEPTEMBER 13, 2002 MEETING

After a "Subway" 6' picnic the meeting at Ed Meyer's Hanger was called to order by President Shafer at 8:00PM. Thirteen members and two guests attended.

Bill has a new hearing aid. He said it is amazing so much technology and an aspirin-sized zinc-air battery that lasts a week is encapsulated in such a small package.

Minutes were approved. Dale Corel was present but deferred to next month for the treasurer's report.

Bill and Ed talked about Ed's repair of Bill's battery charger. Bill was remodeling the instruments on his center console and equalizing the battery at the same time. A trouble light hooked on the visor fell causing a 94-volt positive instrument lead to accidentally short to ground while the battery was charging. The fuse on the lead didn't blow but the transient destroyed the charger's Triac.

Tim Moore was asked to report about his conversion success with a Ford Escort. Tim was one of three members receiving emission test notices for their conversions. It caused a stir when he drove the car to the test station. It appears that three vehicles were brought into Illinois from other states for conversions and these were not recognized. Bill noted that Illinois Law exempts electric vehicles from emission tests.

On Oct. 10th and 11th (Thur. and Fri.) three members will give presentations and manning a booth at the Illinois Auto Instructors' Convention in Joliet. John Emde will give a Power Point presentation on conversion Bill will talk about conversions as a hobby. Ray Oviyach will discuss the Triton Project. Kevin Zak and George Hamstra from Net Gain will give presentations. The Triton Ranger and *Bad Amplitude* will be on display along with conversion components.

Saturday April 26th in 2003 is the day Triton has agreed to for our Electric Vehicle Seminar. ComEd has agreed advertise the event in the "Source", a bill insert sent to all ComEd customers.

Kool Kars in Elmhurst attracted a good crowd to our four vehicles thanks to a well-placed banner.

Kevin Zak described the 13" motor the dragster now has and the switching from GE graphite brushes to new Motorola silver brushes. The silver brushes wear less than the carbon graphite. Kevin also changed from steel bearings to ceramic ball bearings that use less energy, as tested on dynamometer. The ceramic material provides low heat and non-conductivity. The price difference is \$6.00 to \$100 for ceramic, but there are considerable benefits, so much so that Kevin is planning on including the ceramics as standard for all WARP motors.

Ken Simmermon acquired a 1974 Fiat that was converted 25 years ago by deceased member Jerry Mitchell. He was surprised to find that it still works. It's main problem – no clutch. Shifting requires matching motor and car speeds and relying on synchronizers to engage gears. Also Ken told that he sold Jerry's a converted Dasher to a man by the name of Lewis who lives in Chicago.

The meeting adjourned at 9:15 to lively conversations and bug spray.

Submitted by Secretary Tim Moore
September 24, 2002

FROM OTHER EV NEWSLETTERS AND ARTICLES AFFECTING ELECTRIC VEHICLES

The Sept-Oct. issue of *Current Events* the National EAA publication cover story was about the Portland “Clean Air Action Day”. There were 3 dozen electrified vehicles on display including a skateboard, motorcycles, go-carts, lawn tractors, and (of course) passenger car conversions. It hit 108 degrees in Medford the afternoon of the event.

Mike Brown’s 12th Step in EV conversion, installing EV components, discussed the controller, DC-DC converter, circuit breaker, power brake vacuum systems, and battery charger.

The issue also had an account of renting a GM EV-1 from Budget in Los Angeles. Mike Haskinson, a member of VEVA, used the EV for one week while vacationing there.

Eric Ryan wrote an article about a two-week conversion of an already-restored 1965 Karmann Ghia. The work was done by high school students.

Eric Chun, in Fort Pierce Florida, has a converted 1983 Ford Ranger that uses an 11” Kostov motor and twenty 6-volt batteries that provide a 70-mile range at 30 mph. The pickup weighs 3600 pounds. For eight years he has pulled a 6000-pound lawn service mower in a trailer. He reports that at 35 mph, the combination draws the same 45 amps that the truck alone requires at 45 mph.

DEVC from Denver, in their September issue, reports a California judge has suspended the 2001 ZEV (Zero Emission Vehicle) requirements. The rest of the issue was mostly devoted to Hybrid and fuel cell car developments.

EEVC, the Eastern group, in their September issue reported on the annual Duryea Days event. Like the Oregon event, there were several tractors, scooters, and carts there. Member Pete Grundaman has designed and built a 400-watt permanent magnet alternator for use with his Sterling engine.

They report that Ford has killed the TH!NK program that it acquired from the Norwegian company. Last year 1050 of these cars were produced, far below the 5000 unit expectation. Ford will concentrate on fuel cell and hybrid vehicles.

EV Circuit from Ottawa in their July/August newsletter had an article authored by Rick Lane about a tour of nine antique electric vehicles held in mid-august in Port Austin Michigan.

VEVA, the group from Vancouver, in their September newsletter had a report from Bill Dube about his participation in the Woodburn event. His Killacycle converted motorcycle ran the course in 11.08 seconds. He uses a pair of Advanced DC 6.7 inch motors, feeding them a peak current of 1500 amps. The vehicle was churning out 700 ft-lbs of torque.

Let There Be Light. IEEE Spectrum, September 2002, Page 70. The story is about development of white Light Emitting Diodes (LED). They are Gallium-Nitride (GaN) chips and can be used for automobile applications. An experimental application used an array of 56 white LEDs for the headlights and 14 amber colored for turn signals. The headlight-driving light combination is about the size of a sheet of paper. The LED headlight only draws 7 watts, has a long life, but it costs 100 times more than current technology.

Taking Charge. Chicago Tribune (Page 1, Transportation Section, October 3, 2003. The FVEAA got good ink with this article written by Jim Mueller. It featured photos of Doug Mather with his Fiero in front of his solar array and three pictures of my Mazda, including under the hood and the charging plug. The story described how Dave Cloud of Washington-based Cloud Electrics converts and sells electric Geo Metros. He says the Metro skeleton weighs 1400 pounds, a 400 pound reduction from the original car weight. He installs fifteen 8-volt Trojan batteries, a Curtis controller, and an Advanced DC motor.

Doug used a useful phrase, "An EV is *mission-specific*". That's a good description of how we use our conversions. He observed that you wouldn't think of grabbing the Space Shuttle to pick up a gallon of milk. He added, "If you only have a commute of 10-30 miles, an electric meets your mission requirements." Doug has used his Fiero five days a week since it was converted in 1999. Cloud has one customer who has driven a Metro conversion 27,000 miles on the original batteries.

I have driven an electric vehicle since converting a Dutch DAF 28 years ago. I built it after getting caught in the gasoline lines. I think they may be coming back. The article describes the DAF and the Mazda. Since conversion in 1991 the **annual cost** for the Mazda has been \$ 2800 over the past ten years.

The article concludes by inviting persons to log on to our website, www.fveaa.org for information.

Engine and body reliability add to longevity of cars. Chicago Tribune 9/24/02, Transportation Page 1. Americans are now holding on to their cars for 7.5 years. The primary driver uses it for about 4.5. The car then usually moves down to a younger family member. Everyone in the family seems to own a car. In 1981 about 1.8% of households had more cars than licensed drivers, now it is up to 4%. (Editor's note - shouldn't one of these be an electric?)

Data shows that today we have the oldest fleet of passenger cars ever. The average age in 1980 was 6.5 years, in 1990 it was 7.5, in 2000 it was 9 years.

Car owners are not only keeping their cars longer; they are also putting more miles on them. The typical driver in one year drives 12,000 miles, 108,000 in 9 years. The vehicle "useful life" was 190,000 miles in 2001.

Today's cars are much better than they were 15 years ago. Engines have been improved. A connecting rod through the crankcase is a rarity. Transmissions have improved; so have the bodies. A body would start showing rust spots in a few years, signaling to the owner it was time for a new car.

Another factor is styling. New cars have been derived from the "jelly bean" aerodynamic shape so the neighbors will hardly notice that you bought a new car unless it is a SUV replacing the family sedan.

Financing is also a factor, particularly today's "0%". Financing for 5 years and holding it for nine gives the owner four years of no car payments. The car is usually sold when something major, such as the air conditioner, goes wrong.

What does this mean for someone looking for a donor vehicle? Dealer's used car lots are jammed with trade-ins. One car dealer advertised a used car sale with prices starting at \$ 79. Go to a dealer and see what he is willing to do.