Fox Valley Electric Auto Association
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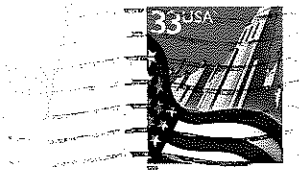
River Forest, IL 60305-1208



Address Correction Requested

David B Aarvold
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NEXT MEETING: Friday, April 16 at 7:30PM in Room M-141 at the College of DuPage South of 22nd Street & Lambert Road in Glen Ellen.

DISCUSSION TOPICS - 1. Guest speaker John Wayland will present a program on electric drag racing (See below) 2. Status of our meeting room future assignment.

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 the member to receive our monthly Newsletter that contains useful information about electric car components, construction, policies and events. Dues for **NEW** members joining in April will be $ 14.

To obtain information about the FVEAA, you may contact either President Woods or Vice President Shafer:

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APRIL PRESSEZ

1. The April meeting will feature John Wayland from Oregon. John is assisting the members of the race team in electrifying a dragster. New member Kevin Zack arranged for this program.. Their first competition is expected in May in Joliet. I hope many of our members can show our support.

2. A progress report will be given on our future meeting place options . We had an inconclusive meeting with the new room assignment administrators last month. We have requested a future meeting with the COD Board of Trustees to discuss their policy change.

3. The April meeting location has been **CHANGED TO ROOM M- 141** by COD. The M building is South of the K building. To avoid a lot of walking from our usual parking lot I suggest parking in the M lot, on the west side of Lambert Road and the first entrance **SOUTH** of 22nd Street. This lot serves the tennis courts.
KEN

MINUTES OF MARCH MEETING

The meeting at the COD was called to order by President Woods at 7:36PM. Eighteen members attended and new member Lynn Prine joined the FVEAA.

The minutes were approved and Treasurer Corel's report that the checking account balance was $ 1371.04 and savings account balance was $ 2481.06 was approved.

There was a report by Ken Woods on the Clean Cities programs held in March. The first meeting at the Chicago Lung Association provided a general overview of the program. The second meeting at Argonne Lab was essentially an alternative fuel vehicle trade show. About 250 attended. Argonne charged $350 for exhibit space and $ 15 for the lunch. The major manufacturers each made presentations and had vehicles available for inspection and test driving.

Alternative fuel vehicles used compressed natural gas, methanol, ethanol and propane. Although the FVEAA was not invited, two members drove their converted vehicles and showed them off in the parking lot. Member Ed Meyer reported that when he drove into the lot, he kept the Curtis controller in the 3 khz chopping mode. Spectators thought the Nissan was turbine-powered. Member George Krajanovich was again there with his converted Omni. The FVEAA needs to make an earlier effort to get on next year's Argonne program.

The rest of the meeting was concerned with a location for future meetings. The COD has started enforcing a 1994 COD Board policy of a $ 15/hr meeting room charge, beginning in July. This would cost the FVEAA $ 540. Everyone agreed it would not be wise to raise the FVEAA annual dues an equivalent amount. Currently about 85% of annual dues goes for newsletter copying and mailing.

Several alternatives were listed and discussed:

1. Discuss the policy with COD,. including the Board of trustees and ask them either to eliminate the charge as a community adult education activity supported by taxes or to reduce the charge.

2. Cut our meeting time to 2 hours and hold informal discussions after the meeting. This would reduce the monthly charge to $ 30, an amount that would be acceptable.

3. Find another meeting location. There is an advantage in COD location. It is centrally located in the Chicago area. Several members offered to check out North Central College and others.

4. Go to an every-other-month meeting. There was no support for this suggestion

These options will be examined by the FVEAA Board and a report made at the April meeting.

Member Jerry Mitchell talked about FCC current consideration of licensing low-power FM stations. Jerry has forty years behind the microphone at NBC, ABC, and currently at Infinity Broadcasting FM Station WYLL. He noted the benefits of this move that will allow limited community radio services not now provided. He also noted that one company owns eight broadcast frequencies and there is a similarity of program format that tries to maximize listnership by "dumbing down" content. He asked members to write letters in support of the concept to their local U.S. Congressional representatives.

From the notes of Bill Shafer

RECENT ARTICLES ABOUT ELECTRIC VEHICLES

FILL 'ER UP, AT LEAST IN CARACAS. AUTOWEEK, March 29, 1999, Page 29. Here's what a gallon of gasoline costs around the world, at least before the recent price hikes:

Most-Expensive Places		Least-Expensive Places	
Hong Kong	$ 5.04	Venzeula	$ 0.48
Olso	4.57	Nigeria	.49
Paris	4.47	Kuwait	.51
Amsterdam	4.35	Indonesia	.61
Bermuda	4.32	Saudi Arabia	.62
London	4.27	Bahrain	.82
Milan	4.21	Abu Dhabi	.85
		United States	.96

The difference is largely due to taxes. A future gallon of unleaded gasoline on the NY Mercantile Exchange is listed (without taxes) for about 50 cents.

Carmakers finding it's not easy being green. Columbus Dispatch, March 5, 1999, Page 4J. (Los Angeles Times) With cheap gas costing less than bottled water it hardly seems a logical time to write off the internal combustion engine. Today's driving force behind "green cars" is the California mandate that by 2003, 10% of the vehicles must be emission-free. Automakers are exploring a wide range of options to meet this mandate.

"The cheapest solution wins" says Delphi President Donald Runkle. Competing concepts include electric cars using electrochemical battery systems, hybrids combining two or more powertrains and fuel cells. The problem with all of these approaches is higher costs, something that the manufacturers are skeptical the American public will accept.

The 1999 Tour de Sol will be held May 22-28 from Waterbury CT to Lake George NY. Fifty vehicles are expected to compete. This will be followed on May 26-27 when the SAE and NESEA will host an International Conference on Hybrid Electric Vehicles.

Fill er up with hydrogen. Chicago Tribune 2/7/99. Liquid hydrogen went on sale to German motorists in Hamburg last month. This was the first filling station in Europe to offer the fuel.,,Early business was slow, but backers insist it is only a matter of time before their station will be crowded. (Editor's note - I wonder where they get the liquid hydrogen?)

Part II. Chicago Sun-Times 3/7/99. Three of Europe's largest companies, DaimlerChrysler, Royal Dutch Shell, and Norway's Norsk Hydro, have teamed up with an Icelandic consortium to replace petrol and diesel fuel there with hydrogen that can be used by fuel cell buses, cars, and boats. They aim to create the world's first hydrogen economy.

RECENT ARTICLES ABOUT ELECTRIC VEHICLES - Continued

CLEAN POLITICS, The Mercedes NECAR, Autoweek March 29, 1999, Page 4. DaimlerChrysler has been promoting its fuel cell car, the NECAR, that runs on a hydrogen fuel cell, in Detroit, Geneva, and Washington. It is essentially a political lobbying tool because the first models due out in 2004 are likely to run on methanol, not hydrogen.. They will be costly, at least as "overpriced, as GM's EV-1 is today. Chairman Bob Eaton admitted that today, a NECAR would sell well into six figures. The methanol-fueled cars will still require development of a fuel infrastructure. Tax incentives are at the heart of the lobbying effort.

Run with the sun. HomePower, Feb/Mar 1999, Page 8. Alaska, away from any power grid, is an unlikely place for electric cars, but Ed LaChapelle in McCarthy, Alaska writes about his electrified Bombardier Neighborhood Vehicle. The little two-seater has been modified to charge its batteries from a series-connected solar panel. Their home is separated from the road system by a river and they use the car to drive five miles to the river. There is a 800-foot climb from house to river but the return trip is almost all downhill. Their BP Photovoltaic panel on the house roof charges the vehicle for 2-days, adequate to make a trip every other day.

The vehicle weighs 1275 pounds. It has six GNB Champion 12-volt batteries. The car's max speed is 25 mph and has a design range of 30 miles. The vehicle was modified with canvas hatch and door sealers that use liberal amounts of duct tape to seal out the dust.

Seven BP 75-watt solar panels are connected in series to deliver 120 volts, 4-amps in full sun, to the vehicle. They also have switches to connect six panels in series and apply 72 volts directly to the battery. When not used for vehicle charging, the panels are connected in parallel to charge the house 12-volt battery bank.

Last summer they drove the vehicle 100 miles. If you want more info, you can contact Ed via e-mail - edlach@aol.com.

Powertrain panel sees green future. Chicago Sun-Times, 2/99. "Green" cars were a discussion subject at Automotive news World Congress. IC engines with direct injection, improved catalysts and electronic control of valve trains will reduce engine emissions. Mass production of fuel cells are likely to reach their cost goal of just $ 30/kw and encourage use of this power source. Battery powered vehicles and hybrids will have an extended range with NiMH batteries. Belt-driven Continuously Variable Transmissions (CVT) and six-speed automatics for loads up to 190 foot-pounds of torque will become popular and increase mileage. All these are likely to be on the market by 2005.

Listen, Detroit: You'll Get a Charge Out of This. TIME. February 28, 1999, This article is about two individuals involved in electric cars; Stanley Ovishinski, inventor of the Ovonic NiMH battery, and Geoffry Ballard, the ex-geophysist who is the moving force behind fuel cell development at Ballard Power Systems in Vancouver. NiMH battery cost has declined 40% in the past two years. In 1983 Ballard and his two collaborators reduced fuel cell price by reducing the amount of expensive platinum needed.

RECENT ARTICLES ABOUT ELECTRIC VEHICLES - Concluded

Back To The Future. Suburban (Chicago) LIFE Newspapers. January 1999. The first electric vehicle built in 1890 was a battery-powered tricycle. A six-passenger electric car was an important exhibit at the 1893 World's Fair. The *ELECTROBAT* was introduced in Philadelphia in 1895. It had a 100 mile range with a 15 mph top speed.

Auto Makers Are Racing to Market "Green" Cars powered by Fuel Cells. Wall Street Journal, March 15, 1999, Page 1. In the automobile world, five years hence is "tomorrow". This article is a description of the DaimlerChrysler (DC) work to have a fuel cell car on the market by 2004. DC has concluded that fuel cells are a leading contender to dethrone the century-old dominance of the internal combustion engine. Not long ago auto companies were touting the electric car as the successor to the IC engine, but the cost and disappointing marketing performance of GM's EV-1 has cooled their EV ardor.

DC has a joint effort with Ballard Power Systems. In 1997 Ford spent $ 420-million to buy into the joint DC-Ballard work. "Tomorrow" the consortium expects to have a methanol fuel cell car and fuel supply infrastructure in place.

Operation Supercar. Newsweek, January 15, 1999. This is an article about the work going on at Argonne to test the Toyota PRIUS and other high-tech future cars. The term "Supercar" was coined by Amory Lovins to describe a vehicle that could carry four passengers with a fuel economy of 80 miles per gallon and almost zero emissions. Diesel and propane fuel, electricity, and hydrogen are key components in reaching this goal. Lately a consensus has been forming around hybrid vehicles that utilize power averaging combined with small-capacity batteries. Another possibility is the fuel cell. CM Chairman Jack Smith used to think this power source wouldn't be ready until 2020. Now GM plans to have prototypes ready by 2004.

Supercar development is being assisted with an infusion of government cash that funds the Partnership for New Generation Vehicles (PNGV). Sierra Club President Daniel Becker views this as a "scam designed to fend off new regulations". He is echoed by Ralph Nader who observed, "Until the vehicles are on the showroom floor, its nothing more than razzle-dazzle, R&D flimflam.

Amory Lovins of the Rocky Mountain Research believe that fuel cells will beat other approaches, hands-down. To put a fuel cell in a car, automakers face the challenge of putting a mini-refinery on the car to extract hydrogen from methanol fuel. GM's Smith notes "We have one running but it looks like a chemistry lab experiment - the equipment fills up the entire back of the test vehicle."

Weight reduction is another part of the effort going into PNGV work. Space-age metals like titanium and magnesium are used as well as aluminum and composite plastics. Ford has the most tangible example of how this works. Their P-2000 prototype is lighter than a Taurus and can achieve 63 miles per gallon without an exotic powertrain.

In 1997, auto makers sold 12,000 alternative-fueled vehicles. Most used compressed natural gas and were bought by fleet owners.

FROM OTHER EV NEWSLETTERS

EEVC, The Eastern Group in Valley Forge in their March Newsletter had Part Six of the Cinnamonson High School EV story. The saga begins 5 weeks before the Tour de Sol race and they still do not have a battery for their car. Getting batteries was quite a scramble. The school received help from Neocon, EEVC members, and Solectria. The issue also had an interesting article about a hybrid army truck displayed in February. It has a diesel-powered generator with 100 kw rated power that can be used in the field for various purposes. It is designed to increase fuel economy by at least 25% and can be driven in the "stealth" mode using only the electric drive system on batteries. The vehicle was developed by Lockheed-Martin.

Electric Grand Prix, the New York Group now publishes the Genesee Clean Communities Newsletter. In the April issue they report that Malcolm Bricklin (~~Of the stainless bodied, gull-winged car fame~~) has a new joint venture. EVX and Belgian fuel cell producer ZEVCO plan to convert existing cars to a fuel cell power system. They also note that Budget Rent-A-Car is offering daily rental of EV's in California for $ 39.95 a day.

VEVA, the group in Vancouver, in their March issue reports setting up a Web Site for the Club. They are also beginning an e-mail issue of their Newsletter. They have an article and picture of a 1981 Suzuki GS-400 motorcycle converted to electric power by club member. The cycle has four Optima batteries, a home-made MOSFET controller, and aircraft starter-generator. Its top speed is 80 kph and range is 30 km.

PRIUS SHOW-AND TELL AT ILLINOIS INSTITUTE OF TECHNOLOGY

Dr. Peter Lykos, Chemistry Professor at IIT sent an e-mail to me describing an interesting event that will be held on Friday, April 16th at 2 PM in the HUB Ballroom at IIT. Argonne Lab will present a lecture on the Toyota PRIUS car and plans to display one of the cars they are presently testing in their facility. The HUB is at 3242 South Dearborn Street. Dr. Lykos is seeking volunteers interested in organizing and participating in this event. The scheduling is unfortunately on the same day as the next FVEAA meeting, and is the day after income taxes must be mailed. If you want info, contact him via e-mail - lykos@charlie.iit.edu or call him at (312) 567-3430.

FIRST ELECTRIC DRAG RACES IN ILLINOIS SCHEDULED FOR MAY

Seven new members of the FVEAA also belong to NetGain Technologies, a company building an electric dragster. They expect to complete construction in time for for a race scheduled in May at the new track southeast of Joliet. Bear's ex-running back Walter Payton is a partner in this venture.

NetGain Technologies is being helped during a visit from John Wayland who lives in Oregon. Kevin Zak has arranged for John to give us a presentation on electric car racing at the April meeting.

As Ken Woods notes in his PRESSEZ item this month, we can show support for their effort by attending the event. It will be on Sunday, May 16 or 23. At presstime time I don't have the details but if you are interested, call Kevin Zak at (815) 588-0267. I'm sure he can provide information. I hope to include a story on the event in the next Newsletter. BILL