# the

**May 1999** 

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Ampeer subscriptions are \$10 a year US & Canada and \$17 a year world wide.	The Next Meeting: Date: Thursday, May 6 Time: 7:00 or ASAP Rushton Rd. Flying Field, South Lyon, MI	
Some New Ratings		

John Houvener, 1105 Ashman St., Midland, MI 48640 wrote recently to ask some questions, and he also sent along some of his ratings for his planes. Thanks John.

Olympic II Sailplane: \*\*\*\*\* Geared Speed 600, 7.5 minutes of power run and 20 minutes flights in dead air. (Couldn't agree with you more. One of my all time favorites. I like to loop, stall turn and fly inverted with mine. It was the reason for the 15-minute pin rule at a glow club I belonged to! Km)

Old-timer Ben Buckle Buccan eer 66: \*\*\* geared Astro Flight 05, 10 minute flights with power control (terrible kit) Ace PuddleMaster: \*\*\* Astro Flight direct drive 05, very sensitive to CG – sometimes a good flight, sometimes awful.

Built but not flown yet: Comet Piper Cruiser (rubber kit) speed 280, 10.4 oz. and ElectriCub with geared 1.72:1 Goldfire and 7 or 9 cells. Weight, ready to fly with 7 RC2000 - 46.65 ounces.

## Ken On the *ElectriCub*, Again

I've written on the *ElectriCub* many times, stating that I believe that the provided and recommended power system is inadequate. The "Ruth Chin" debacle proved that to the world. I've previously made power system recommendations that can really fly this plane. Here is my latest recommendation, using my favorite motor, the Astro Flight 035. The air frame, in my basement, weighs 20.2 ounces. If a small light weight, but not tiny, radio system weighing about 6 ounces, including speed controller and 270mAh Rx pack is used, that means a 26.2 ounce weight, less power system. The power system can be an As tro Flight geared 2.38:1 035 with 9 RC -2000 cells swinging a 9x6 prop. That brings the ready to fly weight to about 53 ounces. This would yield a wing loading of 15.9 oz./sq.in.

If the use of a standard size radio system is desired, including a 550/600mAh pack, the power system of my choice could be the geared 2.82:1 Astro Flight 035 with 10 RC -2000 cells swinging a 9.5x6 prop. This one,

What's in this issue?

What's In This Issue

Some MI ratings - ElectriCub - On Fusing - Schoolyard Foamie - Folding Flyer -Get There From Here - NEAC News - Muncie Weekend '99 - Low-Lizz -

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ready to fly, would weigh about 59 ounces and have a wing loading of 17.7 oz./sq.ft. Either one would be a pleasure to fly with the wing loadings and both will have quite long flight times, and be relatively "sprightly", doing all of the 3-channel aerobatics. Definitely a good way to make a good plane better.

#### **On Fusing**

An odd coincidence happened the other day. I had just read Martin Irvine's March Quiet Scale column in Electric Flight International (Traplet House, Severn Drive, Upton-upon-Severn, Worchestershire, WR8 0JL, England http://www.traplet.co.uk - distributed in N. America: Carstens Publications Inc., PO Box 700. Newton, NJ – phone: 973-383-3355). His column covered fuses, cabanes and struts. I was particularly interested in his fusing recommendations, and was just about to build my fuse/switch combination for the Junior Falcon. Not five minutes after setting down the issue, John Sermos called to talk about the importance of fusing. While the aspect of using fuses in electric aircraft can become a "religious" issue to many, I use them. I use them because they do double duty. My fuse acts as my safety switch as well. I believe in using parts for multiple purposes whenever possible. For example, I



use wing dowels and landing gear plates as fuselage crossmembers. This helps to keep the parts count and weight down. On occasion, I also fly in Canada, where fuses are required. John has given his permission to use his printed fuse information here. I've also printed Martin's diagrams, and highly recommend that vou subscribe to EFI ASAP.

The price is worth it, just to read Martin's column! The photos show the parts and my "homemade" fuse/ switch.

## Important Safety Warning!

When using a BEC switch or electronic speed controller (ESC) with BEC, DO NOT FUSE BETWEEN THE BATTERY AND THE SWITCH OR ESC! When using a BEC system, put the fuse in the positive line between the motor and the BEC unit, otherwise, if the fuse blows, and it is between the battery and BEC unit, the radio will go dead and cause disaster and extreme danger.

The top three photos





\*Spade Fuse & Mounting Bolts are not included in the packet.

FUSE

## **The Ampeer**

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show the assembly of my fuse holder using spade lugs, triangle stock, balsa stock for spacer, wire and Sermos

Ready to add the top triangle stock. Spade lugs glued in with balsa spacer between the triangle stock.



Glued inside and ready to use.



Where'd the Schoolyard Foamie Go?

Back in October of 1998, Chris and I took holiday to St. Ignace, MI. I'd taken my laptop to stay in touch with email, but... I'd forgotten that I had information on the laptop to share with you. Oops. Sorry about the tardiness.

> Schoolyard Foamie Info From: Albert Wahrhaftig email: wahrhaft@mail.metro.net

#### Ken,

I thought you might want to put this in the next Ampeer: (*wish I had! km*)

A couple of months ago, I gave a 5 star rating to the Schoolyard Foamie. It's a simple, cheap, lots-of-fun design for Speed 400. As a result, I received a lot of e-mail asking where to buy the kit. Well, the kit is no longer available. The designer would rather spend his time working on his full size homebuilt. But he has made the plans available in a unique way. They are shareplans (like shareware). Download them for free. Send him \$10 if you use them in whole or in part. What could be more fair?

Details on his site at http://www.deschutes.net/~co291

### The Following is a Message from the Designer:

I figured I'd let all you folks know that the Schoolyard Foamie plans are now available as "SharePlans" on the net. This is the same concept as shareware - if you print out or use the plans (or my ideas) you are on you honor to send me a few bucks (well \$10 to



connectors. The fuse holding above is from Martin's article. Basically his left diagram is what I trap between the triangle stock. The top right wiring diagram is also by Martin. Fuse on!

## be exact).

For a refresher, the Schoolyard Foamie is an all white foam and tape Speed 400 trainer/fun plane. It will do almost any elevator/rudder maneuver you can think of and some that you probably can't think of! It is very light, 15-16 ozs with small servos, and has a nice size

wing. Its generous polyhedral gives it great maneuverability. I can easily fly in an area the size of a basketball court all the while doing loops, sloppy barrel rolls, skid-n-goes (no landing gear needed), and a bunch of tight turning maneuvers. Of course it will dogfight with the best of them - its quickness and high lift maneuvers compensating for its speed.

The other huge advantage to this type of construction is that it is extremely durable and quick to repair in the field. I got sick and tired of flying my balsa planes "aggressively" and having to go home with a pile of sticks. With the Schoolie you can field repair almost an y structural damage (if there even is any) in less than 20 minutes with clear packing tape and 5 minute epoxy.

I use to kit the Schoolyard Foamie but have since been too busy building my homebuilt to make kits (especially for the price I was selling them!) The plane is great and I would like to see others have as much enjoyment out of it as I have. For only \$10 for the plans and maybe another \$10 in materials you get a \*SUPER\* flying little bird.

Check out my website and follow the links to one of the best fun per dollar planes out there!

Have fun and keep it light to fly right! Joa web site: www.deschutes.net/~co291 "Vaircraft/CH-601 Building Page"

#### The Battle of "Disposable" Planes Continues

With the Schoolyard Foamie, Blue Foamie and Push-E-Cat leading the pack of high fun, low cost, good flying, low emotional involvement aircraft, a new challenger has entered the fray.

#### From the EFO Web Site & Eflight List The Folding Flyer

*Ken:* You've gotta see this! Chris Hemmah, of Fargo, ND has invented a folding flyer for Speed 400. It is folded from foamboard and is a low-wing. The story has been unfolding this weekend (March 12-14) and now he's even posted video of it flying. The video is streamed using the RealPlayer format. It is expected to be priced at about \$15. Check it out at http://www.foldingflyer.com

Flying weight is 16-18 ounces.

## The following appeared in a post on the eflight list on the March 14.

Thanks to everyone for the kind comments and support during the development of this inexpensive airplane- couldn't have done it without you! We're done testing, and ready to go with the first kit production run. We'll be ready to ship orders in 2-4 weeks, and are going to be taking orders. Information is at our website.

Direct Pricing for Folding Flyer Kits (no, I am not going to buy a Porsche at these prices, but I already have a day job!):

\* Single Kit: \$15 plus shipping & packaging

- \* 2 kits: \$27.50 plus shipping & packaging
- \* 3 kits: \$37.50 plus shipping & packaging
- \* 6-Pack: \$67.50 plus shipping & packaging

Shipping will be in the US only to begin with, and via UPS. Anticipated shipping costs will be \$8.50 pe r order to cover packaging and shipping....regardless of the quantity ordered. Also, we have quantity discounts to encourage multiple plane orders. For less than the price of one "traditional" kit you can get 3 FoldingFlyers -

crash all you want... we'll make more!

We're recommending that you use a gear reduction drive with a Speed 400 motor, although you can fly it with a direct drive. Would be great if I had the new Astro 020 to try... would fly great with that. Also, my tests used FMA Tetra Receiver, 2 S-80 servos and a Pixie 14 speed control.



Also, we've got flying video in both RealPlayer and Quicktime formats... The Realplay er version really compresses the image, but is faster on slower internet connections. The Quicktime version really shows the plane's flight characteristics nicely.

If you'd like to place an order, please make checks payable to me at the address below, and allow up to 4 weeks for delivery. Your checks won't be cashed until 1 week before we're ready to ship, to allow time for che cks to clear bank:

Chris Hemmah, 118 Broadway, #802, Fargo, ND 58102 PH (701) 232-9572 - Fax (701) 232-9573 **Update:** NORVEL is now the distributor for FoldingFlyer products. Order direct from NORVEL (www.norvel.com) or ask your local hobby dealer to carry the FoldingFlyer from NORVEL.

#### The Ampeer

## Lots of Ways to Get There from Here Selecting Power Systems (again) Ken Myers

Sailplane and Electric Modeler, PO Box 4250, W. Richland, WA 99353; Phone/fax (509) 627-0456 or www.semodeler.com has a great May issue! The first article that "sparked" my interest was the conversion of a glow 1/5-scale ARF Bleriot XI by David Elias. David explained his powering method reasons in the May issue, and will continue in the June issue. The plane is imported by Bob Brooke of 3 Sea Bees Models. Unfortunately, how to contact 3 Sea Bees Models or Bob Brooke was not in the article, and a search of the internet proved fruitless. Since Dave had the data for the glow version of the plane, the actual airframe weight was known. According to the data in the article, the airframe weighs 74 ounces. That is pretty heavy for this 832 sq.in. plane. He stated that the finished flying weight, with 16 oz. of fuel was 129 ounces and thought that he could actually bring the eversion under that weight. He based his calculations on the 129 ounces. For further "guesstimating", I'll use 130 ounces.

As I stated before, I like to use 50 watts of power out for my somewhat aerobatic models and would probably use something less for this type of model, except that it has a LOT of drag with flying wires, and open fuselage structure. At 8.125 pounds, 406 watts of output power would be needed. I use 85% efficiency for predicting brushless, 77% for brushed cobalts and 70% for brushed ferrites. Therefore brushless input should be about 477 watts, brushed cobalt 527 watts and brushed ferrite 580 watts. Using 25 amps static draw; 477 / 25 = 19 cells, 527 / 25 = 21 cells and 580 / 25 = 23 cells.

At 130 ounces the prop diameter could be (Sqrt((130 \* 1.25) / Pi)) \* 2 = 14 inches, and because this is a SLOW model a 7 pitch would be a good choice. At 130 ounces, the wing loading is 22.5 oz./sq.ft. and the stall speed would be about 17.55 mph. Since this model will not be aerobatic, about 2.5 times the stall speed should be okay. The target airspeed would be about 44 mph. The minimum required KRPM would be 44 / 7 = 6.286

KRPM. At 407 watts out, a 14x7 is turning about 6.6 KRPM yielding 46.2 mph, which probably won't be attainable with this draggy plane, but probably enough about the minimum to be okay.

#### Motor Choices: Brushless

MaxCim Neo-13Y geared 3.7:1, 18\* – RC-2000 cells, Pwr. Sys. Wt. 46 oz. (not including controller), 6720 RPM at 25.9 amps Aveox 1406/4Y geared 3.7:1, 17\* – RC-2000 cells, Pwr. Sys. Wt. 44 oz.. (not including controller) 6,640 RPM at 27.2 amps.

\* even though 19 was the original try for both, dropping cells yielded the choices.

#### **Astro Flight**

AF25 geared 3.1:1, 22 – RC-2000 cells, Pwr. Sys. Wt. 60 oz., 6,850 at 23.5 amps

AF60P direct, 20 – RC-2000 cells, Pwr. Sys. Wt. 63 oz., 6,660 RPM at 24.3 amps

I chose not to look at any ferrites for this project. The AF40 was not looked at, since there is not appropriate gearing for it. While none of the above are totally accurate, they're comparable, since all were just quickly done using E-Calc.

#### **Predicted Flying Weights:**

MaxCim: Pwr. Sys. 46, radio 10.5, plane 74 = 130.5

Aveox: Pwr. Sys: 44, radio 9.5, plane 74 = 127.5 AF25G: Pwr. Sys: 60, radio 8.7, plane 74 = 142.7 AF60P: Pwr. Sys: 63, radio 8.7, plane 74 = 145.9

You pays your money and ya takes your choice. Obviously, the brushless systems meet the target better, and by going with the Aveox, adding the 18 cell will increase the power, while still meeting the weight criteria.

According to the article, Dave chose to power his plane with the Aveox 1406/4Y, 20 RC-2000 cells and a 13x8 Master Airscrew electric prop. His flying weight was 133 ounces. The flight report was not given in this part of the article. It should be fine since he should have plenty of power, and it is



great if it flies the way he wants it to. On the other hand, I believe that he is under diametered and that the 13x8 electric prop is over RPMed. I'll have to stay tuned for part II.

## Other Great Articles in the May '99 S&E Modeler

Kyosho Ferias ARF In Review

From Square One: Those Little Flippers – control surfaces primer

Electric Sport & Scale – Bob Benjamin's column Silent Dream 2.2 Electric – Review of e-sailplane Power On: The Kyosho Magnetic Mayhem Motor with Master Airscrew 3.5:1 Gearbox

New Kid on the Block: The Lithium Metal Rechargeable Cell, a comparison of rechargeable

battery characteristics

Robbe Tigra Volkspylon Racer In Review CRASH! Battery problems and how to avoid them 3rd Annual Devil Mountain Electric Fun Fly Flying King: electric conversion of this IMAA legal plane

This list doesn't even include the great sailplane articles, readers' photos or product news! Pick this one up. It's a keeper!

## NEAC News From NEAC News, April 1999 Doug Ward editor, RD 1 Box 189, Irwin, PA 15642 Ralph Weaver, President Bob Aberle, Vice President Tom Hunt, Secretary Glen R. Poole, Sr., Treasurer **Presidents Corner** From Ralph Weaver

In the last issue of *NEAC News* we discussed the Limited Motor run (LMR) events for this year's Nats; now it is time to talk about Scale and Pylon.

The schedule is set for Sport Scale and Fun Scale to take place on Thursday, August 5. By providing an alternative to sailplane and old tim er competition and to enhance diversity in the types of models which are flown at the E-Nats, we hope these events will attract flyers who have not previously considered joining in the festivities. Perhaps the Nats bug will bite with enough effect to bring about more general interest in the competition world. Who knows? To be sure, the AMA would be unlikely to grant of ficial status to these two scale

activities since anyone who wishes to compete in (glow)

scale, using an electric model, is free to do so. In fact, it has already been done successfully and will surely increase in the coming years.

The following is an overview of our scale events, but please consult the AMA Rule Book (new this year!) if you plan to participate:

Sport Scale will be run in accordance with the AMA Sport Scale Rules, event #511. Proof of scale and drawings or photos of no more than eight 8.5" x 11" pages are required. Static judging will occur with the judges located 15 feet from the model for a maximum of 100 points. Another 100 points is the top award for the flight score which will consist of the average of the best two out of three flights. Each flight will consist of 10 maneuvers; five are optional and five are mandato ry. The inescapable or mandatory portion consists of: ROG; Figure 8; Fly Past; Landing; and Re alism in Flight. Optional maneuvers, from which you must choose five, are: Taxi; Straight Flight Out; Proce dure Turn; Straight Flight Back; Inside Loop; Outsi de Loop; Barrel Roll; Speed Run; Spin; Cuban 8; Touch-and-Go (counted as two options); Overshoot; Sideslip; Triangular Circuit; Rectangular Circuit; Traffic Pattern Approach; Spot Landing; Slow Speed Pass; Chandelle and any other maneuver typical of the prototype and cleared by the CD.

Up to three of the following Scale Operations may be flown instead of an optional maneuver: R etract and Extend Gear; Flap Operation; Bomb Drop; Torpedo Drop; Parachute Drop; Crop Dusting and any other maneuver typical of the prototype and cleared by the CD. If 10 ma neuvers cannot be completed by the majority of contes tants, then the best eight maneuvers will be scored.

The purpose of the Fun Scale event is to increase participation and enjoyment. *This event is limited to single motor, 1/2A aircraft.* However, for 1999, we will allow multi-motor or other slight deviations from the rules with minor point deductions as a result. Our rules will follow those for AMA Fun Scale Event #520. Static scoring will consist of a score of 0 or 5 with the maximum points for contestants who show proof that there actually was a full-scale model of the same ty pe, paint and marking scheme. Flight scores will be the same as Sport Scale except that ROG is optional, not mandatory.

Pylon (1/2A) will follow the rules on the Nats Information Sheet which is contained in the contestant's registration packet. Because of the required support equipment, it will take place *only* if a minimum number of 10 contestants is registered by May 1, 1999.

For the various events we will need Event Directors, Timers, Judges and Helpers. If you can assist, please let

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me know as soon as possible. Without volunteers, we cannot function. Hope to see you there.

You can join NEAC (the National Electric Aircraft Council) for \$15 a year. Contact Doug Ward, and support our national electric flight organization. NEAC #4 Ken Myers

#### Muncie Weekend 1999

From Weldon Smith, 311 Wooded Knoll Drive, Cary, Illinois 6001, March 24

The "Muncie Weekend" will be held again this year. The VR/CS newsletter will have the announcement when it is published, but I am sending this early information to those who attended last year. Art Schroeder has agreed to conduct his "un-contest" for Class 1 & 2, using the maneuvers and rules existing in the early '60s. If you will remember, Class 1 was rudder only, and Class 2 was rudder and elevator, or aileron and elevator. Of course, throttle control was permitted in either class. So get your oldie ready and participate in the "un-contest". Trophies will be awarded to the winners (First place only. We are on a limited budget).

Delmar Johnson will be contest director this year. Entry fee is \$5 by mail, \$10 at the field. So save five bucks by getting your entry in now. Send to Delmar, address below. If you have read this far you are probably wondering "when?" I didn't forget, it's May 22 and 23!

This will be the 3rd annual "Muncie Weekend" for the Vintage R/C Society. We fly old -time designs, R/C and free-flight (R/Ced). Though not a strictly electric event, we have had many e-planes in the past. E-Playboys are very popular. Sincerely, Weldon Smith

#### The Low-Lizz

Copyright 1999 by Carlo Ciarnello Email: cbciarn@prcn.org

Once again, Carlo has provided us with a FREE plan. The specs are: **Motor**: Cobalt 15 - 25, **Cells** 12 -16, 1700SCRC, **Weight**: 70 - 90 oz., **Span**: 50 7/8 in., **Chord**: 12 in., **Area**: 571 sq.in., **Wing Loading**: 17.6 -23 oz./sw.ft., **Note**: Cover with MonoKote or Micafilm.

Here is what Carlo had to say after the first flight: The Low-Lizz flew this morning and the flight was great. However the front wheel fell off during the flight and the landing was less than graceful. Knocked a rudder off when it flipped over in the grass. Quite minor in fact it can be repaired in 5 minutes.

The take off was straight ahead with the trike gear

and it required some down trim and right aileron trim. After trimming the plane was looped and rolled from level flight. Power is the trusty Astro 15 geared cobalt and 12 1700 SCRC cells. The prop used is the 13 -6 Top Flight Super M. I did not take RPM and current readings this time but the power was more than enough.

Weight was 88 oz total (a little on the high side) and the plans indicate 15 to 25 cobalt required. The fact that it flew well with the 15 cobalt means that it would be real dynamite with the 25 cobalt and 16 cells.

Attached is the zipped DXF file for the Low -Lizz, people can download this one for free as well. I will send you pictures as soon as the film has been developed so people can see what it looks like. Many Thanks, Carlo

P.S. I received the pictures from Tim Knowles on the progress he has made with the Gee Bee. He has done a great job so far!

If you don't have Internet service, and can't download the plans and put them into your CAD program, I'll be happy to print them on 8.5x11 paper and mail them to you for assembly. The cost will be the cost of postage and a \$1 for my paper and ink. That ink jet ink is expensive! Thanks again Carlo from all of us.

Have for sale, Astro Super Ferrite 10 with the belt drive. I have never used this item (brand new condition). The price will be very reasonable. Thanks Carlo 1 SW



Napier. The field entrance is off of Five Mile Road. M-14 can be entered and exited via Beck Road.

313-462-3100 \$72 - \$79

\$65 - \$95

The Ampeer

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## Mid-America Electric Flies

AMA Sanctioned

Saturday, July 10 & Sunday, July 11, 1999

Hosted by the:

## Ann Arbor Falcons and Electric Flyers Only

Site Provided by the: Midwest R/C Society

your Contest Directors are: **Ken Myers** phone (248) 669-8124 or KMyersEFO@aol.com **Keith Shaw** (734) 973-6309

Flying both days is at the Midwest R/C Society Flying Field - 5 Mile Rd., Northville Twp., MI (see map)

Registration: 9 A.M. both days Flying from 10 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

Most Beautiful

**Best Multi-motor** 

**Best Sport Plane** 

CD's Choice

## **Sunday's Events**

All Up - Last Down S400 only Longest Timed Flight S400 only Best Scale Most Beautiful Best Mini-Electric Best Ducted Fan CD's Choice

## All Planes Must Fly To Be Considered for Any Award Night Flying Possible, Weather Permitting, Friday & Saturday Nights 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

#### **Upcoming Events:**

May 1 & 2: Two Winston-Salem clubs, the Winston-Salem Radio Control Club (WSRC) and the Riverside Aeromodelers (RAMS) - WSRC will host the May 1 contest because their field has better access to motels, RAMS May 2nd contest. contact: Dr. Colin McKinley (336) 924-5890 or Dr. John Mountjoy (336) 772-7609

May 1 & 2: 9th Annual Celebration of Silent Flight, Oregon -Flyer at http://home1.gte.net/jdwxly/celebration.htm, Contact: Dennis Weatherly email: jdwxly@gte.net Wilsonville, Oregon USA

May 8 OR May 9: (not both) - Dave Strathman Memorial Electric Fly - Springfield, OH - 2nd Annual electric meet contact Azarr at Azarr@WPAFB.AF.MIL or phone: 255-5039 ext 340 The date will be May 8th, with rain date May 9th.
May 14, 15, 16: DEAF/E Zone Electric Performance Rally Dallas & Grand Prairie, TX. Electric Symposium 5-9:30 P.M. on May 14. More info visit www.ezonemag.com or contact Jim Bourke (972) 680-1220 or Frank Korman (214) 327-8411
May 15: New Jersey Eagles Fly-in, Hope, NJ - Fun fly for all types of electric powered models. Contact Joe Beshar, 198
Merritt Dr. Oradell, NJ 07649 (201) 261-1281
May 30: Spring E-Fly, 600 Gude Drive East, Rockville MD.

flier available from Dereck Woodward at weekendpilot@juno.

com.

**June 12 & 13**: River Valley Electric Meet II, Wisconsin Rapids, WI. Rich Ida 1-800-358-7019 or email: inspector@tznet.com

June 12 & 13: 3rd ANNUAL LAND OF LINCOLN ELECTRIC FLY-IN – Knights of the Air Club Field, Springfield, IL. Tim McDonough tim@mcdonough.net June 12 & 13Annual Lehigh Valley Electric Fly - CD Michael A Stewart email: mike@mikes-universe.com; near Easton, PA, June 26 & 27: The 5th Annual Kingston Electric Fun-Fly -Kingston, Ont., Canada – contact Martin Irvine mirvine@limestone.kosone.com

June 25, 26 & 27: MARCEE98, 3M field near Minneapolis, MN - contact Mike Roerig, 612-426-5018 mlroerig@mmm.com June 26 & 27: - 17th Annual Puget Sound Electric Model Flyers Electric Fly-In - south of Auburn, WA, contact Bernard Cawley, 253-839-9157 or e-mail at ab\_cawley@compuserve. com

**July 17 & 18:** - *Voltaires Funfly* suburb of Syracuse N.Y. Map and further details will be posted later on the Voltaires web site. The National Electric Aircraft Council & the AMA/NEAC Electric Nats

NOTE: KRC 1999 HAS BEEN CANCELED – More information next month.



The Ampeer Ken Myers 1911 Bradshaw Ct. Walled Lake, MI 48390 KMyersEFO@aol.com

Next Meeting: Date: Thursday, May 6 Time: 7:00 or ASAP Rushton Rd. Flying Field http://members.aol.com/KMyersEFO