the Ampeer

July 1999 Page 1

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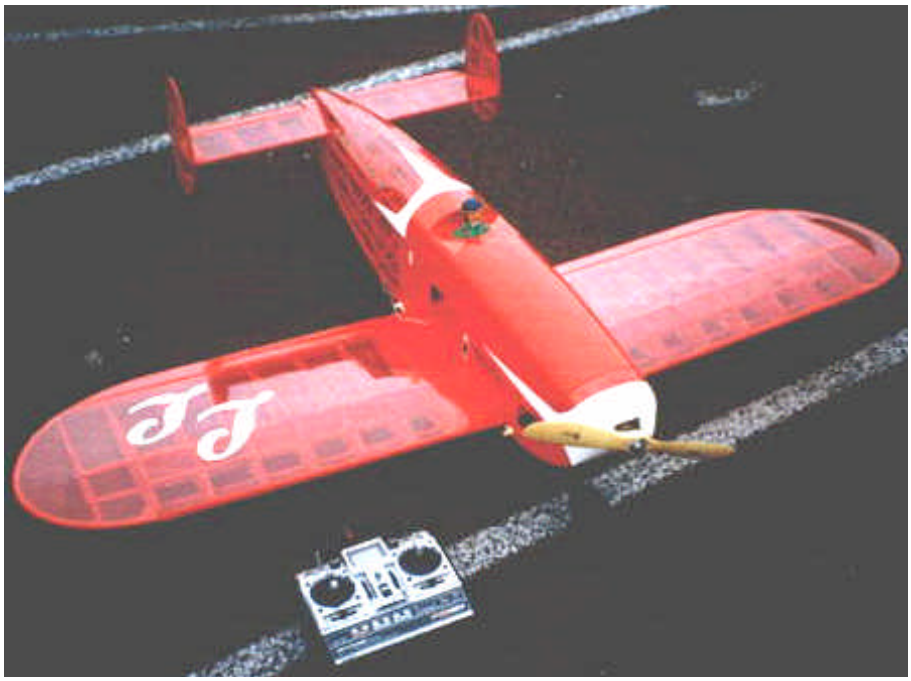
The Next Meeting:
Date: Thursday, July 1 Time: 7:00 or ASAP
Place: South Lyon Flying Field on Rushton Rd.

What's In This Issue:



Picture of the Low-Lizz
Carlo Ciarniello
cbciarn@prcn.org

As promised I finally had pictures scanned in for the Low-Lizz. (See the May Issue of the Ampeer for more details.)

Plane ratings & more

From: Jim Jager jimjager@prodigy.net

I have 2 more plane ratings for your column.

Plane 1 is the **Multiplex/Pico TwinStar** ARF, an all foam, 4 channel, twin Speed 400 powered aircraft which I purchased at the Toledo show about a year ago ('98) for just under $100. I did not assemble it until ju st recently.

I made some modifications to the kit, most noticeable is the white packing tape covering. This sort of covering m ethod is popular with the combat/slope soaring

crowd, it adds strength and smoothes over the raw foam with apparently very little weight penalty. It is available in a variety of colors, and is cheap. I covered the entire aircraft with less than 1 roll of this tape, except the engine nacelles which I painted, and then I added some Bob Hoover/Shrike inspired trimmings.

I also strengthened the wing joint with epoxy and fiberglass tape, and added laser cut wooden speed 400 motor mount bulkheads to the front of the nacelles, and reinforced their mounting with three strips of epoxied 3/4" nylon tape on each nacelle.

The kit is VERY complete. It comes with motors, props, linkage, and special hinges. The assembly time is very rapid if you go strictly by the book.

I wanted a second aircraft which could use the 8 cell 1700 RC packs which I have begun to use, so I chose to use those packs on this aircraft. Elite Speed Products is a very good source for these packs, they will make them up as a special order for you at a most reasonable price.

With 8 cells, the current draw with the supplied motors was higher than my liking, so I switched to a pair of Graupner 7.2 volt speed 400 and also replaced the supplied props with Graupner 6x3 folding props. With that setup, static current draw (both motors running) is about 20 amps, right where I like it.

The reason I chose to install folding props is because I want to be able to shut the motors off and do some Bob Hoover type maneuvers, in fact, I want to replace the Sprite 25 ESC with 2 mini ESCs, so that I can control the engines individually, but that will come later.

Four micro servos are required (one for each aileron), as well as a long "y" harness. I used 4 Cirrus CS-26BBs, at about .5 oz. each (and $20 ea.). An FMA Micro 2000 picks up the waves.

The box states that the aircraft should weigh about 50 oz., mine weighs 33 oz. without the 17 oz. battery pack, so the box is right on the money. BUT, I expected mine to be several ounces heavier due to all my modifications and the use of an 8 cell pack (7 cells is recommended), so the manufacturer is conservative on that figure. On the other hand, someone made a boo-boo when calculating wing area: the box states 56" wingspan and 620 sq. in wing area. The 56" span is correct, but a chord of 11" is needed to arrive at 620 sq.in, I measured about 9" of chord, therefor area is about 500 sq. in. Still, a lot of area for a 50 oz. sport aircraft.

Time to fly; a gentle toss is all that is needed, and those twin speed 400s immediately start doing their job. Climb out is good, very good power, lots of wing, and light weight all add up to good performance. Loops from level flight are possible, as well as power off ones when coming out of a dive. Hammerheads are rather lazy, I need to get those twin speed controls in as there just isn't enough air moving over the rudder with the 2 motors not blowing air over it. I was able to maintain inverted flight, but turns in that condition are a challenge, as the airfoil appears to be a Clark Y. Rolls with a twin are really beautiful.

I have my Futaba 8UAF computer radio setup to start an internal timer ONLY when the motors are throttled up, so the time I am about to give you is the time the motors where running at 50% or more, not the total flight time, and that time is about 6 minutes. Level flight can be maintained with about 50% power on, so actual flight times of 10 minutes or more could be accomplished with little effort.

This plane is great! This is the best ARF I have ever had, it flies great, is easy to assemble, durable, is acrobatic yet could be used as a trainer, it looks and sounds great in the air, it is inexpensive, and I'm sure it would fly very well with 7 cell packs, and possibly even 6 cell packs with the supplied motors. It is a real blast doing the Bob Hoover routine; kill the engines from high altitude, dive, loop, roll, turn around and land a few feet from where I am standing (did I mention it glides really well?). I will be bringing this to the Mid Am Electric Fly this year.

I've all ready given my 5 star rating to the Sig Riser (which I don't regret), so all I can do is give it my best 4 star rating.

Plane 2 is the old TopFlight Elder 20, a kit designed for .20 glow engines. I picked this kit up through an ebay auction for $60 including the optional float kit. This is a kit which was made during the 70s and early 80s, but is now discontinued. There are number of them showing up on the internet, so you can still get one if you want.

The kit goes together rather quickly, but I found ways to lighten it up some as it appears to be over built in some areas.

The wing was pretty much built according to plans, except lightning holes added to the wingtips.

I didn't like the suggested '0-0-0' incidence which was recommended, especially with the recommended low propeller location, so I built in +1.5 degrees. to the wing and -2 degrees to the engine. Despite this, the aircraft still had a slight tendency to dive when power was reduced until I programmed a little throttle to elevator mixing into my Futaba 6XA computer radio (reducing throttle adds in up elevator).

A BEC equipped Pegasus 35 ESC controls the Astro 035 cobalt mated to a Leisure 2.5:1 gearbox , and 7 cell 1700 SCRC battery pack. As such, and with 2 Cirrus CS-26BB 0.5 oz. servos, the aircraft weighs in at 50 oz.

Takeoffs from grass are rather easy, and climb out is reasonable but not great. Loops from level flight can be accomplished, but aggressive maneuvering really bleeds off speed quickly and needs to be done from safer altitude. A high power setting (above 60% ?) is required to maintain level flight, so it is somewhat lacking in flight performance despite the fact that the 50 watts per pound ratio is obtained.

It is very unique looking in the air, not having anything to do with my finishing choices but rather that open framed rear fuselage, it looks neat and old fashioned.

I have not tried the floats out yet. Flight times are around 6 minutes. All in all, I give it a 3 star rating, mostly because of how good it looks just 'putting' around in the air.

Oh no! I just realized that I gave a higher rating to an ARF than to a kit-built aircraft. Oh well, the TwinStar deserves it. Two aircraft, with similar power, size, and wing loadings, but the TwinStar is a much better performer.

FMA SC20 Micro Speed Controls and TwinStar update;

I just received the two FMA SC20 speed controls direct from FMA, and are they ever small. The SC20s are BEC and brake equipped, and although soft start is not mentioned in the ads, they definitely do have soft-start. They weigh only 10.1 grams each (I weighed them on triple beams), which includes the factory installed on/off switch, a diode for the motor, and Futaba/JR-HiTec connector. I have checked some electric flight catalogs and could not find a brake and BEC speed 400 controller as light as these. No motor or battery connectors are installed, which is normal, and with a price tag of only $34.95 each, they have got to be the best deal for speed 400 class motors. A continuous current rating of 20 amps is claimed, 5 v, 1 amp BEC, and freq. of 1,500 Hz.

I connected the two (SC-20s) together at the battery leads with a pair of Sermos connectors, and added the same type connectors to both sets of motor leads. Under advisement from Fred Marks, I disconnected the red lead from the servo connector on one of the controllers, disabling it's BEC.

This is to prevent potential problem with having two BECs operating simultaneously. The remaining BEC seems to be handling the 4 Cirrus CS26BB servos without any problems. This setup was then installed in my
TwinStar.

I did some fancy computer mixing (Futaba 8UAF) which allows independent control of the motors by one of two different ways; with a switch in the down position, they are coupled to the rudder control in such a way that they work in the direction of the rudder, i.e. full left rudder shuts down the left motor. This is for acrobatics such as hammerheads and snap rolls. When the switch is in the up position, motors are 'balanced' by the flap knob, i.e. centered gives both motors equal power, turned to left cuts out left motor. In both positions, throttle stick is still master.

I have now proved the TwinStar can fly at 50% power, as I can maintain altitude and stay in flight pattern with only one engine (but only if flown VERY carefully). Flying on one engine has been very enlightening, and I strongly suggest to any fuel powered twin pilots to go out and buy this kit, setup as I have, and get some single engine practice. This can be a very valuable (and relatively inexpensive) engine out training aircraft.

I learned very quickly the need to keep airspeed up, as it will snap and spin very quickly on one engine when the speed gets too low, and the best way to recover is to power the other engine back up (something which only an electric can do). To bring the dead engine back to life without having to fuss with the knob, I simply flip the switch to the down position (rudder coupling).

In conclusion, I highly recommend the new line of FMA speed controllers (and I am not getting paid to say that). Check them out at http://www.fmadirect.com .

Ken, I just read your comments on the ElectriCub and recalled my experiences with that kit about 12 to 15 years ago (it's getting to be an old kit). Actually, I had two. One was 'wet' powered by an OS .10, the second one used the supplied electric motor (back then, you could buy the kit with or without electric motor, as it was intended to be built either way) but I attached the

electric motor to a Hobby Lobby/Olympus belt reduction drive and used a Master AirScrew 10x6 wide blade wooden prop.

Back then, I was strictly a 6 cell user, but with the belt drive and Futaba Attack-E radio system, that Cub would climb better than the 'wet' version. The 'wet' one had a higher top speed, but I was happier with the performance of the electric version. Neither one required a hand launch, and as I recall the electric weighed somewhere around 42 oz. Flight times were routinely 7 minutes, with the old 1500 sport packs. It has been too long ago for me to
give a review/rating for the aircraft, but I believe that setup as mine was, the stock motor was quite sufficient if used in conjunction with a reduction drive.

Also, in relation to the "Ruth Chin case", I questioned the choice of pilots for that infamous test flight. To my knowledge, the pilot was not familiar with electrics and is much more adept at flying high powered, competition type aircraft.

In my early R/C days, I encountered a few individuals who fit that description, and my experience is that they tend to look down on lower powered, small aircraft and prefer something big and with lots of power. In fact, they tend to rely a little too much on raw power, and are not familiar with the concept of 'flying on the wing'. I believe the pilot in Ms. Chin's case attempted to climb out before building sufficient speed, and stalled. A better pilot would have realized that sufficient airspeed was not to be attained, and would have just preceded straight ahead to land, rather than trying to use the elevator to horse the aircraft into a climb. In any event, the lack of sufficient power could have been determined before attempting a hand launch. My sympathies were felt for Ms. Chin, I felt that I would have been more help to her had I been the one attempting the first flight. At least I would have had the courtesy to not turn immediately to her and state something like "it needs more power", squarely placing the blame on the builder and removing all blame from the pilot. Ms. Chin worked long and hard on that aircraft, sought advice from other modelers, and attempted to do everything by the book.

After that single statement, I would not be surprised if she decided to throw in the towel. I do not know the test pilot personally, and I realize that this seems to be an attack on him, but the point I would like to make is that there is a large number of experienced, well liked pilots around who have little patience or interest in small and/or electric powered aircraft, and that is why the almost universal recommendation for newcomers is "go out and buy a .40 sized trainer" and "put a .46 in it". I think .10 and .20 sized trainers are just fine, only less expensive and easier to build, and I think the easiest, least expensive way to try out the hobby is with an .049 powered (or electric) glider. But then, some consider me a radical, and many of my aircraft would be deemed under-powered by most fellow R/Cers.

In my first encounters with clubs, instructors were not at all enthusiastic about my first aircraft which was a Tarno carb equipped TD .049 on a Hobby Shack "the Thing", as they didn't care too much for 1/2A stuff.

Fortunately, I persevered on and taught myself with a Medallion .049 powered Ace High Mk II. It was a very forgiving, easy to build and repair, foam winged powered glider, which I highly recommend to anyone pondering learning to fly on their own (it is still available). While I now fly many electric powered aircraft, and enjoy electric powered gliders, in all honesty they are not as crash worthy as the above mentioned kit (battery packs can and will act like a battering ram), and so I would not recommend an electric powered aircraft to a newcomer UNLESS he/she understood that instruction/help would be needed from an experienced flyer.

You have my permission to print the above opinions if you desire. I may anger some people, but may be a few others will listen and attempt to show a little more patience and consideration with new modelers and their aircraft.

By, for now, see you in July.

.....Jim Jager, Kalamazoo, MI. Contact at jimjager@hotmail.com

Thank you Jim for all the good information and comments. As I've stated before, there is even more to the Ruth Chin story than was in the article. She never wrote about the expert help that she received, and I do mean expert, and then she decided not to follow the advice. A responsible editor would never have allowed the original piece to be published in a national magazine. It certainly did the electric flight segment of

A Cub Update

John R. Houvener
1105 Ashman St., Midland, MI 48640

Earlier in the year John wrote to ask about powering an ElectriCub. I wrote of his experiences and he's sent in an update. KM

First he thanked me for some literature I'd sent him and then he continued… also, thanks for the comment in a past issue of the Ampeer that not all of us old timers have computers and email and that addresses are helpful.

Now for an update on the ElectriCub. I finally got it flying well. However, I fried the Goldfire motor with 9 cells. I was going to go with your suggestion of an Astro Flight 035 with bear, but I had a Strontium 150 (HLPM05) laying around, so I put it in direct drive with eight 2000 cells using an 8x4 and 8x5 prop. I also built a more scale Cub wing with ailerons, and I took out one half of the dihedral. The weight is now 55.56 ounces with a wing loading of 16.7 oz./sq.ft.

If anything, the Cub now flies better at this higher weight, at least in my mind, than it did at 46.65 ounces. The airplane does big loops, stall turns, Cub-like rolls and even spins half decently. It doesn't thermal very well, but it still has a good glide ratio. The only set back is that with the 8x5 Graupner prop I can only squeeze in about 6 to 6.5 minutes of flight doing some aerobatics and about 7.5 minutes with the 8x4 Kavan.

The Strontium 150 turns almost 3000 RPM faster than the Goldfire did and this on 7 RC-2000 for each motor.

I will rate the revised ElectriCub with *** 1/2 stars.

I received the following information from D. Leister, 116, Falcon Way, Plymouth Meeting, PA 19462

KEYSTONE RADIO CONTROL CLUB

May 3, 1999

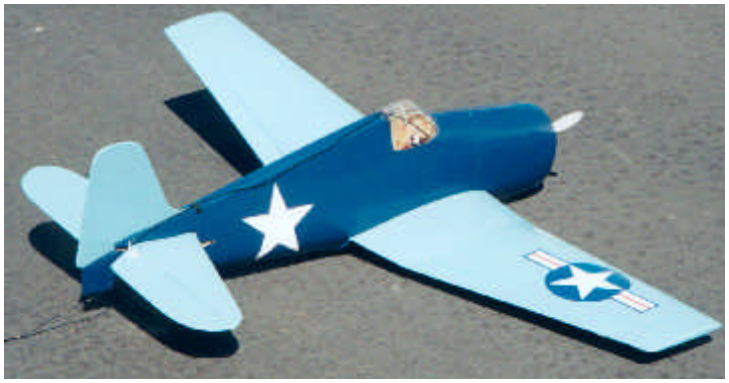
Dear Editor,

The KRC Electric Fly has experienced rapid growth over its 19 years and especially over the last three years since we have moved the event to Queen City Airport. Each year we review every aspect of the event to see what changes might be needed (mostly because of the growth) and look at the options with a view of not drastically changing the spirit of the event. We also review the manpower and expenses required to stage the event verses the club resources. This year, because of the magnitude of some of the changes we were considering, and the many options being explored by the committee, along with a loss of people in several key positions a few months into the year, the club Executive Committee decided that we had to cancel the E-Fly for 1999. We will be using this year to re-group and re-evaluate the event with a view toward the future.

The Club is deeply indebted to the pilots, media, manufacturers and other vendors, and other attendees who have supported this event over the years. Without this support, the "KRC" would never have become one of the premier events in the world of electric-powered model aviation. We also regret any inconvenience that this cancellation may cause those who have already made plans, and encourage those that supported us to support other clubs by attending their electric events in 1999. Thank you for your coverage of our event over the years and for your support. We also regret that we did not get this information to you sooner.

Best Regards,

The Keystone Radio Control Club



Ryan Hellcat Rating

From: Grant Calkins email: CasinoOp@aol.com

I rate the Ryan Hellcat a strong **** (4 stars).

Wing span 30", length 23" The kit has foam wing cores, excellent laser-cut wood, full size plans, building instructions, and already-cut canopy. Mine weighed 17 oz. ready to fly with 7x500 mAh pack, Speed 400 6v motor, and Pixie14 ESC. Once trimmed it flies great and looks great in the sky. Excellent kit and plane for only $75. A solid ****.

Zagi in Sweden

From: Tord Eriksson email:tord.s.eriksson@swipnet.se

If reply difficulties - use tord@mindless.com

Hi Ken,

Read with pleasure your comments on the ElectriCub in the Ampeer and how to modify it - I installed an OS FS26S in mine - but the basic conclusion is very much the same, too feeble as delivered.

First a really happy electric experience was with a modified Zagi THL, onto which I installed a Graupner 400, 7.2V (4:1 Concentric), driving a Graupner CAM 11x8 folder. Not very fast, but my what fun!

The 400 Zagi sold by the manufacturer is similar, but quite different in details!

Mine is slightly greater in span, as I inserted a balsa, embedded, fuselage in the middle, and mine is quite a bit heavier, but I still get 6-7 minutes endurance, and around 200 meters (600ft) in altitude! When thermalling much

more is possible, of course! Used a Schulze 18e speed control with BEC, 8 x 500AR. I love it! I use an Aveox (Robbe) Infinity at 4A to charge usually, and then once in a while a Sirius Smart Charger Pro, to charge it a little differently ...

Thanks for the details. Maybe some of you might send Tord your feelings on the following. KM

My next project is a 9 ft. EPP powered glider (see DAW Ka6E for details on the wing - my fuselage is drastically different! It is a hull!

I first planned to make it Do18-like, but then I had an idea last night!

Form the side the fuselage - as far as I've come - looks exactly (well, quite) like the Hughes monster flying boat, so why not eight 400s?

Would 8 x the installation in the Zagi suit it? Different battery pack, two eight-cell RC2000 packs (or similar). After take off I would shut down half of them and then - when back on the water I would switch to the other set (outboard motors for manouvering. The plane without motors weigh somewhere around 2.5 kilos (5 lbs). Or would six be enough? Or should I use ungeared ones?

With flaps full down, as on approach or taxiing I would only power the outer set, and with flaps full up, or reflexed, only the inner. With take-off setting all would be on line (I'll interrupt the ESC signals, not cut the power lines!).

Always fun to read the Ampeer! Any input very welcome - am I heading for the looney bin?
Yours, Tord, from Sweden

PS – Just finished building my DAW 400 Extra (an EPP scale model of an Extra with a straight 400 in the nose!). Looks great! Four nano servos!

Simpl"E" Fun

From:Steve Hinderks email: birdworks@harborside.com

Hi Ken:

I have been enjoying your web site and wanted to let you we have gone into production on what we call the SPUD. This speed 400 sport flier is constructed from EPP foam, Flexible foam, and coroplast.

I have been flying electric's off and on since the Kyosho Robin was introduced.

My company, "The Birdworks", has been building slope gliders for 6 years. Like all slope people, when the wind doesn't blow we still need our stick time.
Our web site address is :
www.harborside.com/home/b/birdworks/bwhome.htm
Keep up the great work!

Here, with permission, is some of the Spud info from Steve's site:

Simpl"e" Fun is what it is all about with this little wing. No fuss building and a great little flier, all in one low cost kit. The battery simply presses in place so pit time is at a minimum. It's a sport flyer but will move when pushed.

Throttled back we have logged 13 minute flights on level ground. "Yes, it flies inverted, loops, and will roll in the blink of an eye with the ailerons turned up".

The neat part : It's so simple to build !!!

Build the wing, attach the wing saddles, glue the wing in place. 2 cable ties hold the motor in place, 1 cable tie holds both servos in place. The receiver, speed controller and battery pack simply press in place. Hook up the linkage, balance, and *FLY*.

Specifications :
Span : 32.5"
Length : 17 3/4"
Area : 197 sq.in.
Weight : 16 oz
Loading: 11.7 oz/sq.ft.

The kit contains :

Reinforced "Coroplast"fuselage, Flexible foam wing saddles, EPP foam wing panels, Elevon stock and Hardware

Radio requirements :

BEC speed controller, Elevon mixing, Micro Receiver, and Micro servos

Price :

Price : $35 + $5 s&h

What You will need :

Strapping tape, 1 hour epoxy, Contact cement, Speed 400 7.2v motor, & 6-7 cell 600KR battery pack

Contact :

(541) 332-0194 birdworks@harborside.com
P.O. BOX 1302, Port Orford, OR. 97465

"Disposable" Push-E Cat?

From: Darwin Garrison email: garrison@rc-aero.com

Hi, Ken:

Just got through reading the May Ampeer. You've done an excellent job, yet again. I don't see how you

manage to make time to produce such a quality publication. (*Neither do I – the new 36 hour day really helps though. KM*)

I did notice, though, that you've classified the Push-E Cat as a "disposable" airplane. I'd like to point out that EPP airplanes are not really designed to be "disposable". The Push-E Cat was designed as a very durable trainer airplane, as evidenced by its all EPP/coroplast construction and gentle handling characteristics.

Another point is that the Push-E Cat's price range reflects the extra effort and value in the kit. The Blue Foamie is $20, the plans for the Schoolyard Foamie are $10, but a Push-E Cat is $69.95. A true disposable airplane must be cheap, or the emotional investment becomes daunting.

Anyway, I hope that you will take a moment to check out my new foamie article series premier in the May E-Zone (www.ezonemag.com). This segment of electric flight has the potential to be the next craze.

Regards,
Darwin

* * *

Garrison Aerodrome R/C Model Enterprises
Phone: (219)486-2889 Fax: (219)486-9761
E-Mail: garrison@rc-aero.com
WWW: http://www.rc-aero.com

Thanks Darwin, and we will be following your foamie fixation on the Ezone! KM

Float Flying and More in the UK

From: David Theunissen
email: David.Theunissen@GROUP.BOC.com

Ken,

Your site and Ampeer have been an inspiration to me and I thought I would let you know about my exciting plane, 'SW4'. After a little trial and error, I designed my own which is basically a very light 40 sized plane in glow terms. It has a 58" span and 600 sq" wing area.

Using an Astro 15G, 12x2000 cells and a MA11x7 electric prop, AUW is 62oz giving over 70 watts/lb. I use 3 mini servos, AF217D ESC, 270mah Rx battery and a fairly small Futaba Rx. Construction is all built up following much of the advice in the Keith Shaw articles you publish (the 1992 'Building and Flying Electric Sport Scale' is essential reading). I use 1/8 foam ribs (lighter than 1/16 balsa) and 1/32 wing sheeting

Covering is Green and Violet Solarfilm.

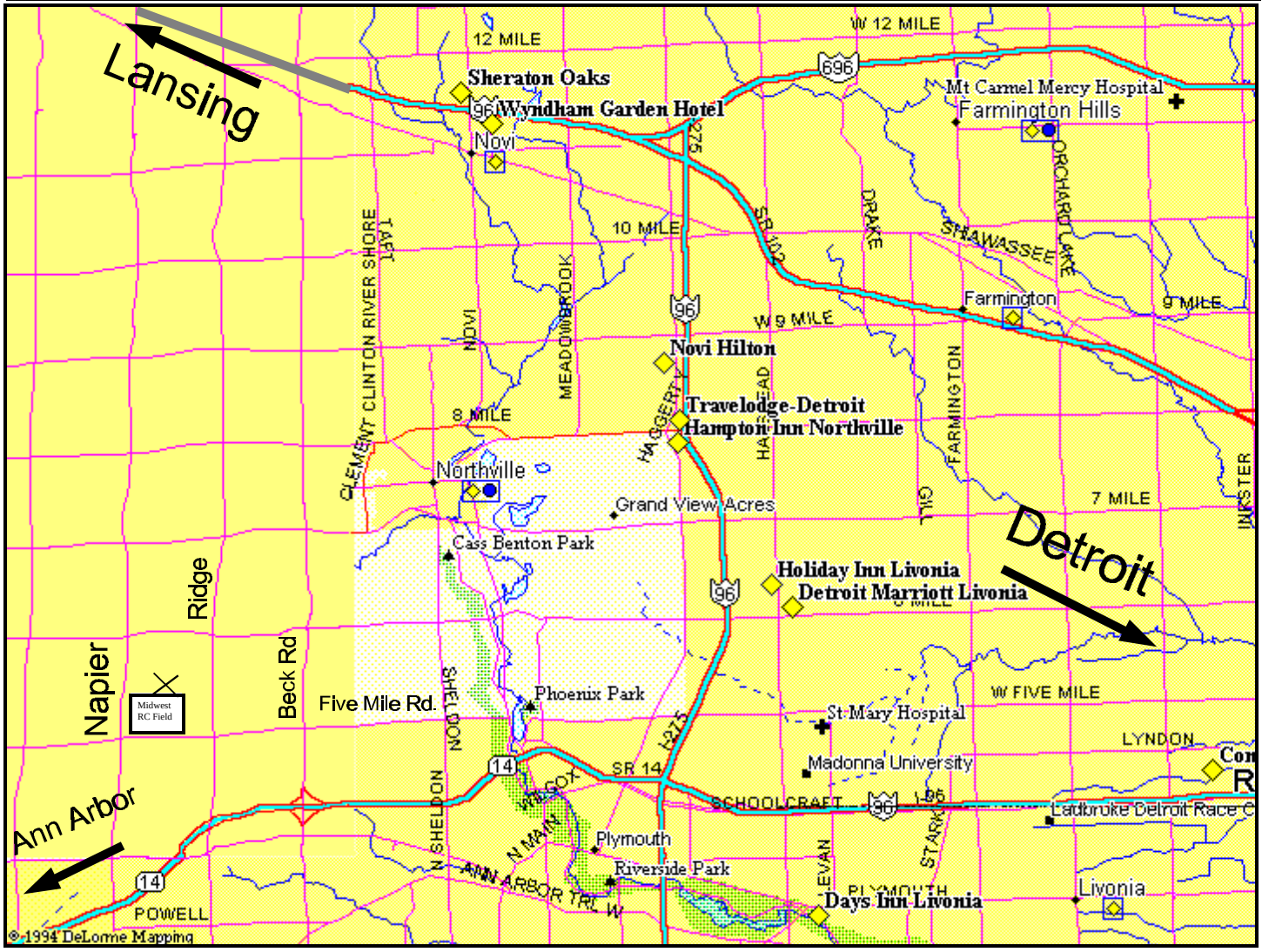
Performance, as you might expect, is really fantastic. Flight times are consistently 7 to 9 minutes with aerobatics and normal fun flying. I like doing a lot of close up twisting and twirling (technical terms) with many vertical manoevers.

I've come to the conclusion that electrics don't have to be heavy (my same size glow plane weighs 80oz dry) and are as much fun to fly without the hassle and mess.

We recently had a float plane day where I live in the UK so I replaced the u/c with floats. This increased the weight by 12oz. The floats are built up, covered in nylon, doped, painted and have a steerable water rudder (essential for taxiing). I thought I might need a larger prop but take-off with the 11x7 was really easy and much quicker than most other planes there.

Rolls were a bit strange but in-flight performance was otherwise still good. I kept flights to about 6 minutes to save the embarrassment of having to 'fetch' the plane in the middle of the lake! I could have flown a little longer. The event was very successful and I would expect a few converts to electrics based on the ease of operation and level of performance of both my plane and a fellow club member's.

I have posted you some photos which you might find interesting... Thanks again for your support.



Mid-America Flies Hotel List - 1999 (note: prices NOT updated for 1999)

Rates were believed to be per night on the weekend for 2, and were the best information I could get on 11/10/96. Please call for current rates

Novi Hilton
21111 Haggerty Rd.
236 rooms
800-445-8667
248-349-4000
$79

Sheraton Oaks
27000 Sheraton Dr.
206 rooms
248-348-5000
$75 - $85

Wyndham Garden Hotel
42100 Crescent Blvd.
152 rooms
800-222-4200
248-344-8800
$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
248-349-7400
$55

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

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

Hotel Baronette
27790 Novi Rd.
149 rooms
248-349-7800
$79

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

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

To locate the Midwest R/C Society flying field, site of the 1999 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.

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:

June 26 Northern Connecticut Radio Control Club's 12th annual Electric Fly Event - contact: Jerry Chase (email: gerard.chase@snet.net) at the club field in Ellington, Connecticut. No competition events, simply an opportunity to get together with other e-flyers, maybe win a prize, and have a good time. Directions to the field can be found at www.ncrcc.org/about.htm#Directions

June 26 & 27 The 5th Annual Kingston Electric Fun-Fly - contact Martin Irvine (email: mirvine@limestone.kosone.com) - low key get-together, 20 minutes west of Kingston, Ont. Canada

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, Co sponsored by the Radio Aeromodellers of Seattle, NEW SITE this year - the Radio Aeromodellers of Seattle Field, a few miles south of Auburn, Washington. Contact Bernard Cawley, 29838 48th Avenue South, Auburn, Washington. 253-839-9157 or e-mail at ab_cawley@compuserve.com

July 10 Location: Castaic, CA USA - ELECTRIC FUN FLY - CASTAIC MODEL AIR PARK
Website: www.canyoncrosswinds.com
CONTEST DIRECTOR: STEVE CIAMBRONE 661-294-9547

July 17 & 18 Voltaires Funfly, suburb of Syracuse N.Y. Map and further details posted on the Voltaires web site http://members.aol.com/wg13lax/voltaire.html

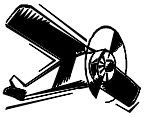
August 1, 2, 3, 4, & 5, 1999 - Muncie, IN at AMA Headquarters The National Electric Aircraft Council & the AMA/NEAC Electric Nats.

August 7 1999 Fort Wayne ElectriFly - Contact: Pat Mattes, 9732 Lafayette Center Road, Yoder, IN 46798-9723 or email: Pat-Ingrid-Mattes@Juno.com

August 21 Electric Fly-in - Location: Ste-Julie sod farm just outside Montreal, Quebec - Contact: Louis Dionne email: louisd3@ibm.net Phone: 450.689.4918 Details www3.sympatico.ca/pthiou/c2vm

September 11 (Rain 9/18) Ron Kirk Memorial Electric Fun-Fly - CD Lyn Perry, email: perryl@sstaff.sunyerie.edu or phone 716.655.0775 - presented by the Clarence Sailplane Society of Western New York state.

Sept. 25 and 26 San Diego Fall Fun Fly - two days of fun flying web site a http://sefds.org for details or contact the CD, Don Wemple, at DonK126@aol.com or call (619) 469-5566.



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

Next Meeting: Thursday, July 1
7:00 or ASAP Rushton Rd. Flying Field,
South Lyon – Rain or Shine!