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**Ampeer subscriptions are \$10 a year U.S. & Canada and \$17 a year world wide.**

**The Next Meeting:**  
**Date: Thursday, June 5 Time: 7:30**  
**Place: Ken's house - 1911 Bradshaw Ct.,**  
**Walled Lake, MI 48390 (248) 669-8124**

**Product News**

by Bernard Cawley via Charge Ahead!

**MODELAIR-TECH**

P.O. BOX 1467  
Lake Grove, NY 11755-0898  
Phone & FAX (516) 981-0372  
E-mail: THunt95147@aol.com

Modelair-Tech continues to introduce new products. Some that come immediately to mind are the MGB-50 motor/gearbox combo, and plans for Tom Hunt's NATS winning pylon racer (which, amazingly, is part of the "stick series" of models).

The MGB-50 is a motor/gearbox combo in the growing "speed 400" class. Here's how MAT describes it: "the MGB-50 is made up of the M-50 (a "400" sized) DC electric motor and GM-50, 2.14:1 gearbox. The M-50 motor is rated at 50 watts of output, and can be run on 7-10 cells.

The gearbox is of conventional spur and pinion design and both gears are made of steel. The gearbox case and shaft support is of tough, injection molded nylon. The combo is

capable of flying 200-300 sq.in. sport models, 288-400 sq.in. powered sailplane or old timer models, and 350-600 sq.in. multi-motored models. The high voltage nature of the M-50 motor makes this a very good motor for small model endurance flights, or where larger more efficient propellers are desired. The matching GB-50 gearbox, is smooth running and able to absorb more power than delivered by the M-50 motor. Gearbox output shafts (1/8" steel) are simply set screwed into place, allowing easy replacement in the event of damage in a crash. The gearbox can be moved to another "400" type motor after the useful life of the M-50 has been reached." Price is a very reasonable \$24.95, direct from Modelair-Tech.

The BareBones is a Speed 400 pylon racer addition to the stick series of models. Tom Hunt used a prototype, and some good flying, to win the informal Speed 400 pylon event at this year's NATS. Price for BareBones plans is \$8, I believe.

Announced (on Ken Myers' EFO web site and the E-Zone) is the small belt drive from Modelair-Tech - the H-100. As the name

**What's in this issue?**

**Product News - High Resolution Tach - Heli Challenge Winner? - Needs Plans - More on Take It Along Plane - Upcoming DEAF meet - Finding a BAD cell - Neat Tips from Dave - A Mirage In Maine - Mid-America Flies Info - Upcoming Events**

**Ampeer**

implies this is a 100W-capable unit for -what else? - Speed 400 size motors. I imagine anything with a diameter near the S400 will work. This would include the AP-29/Speed 480 types, as well as the new Astro Brushless 020. From the drawing on the web page it looks to be a worthy successor to the old Astro Flight 020/035 belt drives (who else even remembers those?) and fits right in with the ongoing explosion of small electrics. Features mentioned include a wide variety of ratios from 3:1 up to 4.8:1, a dual ball bearing supported output shaft and flats on the side of the housing for beam mounting. It looks much more compact than the old Astro 020/035 belt drive, too - a good thing. For some reason this one has me excited about the possibilities.....

**Model Electronics Corp., Inc.,**

(Roland Peterson)

14550 20th Avenue Northeast,

Seattle, Washington 98155

Telephone (206) 440-5772

FAX (206) 440-5095

Our local purveyor of things electric, Model Electronics, seems to have a proliferation of gearboxes soon to be available. In a phone conversation with Pete Peterson, I learned of a single motor variation of their dual motor box which will allow ratios of up to 10:1! Sixteen inch props, anyone? Also, he has test flown a modified rear plate for the SuperBox which will allow it to be used with the AP-29 and Speed 400 type motors (is there a trend here?). His test case was a foam FW-190 R/C combat plane, which was running an AP-29 on 6:1, at 16A on 9 cells, swinging a 13 inch prop, and performing very well indeed. Pete also has in stock new Delrin pin-drive 40 and 50 tooth spur gears (made like the current 60 tooth versions) for those who want a lower ratio, but the durability of the thicker spur. Pete also reported good response to the MEC/MaxCim Turbo 10/20 brushless. Several teams in the electric airplane load-lifting competition purchased systems. The MEC-labeled versions, by the way, have had the current limiting set to a higher value in the controller - it is now 60A. No more running into current limiting doing vertical stuff.

There are models for speed 400 type motors popping up all over - lots of "cottage industries" as well as some of the larger modeling firms. Here are a few of them:

**Raptor Aerosports**

E-mail at [RaptorRC@wireless.wdc.com](mailto:RaptorRC@wireless.wdc.com) or on the web at <http://wireless.wdc.net/~raptorrc/>

Brian Buass, of Raptor Aerosports, offers a speed 400 pylon racer called the Falconet. It has a glass fuse, foam cores, all the wood (including one of Tim McDonough's laser cut motor mounts), rolled plans and the hard to find

hardware pieces. Specs. are: span: 32", area: 140 sq. in., length: 22 in, weight: 14.5-17 oz, wing loading: 15-17.5 oz./sq. ft, airfoil: RG-14 (thinned) The kit sells for \$70 and is available from New Creations, Unbeaten Path Imports or direct from Raptor Aerosports. The kits are in stock and ready for shipment. For more information or digital pictures, contact Brian at: [RaptorRC@wireless.wdc.com](mailto:RaptorRC@wireless.wdc.com) or on the web at <http://wireless.wdc.net/~raptorrc/>.

**CAB Designs**

2007 Brook Hollow

Cedar Park, TX 78613

E-mail at [CABDesigns@aol.com](mailto:CABDesigns@aol.com), or visit his web site at <http://www.netads.com/com/cabdesigns/>

Chris Boultinghouse, of CAB Designs, is offering an all-composite S400 powered P-51 Mustang. This is 31 inch span model has a white pre-painted epoxy-glass fuselage with Kevlar and carbon fiber reinforcements. The tail surfaces are sheet balsa with epoxy-glass skins. Wings are extruded polystyrene with vacuum bagged epoxy-glass skins. No spars are used. Wing and tail skins are pre-painted during the bagging process, giving a high gloss, pin-hole free surface. Wings are bagged in one piece with correct dihedral and washout built in!

This model is \$124.95 plus \$7 shipping, direct from CAB Designs.

In recent discussions on Eflight and ModelNet, Chris has mentioned working on a composite version of the ElectroStreak, dubbed "Zapper", which will have a glass fuselage, and white foam/balsa skinned wings.

He's also working up some plans for foam models covered with brown paper, for those of us who don't have a vacuum bagging setup laying around.

**Hobby Lobby**

5614 Franklin Park Circle,

Brentwood, Tennessee 37027

(615) 373-1444

e-mail to [74164.2423@compuserve.com](mailto:74164.2423@compuserve.com).

The head man at HL, Jim Martin, can be reached at [75131.1200@compuserve.com](mailto:75131.1200@compuserve.com)

Hobby Lobby came out with a new catalog, that includes the new Graupner Speed 480 motors (one of which is said to be essentially identical to the Kyosho AP-29). It also contains a composite scale model of the same plane type that Ivan Pettigrew - the PBY Catalina. This model is intended for two Speed 400 type motors and 7 or 8 cell batteries. It consists of a white fiberglass fuselage, pre-sheeted foam-core wings, balsa tail surfaces, and a bunch of molded parts (cowlings, nacelles, gun blisters, etc).

In their current catalog there is much S400 related. I acquired the Aeronaut Speed 400 motor timing tool. This

consists of a brass collar which mounts to the front of the motor with two screws, another brass collar which has two pins which fit into the small holes in the motor's backplate and a rod to use as a handle on the second collar.

You clamp the first collar, with motor attached, in your vice, then use the handle on the second collar to twist the backplate in place, changing the motor's timing. If you don't have a pair of needle-nose or snap ring pliers which fit the backplate holes properly, this is a neat and effective tool.

#### **Bill Griggs Models**

RR2 Box 64

Whitelaw Rd

Canestota, NY 13032

E-mail at [griggsbill@aol.com](mailto:griggsbill@aol.com) or

[102341.2605@compuserve.com](mailto:102341.2605@compuserve.com)

Phone: 315 697 8152

Bill Griggs Models is now supplying more than just kits of his foam wing/balsa fuselage "Rocket" pylon racer (which came in second at the '96 NATS). He's expanded to include lots of things for S400 type models (motors, speed controls, and so forth) as well as his new kit of Don Belfort's S400 ducted fan "Electroscreamer". Bill's kit simplifies the construction of the plane a bit, by going to sheet fuselage sides and tail surfaces. Dennis Weatherly wrote a review of the kit which is posted on the E-Zone.

A notable product is a new micro servo from Voltz in Germany. It is comparable in size and weight to the HiTec HS-60 (a little thinner and at 0.47 ounces a hair lighter), but it is also less expensive at \$34.95 apiece and it has some other features including removable/replaceable mounting lugs. He also is stocking both the 10A and 20A version of Gordon Tarling's MicroStar speed controls.

#### **Unbeaten Path Imports**

(Andrew Fok)

P.O. Box 271,

Oconomowoc, WI 53066

Tel: (414) 569-5711 Fax: (414) 569-5915

<http://www.unbeatenpath.com>.

E-mail at [Andrew\\_Fok@msn.com](mailto:Andrew_Fok@msn.com)

One of the newer vendors on the scene is Unbeaten Path Imports of Oconomowoc, Wisconsin. Andrew is importing a large number of almost ready to cover/paint composite models for electric power or pure soaring. These include several scale subjects. Many of them are for Speed 400 type motors, including a Spitfire, a C-130, a Mosquito, and a Piaggio P-180 Avanti (this is a twin engine canard pusher biz-plane).

His other area of interest looks to be electric ducted fans of all sizes, from Speed 400 types on up.

And, for something really different, they have three "Jurassic era slope soarers". These are slope gliders which

look like various types of flying dinosaurs! They are "painstakingly constructed accordingly to scientific studies, publications and fossils uncovered by paleontologists, modeled after the sculptures of Stephen Czarkas and the paintings of John Sibbick." How's that?

There is some news that isn't S400 related, too.

#### **Aveox**

31324 Via Colinas,

Suite 104,

Westlake Village, CA 91362.

Phone 818-597-8915 FAX 818-597-0617

Aveox's product line continues to expand. In addition to new motors, they now are handling a full featured charger, Robbe and Aeronaut folding props, gold bullet connectors, several airplane kits, and more.

The charger is a version of the Robbe Power Peak Infinity, which is both a peak detector charger and a cyclor (does programmed discharges, too) for 1-30 cell packs. One interesting feature is that it remembers the last 5 charges and discharges it has performed and you can recall the information to its display. They've proven popular with the ModelNet/Eflight crowd. They sell for \$179.95.

Their airplanes include a couple of full-bore F5B type sailplanes, a mid-wing sport plane, a version of the Robbe Folland Gnat ducted fan ship (which can't even use an Aveox motor - it uses a Robbe 410 which longer but the same diameter as a Speed 400), and now a re-issue of Jim Zarembski's (*Does anyone know where Jim is and what he's doing now? km*) ElectraGlide II wood sport motorglider kit for \$49.95, or \$19.95 with a motor system purchase. (*One of my very first electrics was a marginally successful ElectraGlide I. bc*)

The easiest way to keep up with their changes is to visit <http://www.aveox.com/> on the web frequently. Matt Orme is constantly upgrading and improving the site.

#### **B&T R/C Supplies**

508 Lakewinds Trail

Rougemont, NC 27572

919-471-2060

Another hot topic in the electronic discussion forum is a newer cell from Sanyo called the RC2000. It is said that this will replace the 1700 SCRC cells in Sanyo's line. They're pricier than the 1700's, as one would expect. Also, as one would expect, the best source is B&T R/C Supplies. They just quoted me \$6.67 per cell, matched. That compares to \$4.50, I think, for 1700 SCRCs. For comparison, I saw 6 cell matched packs made of RC2000's at Hale's R/C in Puyallup for \$74.95. Comparably constructed packs of 1700 SCRCs were \$49.95.

It is also said that there will be N-1250SCR cells the size

of the old 900's or 1000's, but when I asked the gentleman at B&T about them he said "I've learned in the last year to believe it when I can hold it in my hands".

### SLK Electronics

2906 Charolais Drive  
Greensboro, NC 27406

Sid Kauffman, of SLK Electronics, has created a new power system simulation program called ElectriCalc. This \$30 program is just amazing in what it can tell those of us who like to do those "iterative solutions" Ben mentioned awhile back without spending all of our time and money testing power systems. The algorithms in the program are based on info in Bob Boucher's Electric Motor Handbook as well as other sources. So many people said so many good things about it that I had to try it myself (even though I don't have a Windoze-capable PC at home). It is quite a tool and I like it a great deal. You have control over battery characteristics, motor characteristics and some basic airframe characteristics as well. It comes with a large number of cell types and motor data pre-defined.

Adding to them is quite simple. It is also VERY easy to use. I was able to set it up to run off of a floppy here at work, with only an icon on the company machine's hard drive that points to it. It is compact enough I would think that any PC that can run Windows 3.1 or Windows 95 can run it just fine.

It can be had from several sources including SR Batteries, MaxCim, Aveox, Hobby Lobby, New Creations or direct from Sid. There's a good shot of the input screen on the Aveox web site, and more info can be had at the ElectriCalc web site at <http://www.SLKelectronics.com/>

### Model Builder Plans

#### Available from Bill Northrop's Plan Service

2019 Doral Ct.

Henderson, NV 89014

Finally, with the demise of *Model Builder* magazine (ironically its 25th anniversary issue was its last) has left people wondering about their plans. An ad in the February 1997 *R/C Report* answers that question as follows: "MODEL BUILDER MAGAZINE PLANS now available. Send SASE for complete details, or Fax (702)897-7775. Bill Northrop's Plans Service, "

Whew! Thanks for hanging in to the end!

### Product News and Notes

by Ben Almojuela

I don't usually do product reviews. As a matter of fact, when a manufacturer sends me a product to evaluate, I almost always send it back with a nice note politely saying, "Thank you but I don't do product reviews."

Note that I said "almost". When Bob Boucher of Astro Flight sent me an early version of his Model 110D Charger, I "almost" sent it back, but decided to try it out.

Bernard has reviewed the 110D in a previous issue, but I'd like to say that I really like mine. Of all my chargers, it's my favorite. It's one of the few pieces of electric-power equipment I have that I consider worth the price if I had to buy it myself. It's reliable, simple to operate, and gives you enough data on your packs to take care of them.

Not that there aren't any problems. The leads are too short. The start button sticks. And it brags about its owner (displays "Property of Ben Almojuela"). But I understand that Astroflight has already addressed these problems.

So there. That's as close as I come to a review.

P.S. I intend to keep it unless you need it back Bob, OK?

### High Resolution Tach

from Tom Davis

tomd@neopath.com

For motor/reduction setups that spin props at 2000 to 7000 rpm's, 100 rpm resolution is unacceptable. Only one tach on the market will give better than an unacceptable 100 rpm resolution, but it costs about \$130.00. To avoid purchasing an expensive piece of equipment that can only do one thing, I purchased a Digital Multimeter with frequency measurement capability to serve as a high resolution tach. It is a Techtronix DMM870, but any multimeter with frequency measurement capability will work. I simply use an NPN Phototransistor with a resistor and a single cell 3.6v lithium cell. This setup give me a tach with better than 1 rpm resolution.

Keep in mind that the output will be in hertz. So, for a two blade prop the output from the mutimeter will be multiplied by 30 to give rpm.

If you like, I can send you a simple diagram and a parts list.

Parts required:

- \* 1 phototransistor
- \* 1 3.6 volt litium primary cell.
- \* 1 Push to turn on/normally off switch.
- \* 1 resistor
- \* 6" plastic tube
- \* Bannana plug
- \* Wire
- \* electrical tape
- \* heat shrink tube
- \* A multimeter with freq measurement capability

(Please note: I have the full info in my possession at this time, as well as an example. Further details in upcoming *Ampeer*. km)

**Helicopter Challenge Met!**

Martyn McKinney  
mmckinne@learn.senecac.on.ca

Ken:

I received the following message below from Norbert Gruentjens, president of Ikarus, the company that manufactures EKO helicopters.

He is the winner of my \$100 prize for the Helicopter Challenge and I emailed him to find his address so that I might send him a money order.

He has graciously offered to donate the prize to what I believe is the Silent Flight organization.

Would you happen to know their address and the name of an officer of the organization so that I may forward them a money order.

Thanks for your assistance,

Martyn McKinney

*(Can anyone help out here? I know there are the Silent Electric Flyers of San Diego. Could this be them? I don't think any were in Toledo in '96 though. km)*

**The E-mail from Norbert**

Hi Martyn,

Sorry again for my late reply but we are really busy these days. Regarding the US \$100 I am sure they are not for Ikarus as we are a professional company and we make our living from our day's work. But I met a few people in Tolado this year with a printed T-Shirt "Silent Flight". In case this is an organisation of electric flyers I would think that this is the correct address for the money. I am sure that once the American flyer is more familiar with electric drive technology this could be a future focus for the hobby industry. Let's start creating an interest now.

There is fantastic news on the development of new motors here in europe that offer far better chances and longer flight times. I will spend some investigations and a lot of money. There will be results in the near future and I will keep you informed.

Best regards - Norbert.

**Wants Plans**

acesar@hotmail.com

I've been cleaning out my e-mail in-box and I've been sitting on this way too long. Anders Cestar, of Sweden, made a request for any plans that I may have for electric. I'd planned to send him the Sorta PT, but it has taken much longer than expected.

If you'd like to help out an e-flier in Sweden, and have some "extra" plans just laying around, why not pop them off to him at:

Anders Cestar  
Hjortstigen 3,2  
974 53 Lulee  
SWEDEN

Thanks for your help. Ken

**Take It With YOU - RVers!**  
**Details on Last Month's Plane**  
from Paul Ashford  
101604.565@compuserve.com



I thought that I'd better give you a little more on the RV model.

I can't take all the credit for the model, it was originally a Hand Launch Glider designed by John Stevens and called 'Eliminator 60'. John produces a Plan Pack with ribs and ply fuselage sides for around £11 Sterling. The model in original form is quite conventional, polyhedral wing and standard fin/rudder tailplane arrangement. The published weight is 14 ounces giving a wing loading of 4.72 ounces/square foot, wing section is Selig 3021.

My model uses the Plan Pack but the wing has been fattened to give straight dihedral, but it retains the original plan form. The tailplane has been increased in span by 2 inches each side and built as two halves with the joint being held with tape. This way it can lay flat in the box or when held by a 'v' block and 2 x 5 mm plastic bolts forms the correct angle on the model.

Fuselage width was determined by laying out the motor, nicads etc. and making formers to fit. With the mods and electric power the wing loading comes out at 8.7 oz/sq.ft., so the gliding performance is quite good, it certainly likes to go up in lift!

I hope the added info is useful. - Paul



**CD UpDate On Upcoming DEAF E-Fly**

Greg Judy  
(817) 468-0962  
email 75267.224@compuserve.com

Our 11th Annual DEAF Fly-In has been sanctioned by the AMA (#70684) for **October 4th and 5th** at the **Dallas R/C Club Field in Seagoville**. The competition scheduled is for LMR sailplane and Old Timer (events #610, 612 & 618). Additionally, we will continue the "Lightest R/C electric to fly 10 minutes" contest, 7-cell weight lifting, and some type of endurance event (either longest flight during whole weekend or an All-Up-Last-Down affair). We're still working on it at this date. We are taking reservations for frequencies. Provisionally, we would like to have some demos of the new Speed 400 pylon racers, so get yours built and practice up! We will have lots of awards, give-aways, DEAF brownies, insulated DEAF mugs, Saturday Night Buffet, extended flying hours, and lots and lots of flying. Mark your calendar now! For more information please contact Greg Judy, CD or Frank Korman, DEAF Newsletter Editor.

Frank Korman - email: FranKorman@dccd.edu  
DEAF WEB Site- <http://web2.airmail.net/warner1/deaf/>

**On Finding "BAD" Cells**

from Keith Shaw  
Ann Arbor, MI

Hi Ken,

This is part of a message I sent to Martin Irvine that I thought you might be interested in.

Keith

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Meant to tell you that I pulled the battery (and radio) from the Flashback to put in the Messerschmitt. Since I had to reconfigure the pack and add some cells (I decided on 20, plane only weighs 4 oz more than the AF25/14-1800 combo), I decided to do a discharge test. I knew that I had at least one marginal cell, I could only do a vertical 4 point at the start of the routine. I did mass peak charge, c/10 for 1 hour to equilibrate, mass discharge until the first cell dropped (done by occasionally checking the voltage of the five 3-cell stacks), finished each cell off with a constant current drain of 2 amp down to .9 volt. Found one cell @ 1300mAh, three @ 1500mAh, rest around 1700mAh! No wonder the zip was gone. By the way the 1300mAh cell always had a lower voltage under load (higher R). Did this procedure twice to see if anything improved - Nope. I'm really not looking forward to doing this to the Bearcat pack some time in the future!!!! Or the Stearman pack...

**Interesting Info from Dave Segal**

Keystone RC Club  
76641.2074@compuserve.com

Your web site is marvelous and the information contained in the Ampeer is great (and the price is right!) No one else has anything like the plane ratings- I love to read them. (*Hey folks, I could use some new ones. km*)

**A Construction Tip**

I had read some time ago of a method used by glider fliers to mount servos in tight spaces in a wing. They wrapped mylar packing tape around the servos and then epoxied them in place. I have just finished one of ModelAir Tech's little stik planes, the Dimwatt, powered by a Speed 400 motor. To save the weight of servo beams and screws, I wrapped a piece of 3 mil packaging tape around three sides of each servo. (Brown is better than clear as you can't see clear tape on a black servo!) Then I applied GOOP adhesive and pressed the side of the servo against the framework of the fuselage. Rock hard when set and no space taken up by mounting beams. When it comes time to remove the servos the tape can be cut and the servo case will not have to be cleaned of adhesive.

**2.6mm Screws for S-400 Mounting**

I came in on the end of a thread in Modelnet a few weeks ago which explained that Speed 400 motors are tapped for 2.6mm screws while we have all been using 2.5mm screws which are available at hobby shops. I considered this the best kept secret in electric flying (G). After asking Gordon Tarling about the source of screws he referred me to Tom Cimato who send me the following message yesterday:

**From Tom Cimato:** *"I looked for them when there was a discussion going on about the speed 400's. I found one listing:*

*I found a Pan Head - slotted Zinc plated steel per DIN 85A at McMaster-Carr in Chicago. On page 2168 they list M2,6 in lengths from 4mm to 25mm. Phone 908-329-3200*

*One might also try "Transpec Fasteners, Inc." in Fort Worth, TX. 800-451-8160.*

*Hope this helps. Let me know if you don't find them, I have other sources that I could query if necessary.*

*Regards,*

*Tom Cimato - MaxCim Motors, Inc."*

It might make sense for a group of modelers to place an order for these.

**Neat Monokote™ Trim Tool**

At the recent WRAM show I stopped at the Harry Higley booth and was shown their new covering trimmer. I have bought a couple of such gadgets in the past and found them worthless. But the Higley staff had small strips of balsa with bits of covering on them and I tried their new tool. It

works perfectly and I bought one on the spot. It is made of aluminum and looks a tiny wood plane. A standard single-edge razor blade is held with a screw. In use, covering is applied to one side of the fuselage and trimmed with a scissors to about 1/4" wide. The tool is placed on the adjacent side of the fuselage, the covering lap is inserted into one of the slots on the tool and the tool then slides along the edge of the fuselage. The result is a perfect lap cut to 3/32" width. The tool is called "Harry's Eversharp Lap Cutter". Regular price is \$15.

Regards,  
Dave Segal  
Keystone RC Club

**A Mirage in Maine**  
from Matt Dyer  
mdyer@gwi.net

*Matt wrote to say that he appreciated the Ampeer and WEBSITE and mentioned that he'd been flying his Mirage all winter long. I asked him for more details, which he kindly provided. km*

Hi Ken -

I am using a Speed 500, 1200mAh 6 cell SCR packs and 8x4 wood props. My R/C system is a Futaba Attack with speed control and BEC built into the Rx. I was using a Graupner 8x4.5 folding prop, which worked fine, but without a brake, it didn't fold. The wood is OK, and they break before the motor shaft bends. I am hand launching with no landing gear.

*(He then followed up with even more. km)*

I sent you a message about the Mirage this morning, and didn't have time to expand on it. I am a lawyer, and my phone keeps ringing, which I suppose is a good thing. It does interfere with the important things in life, like flying R/C!

The Mirage was built about 4 years ago when I was trying to teach myself to fly. The first flight wiped out the cowl and engine mounts. I put the wreckage in the shop until last fall. Meanwhile, two years ago I joined the Kennebec Valley Model Aviators and learned to fly with the help of an instructor. I had built a Sig Kadet Senior powered by an OS 40. Still flying and a great plane. (*Hey, isn't it about time to electrify it? km*)

After getting the hang of flying R/C, I kept looking at electrics, which fascinate me. They are heavier and harder to fly, but they make little noise and there is no cleanup.

Well, I replaced the cowl on the Mirage with a fiberglass cowl. I purchased a Graupner Speed 500 motor, and I left

the landing gear off, since it mounts in a slot, and it was wrenched loose in the original crash. I may put them back in this season, but my landings are no different than gliders.

I also built a Skimmer, and I liked it so much I built another. Skimmer I has a Goldfire motor and flies very well. Skimmer II has an Astro 05 with a Graupner 8x4.5 folding prop that flies on 7 SCR 1000 mAh cells. Skimmer II is a better performer.

The guys in my club all fly with IC motors, but they are impressed with my Skimmers. Many of them are starting to see that they can fly one almost anywhere, and thus they don't have to travel to the field all the time. It is a 25 mile trip for a few guys and a 12 mile trip for me. I fly the electrics in a park right near my house.

One member built a Lazy Bee with electric power, but it was totally destroyed in a crash. You know how that is. The airframe stops but the battery pack keeps going!

I am not a chauvanist for one form of power over the other, but I really think that electrics will be the future. Even in relatively rural Maine it is hard to find places to fly due to noise. And, the power and duration of electrics is really making great strides.

I am currently building a 1/4 scale Sig J-3 Cub. Sorry, it will be powered by an OS 91 Surpass. However, I have a Seniorita kit under the workbench that has electric written all over it. Once the J-3 is done, I am going to try the Seniorita. I have an Astro 15 geared motor, but I think it will need a 25. (*Yep. km*) What do you think?

Thanks again for a super newsletter.

Matt

## Very Important - EFO Meeting Reminder

**We will have a "flying meeting" on Saturday May 31 at the Rushton Road Field in South Lyon starting about 10 AM. Remember that hand-launched planes are best flown from this field. If you think the weather is "iffy" call Ken. If he's not there, there will be a message left on his answering machine.**

**The regular meeting will be Thursday, June 5th at Ken's house, 1911 Bradshaw Court at 7:30 PM. The Mid-America Flies will be "planned" and "volunteers called for". Ken will also demonstrate "motor testing" and vacuum forming will be discussed and "possibly" demonstrated.**

**All folks within striking distance of the South Lyon field are invited to attend the flying (with your AMA card please) and the meeting.**

**Alternate flying day will be Sunday, June 1.**

## 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.

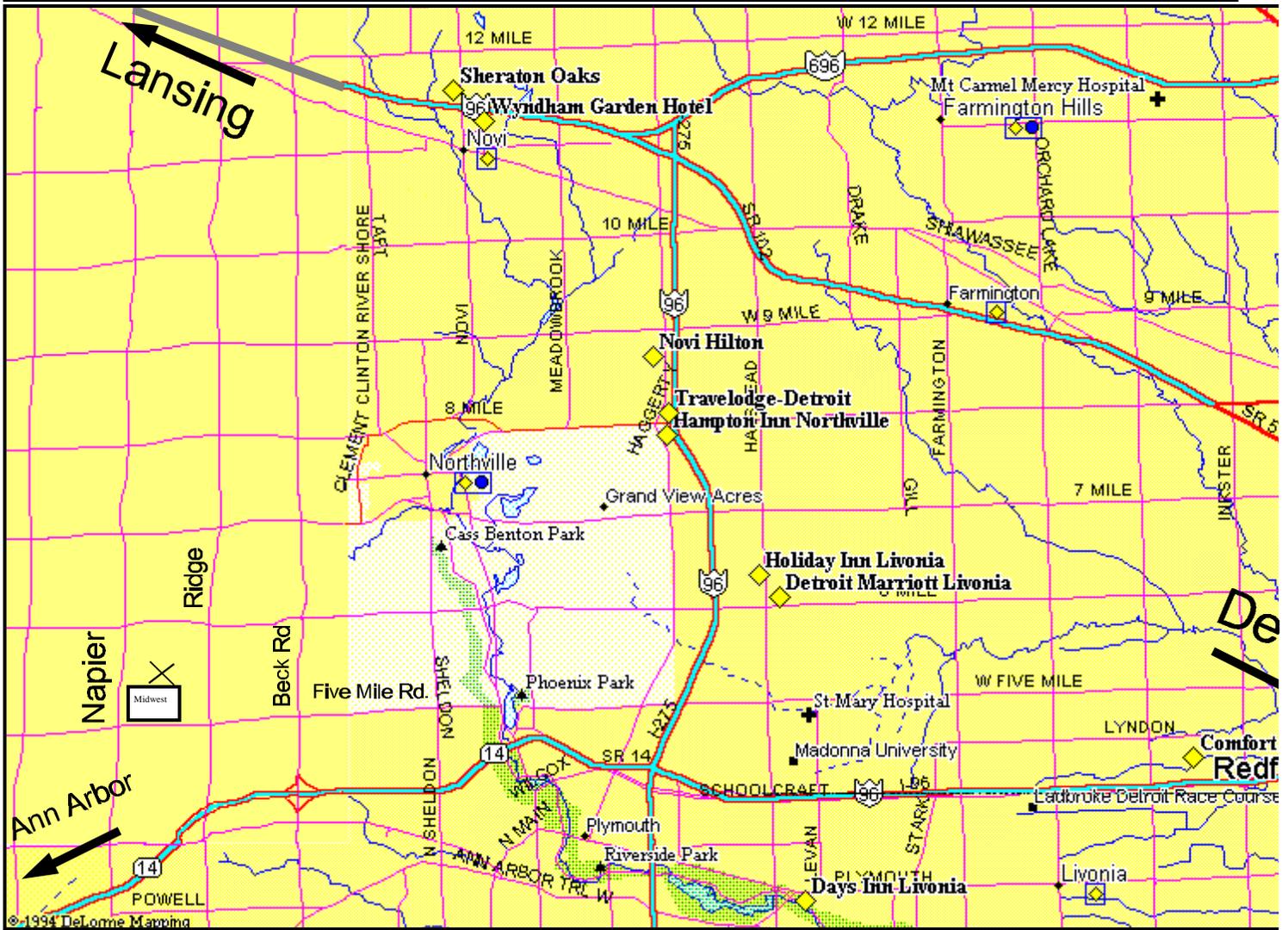
Even though this is called a contest, the purpose is fun and the enjoyment of sharing the electric experience.

**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 information 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:

**May 31/June 1** Vintage R/C Flying at Muncie, IN, AMA Headquarters - Delmar Johnson, 110 South Hills Dr., Barrington, IL 60010 (847) 526-8593 Can be electric powered.

**June 7 & 8** Tenth Annual Lehigh Valley Radio Control Society E-Fly, Mike Stewart, 107 Taft Terrace, Washington, 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 atmroerig@mmm.com

**June 15** Wingdingers Fly In = Howe, Indiana flying site, just below the Michigan border - literally. Open to all R/C aircraft but we had a very good turn out of e-power last year and would love to see more. Contact Clay Howe, e-mail Clay at clayhowe@net-link.net or Clay Howe, 310 S Jefferson St., Sturgis, MI 49091

**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 ONLY NCRCC 10th Annual Electric Fly**, NCRCC's

Ortolani Field, Ellington, CT, CD Ron Torrito, (860) 528-2227 or e-mail 102127.1060@compuserve.com

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

**October 4 & 5** 11th Annual DEAF Fly-In, Dallas R/C Club Field in Seagoville Greg Judy (817) 468-0962 email 75267.224@compuserve.com

**Keep Current on Electric Flight**

**Visit the EFO WEBSITE at:**

**<http://members.aol.com/KMyersEFO/>**

**Fly High With Electric Power!**



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

**Next Meeting: Thursday, June 5, 1997,**

**Time: 7:30**

**Place: Ken's HOUSE, 1911 Bradshaw Ct.,**

**Walled Lake, MI (248) 669-8124**