

# Ampeer

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**The Next Meeting:**  
 Thursday, November 5 – Time: 7:30 – Dublin Community Center, just N. of the village of Union Lake on UL Rd.

### What's In This Issue:

October Meeting – U-2 Flies – Sopwith Pup – Hanger 9 Cub & Extra 300 – 10-cell Lazy Bee – Need Help – External Fuse as Switch – Cloud Dancer Rating – Thank You Bill Ray – Live Wire Champ & Easy Built PT-19 – Ampex – MicroBe rating – Upcoming California E-meet – Kyosho Flash – Goldberg Jr. Falcon Teaser



### The October Meeting

The October meeting was held at the Rushton Road flying field on Saturday, October 10. It was a beautiful fall day. The sun was shining, and the temperature about 65 degrees, with light winds. There was a large selection of models including; Revolt, Crackle, Mirage 550, CG Eaglet, Twin Skynight, Dymond Models Cub-thingy, PuddleMaster, Easy Electro 72 and more. The members and guests had a very good time flying and chatting about electric R/C.

Everyone seemed to enjoy the day, the

friends and food. Of course, hot dogs were the main fair of the day, along with a choice of chips and selection of various sodas and water.

It was a great day and way to close down the "official" flying season. Anyone for a winter fly?

We also signed up a new member. Welcome Bob Henderson of South Lyon!

The next meeting will be held at the Dublin Community Center, on Thursday, November 5. See you then. The topic will be timing an AF 90 with gearbox. See you then.

**The U-2 Flies!**

An Update on last month's U-2 information  
 From: Grant Calkins email: CasinoOp@aol.com

Attached is another photo of my electric U-2. Span 6 ft, motor Strontium 150 with 8x5 folder prop (invisible in flight), weight 64 oz, wing loading 18.2 oz/sq.ft., elevator, rudder, ailerons, flaps (flaperons), electronic speed control, color dark flat "military mud". Power is 7x1700 mAh cells, giving 8-10 minute flights. The famous "pogo wheels" under the wing weren't used - roll-out was straight and true on the in-lines. Flies like a homesick angel! according to maiden flight pilot Chris Spangenberg, President of our Channel Islands Condors club in Camarillo, CA.

Edwards AFB was the appropriate site for the first flight of the U-2. Chris flew it twice, then I took the stick on the 3rd flight. Roll down runway, straight as an arrow, then it just decides to lift off. Climbs at about 30 degrees just like the full size "Angle". Many feel there just isn't a better looking plane in mid flight than the U-2.

CoG in the right place too.

The battery pack is mounted in a box runs through the front of the fuselage. In case of a 'nose in' the idea is that the battery pack shoots out the front of the plane. The wheels are sprung to ease the impact on landing. Controls are aileron, rudder and elevator plus speed controller.

It is powered by a Master Airscrew 3:1 pack and flown on 7 cells. It takes off from the ground, and is quite a lively flyer. It has a 40 inch span.

**More on George Maiorana's Hangar 9 Cub and Extra 300S**

From: George Maiorana email: dmaiorana@voyager.net

**More info on Hangar 9 Cub**

Originally it weighed 9 lbs. 15 oz. with the equipment listed. It has been flown at 12 lbs. + with an 8mm video cam in it. Flights were kept short because of additional power usage but it was manageable (so Skip Mast the pilot told me). It has also carried a digital camera at 10 lbs. 6 oz. Results of both projects were acceptable and a lot of fun.

After these projects I tried to improve on its handling by raising the battery pack to the thrust line and lightening it as much as possible. The aluminum gear that comes with the Hangar 9 Cub has a tendency to deform on hard landings (which I did a lot learning to manage the pack - another story). I made up a CF gear to replace original and hogged out some cub wheels from Dave Brown blanks. The gear modification saved a total of 10 oz. Another 4 oz. were saved in the fuselage structure. I think it flies great now that it doesn't have all that weight below the thrust line.

**More Extra 300S info**

The original GP Extra 300 built from the kit had a bad tendency to barrel roll to the left when up elevator was input. As I said it died on the 4th flight (snapped coming out of a stall turn). So I can't really say that it

**A Sopwith Pup**

From: Simon Kidd email:simon\_kidd@compuserve.com

I thought that you might like a picture of my Electric 'Sopwith Pup' Biplane.

This is a DB Sport and Scale Kit. Covering is litespan, dark green and cream. The model is coloured and marked approximately the same as a real Sopwith Pup which is housed (and flown) at the Shuttleworth Collection at Old Warden in UK. The nose of this type of plane is very short and so the ability to mount the motor and battery right at the front helps with the CoG. The only scale like wheels I could find were fairly heavy which I thought would be bad, however they help get the

was a four star flier. The Extra that I scratched built from the GP kit plans weighed 8 oz less and it flew great (ask Keith).

The four star rated (second) GP Extra 300S also has a CF gear and a sheeted foam wing.

I just wanted to clarify why I rated both of these aircraft four stars. Just because someone builds them from the kits doesn't mean the results will be the same.

Thanks again for a great time at the "Flies".

George

### Ten-cell Lazy Bee

From: Steve Minter

email: 76614.2471@compuserve.com

*(A short while back I featured some pictures and info on Steve's 10-cell Lazy Bee. A power system he added after seeing my 10-cell planes fly. Here he shares some information with Dave Behner and the rest of us. Km)*

Dave,

Here are some answers:

<How big was your 10 cell pack in milliamps?>

I use Sanyo 1700SCRCs, mainly because the 2000s are too expensive. I sometimes fly it with an 8-cell, 800 mAh pack, which gives good performance but short duration. With 7 x 1700 cells it is docile enough to be a good trainer. With 6 it is sluggish.

It handles windy days better with the 10 x 1700 cells; because of the increased power, and the higher wing loading also helps.

I suggest hump packs, with 6 cells underneath and 4 on top. This suits the Bee, as the fuselage is tall inside. The battery pack sits on a false floor, and is held in by velcro. I put a battery door in the side of the fuselage, as suggested on the plan. I suggest you consider putting a door in the curved front of the fuselage instead, as this gives a better escape route for the battery in the event of a crash. In my setup the battery would destroy the front of the model.

<What motor did you use?>

I originally flew it with an Astro 05 geared (about \$130) (the standard Astro box is 2.38:1) With an 11 x 7 APC prop this gives good results even on 7 cells. On 10 cells this really goes well - big loops etc. are possible. Astros are really nice motors. Bigger props hit the ground on takeoff and landing.

It flies OK using a Great Planes Goldfire can motor (about \$15), 3:1 Master Airscrew gearbox and 11 x 7 APC prop on 7 cells. I haven't tried the Goldfire on 10

cells, it might be a bit too much and result in a short motor life.

I have tried the Kyosho "Magnetic Mayhem" reversed rotation motor (about \$20 from Tower hobbies) with 3:1 gearbox and 11 x 7 APC on 10 cells. This goes well, but is under-geared (Ken Myers uses a 2.3:1 gearbox in his installation) I am going to experiment with 2.5:1 and 2:1 ratios to get it to draw more amps. The Kyosho has no problem with 10 cells. I would love to try a brushless motor on 10 cells, but can't afford one... <What size servos would you recommend?>

Use micro servos. Use a micro receiver if possible.

<Would you recommend your combination with ailerons?>

Mine is rudder / elevator. I would recommend ailerons, but don't expect too much in the way of snappy response; it is a very stable airplane.

<What type of flight duration's do you get?>

This depends on how you fly i.e. how much throttle you use. I normally achieve at least 10 minutes on 1700 cells. The plane is light enough to thermal, so I have occasionally had 20 minute flights.

<Preferences 40" or 48" wings?>

The 48" wing is probably better for electrics, as the model will be heavier than a low-powered equivalent due to the battery weight. However, if you are going to fly in windy conditions, the 40" wing may be best. Why not build both wings, do some back-to-back testing and publish the results in the *Ampeer*?

<Any suggests you would make?>

On Electric models, lightness is everything. The Bee should not weigh over 3 lbs. i.e. 48 ounces ready to fly. Use CA glue, cover with LiteSpan, cut lightening holes in the stabiliser. Don't be tempted to reinforce anything; it won't crash any better and will probably fly worse. Actually, the Lazy Bee is really quite robust as it is.

Use a speed controller with BEC to save the weight of the receiver battery pack. An A1 Robotics FX35D is excellent, if expensive. You could use an Astro 217D miniature controller (no BEC) which is really cheap from Tower.

If you are an experienced pilot, use the biggest control throws you can get for entertaining aerobatics. I like the bolt-on wing setup as opposed to rubber bands. Watch out when taking off on windy days, if the wind gets under the wing it cartwheels. A hand launch is safer in these conditions.

Let me know how you get on.

Regards,

Steve

**Help - Electric Models**

From: Thinus Prinsloo email: thinus@intekom.co.za

*I get many similar emails, and I've answered this one, but I thought that those of you with email might enjoy putting in your two-cents worth. He might also enjoy hearing from many of you. Km)*

Hi There,

My name is Thinus Prinsloo and I live in Bloemfontein, South Africa. The city that I stay in is situated at a high altitude which poses to be quite a problem for electric models - so I am told. Therefore nobody at our club likes the idea of electric models because they have the tendency not to fly here at all. I seem to be the only one at our club that find electric models challenging and interesting. I am reading and gathering as much information as I can from the Internet as I plan for my next model to be a electric model.

**Experience:**

I am a newcomer to the sport and have only been flying R/C models for the last 18 months. Currently I fly a .40 size 4 channel trainer and a gentle lady. I have converted the gentle lady to use a geared Master Airscrew electric motor with a folding prop and I must confess that I enjoy flying this model a lot (no hassles - starts every time - anywhere).

**New Model Prerequisites (If possible):**

1. Can be a glider or something else as long as it is possible to take the model apart to take it with me when I go on holiday.
2. Cobalt electric motors in South Africa is unheard of and very, very, very expensive due to our weak currency and no local distributors that I know of. Therefore I would prefer to use cheap canned motors (expensive in South Africa).
3. Use standard radio gear ( Futaba Skysport and standard servo's)
4. The model does not need to be a competition model as I fly for relaxation and fun only, although it would be nice to be able to do something more than just loops!
5. Seven or more cell battery packs is a foreign idea here therefore I am stuck with six cell battery packs (1700 and 2000 ma).
6. I am not the best R/C pilot around but I am one of the keenest.

**Notes:**

I saw some great reviews on the Great Planes

Electrostreak but all of them suggested that one should use a different electric motor than the one that comes in the kit and I do not know if I will be able to handle the model with my current R/C experience.

Thanks for reading this far!

Regards,  
Thinus

**Looking for Electric Flight in Colorado**

From: Nick Mati email: nickm@cyrix.com

Ken,

I believe I am the only Electric flyer in Northern Colorado it would be great to have some company.

Regards,  
Nick Mati

*(Can any of you out there make Nick feel not so alone! Km)*

**External Fuse as Switch**

From: John Julian

email: jjulian@silas-2.cc.monash.edu.au

7 Horton Close, Brighton

VIC 3186, Australia

ph +61 3 95319135

*I've mentioned many times in the Ampeer about using a fuse as the external switch. I made a post on the eflight list about it, and John replied to me personally about the following.*

Ken,

I tried posting this to the eflight Digest but I have all sorts of addressing problems at the moment and it bounced. I'll send it direct to you since I think you were going to pass on some more info on your set up. If you think it's useful info feel free to pass it on.

A neat solution I found for Speed 400 size was to solder a blade fuse to a Deans 4 pin connector (two pins bent slightly outward to each blade of the fuse), and put the socket in the plane with a small access hole. Works like plugging the fuse into a socket but the Deans is a much better quality and easier connection. By putting the socket in the battery lead and a reverse 3A diode across the input to the ESC you can charge without removing the battery from the plane by plugging in the charger lead with a Deans 4 pole plug as well. The Deans is polarised but even if you force the charger plug in the wrong way the diode blocks the current. I think the plugs are rated up to 25 Amps or so - and this solution uses two pins in

parallel for each connection. Light, simple reliable and you can make up different fuse ratings at low cost. Just make a spare to lose!

### Cloud Dancer Plane Rating

From: Rick email: RJCThree@aol.com

\*\*\*\* 1/2

I have a submission for the plane ratings. Ace Cloud Dancer 40, Astro Flight 25G, 16x1700, Master Airscrew 12x8 electric. Flying weight 6.0 lbs. Four and a half stars. It flies like a homesick angel, the half star reduction only occurs when thrust < weight.

**Mods:** All lite ply replaced with balsa, fuse sides 30 degrees bias (2 ply of 1/16") laminated 10#, third ply around wing saddle. Dural gear used, mounts to "box", consisting of gear mount, forward wing mount battery mount and spar reinforcement. I also did some minor kit-bashing of the tail feathers. 4 s3101 servos, one for each aileron, one elevator, one rudder.

Six solid minutes of acrobatics with power for a number of go-rounds. Tough to slow down.

Build this airplane. It is a riot.

Thanks, Rick

## THANK YOU!

Yes, that's a big thank you to Bill Ray of Longwood, Florida. With his last *Ampeer* renewal, he sent along some "extra" money to provide the EFO with refreshments for our October meeting. There was enough so that we'll also have refreshments at our November meeting. Thanks Bill!

Since Bill was so nice to send along the donation, I thought I'd plug his business – Bill Ray Nissan, 2724 North Hwy., Longwood, FL 32752-1400 – phone: (407) 831-1318 – email: FLDEALER@aol.com. If you're looking for a Nissan, you just might want to look up a fellow efler!

### Live Wire Champ

From: Colin McKinley  
4003 Poindexter Ave.  
Winston-Salem, NC 27106

Ken,

I finally got to use the Delta wind MaxCim. I used it in the Live Wire Champ, that you pictured in the last issue of the *Ampeer*. It received Best Vintage at the '98 KRC. I'm using ten 2000mAh cells and a 13x7 prop. Good designs always fly well. This design was like the

Sig Kadet of the 50's and 60's. I intend to fly it rudder only at "vintage" events next year. It weighs five pounds and takes off in six to ten feet. It climbs easily and is controllable with power only. The model has also been flown with an Astro Flight geared 15.

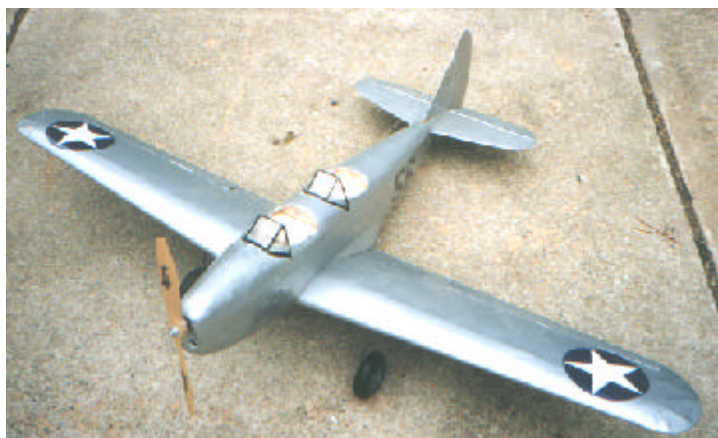


The second model is the PT-19 from Easy Built. It has been flown using the Delta wind MaxCim on nine 2000mAh cells with a 12x6 prop. It is a good performer and takes off at less than half power.

The model was framed up by John Mountjoy and was supposed to have been finished by Charlie Spear.

I was sick and tired of the blue and yellow PT-19. This one is covered with Solarfilm with silkspan over the open areas first. The fairings are foam, covered with Solarfilm. The cowl is fiberglass. The original vinyl parts were used to make the molds.

Hopefully, the new owner of Easy Built will continue to line of electric kits.



### Ampex

From Roy Day, Rockville, Maryland

Dear Ken,

First, I want to say I enjoy the *Ampeer*. I find the



Photos show Roy Day with his Ampex.

numerous reports interesting on various electric designs, kits and products as well as the "how to" articles.

A couple years ago I designed a sport electric as a vacation plane. That meant a bolt—on tail assembly, easily removable main gear and a size which could be packed along with the usual vacation gear. The resulting specs were:

- o Low wing — span 56 inches
- o Wing area 530 inches square
- o Conventional gear
- o Four controls: Elev, rudder, aileron, throttle
- o Motor: Astro 15 geared or Model Air Tech M -250 ferrite motor and H—500 belt drive reducer (3.2/1)
- o ESC: FX-35
- o Battery: 12 cells of 1700 mAh
- o Rcvr: FMA 2000 Micro with 250 mAh battery
- o Servos: Miniature, not micro
- o Covering: Ultracoat
- o Canopy and Cowl: Vacuum formed from 0.040

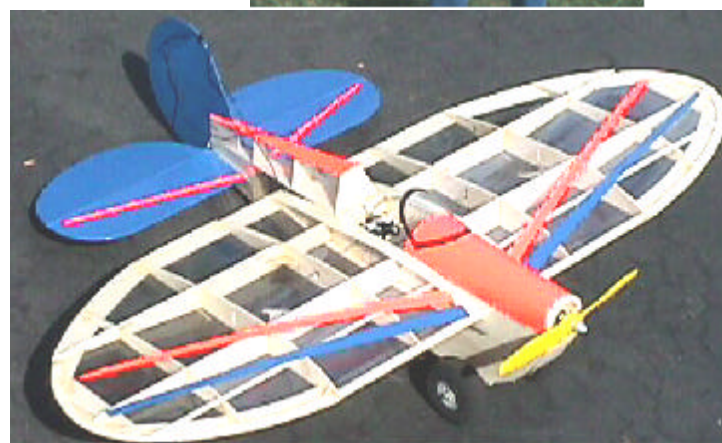
Vivak plastic

- o Flying Wt.: 70-73 oz, depending on the motor drive. The ModelAir-Tech unit is 3 oz heavier than a 15G.
- o Prop: 12x10 (Master Airs crew wood is best)
- o Current draw: 25—28 amps
- o Power in watts: 12 cells x 25 amps = 300 watts
- o Power/Wt. : 65—68 watts/lb.

The Ampex is very spirited and flies nicely off a grass field. Flight times of 4-5 minutes are usual with some aerobatics and prudent management of the throttle. I've flown it with both power systems and both do a good job.

#### A footnote on construction:

Both the wing and the fuselage use conventional built-up construction. The only variation is my use of 3/16" foamboard for all formers, occasionally reinforced with 1/32" ply for high load areas. I've used foamboard on my last 3 designs, both glow and electric. The suggestion for foamboard for formers came from Keith Shaw years ago.



Plane Evaluation-MicroBe by RBC Kits (Holland)

From: Grant Calkins email: CasinoOp@aol.com

Rating \*\*\* (3 stars)

^ This is nice, small, slow flying fun plane - provided you correct the trim. The specified CG is at least 1/4" too far forward, and the motor desperately requires up and right thrust trim - it will nose dive immediately when installed stock. I used a Graupner Speed 400 7.2 V motor w/6x4 prop, Pixie 14 ESC with BEC, two Cirrus 021 micro servos, and JR Rx. Covered with clear MonoKote with bright colored accents. With a 7x500 mAh pack the all-up weight is an astounding 16.0 oz, and wing loading of 9.6 oz/sq. ft. Even with two main wheels and a rear skid, the MicroBe shares severe ground-looping tendencies with it's larger wannabe brother the Lazy Bee, and basically will not ROG - must be hand launched. It's nice and small (WS 27", length 20"). Careful with building, some steps omitted from plans will haunt you later on, and micro-fingers are required.

Grant Calkins – Channel Islands Condors

# Congratulations Dave and Shana Grife – Emma Marie Grife - born 10-19-1998 - 5 AM - 7 lb 14 oz.

## All Electric R/C & C/L Fun Fly

From: Stephen Ciambrone  
email: Stephen.Ciambrone@alliedsignal.com

The Blacksheep are presenting an "All Electric R/C & C/L Fun Fly" on Sunday, November 22, 1998. It will be held at the Sepulveda Basin Flying Site in Van Nuys, CA, from 9 a.m. to 3 p.m.

### The Events:

**R/C Events** – Smallest Electric, Ducted Fan, Old Timer, Pattern, Scale, Glider, Sport

**C/L** – Fun Scale

All Entries are to be judged by the contestants. The entry fee is \$10, and \$2 for each additional event. The CD is Tony Naccarato 818-842-5062.

Prizes will be given out, and donations welcome.  
For E-mail questions, contact Stephen.

## Kyosho Flash Plane Rating

From: Brent Watkins email: bjw@usa.net

I still live in Fairbanks, Alaska, and I'm flying my Kyosho Flash again today in 20 degree temperatures. I can do the AMA Sportsman pattern sequence with it plus a couple of extra minutes flying time.

I have flown it with the standard power system, and also now with an Aveox motor. It really flies well with Aveox 1406/3Y, 7 cell RC2000 battery, and 9.5x6 Aeronaut Prop.

The model itself, which is an ARF, is light and well made. It assembles easily.

The model comes with a motor, gearbox and 9x6 prop. It is designed for a 7-cell battery pack (I used Sanyo RC2000 cells) although you may be able to squeeze an 8 cell pack in with the right configuration.

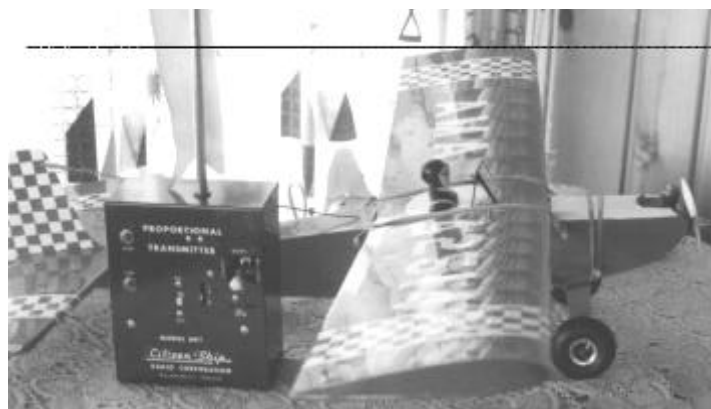
I first used the stock motor, gearbox and prop and although this combination does work, it is not really acceptable in my opinion, and I could not get better performance with other props I tried. It draws about 19 amps current. Once flying I was able to do loops and simple aerobatics. But overall the power was marginal.

The landing gear is too far forward and model ground loops easily and is very difficult to taxi and take-off with the marginal power setup. I was using a smooth runway surface.

In its stock form I could only give it a **one star rating**.

I have replaced the motor with an Aveox 1406/3Y direct drive, and 9.5x6 Aeronaut prop, and continuing to use the 7 cell battery pack. I am guessing the current draw is about 35 amps as my meter only goes to 30 amps full scale.

With this setup the flying weight is 49 oz., and the model takes off quickly from a short grass runway and has plenty of power for aerobatics. The roll rate is very slow without plenty of aileron movement. Flight duration is about 7 minutes, if you are careful with the throttle. Using the Aveox motor the model is about a **4 star rating** and I am able to do aerobatics with ease.



**The Carl Goldberg Junior Falcon**

Okay, so that's not a shot of an electric – yet. Look closely. When was the last time you saw a Citizenship pulse transmitter? That's my Jr. Falcon in 1971. Notice that even back then I didn't like trike gear. The durable gear is from my Mini-Mambo, ca 1962-3. It is finished in red and white MonoKote with checkerboard trim sheet.

With a new, in the box, Jr. Falcon sitting on my lap as I type this, it is my goal to recreate this model as an electric.

Stats from the box: Span 37", Length: 28", Area: 250 sq.in., Weight: 16 oz. (Box artwork below)



### Upcoming Events:

(336) 772-7609

**Nov. 22** – Blacksheep All Electric R/C & C/L Fun Fly – Sepulveda Basin Flying Site, Van Nuys, CA – 9 a.m. to 3 p.m. – CD Tony Naccarato 818-842-5062 – email Stephen Ciambrone – Stephen.Ciambrone@alliedsignal.com

**Nov. 28** – R/C Swap Meet, Muncie, IN – Deleware Co. Fairgrounds, 1210 N. Wheeling – 10 a.m. to 1 p.m. – contact Reggie Sewell (765) 284-3711

May 8 OR May 9 (not both) - Springfield, OH 2nd Annual electric meet – contact Azarr at Azarr@WPAFB.AF.MIL – The date will be **May 8th**, with rain date May 9th. The field will be open for flying on the 9th if anyone desires to stay over. I may be able to arrange a behind the scene tour of the USAF Museum if there is enough interest, we could combine it with a breakfast or something.

### 1999

**North Carolina Meets - 1999** Two Winston-Salem clubs, the Winston-Salem Radio Control Club (WSRC) and the Riverside Aeromodelers (RAMS) are planning on an electric weekend for **May 1 and 2, 1999**. The WSRC will host the May 1 the RAMS will host the May 2nd contest. Both contest sites are close to highways 40 and 77. Primitive camping is permitted (and encouraged) at bot fields. contact: Dr. Colin McKinley (336) 924-5890 or Dr. John Mountjoy



**What's This Glow Plane Doing Here?**



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

**Next Meeting: Date: Thursday, Nov. 5  
Time: 7:30 – Dublin Community Center, just N. of  
the Village of Union Lake on the east side of Union  
Lake Road.**