

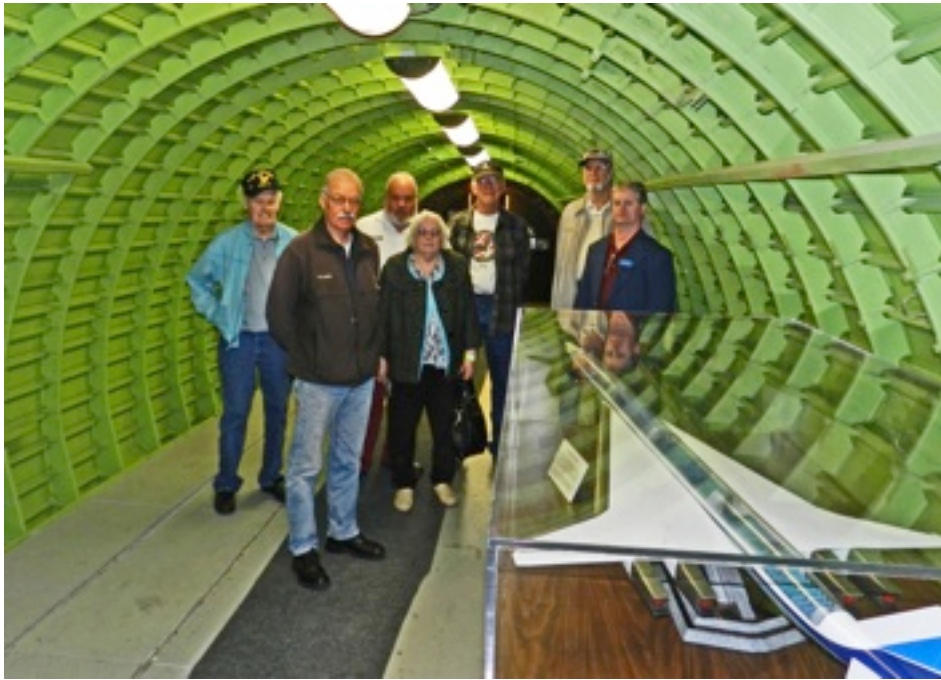


# NCKCC News

## Handcrafted Automobiles

March 2012

Volume 30 Number 3



Our Hiller Museum Tour Group is shown here inside the fuselage of the Boeing Sonic Cruiser (0.98 Mach) passenger plane. (A model of the plane is in the foreground) The Sonic Cruiser project was cancelled in 2002

### **COMING EVENTS**

- March 10, 2012 - Visit to Hall Fabrication & Racing in Benicia. Visit starts 10 a.m. Chuck Maddux, Champion. Sue Maddux is planning a side event for ladies only. Details in March newsletter. (See page 4 and RSVP to Chuck)
- April 21, 2012 - Charles Schultz Museum visit and Luther Burbank Garden Tour in Santa Rosa, CA. We plan to start at the museum about 10:30 a.m., Lunch at noon, then Burbank Gardens about 1:30 p.m.

**FROM THE PREZ**

The Club outing for February was a return trip to the Hiller Aviation Museum located at the San Carlos airport. Once again, I had the honor of conducting a tour of the facility for our group. The museum pays homage to Northern California Aviation history. Amazingly, many early developments in aviation technology occurred right here in the Bay Area. We also had a nice lunch at the "Waterfront" restaurant at the Redwood City Marina. Elsewhere in this newsletter, Vern has contributed the write-up and pictures of our tour. I would like to thank all our club members who attended the tour. I really enjoyed answering their questions and hope that all enjoyed the aviation artifacts and history. Also, a special thank you goes to Allen Koch who drove over two hours one way from the Sacramento area to attend.

The Club activity for March will definitely not be just another "return visit". Club members and Benicia residents Chuck and Sue Maddux have planned a visit to several businesses (car related and not) and historical sites in and around Benicia. Lunch in quaint downtown Benicia is also part of the plan. Look for Chuck's write-up on this new, intriguing outing elsewhere in this newsletter. This one is early in the month, Saturday, March 10<sup>th</sup>, so be sure to mark your calendars.

The official Club activity for April is another new destination for the Club: Santa Rosa. On Saturday, April 21<sup>st</sup>, we will visit the Charles Schultz Museum as well as the Luther Burbank Gardens. Both sites should be very interesting! Carol Hance is the champion of this activity.

South to San Carlos, East to Benicia, and North to Santa Rosa. The Club outings and activities so far this year are definitely heading toward all points of the compass. Is there something out there we can visit to the West other than the Pacific? We'll have to see?

Hope to see y'all soon,

Jim W

**DUES PAYING TIME AGAIN**

We still need about 13 of our 2011 members to pay their \$24 dues for 2012.

I will use my usual procedure of listing the last names of those whose dues have been paid. 43 have already paid for 2012 and their names are listed at the end of this article.

Please check this section each month to see that I have received your dues payment. That way we can cross check on you, me and the USPS.

Also, for those who would prefer to pay by PayPal, we have an account to handle that option. If you already have a PayPal account you can select a 'personal' payment to [nkcc@astound.net](mailto:nkcc@astound.net) and there is no PayPal fee. However you can also use a Visa or MasterCard credit card through PayPal, but in this case we ask you to add \$1 (\$25 total) to cover the PayPal fee.

To make a payment to NCKCC just send it to [nkcc@astound.net](mailto:nkcc@astound.net)

That way I will receive an email advising me of your payment.

Here's the 43 Paid-up members for 2012.

Amsberry	Kluber
Bales	Koch
Barrilleaux	Kunedt
Bello	LaCasse
Bohr	Landers
Boscacci	Latty
Clavelli	Leavitt
Craycroft	Maddux
DeCato	Mah
DeLany	Rehfeld
Dunn	Rhodes
Ellis	Rodarte
Elster	Roles
Fewell	Rubenstein
Foote	Smith
Hance	Thomson
Henson	Tung
Jacobs	Ullman
Jermanis	Wagner, J.
Ketchel	Wagner, R.
King	Wallters
Kinzy	

## **HILLER AVIATION MUSEUM TOUR** **FEB 25th 10AM**

By Vern Hance

Our first outing for 2012 was led by President Jim Wagner, who is an official Docent at the Hiller Museum. We had eight people that came out to learn more about the large amount of aviation history that was centered right here in the Bay Area.

The thing that impressed me the most was the replica of the plane (photo below) that in 1911 made a landing on a Navy cruiser (USS Pennsylvania) in S.F. Bay that had been fitted with a 120 foot long wooden deck.



The 22 arresting ropes stretched across the deck were anchored with 50 pound sandbags and the tail hook snagged enough of them to stop the plane before it ran out of deck space. Pilot Eugene Ely enjoyed lunch with Captain Pond, then took off successfully and returned to Tanforan Airfield where he started. Another interesting feature (below) was the watercooled V-8 engine to power it.



The Condor is a pilotless robotic-spy-plane with over a 200-ft wingspread. It was powered by two turbocharged gasoline engines and was able to remain in the air, at 67,000 feet, for up to 80 hours. It was built by Boeing in the '80s and utilizes ultra light carbon fiber construction.

The "Hiller-Copter" officially called the XH-44 was designed and built by 18-year-Stanley Hiller, Jr. and his team in a small automotive garage in Oakland, California. On July 4, 1944 after several engineering setbacks and teaching himself to fly, Mr. Hiller flew the "Hiller-copter," for the first time inside the Memorial Stadium on the Berkeley Campus of the University of California.

The XH-44 was the first successful coaxial rotor helicopter to fly in America. The coaxial rotor system has two sets of rotor blades - one mounted over the other and turning in opposite directions. This unique design eliminated the need for an anti-torque tail rotor. The original is in the Smithsonian, but a replica is being constructed in the Museum's restoration shop, where both Jim Wagner and his Dad have contributed many hours toward this recreation of the XH-44.

*Below: Jim explains the XH-44 replica project.*



For more interesting info on the Hiller Museum go to [www.hiller.org](http://www.hiller.org)

The Museum provided a worthwhile educational event and was attended by Vern & Carol Hance, Allen Koch, Bill Landers, Chuck Maddux, Robert

Wagner and Tom Wallters. We especially thank Jim Wagner for being our Docent.

Naturally, we had to finish the tour with a lunch at the Waterfront Restaurant in Redwood City, as shown below.



## **VISITING BENICIA**

By Chuck Maddux

Why visit Benicia on Saturday, March 10th, you ask?

The places we will visit will make it quite clear.

For the car buffs we will be visiting a 30 year old car refurbishing and race car builder, Hall Fabrication & Racing, 5418 Gateway Plaza ([www.hallfabracing.com](http://www.hallfabracing.com)) and Specialty Car Sales of Benicia, a few doors down from Hall ([www.specialtysales.com](http://www.specialtysales.com)). They house indoors & outdoors 50 to 60 collector quality automobiles.

For the non car people, Suzanne will guide a visit to two world renowned glass blowers in another part of town, Nourot Glass Studio, 675 East H St. ([www.nourot.com](http://www.nourot.com)) and Smyers Glass ([www.smyersglass.com](http://www.smyersglass.com)) in the same building.

Both groups will meet at the newly renovated Pappas Greek Restaurant ([www.pappasrestaurantca.com](http://www.pappasrestaurantca.com)), 1654 East 2nd St. for lunch.

After lunch we will proceed to the historic Benicia State Capitol Building ([www.parks.ca.gov/?pages\\_id=475](http://www.parks.ca.gov/?pages_id=475)) in downtown for a visit to the only other state capital building not in Sacramento for a tour of both stories of the building. Due to cutbacks

in staff we will not be able to tour the historic Fisher/Handlin house next door, but there is a video of the interior of the house available for viewing in the Capital Building and the garden is open for strolling. If you are interested in seeing more blown glass art there is Lindsay Art Glass, 109 East F St., which is very near by. ([www.lindsayartglass.com](http://www.lindsayartglass.com)),

Our last stop of the day will be the Benicia Historical Camel Barn Museum ([www.beniciahistoricalmuseum.org](http://www.beniciahistoricalmuseum.org)) located in the old Benicia Arsenal area at the north/east end of town, where we will see interesting artifacts of the area and California.

I have purposely included websites for you to visit to get additional information that will help you during your outing to our wonderful city.

We will stage at the parking lot near Hall Fabrication, 4518 Gateway Plaza at 10 AM.

Suzanne and I are looking forward to your visit to our lovely and historic city for a fun day by the bay.

Directions:

From north & south take 680 to Lake Herman Rd. in North Benicia, turn east (toward the river) to Gateway Plaza Rd., turn south and go to the end of the road (approx. 1/4 mile).

From the east take 80/580/4 west to 680, once in Benicia follow the above directions.

From the west to 80 east to 780 east to 680 north and follow the above directions.

For GPS, plug in the address for Hall and follow the voice.

I would appreciate a call/email if you're attending. Call (707) 745-4361 or email [camnsam@att.net](mailto:camnsam@att.net).

## **63rd ANNUAL GRAND NATIONAL ROADSTER SHOW WINNER**

It isn't often that we have a NCKCC member that brings home a trophy from this, the Grand-Daddy of all car shows. The Grand National features hundreds of the best hot rods, customs, muscle cars, motorcycles, street machines and classic trucks found anywhere in the world.

Well, this year Harry Craycroft came home with the Second Place Award in the 'Altered T-Roadster Pickup' class for his 1924 Ford Model T. Included below are some of Harry's comments and recollections from the event.

This was the 63rd Grand National Roadster Show Held in Pomona, Ca. on January 27-29, 2012. The show in the early years (1950s) was held in downtown Oakland at the old Exposition Building near Lake Merritt. In the early 70's it moved to the Oakland Coliseum Arena. It remained there until about 1999 and didn't have a permanent home again until about 2008 when it was bought by a So-Cal Promoter and moved to The LA Fairgrounds (Fairplex) in Pomona, California.

We had to send in a registration form and pictures to be accepted for the show. We were scheduled to set up the car at noon on Thursday January 26, so we left Concord at 3:00 am and headed south to Pomona, car loaded in my enclosed trailer and towed by my truck. We arrived at our motel, The Shilo Inn, in Pomona at 10:00am.

The motel let us check in early, we had lunch and arrived at the fairgrounds at noon. We were staged in line for access to the fairgrounds and waited about an hour before we were allowed to proceed to our assigned building (#8) for set up. The car was set up on my rug, sign and other items were placed and we returned to the motel to pass out.

The show had 500 cars that were in competition for the show awards. On Saturday and Sunday they also would allow about 300 hot rod type cars to drive into the grounds to park for display, these cars also had to be approved by sending in a form and pictures.

Some of the local car clubs had displays and an award was given to the club that had the 'Most Active Club Members'.

We didn't get involved in any of the dinners, Hall of Fame lunch or other activities, we were just too pooped!

My car was in a class of five cars, Altered T Bucket Pickup, we were awarded a second place trophy in this class. This was a very competitive class so I was happy to receive the second place award.

After the show ended Sunday night at 8:00 p.m., we loaded the car up into the trailer, went back to the motel, slept until 3:00 am, then headed home arriving in Concord at 12:00 noon.

This was a very long trip for us and if we did do it again I think that we would go down the day before set up.

This very large show occupies 10 buildings and requires lots of walking.

The trip, set up and the multi-day show was very overwhelming! I am thankful for having Irene as my helper. I couldn't have done this trip without her. We are glad to be home to rest up!



## **HOME BUILT ELECTRIC VEHICLES - A PATH TO WIDER ADOPTION OF THE TECHNOLOGY.**

By James M. Henson, Ph.D. (NCKCC Member)

Two areas where creative innovation thrives are in homebuilt aircraft and off-road racing. This proposal seeks to translate the success of those inventive and often ingenious approaches into the active promotion of the concept of fully electric vehicles. The intent is to establish a basic design for a home built electric vehicle that is relatively easy to build and essentially practical to put into daily use.

The core element is to establish an online business that would supply plans and components for a fully electric kit car project. The builder could purchase the plans along with a construction guide as the most basic approach. The other extreme would be a complete turn-key vehicle that would be built-to-order for the customer. Many variations would be available between these two extreme approaches. The entire vehicle could be constructed by a reasonably accomplished builder in a well-equipped home workshop. The 1/8 scale mock-up is shown below.



Work is underway on a grant application to build the first example. This would involve students and faculty from three departments at California State University, Fresno: Mechanical Engineering, Information Systems, and Entrepreneurship. A desirable overall objective would include the launching of a kit car business by a student or a group of students from these classes.

This simple, functional, and practical vehicle would not be based on the modification of an existing production vehicle. Instead it would involve the creation of a simple and light-weight design. The core construction is a steel-tube chassis based on a modified sand buggy design. The suspension, seats, steering, and other chassis components would come from the off-road or after-market automotive world. The chassis would evolve into an "exoskeleton" design by filling the spaces between the tubes of the chassis with low density urethane foam. Then the foam and the steel tubing would be laminated with an overlay of carbon-fiber and epoxy impregnated fiberglass. This composite construction method borrows heavily from the homebuilt aircraft industry, especially the work of world famous designer Burt Rutan. While this type of construction involves a lot of hand-finishing, it does not require expensive molds or elaborate tooling! This methodology is well-suited to the homebuilding approach.

The rear wheel drive assembly would use a 37 KW motor with a solid-state controller. This 156 volt AC motor uses a direct drive gearbox with an 11:1 ratio and a built-in differential. Forward and reverse are electrically selected. The vehicle dimensions are 90 inches for the wheelbase with a height of 50 inches. The expected empty weight without a driver or batteries is 600 pounds. The weight of the batteries can range between 400 pounds and 800 pounds depending upon the voltage and the capacity. (52 cells @ 100 Ah or 200 Ah.) The range of travel on a fully charged battery system would vary from 60 miles to 120 miles. That would be dependent upon the terrain, the speed selected, and the capacity of the installed battery system. The top speed is about 70 mph in short (10 minute) bursts.

Subcontracting discussions have been held with a sand buggy shop and a fiberglass shop in Clovis along with the motor drive supplier in Santa Cruz. In addition a China based battery supplier has provided a quote, but it is hoped that a domestic supplier can be located.

Registration and licensing procedures have been researched and are reasonable. Those elements include a safety inspection, a smog waiver, and a Highway Patrol verification procedure. This only applies to a car constructed as a one-off kit, not to a production vehicle. A turn-key vehicle would have to be built to order for a single customer and based on kit components. Other states and other jurisdictions have different requirements so that is a matter to be thoroughly researched in advance for each instance.

*Shown below is one type of body that could be adapted to this vehicle.*



## **FOR SALE**

BUGATTI 1927 Bugatti, good cond. Never wrecked. Yellow paint, brown upholstery that needs rework. Less than 50 miles on 1600cc recond. engine. Consider delivery. \$3000.00. (See photo) Dave Fernandez 530-384-2778 email [daf360hd@att.net](mailto:daf360hd@att.net) (3-10)



From top:: Dave Fernandex '27 Bugatti

FINO – Built on 1987 Fiero with Cadillac Northstar V-8 & auto trans. Regular trophy winner. Custom suspension, brakes and interior. Special Purple BASF Extreme paint. **Reduced to \$19,900.** Call Al Bohr (503-632-8372) or e-mail: [albohr@bctonline.com](mailto:albohr@bctonline.com). (10/09)



Al Bohr's Fino with Cadillac Northstar power

FERRARI Testarossa (yellow). This beautiful and extremely well built smog exempt car won 7 awards including first place at Knott's and was featured in Kit Car Illustrated. The chassis is a lengthened Fiero, with a Chevrolet 327 engine, a Getrag 5-speed transmission, authentic Ferrari chrome-plated aluminum wheels, Eagle F-1 tires, plus many other amenities. This is my fourth replica and is by far the best. \$21,500. Al Clavelli 650 573-8125 or e-mail [alclavelli@aol.com](mailto:alclavelli@aol.com). (7/11)



Al Clavelli's Ferrari Testarossa

"Cars for Sale" ads in the *NCKCC News* are for members only. Rate is \$10 for 12 issues.

Shown above right are the cars listed.

The kit car industry on the internet:

**kitcar.com**  
and  
**cobracountry.com**

- kit cars For Sale by Owner... in 22 kit categories plus Cobras!
- Consumer Alerts, show coverage
- over 1200 web pages
- Pro tips on motorcar photography

*Carl Scott*

661-251-2223

## **NEW PROJECT OPPORTUNITIES**

'52 MG-TD Front-engine kit still in the box.

'72 Camero frame-off restoration started but needs a finisher. [Click to see condition](#) before disassembly.

If interested contact Vern Hance (925) 938-1442 or [nckcc@astound.net](mailto:nckcc@astound.net)