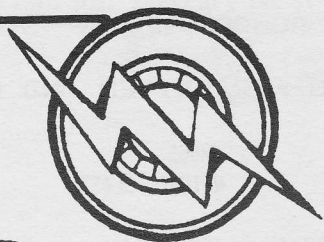


Electric
Auto



NEWS

OCTOBER 1985

Association

VOL. XVII NO. 10

'86 Calendar Coming Events

WE WOULD LIKE OUR JAN. ISSUE TO BE THE MOST COMPLETE CALANDAR OF EVents EVER
PUBLISHED REGULAR HANG ON THE WALL CALANDER PLAN AND REPORT NOW !! NOW!!!!

THE WINNERS CIRCLE 1985

INTERNATIONAL-SUNNYVALE SEE PG. 2

SAIED ADDS 14.2 MILES TO HIS WORLD

RECORD DISTANCE FOR 229.2 MILES

BILL WILLIAMS-107.1 WILLIAM KUEHL-100.8

FRED SCHILLER-94.5 LLOYD WENZEL-94.5

DEVC-DENVER SEE PG. 4

TIM CUTFORTH -34.6

EVA of SC-FONTANA SEE PG. 3

JACK RUEBSAMEN-85.8

EASTBAY-OAKLAND SEE PG. 4

RUSS KAUFMAN -87

SEVA-SEATTLE SEE PG. 2

MICHAEL THOMPSON-107.25

SOLAR TOUR de SOL-SWITZERLAND SEE PG. 3

MERCEDES-BENZ

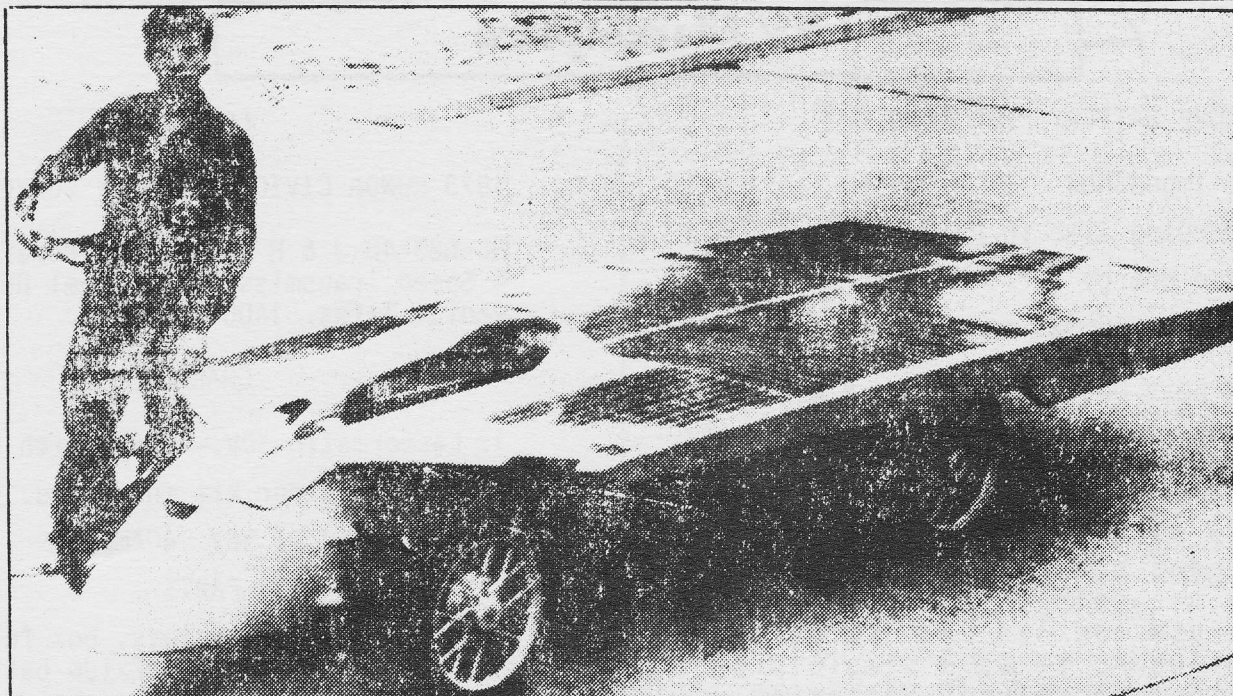


RESULTS OF 1985 ELECTRIC AUTO ASSOC RALLY - STANDINGS BY EFFICIENCY
 SANTA CLARA - 6.3 MILE COURSE
 (GROSS WEIGHT INCLUDES 300 LBS FOR DRIVER AND PASS.)

RANK	EFFIC ENCY	NO. LAPS	ENTRY NO.	OWNER NAME	CAR TYPE	GROSS WEIGHT	CLASS	AREA SQ-FT	NO. BATTS	AMPHR RATING	MILES FACTOR
1	2.76440	11	28	JOHN WASYLINA	BROWN RENUALT	2830	STOCK	22	10	95	25.0687
2	2.21684	17	2	BILL WILLIAMS	HONDA	3250	STOCK	22	18	105	49.3118
3	1.88592	15	11	FRED SCHILLEIL	VW CAR	2630	CUSTOM	21	16	217	50.1000
4	1.71417	15	21	LLOYD WENZEL	WHITE 2DR HONDA	3100	STOCK	18	18	05	55.1284
5	1.45509	16	29	WILLIAM KUEHL	73 RED HONDA	3200	STOCK	18	24	105	69.2736
6	1.40871	12	23	STAN SKOKAN	JET ELECTRA	3536	COMMERCIAL	22.5	16	250	53.6661
7	1.36777	9	25	PAUL AKMAN	HOMEMADE M.C.	675	2/3 WHEEL	8	4	135	41.4542
8	1.36471	17	1	SAIED MOTAEI	GREEN FIAT	3700	CUSTOM	22.1	32	105	78.4781
9	1.28568	9	32	G. SCHAEFFER	DATSUN PICKUP	3640	STOCK	23	18	217	44.1009
10	1.21560	11	16	G. HARGREAVES	UDCATI	1100	2/3 WHEEL	10	8	217	57.0088
11	1.14939	8	7	D. GILLIS	VW	3150	CUSTOM	22	16	105	43.8492
12	1.14730	8	4	BILL WILLIAMS	BLUE DATSUN	2622	STOCK	21	14	105	43.9291
13	1.07503	13	9	RUSCO ENG'G	1937 CHEVY	3100	CUSTOM	20	20	140	76.1834
14	1.05025	5	17	ROY PAULSON	HOMEMADE M.C.	385	2/3 WHEEL	10	5	95	29.9928
15	0.91909	3	18	C SCHAEFFER	RENAULT	2431	STOCK	26	8	95	20.5636
16	0.79980	5	10	S & A CORNELL	VW	3100	STOCK	21	14	105	39.3845
17	0.77318	7	22	BRUCE MCCASKIE	VW	2950	STOCK	24	16	244	57.0366
18	0.73023	7	8	BOB STEINFELD	HOMEBUILT SPECI	1800	CUSTOM	21	12	244	60.3913
19	0.72390	2	24	KEN AKMAN	HOMEMADE	550	2/3 WHEEL	10	2	95	17.4056
20	0.69795	6	31	ALAN BURGOS	GRUMAN MAIL DEL	1550	COMMERCIAL	25	14	105	54.1582
21	0.67935	6	12	DAVID HORTON	LAHER	1050	2/3 WHEEL	11.3	6	140	55.6411
22	0.67335	7	5	JOHN BENNETT	LEKRIKAR	3500	STOCK	1	18	105	65.4926
23	0.61295	6	30	LOU MACHILLAN	VW	3300	STOCK	1	16	105	61.6682
24	0.57139	5	20	BILL PALMER	CHEVY	3500	STOCK	20	16	140	55.1284
25	0.55877	5	34	L. LINDELL	PINTO	3650	STOCK	17.5	16	250	56.3730
26	0.51950	5	19	AL HARDAGE	VW	2500	STOCK	1	12	105	60.6349
27	0.51864	4	35	ED SCHANZ	KING MIDGET	2160	CUSTOM	18.2	13	105	48.5881
28	0.51000	6	6	W.L. SCHRUNK	MAZDA	3200	STOCK	1	14	250	74.1165
29	0.37557	3	14	BETTY ELLERS	007 SEDAN 2DR	3660	COMMERCIAL	20.0	20	105	50.3222
30	0.22101	1	26	SAH BOEGES	COMUTA CAR	2200	STOCK	20	8	105	28.5044
31	0.20444	1	36	R SWENSON	SINCLAIR M.C.	430	2/3 WHEEL	4	2	95	30.8154
32	0.15184	1	27	MAE BENSEN	VW	2600	STOCK	1	10	95	41.4889
33	0.11634	9	33	ISRAEL TILLIN	HONDA	301	STOCK	1	14	105	457.340
34	0.10251	1	15	CLARENCE ELLERS	ASTEC	1900	CUSTOM	20.5	16	105	61.4526
35	0.00000	0	37	NONE	NONE	300	STOCK	1	1	1	0
36	0.00000	0	3	NONE	NONE	300	STOCK	1	1	1	0
37	0	0	13	JOHN NEWELL	FIAT	2800	STOCK	20	12	105	36.7175

SEVA-Seattle, July, 28, 1985

Michael Thompson	107.25	Rod Johnson	22.75
Steve Lough	86	Bruce Cyphers	19.5
Norris Saari	68.25	Rip Reece	6.25
Larry McKibbin	58.5	Steve Lough	3.25
Lou Griggs	42.25	Vern Frese (hybrid)	68.25
Steve Lough	22.75	Ray Nadreau	8.125



Associated Press

Following the sun

An unidentified Mercedes-Benz driver poses with this Silver Arrow "solarmobile" — crafted in the company's Stuttgart, West Germany, training workshops — after winning the Swiss Tour de Sol. It was the Swiss Solar Energy Society's first European

rally for vehicles powered predominantly by solar energy. Sixty-eight solar vehicles registered for five one-day legs of the race, which started at Lake Constance and ended at Lake Geneva. The Silver Arrow's 432 solar cells generated a top speed of just under 45 mph, which doesn't sound very important until you remember that it uses zero gallons of gas per mile.

RESULTS OF 1985 ELECTRIC VEHICLE ASSOCIATION RALLY AUGUST 17, 1985 COURSE 2.6 MILES

<u>NAME</u>	<u>CLASS</u>	<u>TYPE</u>	<u>VOLTS</u>	<u>WEIGHT</u>	<u>LAPS</u>	<u>MILES</u>
1. Jack Ruebsamen	4 wheel	Mazda	48/96	3000 lbs.	33	85.8
2. Vic Schisler	4 "	Aztec 7	96	3010 lbs.	30	78.0
3. Vic Jager	4 "	Mazda	96	3030 lbs.	29	75.4
4. Joe Lima	4 "	Renault 77	72/144	2320 lbs.	24	62.4
5. Leo Schatzl	4 "	Honda 600	60	2200 lbs.	16	41.6
6. Larry Crane	4 "	Suzuki Truck	84	2000 lbs.	8	20.8
1. Ken Koch	3 wheel	Alco (Thermal M.S. Spl)	36	648 lbs.	31	80.6
2. Chris Schatzl	3 "	Akkord	24		26	67.6
1. Paul Akman	2 wheel	Homemade	240	275 lbs.	21	54.6
2. Paul Overpeck	2 "	Huffy Bicycle	12	160 lbs.	8	20.8
3. Ken Akman	2 "	Self-made	24	250 lbs.	6	15.6

CHAIRMAN'S AWARD BEST APPEARANCE * Vic Schisler

EV Marketplace

IMPROVE BATTERY PERFORMANCE

- * Reduce Impedance
- * Cut Charging Time in Half
- * Increase Energy Efficiency by 20%
- * Reduce Battery Maintenance & Corrosion
- * Reduce heat buildup, gassing, & water
- * Extend Battery Life 2-3 Times
- * Lower Battery Cost

Energain Battery Converter is a significant breakthrough in battery technology. Energain is safe to use and has been certified by OSHA. It is a simple procedure to improve your batteries and make using your EV even better. Call or Write for more Info and EAA members Special Pricing, also available PM Motors. Kansas Wind Power, R-1, Holton, KS 66436 (913)364-4407

FOR SALE

1973 HONDA CIVIC HATCHBACK CONVERSION.

NL-G23-4B J & H 400 Amp. Aircraft Gen.
4 Speed Transmission. 4 Steel Belted Radial Tires. 1400 Miles.

CHARGERS

1: Lestermatic 30V.-40Amp. with Lesteronic timer kit installed.

2: Lestronic II 36V.-40Amp.

PARTS

Four 400Amp.-28V. relays, box full of relays & parts, 10-6V. Exide batts.

\$1000 FOR THE LOT, Al Greasby, Box 93 Lannon, Wis. 53046

THE OFFICIAL RALLY RESULTS ARE AS FOLLOWS:

DEVC-Denver, AUG. 24, 1985

1ST PLACE	CORVAIR	CONVERTIBLE	16 BATTERIES	346 MILES
2ND PLACE	GRANSEE SPECIAL	HAND CRAFTED	8 BATTERIES	274 MILES
3RD PLACE	ELECTREK	COMMERCIAL	16 BATTERIES	231 MILES
3RD PLACE	EFP ELECTRIC	CONVERTED AMC HORNET	22 BATTERIES	23.1 MILES
4TH PLACE	MARS II	CONVERTED RENAULT	12 BATTERIES	19.8 MILES
5TH PLACE	COMMUTACAR	COMMERCIAL	8 BATTERIES	12.6 MILES
5TH PLACE	MGB ELECTRIC	CONVERTED MGB/GT	8 BATTERIES	12.6 MILES
6TH PLACE	VW ELECTRIC	CONVERTED VW H. BACK	12 BATTERIES	8.4 MILES
7TH PLACE	VEGA ELECTRIC	CONVERTED VEGA WAGON	16 BATTERIES	4.2 MILES
LAST	DEVC HYBRID	NOT STREET LEGAL YET	9 BATTERIES	00 MILES

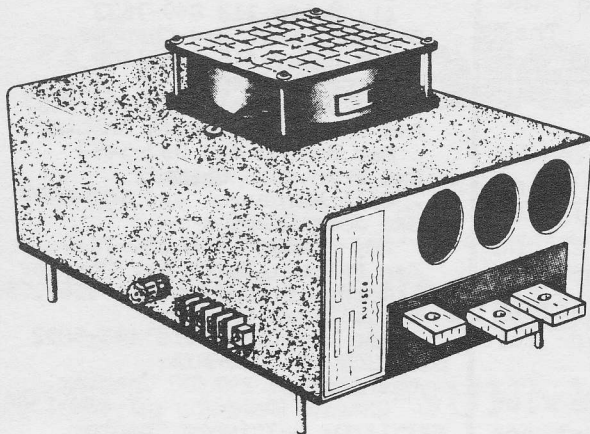
MANY OF THESE CARS ARE IN DAILY USE AND ARE RUNNING ON BATTERIES WHICH ARE FROM ALMOST NEW TO 9 YEARS OLD. IT WAS ALSO POINTED OUT THAT A 1/2 MILE LONG GRADE TO CLIMB ON THE COURSE DOESN'T HELP THE MILEAGE FIGURES. WE DO FEEL, HOWEVER, THAT THE COURSE IS QUITE REPRESENTATIVE OF CONDITIONS IN THE AREA.

EAST BAY-Oakland, AUG. 10, 1985

Entry Number

ENTRY NO.	NAME	CAR	BATTS	VOLTS	LAPS	MILES	ENTRY NO.	LAP TIME	FRONT AREA	Cd	WEIGHT	MIN @ 75AMPS	Ahr	MH / MILE	EFFICIENCY
1	Scott Cornell	Chevy Vega	18	6	26	75.4	1	9.12	21	.463	3900	105	131.25	217.4	1.156
2	Lloyd Wenzel	Honda Civic	18	6	28	81.2	2	8.78	17.54	.514	3100	106	132.00	171.3	0.972
3	Art Ziegler	Chevy Luv	16	6	21	60.9	3	9.18	22	.500	3500	105	131.25	205.7	0.994
4	Israel Tillin	Honda Civic	14	6	20	58.0	4	9.28	17.54	.514	2400	105	131.25	147.93	0.778
5	Carl Schaeffer	Renault	8	12	8	23.2	5	8.62	19	.463	2413	45	56.25	138.00	0.893
6	Angus MacDonald	Shopper	4	6	19	55.1	6	12.95	12	.400	895	105	131.25	81.50	1.427
7	Bill Williams	Datsun 1200	14	6	22	63.8	7	9.95	17.54	.514	2700	105	131.25	174.64	1.011
8	John Wasyline	Renault Alliance	10	12	20	50.0	8	8.35	22	.514	2030	75	93.75	162.75	0.839
9	J. Margaret Milton	Datsun P/U	16	6	21	60.9	9	9.33	18.4	.514	3650	105	131.25	209.60	1.013
10	Jim VanSlyoc	Commutacar	8	6	4	11.6	10	9.25	17.9	.541	1700	106	132.50	120.46	0.219
11	Russco Eng.	Custom	16	6	30	87.0	11	9.06	20	.514	2400	105	131.25	152.10	1.050

SAFETY ELECTRIC VEHICLE CONTROLLER Model HV-500



SPECIFICATIONS:

- 100-500 AMP
- 24-120 VOLT
- 4000 HZ EFFICIENCY
- FULLY PROTECTED
- REGULATED COOLING FLOW
- SIZE — 4" D x 8" W x 12" L
(101.6mm x 203.2mm x 304.8mm)
- WEIGHT — 14.5 lb. (6.59 kg)
- FULL LINE OF ACCESSORIES
AVAILABLE

SAFETY FEATURES:

- NON-GROUNDED SYSTEM
- ACCELERATOR INTERLOCK
- SOFT-START ACCELERATION
- HIGH-VOLTAGE DISCHARGED
WHEN OFF
- OSHA YELLOW ENCLOSURE
- HIGH VOLTAGE WARNING LABEL
- AXIAL FAN GUARD

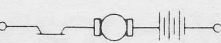
\$550

MODELS AVAILABLE UP TO
1000 AMPS AND 300 VOLTS

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ELECTRO-MECHANICAL ENGINEERING

@FOR SALE: New TROJAN (T-105) Batteries.
Total of 18 with only 30 cycles. Steal for
only \$540 !!! Bill Williams, (408) 867-1030
after 6 P.M.

* * * * *

FOR SALE: 1971 CITI CAR, Less than 5,000
miles. Needs controller. 3 1/2 HP Motor,
Eight batteries, Spare brushes, Spare
wheel, & Tire. \$300 Takes All. G. Fennett,
Junction Star, #418, Ingram, Texas 78025.

* * * * *

WANTED: Operator or owner Manual for my
1975 ELCAR (Zeale 2000) J. A. Maslo 4213 W.
Oklahoma Ave. Milw 53215 Wisconsin.

* * * * *

RECONDITIONED BATTERIES; William Brown,
"The Battery Box " Oak Harbor WA 98277.

* * * * *

FOR SALE

One GE forklift motor 11 1/2" dia. X 10 1/2"
Long, large tapered shaft with keyway.
4 main pole split series winding, 36 to
60 volt, 170 Lbs. \$200

One GE 120Volt 167Amp. Aircraft Gen.
6 main pole, 6 interpole, 100 Lbs. 60
to 144 Volts. \$175

One Westinghouse EA40 Aircraft Gen.
30 Volt 400 Amp., 6 main pole, 6 in-
ter pole. 70 Lbs \$150

One Lear Siegler G32 Starter-Gen.
30Volt 500 Amp. 6 mainpole, 6 inter-
pole, Compound field, not fully assem.
80 Lbs. \$150

Extra field frame for above \$50

Three Baldor series motors. 4 terms.
2 1/2hp@2400 Rpm, 24Volt. 7/8" keyed
shaft, 4 pole, bottom or face mount
70 Lbs. \$85ea.

Three Fan motors, heavy series field
4 pole, 4 brush, 4HP@4000 Rpm. 24 Volt
Double end 9/16" shaft. \$40ea.

4 Dodge 4 start-gens, need field \$35ea.

1 Ford R-1 Aircraft gen apart 300 amp.

\$20. 1 Delco P-1 Aircraft gen. 200 A.

\$30. 3 large 1500W transformers, odd
windings \$20ea. 3 Cutler-Hammer 200A
DPDT relays 24V. coils \$25ea.

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SYMPOSIUM '85

Mr. Bob Aronson of Electric Fuel Propulsion Corp from Ft. Lauderdale, Florida started the symposium off on a good note. He told us he just returned from Japan where the Daihatsu organization is expecting to have 200,000, two passenger electric cars on their home market in 1986. In addition they plan to manufacture 50,000 small electric vans. He says that his corporation is working on the specifications for a 1/2 ton electric van. One goal for this van is quick charging.

Joseph Callaham of NiCal Products (Thermo Batteries of Calif. showed pictures of their "Thermo" battery and the "oil" mixture they use in their lead-acid battery. They were of course pleased when John Wasylina won the award for the most efficient vehicle using a complete set of their Thermo Batteries on board.

Bill Palmer presented view graphs of the data accumulated by TVA at their Electric Vehicle Test Track. The Lucas Chloride Lead-Acid battery test pack has been tested to 21,000 miles and the Eagle Pitcher Ni/Iron battery to 24,000 miles. The Alco "2400" battery now has explosion proof caps and a 20% increase in capacity. You will not find these on sale for golf carts. They are specifically designed for electric cars. This seems to be a first.

Erwin Ulbrich, an EV expert from Whittier Ca. informed us about his bench testing of batteries. He told us about one set of batteries that were 6 years old and had the equivalent of 6,000 miles on them. They were considered useless but when put into "regular use" as simulated in the bench tests they had an additional 8,000 miles in Los Angeles traffic, a total of 14,000 miles. Not bad for 6 year olds! He showed us a unique DC-DC converter, an ordinary hand drill coupled to a generator. A noisy charger for your control battery, perhaps? He also let us view his imaginative 1000 lb. was towed by a skate board underneath the car. No joke he has data from these tests! The skate board is forced along the roadway by a linear motor in the roadway.

Now see what you missed if you were not at the symposium.

John Newell....

EDITORS: - Walter Laski - John Newell - Bill Palmer - Paul Brasch - COMPILED AND PUBLISHED By Clarence Ellers. SEND IN YOUR PERSONAL AND CLUB NEWS AND COMING EVENTS. ARTICLES _ COMMENTS etc. all correspondence to address below.

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Call the contact person for meeting times and places.

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