the Ampeer

April 1997 Page 1

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The Next Meeting:
Date: Thursday, April 3, 1997 Time: 7:30
Dublin Community Center, just N. of the village of Union Lake on Union Lake Rd. across from St. Patrick's Church

Tips on Building the Big Ones
from e-mail between Eric Diedrick and Keith Shaw

Hi Keith,

I saw the pictures of your Bearcat, that Ken posted on the EFO web page. It sure looks like a nice airplane (as usual). I am building a 1/4 scale Extra 300 (72 in. span 9-11 lbs with a 60 or 90 Astro motor). I was wondering what kind (make and size) of hardware you use on you larger, more powerful aircraft? Where do you place the servos? I have seen some planes with the servos mounted in the rear of the fuselage and some even have the servos in the horizontal stabilzer. Is there any problem with radio interference when the servos are in the tail area? Do you use stronger servos and or more servos? Any suggestions, hints and tips will be appreciated.

Thanks,
Eric Diedrick

Hi Eric,

On my large aircraft I use standard 1.5 oz, 50 oz-in torque servos like the Airtronics 102 or the ball bearing equivalent and a standard 600 mAh battery pack. Even though I rarely fly more than one or two flights on any plane in a day, I would be reluctant to go to a smaller battery. The 600 cells have a lower impedence, so the voltage doesn't droop as much when several of the bigger servos are active. I am very careful to support the pushrods (I use fiberglass arrow shafts) several places down the run to be absolutely sure they can't move sideways.

It is also very important to have NO slop in the hinges. I use the fuzzy strip type, be sure to use thin normal CA, not odorless

What's in this issue?

types. The odorless types do not seem to "wet" the hinges well. You could pin the hinges with a toothpick or straight pin to be really sure it's okay.

Also, I use a Kraft-Hayes molded hinge at the location of the control horn (epoxied in) to prevent hinge flex and deterioration of that high stress area. I've seen e-models with the servos in the tail, seems to work okay, but I've never used it. If any range/interference problems do occur, installing Ace Noise Traps in the line will probably take care of it. Heck I'm still using single servo and bellcranks in the wing, rather the separate servo that seem to be so popular these days. Separate servos would be better for suppressing flutter, but I've not had problems with that yet. I guess the best advice is to pay careful attention to preventing slop and bends in the pushrods.

By the way, Dave Grife has a 6 foot Extra framed up for a geared 60, two aileron servos and R+E servos back in the tail. You might give him a call if you have any questions. I know that it is sized identical to one of the available kits so that he could use the cowl, canopy, and landing gear.

Looking foward to see your Extra this summer...

Keith

E-30 Class Electric Flight

E-mail is great, until it goes wrong. In January I received a request from Chris Behr, in Australia, on the E-30 class. I replied and it came back to me. I tried again on February 1, using a modifed address, but it still came back. Even though you are reading this in April, it is being written Feb. 1. Chris, I'm sorry this didn't get to you sooner, but thought that all of you might like to hear about the E-30 rules.

Hello Chris,

I didn't have a clue on the E-30 class rules. I was pretty sure it was based on the AMA P-30 rubber outdoor free flight class. I posted to CompuServe ModelNet Forum and Daved Gee, from the Free Flight area responded with the following.

<<<E-30

1. projected wingspan not less than 28" or more than 30 "
2. only the following motors may be used: VL HY-70 system or MRC system from kit IS01 cessna foam model (motor only..plane does not qualify)
3. Batteries: two 50 mah cells
4. prop must be plastic commercially available
5. minimum weight 50 grams
6. flight of more than 40 seconds considered official flight. six attempts to make 3 official flights
7. max flight time 2 minutes
8. if a tie exists after 3 recorded flights than each successive flight has a max of 1 minute more than the previous flight. only 1 attempt for each flyoff flight.

This is from the Blacksheep Exhibition Squadron freeflight rulebook. Yer on yer own now...

Dave>>>

Then I received the following from James Hall

<<<Ken-the blacksheep rules we go by here in L.A. have two catagories-E30-2-50-mah cells. E30X- 3- 50mah cells. Two motor systems - the VL Hy-70 and the MRC motor from their Cessna foam kit (note these are old rules) are allowed. plastic prop-min wt.-50 grams- max flt times--E30-2 min. E30X-3 min. projected span 28 min. 30 max. I think we have allowed other motor types over the years.>>>

I hope this helps.

Sincerely,
Ken

News from the Frigid North

from Brent Watkins
76055.3547@compuserve.com

Ken,

Here is a piece of electric news trivia. Here in Fairbanks, our club (Midnight Sun R/C Club) has an annual fun fly each year on January 1, regardless of the weather. I am the only electric flyer in our club.

Well this year the temperature was -42 F (note -40 F is the same as -40 C), and I made 8 flights with my Goldberg Mirage with Astro-05 and 8 cells. The dense cold air (we are also only 400 feet above sea level) gave excellent performance. Only one other flyer with a glow engine was able to make two flights (with engine difficulties).

Introducing the X$^{440\text{TM}}$

SR BATTERIES, INC., BOX 287, BELLPORT, NEW YORK 11713
Fax: 516-286-0901
Email: 74167.751 @compuserve.com
Phone: 516-286-0079

Hi... My name is Larry Sribnick. I'm President of SR Batteries, but more importantly, I've been a modeler for over 40 years.

Like all of you I love to fly, but I don't have any time to build. I'm lucky if I can find time to get to the flying field. Sure there

are Ready-To-Fly and ARF kits I could buy, but for the most part they are lead sled plastic bags and they still take a bunch of hours to get flying. The only reason people fly ARF models is because it's either fly an ARF or don't fly at all. Sound familiar?

Well, if you're interested in Electric Flight or have been thinking about trying it, all of that has just changed. We've just introduced the X^{440} made for us by X-Models.

The materials and workmanship that go into the X^{440} are as good as you could want. Frankly, I'm a good builder, but the best I could hope to do is equal the quality of the X^{440} . It's really that good. That's why we're calling the X^{440} a "Custom Built" aircraft rather than a Ready-To-Fly aircraft.

With the X^{440} there's nothing to build. Just install the servos and motor and you're ready to head for the field in less than an hour. Even I have time for that!

If you've looked at any of the other ARF or Ready-To-Fly electric aircraft on the market, you're used to seeing wing loadings of 13 ounces, 17 ounces, and even 23 ounces per square foot. Will they fly'? Sure. Will they fly and soar well? No! How does a wing loading of 7.5 ounces per square foot sound? That's the X^{440} 's wing loading! Balsa is used where it should be used and carbon fiber and epoxy/glass are used where they should be used. The result is a 442 square inch aircraft that weighs only 10 ounces less radio and propulsion system!

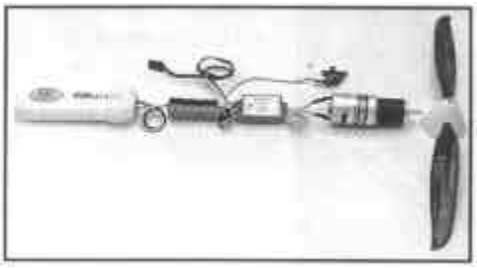
Everything is CNC computer machined so that the parts fit just right. In fact, the parts are so identical that we can stock extra wings, fuselages, and tails so you can be back in the air in a hurry if the unthinkable should happen.

The X^{440} is pre-covered with lightweight transparent yellow Oracover on the stabilizers and wing center section and lightweight transparent red Oracover on the wing tips. The spars, leading edge, and push rods are made of carbon fiber. The fuselage is pre-painted yellow epoxy/glass with two plug in "V" tail stabilizers so the X^{440} comes apart easily for transporting or storage. Even the servo mounts are pre-installed. The two piece, take apart, wing has a span of 64.5" and a wing area of 442 square inches. It utilizes the S3021 airfoil and has a high performance aspect ratio of 9.4:1. As I've said, the X^{440} has a wing loading of 7.5 ounces per square foot for truly outstanding soaring performance. Power is by a geardrive, Speed 400, AP29BB, or SR Max7 motor. The X^{440} will easily give you 30+ minute flights. In fact, the "Standard" system, described later, will give you 5 climbs to altitude from a single charge!

How does it fly? As good as you could want with absolutely no bad habits. You can thermal or motor around to your heart's delight. Even with its outstanding performance, it's an easy airplane to fly and would be the ideal aircraft to use to introduce a newcomer to our Hobby. The price? Only $229.95 but for a limited time the introductory price is $199.95 plus shipping!

To provide you with the utmost in performance and the least building time, we've designed complete radio and propulsion packages for the X^{440} . We've thought out all the details ahead of time so you won't have to waist time making all the decisions usually associated with building a new aircraft.

Give us a call or drop us a note and we'll be glad to answer any questions you might have or take your order.



X^{440} Custom Built Kit Complete kit ready for radio and power $199.95

Matched Power Systems

Economy System

Speed 400 6V Motor, 4:1 Graupner gearbox, CAM 11x8 Prop, Jeti 100 Micro Speed Control with Sermos connector, Two SR 500 Max Series 7 cell battery packs with Sermos connectors. System assembled and wired, ready for installation.

If purchased separately . .	$259.85
Special package price . . .	$209.85
You save	$50.00
For 8 cell pack upgrade add	$14.00

Sport System (pictured)

Speed 400 6V Motor, X-gearbox 4.4, CAM 11x8 Prop, Two SR 500 Max Series 7 cell battery packs with Sermos connectors. System assembled and wired, ready for installation.

With Jeti 10B Speed Control

If purchased separately . . $297.70

X^{440} Power System/Flight Performance Specifications

Power System	Motor	Gear Ratio	Prop	# Cells	Speed Control (BEC)	Approx. Weight	RPM	Amps	Thrust	Motor Duration	Wing Loading	Speed	Climb Rate	Flight Duration
Economy	Speed 400, 6V	4:1	11x8	7	Jeti 10B	22	4250	9.5	15.5	3.6	7.2	32.3	650	36.0
Sport	Speed 400, 6V	4.4:1	11x8	7	Jeti 10B	23	4160	8.2	14.6	4.2	7.5	31	550	35
Sport	Speed 400, 6V	4.4:1	11x8	8	Jeti 10B, 30B	23.5	4565	10.0	17.7	3.5	7.6	34.6	800	39.2
Performance	AP29BE	4.4:1	11x8	7	Jeti 30B	24	5160	16.7	22.5	2.1	7.8	39	1150	33.2
Performance	AP29BE	4.4:1	11x8	8	Jeti 30B	24.5	5610	20.0	26.7	1.7	8	42.5	1500	35.2
Competition LMR Class A	SR Max7	4.4:1	14x9.5	7	Jeti 30B	28	3875	22.7	33.0	1.5	9.1	36.7	1850	35.6
Competition LMR Class B	SR Max7	4.4:1	14x9.5	8	Jeti 30B	28.5	4200	27.0	39	1.3	9.3	40	2400	38.0

Special package price . . . $234.95
You save $62.75
For 8 cell pack upgrade add $14.00
For Jeti 30B upgrade add $15.00
For FX35-D upgrade add $25.00

Performance System

AP29BB Motor, X-Gearbox 4.4, CAM 11x8 Prop, Two SR 500 Max Series 7 cell battery packs with Sermos connectors. System assembled and wired, ready for installation.

With Jeti 30B Speed Control

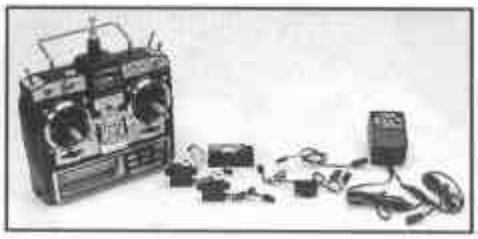
If purchased separately . . $345.70
Special package price . . . $279.95
You save $65.75
For 8 cell pack upgrade add $14.00
For FX35-D upgrade add $10.00

Competition System

SR Max7 Motor, X-Gearbox 4.4, CAM 14x9.5 Prop, Two SR 500 Max Series 7 cell battery packs with Sermos connectors. System assembled and wired, ready for installation.

With Jeti 30B Speed Control

If purchased separately . . . $410.70



Special package price . . . $339.95
You save $70.75
For 8 cell pack upgrade add $14.00
For FX35-D upgrade add $10.00

Exclusive SR Radio Systems!

For the first time you can buy a new radio system for Electric Flight and not have to throw half of the equip-ment away because it's too large and heavy. This special package consists of the Airtronics Radiant computerized transmitter, Airtronics Micro 4 channel receiver, two Airtronics 501 sub micro servos, and an Airtronics Rx/Tx charger. All you have to add is the speed control of your choice and a receiver battery pack if you're not using a BEC. You'll save more then $150 by buying a new radio system this way

Basic Electric Flight System . . . $269.95
If purchased with an X^{440} kit, subtract . $10.00
SR 225 Series Rx pack w/conn . . . $32.95

Individual radio system components

Airtronics micro 4 channel Rx . . $69.95
Airtronics 501 sub micro servo . . $46.95
Airtronics Rx/Tx charger $17.95
Hitec 535 micro receiver xstal . . $79.95
Hitec HS-80 micro servo $31.95
Hitec HS-85 micro servo $38.95
Hitec HS-60 sub micro servo $45.95
Hitec switch harness $7.95
Deans micro antenna $8.95

Motors

Graupner Speed 400 6V motor . . $10.95
Speed 400 6V, 4:1 gbox combo . . $64.95
Kyosho AP29BB motor $39.95
SR Max7 motor $89.95

X-Gearbox

True planetary gearbox. Has 4mm output shaft. Requires motor adaptor and pinion gear. For installation, motor shaft must be shortened and pinion gear must be pressed onto shaft.

X-Gearbox 4.4 $66.95
Speed 400 motor adaptor $10.95
AP29BB motor adaptor $10.95
Max7 motor adaptor $12.95
Pinion gear, 2.3mm shaft $3.95
Pinion gear, 3.2mm shaft $3.95
Custom installation of X-Gearbox . $10.00

Speed Controls

All have a brake, BEC, and arming switch

Jeti 10B, 5-9 cells, 10 Amps $49.95
Jeti 30B, 5-10 cells, 30 Amps . . .$68.95
FX35-D, 5-20 cells, 45 Amps $79.95

Folding Props

Graupner CAM 11x8 with spinner . . $21.95
Graupner 12x10 with spinner $19.95
Graupner CAM 14x9.5 w/spinner . . $34.95
4mm shaft adaptor for X-4.4 gbox . . $3.50

Motor Battery Packs

Packs are made up of matched cells, completely assembled in the shape of your choice with leads but without connector. If you would like to assemble your own pack, subtract $3 per cell for screened, unmatched, loose cells with solder tabs. The 500 Max Series cell in strongly recommended for the X^{440} Electric Sailplane.

SR 500 Max Series, per cell 7.00
SR 600 Series, per cell 6.00
SR 650 Max Series, per cell 7.25
SR 850 Series, per cell 7.50
SR 900 Max Series, per cell 7.25
SR 1000 Magnum Series, per cell . . 8.50
SR 1100 Max Series, per cell 7.50
SR 1300 Max Series, per cell 8.00
SR 1400 Magnum Series, per cell . . 8.75
Sermos connector added to pack . . . 5.00

Chargers

Astro 110D Charger 116.95

Wire, Connectors, Accessories

SR 18g wire, 5' each of two colors 5.00
SR 14g wire, 3' each of two colors 5.00
Sermos connector pair (2 red, 2 black) . . 4.00

More on Props & the Cloud Dancer

from Dennis Weatherly
dennis_weatherly@MENTORG.COM
Wilsonville, Oregon U.S.A.
Subject: A little more feedback

Hi Ken,

I just read the February Ampeer and was very interested in the feedback from Bob Benjamin and Bob Boucher re: the Astro 25 powered Sportster 20. While my name is not Bob, I'd like to add a little input for your consideration.

Bob B. has indeed flown my Cloud Dancer and was quite impressed with it. What he didn't mention (and may not be aware of) is the difference between the setup he flew and the setup I now use, which I think is "better". When Bob flew the CD it was using a geared Astro 25 on 14 cells and a Master Airscrew 12x8 prop. This is a pretty typical setup for the Astro 25. With this setup it flew well, but I was not happy with the looping maneuvers.

I have since done a “bunch”of prop tests and fiddled with the battery pack configuration. For my Cloud Dancer and the way I want it to fly, I have settled on a 16 cells pack and a Graupner Super Nylon 12.5x6 prop. Many folks would argue that this is not "enough" prop to adequately load the Astro 25. I see 24.5 amps at full throttle on the bench, which is a bit below the 28-30 amps that many people shoot for.

(*If you want to dig through the eflight mailing list archives there is a big write-up on my prop tests in there somewhere. I did current/RPM checks and flight evaluations on about half a dozen props.*)

This has done several things for the CD. It flies a little slower at full throttle, but the throttle is rarely wide open anyway. It now has better "drive" through loops and vertical maneuvers. I can't quantify the difference but it feels better to me. I can easily get six to seven minutes of aerobatic flight from 1700SCRC cells.

The bottom line is this: there is a lot of good information out there on "what works". The geared Astro 25 on 16 cells and a 12x8 prop is a very common setup for six pound sport models. (*I like the way my 5 lb. Senior Skyvolt flies using the AF25G, 15 1700SCRC cells and the MA 12x8 reg. wood prop. Amps about the same as yours. km*) I would urge folks to use this as a starting point, then fine tune their setup to fit “their” requirements. Someone else may want more speed from a Cloud Dancer than my model provides. That's not right or wrong, better or worse. It's just different. (*Thanks for the valuable input, Dennis! km*)

A Bigger E-Streak

From: Robert L. Kuhn <kuhnrl@earthlink.net>

The February *Ampeer* had comments about the Electro Streak. My friend at Elverson R/C Club, Exton, PA, has built several Electro Streaks, including a recently completed model at 125% the normal scale. Here are my comments regarding this fine plane.

All plans were enlarged to 125%. All parts, including all wings and fuselage are constructed at 125% the original scale.

The wing has a extra 4.5 inch section added to both ends, above the 125% scale. The wing chord is an extra 0.25 inch long, above the 125% scale. This provides a wing with 625 square inches of area, for a wing loading of 18.4 oz./sq. ft. A fiberglass rod is built into the wing for greater strength.

An Aveox 1406/4 brushless motor, direct drive, drives a 7-6 Graupner folding prop, using a Aveox F5LV speed controller (for 9 to 16 cells). Current is 36 amps full throttle.

Using (7) 2000mAh cell gives a mild, but adequate, flight. Using (14) 2000mAh cells gives a fast flight when desired for acrobatics, then good gliding, for a long flight time (15 to 20 minutes). A 250mah battery pack is used for the radio.

The finished weight is 3 pounds plus batteries.

My homepage is http::/home.earthlink.net/~kuhnrl/

The February Meeting

There was a lot to see and do at the February meeting. Ken started off the meeting by mentioning some of the things he’d learned on-line about new e-products and cells. Doug Kursinsky, of Sterling Hts., did a wonderful show and tell on his latest, the Flame. The $69.70 kit (part number: HLAR002) is available from Hobby Lobby International, 5614 Franklin Pike Circle, Brentwood, TN 37027. Phone: (615) 373-1444 or Fax: (615) 377-6948 E-mail: 74164.2423@compuserve.com or visit their WEBsite at: http://www.hobby-lobby.com/

Doug feels that there needs to be a major modification to the landing gear. Follow Keith Shaw’s advice on this one.

Other than that, he felt that the kit was a good value. He also added and enlarged a few hatches.

The Specs on Doug’s plane: 680 sq.in. of wing area, 66” span, 5.25 lbs., Astro Flight 25 direct, 12 cells, 11x8 prop, 8,000 RPM, Astro Flight 204 ESC, finished in Monokote white and neon red.

After the show and tell, Ken gave a presentation that continued the October discussion of how to select the correct

The members watch enthusiastically as Ken presents his talk.

diameter and pitch of a prop for an electric sport plane, as well as the power loading. How to choose the correct motor is a forthcoming topic. Watch the *Ampeer* for all of this info.

Next came more flights of electric round the pylon. Ken Welch was a very interested spectator as Richard Utkan flew the Spitfire once again. Ken's Voltswagon is nearing completion and should have flown at the March meeting.

Richard Utkan hooks up his ERTP Spitfire as Ken Welch looks on.

The plane can be seen at the far left of the picture.

With some duct tape over the power wire, planes don't end up on their noses, but hey, this is how Richard lands anyway! :-)

Sanyo 2000 - a Test by Ulf Herder

101501.515@compuserve.com

I have measured 8 single cells of the new Sanyo RC2000. - Great!!! The maximum capacity was reached at the 6th cycle, after this cycle the capacity didn't change much. Here is the data:

average capacity 2114.6 mAh +- 41.5 mAh (maximum deviation of the best and worst cell)

average voltage 1.1273V +- 0.0105 V (average voltage over the complete discharge)

average internal resistance 3.635 mOhm +-0.525mOhm

I measured the cells at 20A continious current.

Attention R/C Goodies Maufacturers

Bob Aberle, writer for Flying Models, would love to review your products in his R/C Digest series in FM. If you provide some type of product that would not be profitable to advertise, or just would like more exposure, contact Bob. Everything he reviews is either returned or he pays for it. You can't really go wrong, since it is FREE advertising. Contact Bob at (516) 724-7517 or write to him at: 33 Falcon Dr., Hauppauge, NY 11788-1204

News from Jomar

Jomar Products Inc., Div. of Electronic Model Systems Inc., 22482 Mission Hills La., Yorba Linda, CA 92687 Info: (714) 692-1393 Orders: (800) 845-8978 - EblueKeys@aol.com

Mark Schwing pulled my arm long enough to get me back to work. He gave me about a dozen little throttles that are currently on the market and said - here, make one better. So I tried. I just finished the design and I'm now doing the prototype testing. It measures a hair bigger than 1.1 inches in diameter, solders directly to the motor terminals of a speed 400, has 16+ speed increments, no speed jitter, BEC, and the lowest dropout voltage going. It features 5 of the 4410 mosfets - 4 for the throttle, and one as an external pass transistor for the voltage regulator - this allows for almost no voltage drop at 1/2 radio current draw. Also, no current limiting. It will supply all the current you can pull through .060 copper traces with a "1ounce" copper rating. Naturally, it has the auto shutoff at 5.2 volts (actually a bit lower, depending on radio system draw, but this is a TRUE cutoff voltage - it does NOT use a 2940 3 terminal regulator!). It also has a power switch, but it is "failsafe" in that it controls the voltage regulator "enable" line by pulling it to ground to shut it off. Think about it... The mosfet gates are driven by a TELCOM chip that guarantees 15 volts drive with 5 volts in. This one is called the **MICROMAX**.

Also in the works is an "update" for the **Mini-Max**. This one will also be going the way of the current crop of throttles, double sided, surface mount. The incredibly stable **minimax software** will remain UNTOUCHED. (It works too smoothly and reliably). It will feature 10 of the 4410's for throttle, and a 4435 for the brake. I'll also add another 4410 as a pass device for the BEC (no current limiting). Size and weight should be comparable to the Viper speed demon. This will be **MINIMAX II**.

Last in the mix is a specialty throttle called the **NANOMAX**. This one's for indoor and ultralight fliers.

Features the new 8 pin SO8 PIC processor, a 400 MA regulator for BEC that is ADJUSTABLE from 3.3 to 5 volts (less volts = more flying time!) and will be about the size of your thumbnail. Look for it this spring! Tell em' Joe sent you!

An Era Ends - The *Ampeer* Salutes Benito C. Almoujuela!

(*Charge Ahead!* has been an inspiration and source of information for the *Ampeer* for as long as I can remember. Even though I've never met Ben in person, I'll certainly miss him! He and Bernard having been "electrifying" the Northwest, and the rest of world, for over a decade. Thanks Ben - Great Job! km)

From: Benito C Almojuela
<benito.c.almojuela@boeing.com>

Flying Into the Sunset

by Ben Almojuela, Editor
(via *Charge Ahead!*)

Well, this is it. My last issue.

Fortunately, we have found a new editor. Rick Fischer, another long-time PSEMF member, has volunteered to take over the responsibility of assembling and producing the newsletter. Rick is a great guy; please treat him well. Rick can be reached at (206) 227-8902, or on the Internet at DCRCR@AOL.COM.

Bernard Cawley will assume the responsibilities of the office of President of PSEMF (whatever those are). Most of you don't know that I was the self-declared President of PSEMF. Since no one ever argued the point, I just kept going. Since PSEMF doesn't really officially exist, and has no Constitution or Bylaws, there wasn't a problem.

As far as I know, PSEMF is the oldest organized group of electric power modelers in the country (and probably the world). The idea for PSEMF was not mine. It sprang from an idea by our old friend, Dave Katagiri, to have a northwest chapter of the Society of Electric Aircraft Modelers (which has since fallen by the wayside).

Our Boeing Hawks/PSEMF Electric Fly-In is the oldest electric annual electric event held at the same site (KRC has been moved twice), and even today most of the Fly-In's success can be attributed to the efforts of Bernard Cawley.

Charge Ahead! is the oldest of all the electric-power newsletters, with the first issue published May 13, 1987 (the Dallas Electric Aircraft Flyers [DEAF] dispute this, since their first newsletter was also dated May 1987, so I guess we may have to share that notoriety).

The newsletter name, *Charge Ahead!*, was actually coined by another old friend, Mitch Poling.

What happens now? Bernard Cawley and Rick Fischer will keep PSEMF going, I am sure, if for no other reason than to provide a vehicle for Bernard to publish his astute observations about electric-power products and equipment.

As for me, I will be spending more time working on my family, my new home, and my career. And yes, I hope to have more time to build and fly models. You're on your own. See ya. (*THANKS, BEN! km*)

Viper Model Products - ESCs

(via Charge Ahead!)
Bernard Cawley
with added info by Ken Myers

On the speed control front come three new microprocessor-based ESC's from Viper Model Products. Vic Newton, the head man at Viper, was at our Fly-In last summer showing off two of them. The Viper MicroDemon 100 is intended for Speed 400 type applications, 1-14 cells, at up to 20A. The MicroDemon 102 adds a BEC/cutoff and brake to the 100 (and because of the BEC is limited to 6-8 cells). The Speed Demon 200 is a 1-16 cell ESC, rated up to 35A, weighing less than 1 ounce with wiring, according to their ad in Model Aviation. I've not had a chance to sample any of these yet - but I imagine I will, then pass on the info in a future issue or submit a piece to the E-Zone web site. These are available from Viper or from New Creations as well. Viper Model Products, 3475 Edison Way, Suite I, Menlo Park, CA 94025. Phone (415) 366-6800.

(*added by Ken*) I received an e-mail from Vic and have added his WEBsite to the suppliers' list and connections at the EFOsite. Products available include: **MD100 Micro Demon 100** - 20 amp miniature digital motor controller, **MD102 Micro Demon 102** - 20 amp miniature digital motor controller with BEC and BRAKE, **SD200 Speed Demon 200** - 35 amp miniature digital motor controller, **Multi Mode Micro Mixer** - No need to buy an expensive computer radio when you have one of these, **CIC1-5 Constant current battery charger** (there are five different models) - for trickle and overnight charging, **ST1000 Double sided hook and loop fastener** - Great for holding battery packs in place, SK1-2 **Motor noise supression kits** for electric motors - Stop interference before it gets to your radio. **SW1605 16ga thin wall silicone insulated wire**. He also has some specials on Sanyo 1700SCRC packs.

You can reach Viper Models to order call 1-800-592-VIPER or 1-800-592-8473 or to FAX an order send it to 1-415-366-3538 24 hrs daily. VISA and MC accepted. Visit Vic's WEBsite at http://www.vipermodels.com/

Mid-America Electric Flies

AMA Sanctioned

(New Location - See Below & Map on Back)

Saturday, July 12 & Sunday, July 13 , 1997

Hosted by the:

Ann Arbor Falcons and **Electric Flyers Only**

New Site Provided by the:

Midwest R/C Society

your Contest Directors are:

Ken Myers phone (810) 669-8124 or
102575.3410@ compuserve.com
Keith Shaw (313) 973-6309

Flying both days is at the **NEW LOCATION**, the Midwest R/C Society Flying Field - 5 Mile Rd., Northville Twp., MI * * * * * (see map next page)
Registration: 8:30 A.M. both days
Flying from 9 A.M. to 5 P.M.
Gold Stickered Transmitters are REQUIRED!
All 50 frequencies will be used

Saturday's Events

All Up - Last Down
Longest Timed Flight
Best Scale (must fly)
Most Beautiful
Best Multi-motor
Best Sport Plane
CD's Choice

Sunday's Events

All Up - Last Down
Longest Timed Flight
Best Scale (must fly)
Most Beautiful
Best Mini-Electric
Best Biplane
CD's Choice

Refreshments will be available at the field both days.

There will be a pot-luck picnic at the field on Saturday evening.

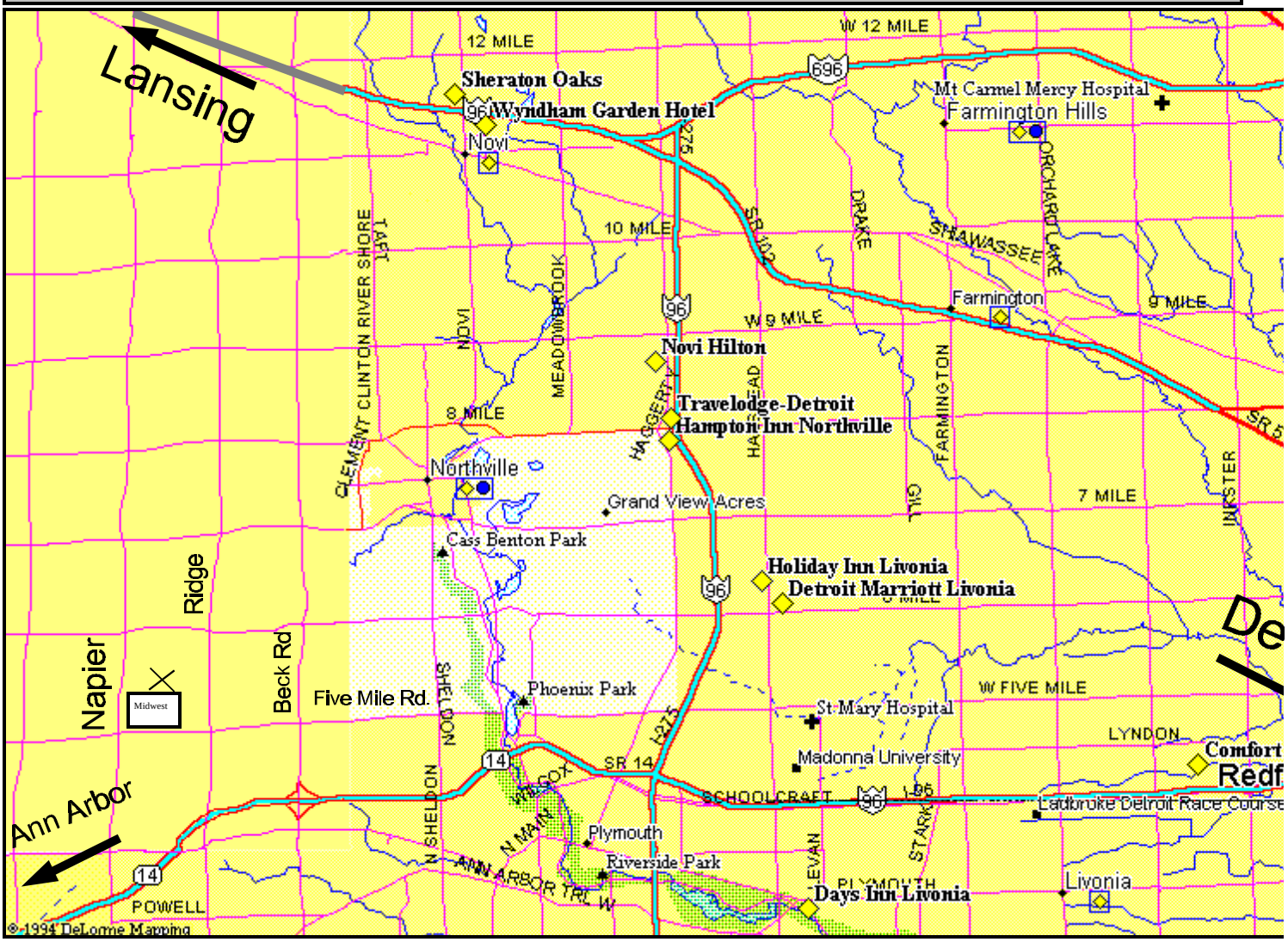
Come and join us for two days of fun and relaxed electric flying.

Even though this is called a contest, the purpose is fun and the enjoyment of sharing the electric experience.

Come, Look, Listen, Learn - Fly Electric - Fly the Future!

Saturday's & Sunday's Awards:
Plaques for 1st in each category

Merchandise drawing for ALL entrants



Mid-America Flies Hotel List 1997

Rates are believed to be per night on the weekend for 2, and were the best infomation I could get on 11/10/96.

Novi Hilton
21111 Haggerty Rd.
236 rooms
800-445-8667
810-349-4000
$79

Sheraton Oaks
27000 Sheraton Dr.
206 rooms
810-348-5000
$75 - $85

Wyndham Garden Hotel
42100 Crescent Blvd.
152 rooms
800-222-4200
810-344-8800
$64 - $74

Hampton Inn Northville
20600 Haggerty Rd.
125 rooms
800-426-7866
313-462-1119
$76

Travelodge Detroit
21100 Haggerty Rd.
124 rooms
800-578-7878
810-349-7400
$55

Days Inn Livonia
36655 Plymouth Rd.
72 rooms
800-325-2525
313-427-1300
$41

Detroit Marriott Livonia
17100 Laural Park Dr. N.
227 rooms
800-228-9290
313-462-3100
$72 - $79

Holiday Inn Livonia
17123 Laural Park Dr. N.
225 rooms
800-465-4329
313-464-1300
$85

Comfort Inn Livonia
29235 Buckingham Ave.
112 rooms
800-221-2222
313-458-7111
$65 - $95

Hotel Baronette
27790 Novi Rd.
149 rooms
810-349-7800
$79

To locate the Midwest R/C Society flying field, site of the 1997 Mid-America Electric Flies, look on the far left side of the map, where X marks the spot near Five Mile Road and Napier. The field entrance is off of Five Mile Road. M-14 can be entered and exited via Beck Road.

Upcoming Events:

April 13, 1997 Capital Area Soaring Association's Annual SPRING SIZZLER ELECTRIC FUN FLY, Gude Drive Field, Rockville, Maryland, Call Roy Smith at 301-279-2966 for more information.

May 24 (rain date only May 25) Oakville Model Flying Club, Electric Fun Fly, Drumquin Park, North Field, Britannia at Trafalgar, John McNicol (905) 821-9629

June 7 & 8 Tenth Annual Lehigh Valley Radio Control Society E-Fly, Mike Stewart, 107 Taft Terrace, Washgington, NJ 07882 as CD. For more info E-mail Mike at Mike721@worldnet.att.net or Phone: (908) 689-6981

June 7 & 8 EMFSO, EMFSO Electric Fun Fly, SOGGI Flying Field, Lynden, Ont. Bud Wallace (905) 274-3177 or Stan Shaw (519) 766-9966

June 13 - 15 First Annual Electric Fun Fly, the event will be held at the 3M RC Flyers site in St.Paul, MN: - 35 acres of well maintained grassy area - 3 paved runways at 45 degree increments to minimize crosswinds. Flyers will be required to show their AMA card to fly. Contact: Mike Roerig Tel: 612-778-6340 or email Mike atmlroerig@mmm.com

June 28/29 - Knights of the Air R/C Club, Springfield, Illinois, Tim McDonough, 127 S. Oaklane Road, Springfield, Illinois 62707 (Email: tpm@inw.net)

June 28/29 - Kingston Radio Control Modellers, Electric Fun-Fly, Martin Irvine (613) 389-9457

July 12/13 - Mid-America Electric Flies, Ann Arbor Falcons/EFO, location, Midwest R/C Society Field, 5 Mi. Rd, Northville Twp, MI Ken Myers/Keith Shaw

Aug. 2 - 5 - AMA Headquarters, Muncie, IN Doug Ward, R.D. #1, Box 189. Irwin, PA 15642 (412) 446-5891 DWard79207@aol.com

Aug. 16/17 Halton Hills, George Ball Memorial Electric Fun Fly, Ont. Geoff Miller (905) 454-5198

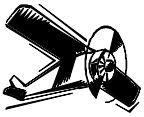
September 6 & 7 Rhode Island Quahog Electric Fly, Don Bousquet (401) 780-7437 or Tom Hunt (526) 981-0372

September 20 & 21 Queen City Airport, Allentown, PA: KRC - setup on the 19th. For more info e-mail Anthony Assetto at 102723.2566@compuserve.com

To Reach Ken Myers, you can land mail to the address on the front page. My **E-mail address** is: 102575.3410@compuserve.com
EFO WEBsite: http://members.aol.com/KMyersEFO/

***Ampeer* Available in New Format!**

For on-line users, the Ampeer is now available in HTML format. It can now be viewed in any browser! The Adobe Acrobat .pdf version will still available for downloading as well. The new format was prompted by the fact that some folks have had trouble getting and using the FREE Adobe Acrobat Reader on their machines, right Bernard? Also, with the coming of WEB TV and the NC computer, I thought it would be nice to have this format available as well. Full-time RVers and "Snowbirds" can use a WEB TV box to stay current with the Ampeer happenings, wherever they roam.



The Ampeer
Ken Myers
1911 Bradshaw Ct.
Walled Lake, MI 48390

Next Meeting: Thursday, April 3, 1997, 7:30 PM Dublin Community Center Just N. of Union Lake on Union Lake Rd.