



ELECTRIC VEHICLE ASSOCIATION OF SAN DIEGO (EVAOSD)

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Regular Meetings: 4th Tuesday of every month (January thru November), at 7:00 pm,
Location: San Diego R.T.C. (Pearson Plus), at 4001 El Cajon Blvd. and Interstate 15
Place: In the Autotorium
Next Meeting: Tuesday, March 28, 2006 @ 7 p.m.
Subject #1: Converted Porsche 911 Targa EV Conversion.
Speaker: Jim Bohorquez, Mesa Power Systems, member of EAA & EVAOSD.

The President's Message

During our February EVAOSD meeting we discussed several aspects that our members are involved in from Commuter Conversion Electric Car Class for Teachers to salvaging refrigerators from Katrina and recycling the oil and Freon.

For our presentation Lee Campbell discussed and showed his Solar assisted 2000 Chevrolet S-10 Electric Vehicle. The title was just a tease to let you know that this is a different EV. From switch able power steering, battery boxes and a four-way toneua cover this is an EV that you need to see. A link is: <http://campbellot.com/electric%20vehicles/s10.htm>.

Since our last newsletter I have been able to attend the Annual EAA Members Meeting in Palo Alto and a meeting of EAA newest chapter in Tucson. Both meetings were inspiring in different ways. The EAA Annual Meeting was a celebration of the past with awards handed out for dedication and the advancement of EV with several announcements. The EV1 movie is scheduled to be released June 28, and a Prius hybrid will be converted to a plug-in HEV during the weekend of April, 22. For info go to www.eaaev.org.

Traveling to Tucson for an EVA meeting was a hard sell but it turned out to be a good trip. We were supposed to meet at a drag strip and watch an EV swoosh past some gassers. I

am not sure if we got rained-out or blown-out but the weather changed our plans. So nine people set around a dinning table and discussed EV. I was amazed that each person had a pure EV project or several cars that they were working on. These guys are putting together some impressive EV in addition to participating in their Earth Day celebration. I look forward to hearing and reading about their accomplishments.

For our March 28, 2006, Jim Bohorquez from Mesa Power Systems is presenting his converted 911 Porsche Targa. Jim is a member of EAA and EVAOSD and he will have his vehicle available and a story to tell about keeping a 911 on the road, because of limited available parts.

I look forward to seeing you at our meeting on Tuesday, March 28, 2006 @ 7p.m. The meeting will be at the RTC (Regional Transportation Center), [in the autotorium & outside to view the EV] located on the southwest corner of the main building.

Note: If you arrive late the building may look dark and closed for business. We meet after normal business hours in the "Autotorium" and the public is welcome to attend our meetings.

Bill Hammons, President EVAOSD

The EV Grin

"EV'ers know about the grin that someone has just after driving an EV." Here are some notes for the San Diego EV Community.

Calendar of Events:

3/28 EVAOSD Meeting – Porsche 911 EV conversion

3/28-4/2 57th Annual Greater San Diego Science & Engineering Fair – Balboa Park Activity Center

4/7-8 2006 EV Challenge – North Carolina

4/22 35th Annual Earth Day Celebrations.

4/22-23 Convert a Prius to a Plug-in Prius San Mateo, CA
<http://calcars.org/makerfaire.html>

4/23 17th Earth Fair & AFV Parade – The world's largest annual environmental fair and Earth Day Celebration – produced by volunteers – San Diego, CA

4/25 EV Lecture at MIT
Gretchen.rings@yale.edu

4/25 EVAOSD Meeting – SDSU Challenge X.

4/29 EV Parade at the 7th Annual Spring Fest Allied Gardens Recreation Center, San Diego @ 11 A.M.

5/7-10 Clean Cities Congress & Expo; Fueling Clean Transportation – Phoenix, AZ

5/10-14 18th Annual Tour de Sol – Saratoga Spa State Park, NY

5/12-14 5th EVer EAA Chapters Conference – Fox Valley in Chicago/Juliet, Illinois. **EVAOSD representative needed to report back to our group.**

5/23 EVAOSD Meeting – TBD

6/28 "Who Killer the Electric Car?" EV1 Movie to be released. <http://www.whokilledtheelectriccar.com>

2006 EAA Annual Meeting was held February 25, 2006. Welcome to our new [board members](#). View the [slides](#) for this meeting.

Congratulations to our 2006 Award Winners

Lifetime Achievement Award: Jon Mauney

Keith Crock Technical Award: for work on plug-in hybrids

Felix Kramer & Ron Gremban of [CalCars](#)

Greg Hanssen & Peter Nortman of [Energy CS](#).

The EAA salutes Brent Singleton of Bonneville High School, Ogden, UT for winning the President's Environmental Youth Award (PEYA) from the EPA.

Singleton is being honored as an emerging leader in electric vehicle design. For a science fair and Eagle Scout project, he purchased a dismantled hybrid vehicle from Weber State University and modified it. The result was the world's first hybrid land speed racer. He has raced the vehicle in hybrid and zero-emissions mode at the world famous Bonneville Salt Flats in Wendover, Utah.

Then, to help with his daily drive to school, he added solar panels and wind generators to recharge his 96-volt electric system while in class. For details, see the [official EPA press release](#).

The documentary movie "[Who Killed the Electric Car?](#)" had its world premiere at the 2006 Sundance Film Festival and has received excellent reviews. [Sony Pictures Classics](#) has scheduled the general release for **June 28, 2006** so keep an eye out and plan to see this movie.

Come see a Prius converted into a plug-in hybrid!!

The California Cars Initiative ([CalCars.org](#)) will publicly convert a Toyota Prius hybrid into a "plug-in" hybrid during the inaugural Make magazine [Maker Faire](#) (in San Mateo, CA) . Over two days (April 22-23), CalCars engineers, along with a cadre of volunteers, will build and install a battery pack and make hardware and software adjustments to the stock Toyota Prius. Event details can be found at <http://www.calcars.org/makerfaire.html>

May 12-14 , 2006 ** Chicago/Juliet, IL ** **5th Annual EAA Chapters Conference** Hosted by the [Fox Valley EAA](#). The conference will include various events to promote EV discussions and social events to promote communication between EAA Chapters. This conference will coincide with the Midwest Alternative Fuel Expo. Time during the conference has been reserved to attend the NEDRA High Voltage Nationals on May 13. <http://fveaa.org>

Taking Turns ‘- - -, _ _ _ Messages from our members . . .

[17th Annual Earth Fair and AFV Parade is set for Sunday, April 23, 2006...](#)

The world' s largest annual environmental fair and Earth Day Celebration- produced by volunteers is taking place in San Diego at Balboa Park. This event is free to participate in or to attend. Bill Hammons is managing the parade and accepting Entry Forms for the AFV Parade and/or the AFV Alley Exhibit Area.

[April 25, EVAOSD Meeting...](#) Dr. Jim Burns (EAA member & EVAOSD Vice President) and engineering students from SDSU will discuss their progress towards the Challenge X: Crossover to Sustainable Mobility.

The General Motors Corporation (GM), the U.S. Department of Energy, and other government and industry leaders have developed **Challenge X: Crossover to Sustainable Mobility**. This groundbreaking, three-year competition will provide engineering schools an opportunity to participate in hands-on research and development with leading-edge automotive propulsion, fuels, materials, and emissions-control technologies. Seventeen teams will re-engineer a GM Equinox, a crossover sport utility vehicle to minimize energy consumption, emissions, and greenhouse gases while maintaining or exceeding the vehicle's utility and performance.

Challenge X shows that the cooperation of industry, government, and academia is the best approach to develop more energy-efficient and "greener" automotive technologies, to improve our economy and our environment, and to keep North American technology competitive on a global basis. The competition

also helps develop hundreds of highly skilled engineers with a greater awareness of these technologies — preparing them to lead the automotive industry in the 21st Century.

7th Annual Parade & Car Show, 4/29, 11 A.M., Allied Gardens Recreation Center...
Parade staging at 51st and Greenbrier St., San Diego, CA. Get your entry form @ geneelmore@cox.net.

Abran Quevedo is setting up an EV Conversion Workshop this summer...

Commuter Conversion Electric Car Class for Teachers is set for June 19 – 30, 2006. This is the perfect class for auto shop instructors, science teachers, industrial technology teachers, industrial arts teachers and EV enthusiasts. Contact abran.quevedo@sduhsd.net an EVAOSD member.

What EVs will we see in 2006? By: Jim Stack EAA Boardmember & President EVAPhoenix...

What EVs do you think will make it to the market in 2006? I see and hear a lot about a few companies coming out with real Electric Vehicles in the USA. There is actually only one at this time in March 2006. That's MyersMotors with the Sparrow, a 3 wheeled EV.

Soon ZAP will start offering the Xebra 3 wheeled EV. It will EVEN have a Lithium battery option. Also Twike is working right now for US Highway approval so they can offer their Twike 3 wheeled EV.

On EVworld we have read about the THINK being taken over by a new company. Maybe they will offer it in the USA. Phoenix Motor cars out of California is making EVs and is selling them to fleets and on big orders. I'd love to see some of them hit the streets soon. There is also the ACPropulsion SCION conversion coming in 2006. It will also have Lithium Ion batteries. I can't wait to see them on the road. Then there is the Tango. The first offered are high dollar carbon fiber versions like George Clooney has. Eventually they will offer the Tango T100 in a more affordable version. UEV ,Universal Electric Vehicles is also going to accept orders soon for their Spyder.

Who else will join this exclusive group ? Keep an eye here on EVworld since Bill seems to be well connected to the latest news. I think we will be surprised by a few new offerings that are just waiting to come out. As always batteries have been the biggest item on the EV want list. With all the new research in batteries and the many Lithium batteries being made this will be a very important year.

Its hard to wait ,just like Christmas but we don't want to try and rush things like happened in the past. If we get good designs and batteries perform as good or better than expected we will all win the biggest EVent in history. Also watch EVfinder <http://www.evfinder.com/evwatch.htm> for any EV news.

Bush electrifies plug-in fans

President scoops Johnson Controls' plans for batteries

[Harry Stoffer](#)

Automotive News / March 20, 2006



WASHINGTON -- Here's a tip: Plug-in hybrids are not as far-fetched as automakers have let on. Who says? President Bush.

The president says Johnson Controls Inc. is developing batteries for the next generation of hybrids -- ones that can be plugged in.

Regular hybrids combine electric motors and internal combustion engines. Advocates of the technology say hybrids cut fuel use and emissions and improve performance. A hybrid that could be plugged into an outlet when it is not in use would have far greater range in the more economical all-electric mode, proponents argue.

Bush's comment about hybrids did not get the coverage of his State of the Union remarks in favor of ethanol fuel made from plants. But it may be just as revolutionary for the former oilman.

Plug-in supporters "just fell off their chairs," says Felix Kramer, founder of a group called the California Cars Initiative, which promotes the technology.

Bush visited Johnson Controls' Milwaukee plant last month. The supplier is a top producer of traditional 12-volt lead acid batteries. The company is getting into the hybrid business, now dominated by suppliers of nickel-metal hydride batteries, by making lithium ion batteries.

Mike Andrew, Johnson Controls' chief of program management, says lithium ion batteries promise to store more energy but weigh less than nickel metal hydride batteries.

"Looking to the future, in terms of the broader market opportunity for hybrids and plug-in hybrids, we feel that lithium ion technology is the horse that we want to ride," Andrew told *Automotive News*.

Andrew declined to name a potential customer. "We are in discussions with just about every major OEM out there," he adds.

As for plug-ins specifically, he says: "We see an opportunity there for an extension of a product line."

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Electric Carmaker Think Taken Over by Norwegian

Source: InSpire/Norway [Mar 17, 2006]

Partners in the investment group InSpire, including the Think-founder Jan Otto Ringdal, acquired last week all the Think Nordic assets, including IPR and the brand name THINK, together with the management team and local investors.

The initial aim is to prepare for the production and introduction of the new THINK City model which Ford developed whilst they owned Think, - a unique product that was never introduced before Ford withdrew from the company. At that time battery technology had not evolved enough such that the range of the vehicle was compromised. The new investor group has access to new and advanced technology which will be further developed and utilised to improve the vehicle, with particular emphasis on performance and driving range.

The interest for environment friendly transport and products is growing strongly in particular for use in cities and urban areas, not least due to high energy prices and a growing concern of the effect of conventional transport on the environment. Think has products that address these issues and will serve this growing international market.

This marks the end of our printed & mailed newsletter additional EV related stories are available in our electronic edition at www.evaosd.com under meetings.

The new owners view the Think facility in Norway as a base for technology development, where the initial vehicles will be completed. Think will seek to exploit partnership and license production opportunities around the world. The group is comprised of investors who have since 2000 invested in renewable energy, fuel cells, and other technologies which will have significance for TH!NK.

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This page updated March 20, 2006

ZEV Technology Symposium

September 25 - 27, 2006
CalEPA Headquarters, Sacramento, California

At the 2003 Zero Emission Vehicle (ZEV) Regulation hearings, the Air Resources Board directed staff to conduct a review of ZEV technologies and advise the Board. To accomplish this, ARB will convene an expert panel to summarize technology status through site visits with automakers and suppliers. ARB is planning for this panel to commence their work in early 2006 and report their findings to ARB by December, 2006.

Additionally, ARB will hold a 2 ½ day ZEV Technology Symposium on September 25 - 27, 2006 in Sacramento, CA. The Symposium will include invited presentations from a variety of research and industry representatives, and will provide an opportunity for brief public presentations. **The Symposium will not consider specific changes to the ARB ZEV regulation.**

Overall findings will be summarized in a staff report and presented to the Board in early 2007. Regulatory changes, if any, will be considered only after staff has submitted the ZEV Technology Review staff report to the Board. The Symposium will be [webcast](#).

Senate Committee Hears Testimony on Approaches to “Energy Independence,” with the Focus on Transportation 7 MARCH 2006

1. Encourage the commercialization of plug-in hybrids and improved batteries.

If even one of these technologies is moved promptly into the market, the reduction in oil dependence could be substantial. If several begin to be successfully introduced into large-scale use, the reduction could be stunning.

For example, a 50-mpg hybrid gasoline/electric vehicle, on the road today, if constructed from carbon composites would achieve at least 100 mpg. If it were also a Flexible Fuel Vehicle able to operate on 85 percent cellulosic ethanol, it would be achieving hundreds of miles per gallon (of petroleum-derived fuel). If it were also a plug-in, operating on either upgraded nickel-metal-hydride or newer lithium-ion batteries, so that 30-mile trips could be undertaken on its overnight charge before it began utilizing liquid fuel at all, it could be obtaining in the range of 1,000 mpg (of petroleum). If it were a diesel utilizing biodiesel or renewable diesel fuel its petroleum mileage could be infinite.

—R. James Woolsey

Read the full article at http://www.greencarcongress.com/2006/03/senate_committe.html#more

ZAP!news

03/22/2005 [EPA Test Confirms Fuel Economy of Smart Car Americanized for ZAP at 40 MPG, Mileage Rating Released in the March 22 edition of USA Today](#)

Automotive pioneer ZAP announced today the results of fuel economy testing from the United States Environmental Protection Agency for the Smart Car Americanized for ZAP... [Read More](#)
http://www.zapworld.com/about/news/news_epa.asp

[SEE MORE COVERAGE AT USATODAY.COM](#)

http://www.usatoday.com/money/autos/2006-03-21-smart-car-usat_x.htm

03/8/2005 **[ZAP Now Listed on New York Stock Exchange Arca \(NYSE Arca: ZP\)](#)**

ZAP announced today that, following a merger between the New York Stock Exchange Group and Archipelago Holdings, Inc., the Company' s stock ..[Read More](#)
http://www.zapworld.com/about/news/news_nysearca.asp

More ZAP News at <http://www.zapworld.com/about/news.asp>

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[US Smart Owner On 'Cloud Nine'](#) - 03/22/2006

Dear ZAP, I just wanted to say thanks so much for helping me get my adorable SmartCar!!.. ...
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http://www.zapworld.com/about/news/watch_smartowner.asp