

the

Ampeer

March		The EFO Officers	2023
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No Mailed Ampeer Subscriptions	The Next EFO Meeting: Wed. March, 8, 2023 Time: 7:30, Place: ZOOM		

**What's In This Issue:**  
 EFO Meetings, Winter 2023 - Pontiac Indoor Info - Brighton Indoor Info - EFO Jan. 2023 Meeting - EFO Feb. 2023 Meeting - Keith's Completed Dreamer Biplane - Sig Four-Star 40 Question - Big Bob Kopski Skyvolt Revisited - Connector Conundrum - Upcoming Keith Shaw Birthday Party Electric Fly-in - Upcoming 39th Annual Mid-Am Electric Flies - A Mid-Winter Night's Dream(er) - Happy Birthday *Ampeer* - Upcoming Events

**EFO Meetings, Winter 2023**

The EFO meetings for, March, and possibly April, will be ZOOM meetings.

April's meeting place is yet to be determined.

The reason for ZOOM meetings is the continued threat from COVID and now the severe outbreak of the common Flu in the more senior population.

Also, I am really no longer capable of clearing the drive and street of snow and ice for safe walking to the house.

I'll see you all via Zoom in March, Ken.

**Skymasters' Winter Indoor Flying in Pontiac, MI**

From Pete Foss via email

Hi All,

I'm very happy to announce that we have secured a spot at the UWMSC (UWM Sports Complex), 867 S Blvd E Pontiac, MI 48341, calendar for indoor flying.

**WE ARE BACK TO TUESDAYS FROM 9 AM - 12 PM!**

Registration for indoor is up for gold cards!

<http://www.skymasters.org/index.php?page=events&id=15924>

Gold Cards, season passes, are \$150 and single sessions \$10.

Thanks,

Pete Foss

President Skymasters RC of Michigan

[www.skymasters.org](http://www.skymasters.org)

**Winter Indoor Flying at the Legacy Center in Brighton, MI**

Indoor flying takes place from November 2nd, 2022 until April 26th, 2023 at the Legacy Center Sports Complex, 9299 Goble Dr., Brighton, MI, 48116 phone: 810-231-9288

**Wednesdays from 12:30 PM until 2:30 PM.**

The cost is \$10 per drop-in session.

### The EFO Zoom Meeting for January 2023

Nine EFO members were present on Zoom for the January EFO ZOOM meeting.

The majority had flown at the Legacy Center in Brighton, MI that day.



**Keith Shaw** shared the progress on his new Dreamer biplane.



**Denny Sumner** shared a lot of information, while in his new workshop. He has a new glider under construction for the upcoming glider evenings at the Midwest RC Society.

He also let us know that our good friend, Mark Rittinger is having a serious health issue. We wish him the very best.

There was a lot of general discussion about RC modeling and the disappearance of many of our suppliers.

### The EFO Zoom Meeting for February 2023

Seven EFO members were present on Zoom for this meeting.



**Keith Shaw** had quite a bit to share.

He showed the progress on his Dreamer and gave some details about it at this time.

During a general discussion about “loosing an engine” while flying, he recommended a good book to try and get hold of. It is titled Flying Old Airplanes. He noted that it very interesting, and well worth the read. Unfortunately, it is out of print now.

He also recommended viewing a Website with an article titled, “How were the engines started on the SR-71 spy plane? Was it an electric starter like a car?”.

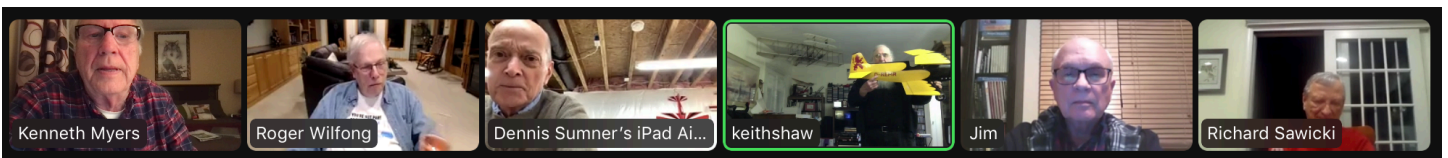
<https://qr.ae/pr5dsV>

**Denny Sumner** discussed replacing the common one cell connector, which isn't very good and wears out quickly, with a connector called the BT2.0.

<https://betafpv.com/products/bt2-0-connectors-10pcs>

BetaFPV has a video about this connector on their linked Webpage.

It can also be found on Amazon.





He also noted that the first conversion to this connector does not always go well and that the new end caps can be hard to locate. ;-)



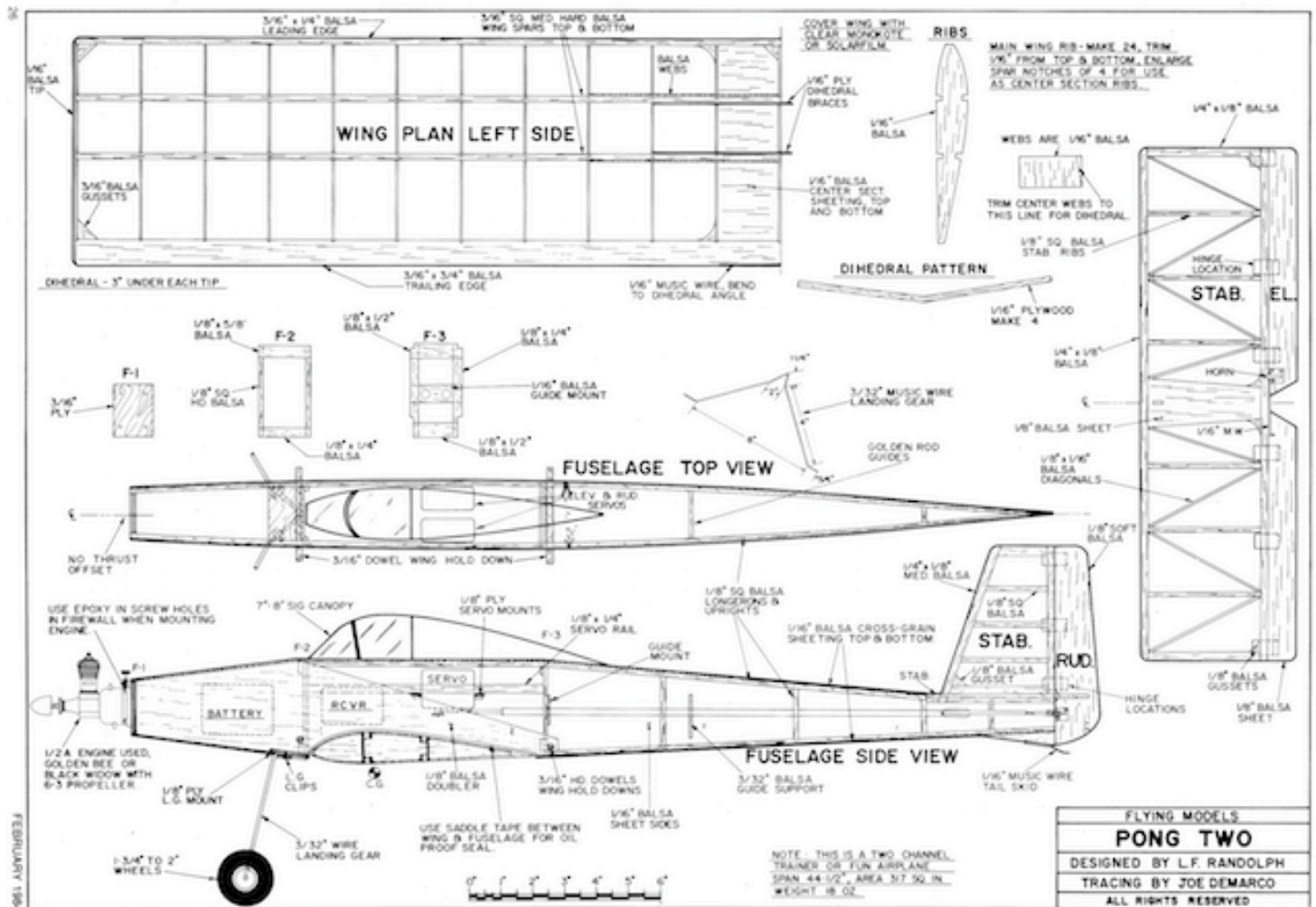
Denny also shared the progress on his Flyline Model's Luton Minor. This was his first Flyline kit and he noted that the instructions were not too bad, if you already know how to build a plane. Overall, he thought the wood was pretty good in the kit.

Jim Pollock shared his latest project, a Pong Two.

He also noted that he's still working on the Fledgling and has a Sig Four Star Forty underway.

I was unable to capture his Pong Two during the meeting, so he sent the following information and photos via email.

\*\*\*\*\*



I chose the 1/2A Pong Two design to build as a park flyer.

The fuselage former, F1, had to be wider to accommodate the SunnySky motor. Other than that, the build was to the print.

I started the build at the beginning of COVID 2020 and put it aside when foam board construction looked like more fun.

Well, unfinished projects bug me so the Pong Two is now complete and ready to fly the next calm and somewhat warm day.

AUW: 21 oz. (Print AUW 18 oz.)

Motor: SunnySky 1212 980kv 50g

Prop: 9x4.5

ESC: 30amp

Battery: 3S 1300mAh

Wing Area: 317 sq.in.

Wing Span: 44.5 in.

Spectrum Receiver: 4 channel (Rudder, Elevator)

Covering: Monokote

\* \* \* \* \*

**Ken Myers** asked **Keith Shaw** about the plausibility of an incident described in Terry Dunn's *Electrics* column in the February 2023 *Model Aviation*. The incident involved back-driving an ESC and powering the BEC circuit as described in the sections titled "Dude, Where's My Battery?" and "Mystery Solved\_Mostly", p. 58 and p. 59.

Keith noted that, under the right conditions, with the right ESC, it might be possible, but the only way to tell for sure would be to test it with the prop shaft being driven by a drill and measuring the voltages in the ESC.

He also noted that the testing might be done on an ESC that is no longer planned to be used.

Ken noted that he'd pass on that one. :-)

**Keith Shaw's Completed Dreamer Biplane**

From Keith Shaw via email



I finished the final details, battery pack and power wiring over the weekend.



The final specs are 37" span, 580 sq.in., and exactly 4 lb. The power system is a Scorpion 3020-890 on 5 A123 cells supplying power into a 10x6E prop.



I liked the way the Deep Yellow, Black and Dark Red worked together, but wished I had gone with a taller and larger font for the faux registration letters. Eventually I may remove them (hand cut from Ultracoat), and make new ones that are better suited to that very tall rear fuselage.





It is ready to test fly, but sadly I am not. I need to do a lot of flying to get used to my new eyes before I will feel comfortable with a test flight. If you didn't know, I had cataract surgery and lens replacement in both eyes back in November. My vision is vastly better than last summer, but still a little different. Practice will bring confidence.

Keith

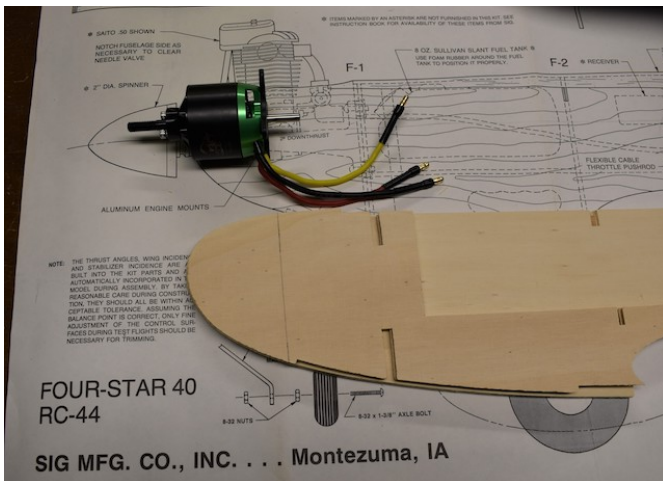
### Starting My Sig Four-Star 40 a Question

From Jim Pollock, EFO member, via email

Ken,

I'm starting to build a Sig Four-Star 40 kit that I have had for over 20 years.

For a Cobra 3520 the F1 former will need to be moved 2" forward to clear the front of the side walls. (Picture Attached). Is this good practice to move the F1 forward to accommodate the shorter electric motor? For your Four-Star, where did you place the F1.



Hi Jim,

I just went downstairs and double checked. I just made the new firewall/motor mount and put it forward, as you noted. F1 didn't go anywhere and it is open all the way to the front. I may or may not have used F1, to create the new firewall/motor mount. I tend to do that kind of thing, but can't say I did it here.

Thanks,  
Ken

### A Big Bob Kopski Skyvolt Revisited

From Jack Linghorne via email

I have built a number of Skyvolts over the last 30 or so years. I would like to build your Super Skyvolt.

In order to know how much to enlarge my Skyvolt plan, I need to know how long the wing of the Super Skyvolt was.

Would you kindly take a moment and send me this information.

Thank you,  
Jack Linghorne

I am one of the founding members of EMFSCO (*Electric Model Flyers of Southern Ontario KM*) and have been reading your *Ampeer* since for about 30? years now and found there many things that helped me build a better plane.

Thank you again.

Hi Jack,

Wow, that is a real trip down memory lane!!! :-)  
I went through the Complete *Ampeer* Index.  
I think this is the most relevant link;

<http://theampeer.org/ampeer/ampjul92/ampjul92.htm#page3>

That link is to my "tracings", which I hope are enough for you.

Here are a few more mentions, just for giggles.

<http://theampeer.org/ampeer/ampaug92/ampaug92.htm#page4>

<http://theampeer.org/ampeer/ampaug96/ampaug96.pdf#page=8>

<http://theampeer.org/ampeer/ampmar01/ampmar01.htm#SKY>

Hope this helps,  
Ken

PS Thanks for being a long time subscriber! :-)

Hi Ken,

After reading your references bout the enlarged Skyvolts, I decided to take Keith's advice and limit

my enlarged Skyvolt to the size that will go in my car. (72 inch wing span)

Thanks again for your help

and then,

I have a question about the LiFe batteries that were sold by Spectrum. Are they safe like the A123 cells or will they catch fire if damaged like ordinary LiPo batteries?

Thank you for any help you can give me,  
Jack Linghorne  
(followed by)

I got an answer from Horizon. The Spectrum cells will catch fire when damaged just like LiPos.

I have a question about A123 cells. I have some material from the company that made A123 cells that suggests that they will not experience thermal runaway if physically damaged. In fact I seem to remember a picture of a cell with a nail driven through it which had not experienced thermal runaway.

Can you remember what the manufacturer said, and if anybody you know or knew actually studied their susceptibility to thermal runaway?

Hi Jack,

The company that made the 18650 1100mAh and 26650 2500mAh sizes that Keith and I use were produced by A123 Systems, which is the company that I believe you are referring to. They sold the rights to a company called LithiumWerks and are still being produced.

<https://lithiumwerksbatteries.com/>

The LithiumWerks batteries are sold by Stortronics.

Their physical business is close to where I live. They are in Farmington Hills, MI.

Hope this helps,  
Ken

### **The Connector Conundrum**

From Bob via email

Ken,

I have ordered and received most of the equipment for my next model build.

I now have two chargers, neither of which will charge my battery. The second charger was recommended by a YouTube guy. Have you seen this?... makes me feel insignificant.

[https://www.youtube.com/watch?](https://www.youtube.com/watch?v=Vp3yEOzvFtg&t=1303s)

[v=Vp3yEOzvFtg&t=1303s](https://www.youtube.com/watch?v=Vp3yEOzvFtg&t=1303s)

The battery I bought is from TinyCircuits. It's an interesting site, might hold something of interest for the grandkids:

<https://tinycircuits.com/collections/all>

It is a 40mAh battery.

[https://tinycircuits.com/products/lithium-ion-polymer-battery-3-7v-40mah?\\_pos=1&\\_sid=25c2fd0ea&\\_ss=r](https://tinycircuits.com/products/lithium-ion-polymer-battery-3-7v-40mah?_pos=1&_sid=25c2fd0ea&_ss=r)

This battery uses a JST connector... seems like a quite common term, but that's just the manufacture, like Molex, etc. But unlike the charger (Spektrum) and receiver (StevensAeromodel) Tiny specifies that it is JST-sh. TinyCircuits support was quite verbose and responsive.

I sent a request for info to Spektrum and several days later I received an answer to a question I did not ask.. will try again. None of the Spektrum literature specifies the model number of the connector.

I did get a nice response from Stevens Aero on Saturday! They supplied the Molex spec and links for the receiver connector and provided a sad dialog on the lack of standardization in this part of the sport.

I ordered and received pairs of M/F connectors of the -sh suffix such that I can replace the receiver connector as a possible solution.

I've spent the last few days in connector world - clearly an area I under looked.

Any sympathy gratefully received.

Bob

Hi Bob,

Welcome to the wonderful world of connectors. ;-)

<https://www.progressiverc.com/products/18x-multi-charge-cable>





This is what I take to the flying field with my charger so that I can help someone that might need a field charge.

At one time there were two different brands of single cell LiPo batteries being sold, that had the same type of connector on them, but they were wired in reverse polarity to each other. Head slap!!!

Hope you've got it figured out now.

Later,  
Ken

Ken,  
No, I do not have the connector issue solved. I know what to do, but am missing info to complete.

After three tries to Spektrum - Horizon- explaining that I needed specific connector "specs" to use the charger, their reply was that they fit the batteries they sell and I would have to make an adapter. DOH! They either wouldn't - or couldn't supply the specs.

That charger is going back due to incompetent (and insulting) support.

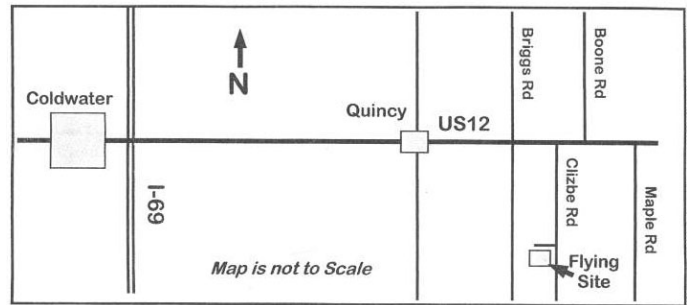
Further I am thinking of returning/replacing the Spektrum S6e - still within my 30 days. A quick perusal of your info, online/book/pdf did not shed any light. Any suggestions?

I am also going to ask the support at Stevens Aeromodel who has been quite helpful. I should get their/my receiver brick today.

Bob

I advised Bob not to return his radio as he needs the protocol used by Spektrum for his receiver.

## The Upcoming Keith Shaw Birthday Party Electric Fly-in 2023



The Balsa Butchers are hosting the "Keith Shaw Birthday Party Electric Fly-In", for the 21st year, at their field near Coldwater, MI. The event takes place on Saturday, **June 3, 2023**. It is a one day event.

The event consists of Open Electric Flying with a "Special Guest of Honor Theme", Happy Birthday Keith Shaw [June 6].

Enjoy a day with the "Pioneering Master of Electric R/C Flight". 8 a.m. - 4 p.m., Saturday. NO LANDING FEE! Donations for field maintenance and lunch appreciated.

For additional information contact;  
Contest Director: Dave Grife - E-mail: grifed@yahoo.com or Phone: 517-279-8445  
Please e-mail or call with any questions.

The field will be open for guests to fly on Sunday as well.

### 39th Annual Mid-America Electric Flies 2023 & FREE Open Air Swap Meet

(See Swap Meet Note at the end of this announcement.)

AMA Sanctioned Event (Proof of AMA membership required to fly - Sorry MAAC membership is no longer accepted)

**Saturday, July 8 & Sunday, July 9, 2023**

Hosted by the:

**Ann Arbor Falcons, Electric Flyers Only and The Midwest RC Society**

The 7 Mile Rd. Flying Site, Salem Twp., MI, is Provided by the:

**Midwest R/C Society**

Contest Directors are:

**Ken Myers** phone (248) 669-8124 or email

kmyersefo@mac.org –

**Website for updates:**

<http://www.theampeer.org> for updates & info

**Keith Shaw** (734) 973-6309

Flying both days is at the Midwest R/C Society  
Flying Field - 7 Mile Rd., Salem Twp., MI

Registration: 9 A.M. **Saturday**

Event Flying from 10 A.M. to 4 P.M. **Saturday**

Open Flying 10 A.M. Until You Leave **Sunday**

**(Open Flying Saturday after the Event  
& All Day Sunday**

**There are NO SCHEDULED EVENTS  
on Sunday, just open electric flying)**

**No Pilot Landing Fee**

**Donations will be gladly accepted**

**No Parking Donation Will Be Requested from  
Spectators or Those Participating in the Open  
Air Swap Shop**

**Donations to Midwest will be gladly accepted  
from Spectators and Open Air Swappers**

**Awards on Saturday Only!**

Best Scale

Most Beautiful

Best Mini-Electric

Best Multi-motor

Best Sport Plane

Foam Flurry for NCM aircraft

CDs' Choice

Planes Must Fly To Be Considered for Any Award  
Plaques for the winner in each category

The Field is Open for Open Flying All Day Friday  
Night Flying Possible, Weather Permitting, Friday  
& Saturday Nights

**Field Lunch is provided** to pilots and friends (hot  
dogs, chips, water or pop) Available on Saturday

**Field Dinner is provided** (Burgers, Brats on  
Saturday evening for Pilots & Their Guests)

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

**The NCM (Not Conventional Materials) Event**

Traditionally, model aircraft airframes have been mostly constructed from balsa wood, plywood, spruce, and fiberglass. For the purposes of this meet, NCM airframes are mostly constructed from not conventional materials i.e.; sheet foam, foam board, cardboard, block foam, foam insulation material, etc.

**Foam Flurry for NCM aircraft:** This is a true event. It is based upon the all up/last down event of early electric meets. Any NCM aircraft may be used (no ARF types). Power systems are limited to a maximum of 3S (no paralleling) LiPo batteries or 4S maximum, no paralleling, for A123 packs. All planes qualifying for this event will launch at the same time, and the last one to land will be declared the winner.

**VERY IMPORTANT REMINDER FOR 2023 -  
THE FLYING FIELD ENTRANCE TO THE  
MIDWEST FLYING FIELD CHANGED FOUR  
YEARS AGO!**

The old entrance to the Midwest RC Society flying field is **permanently closed!!! DO NOT ATTEMPT TO USE IT!!!**



**This what the flying field entrance looks like.  
Please Drive SAFELY**

The field entrance is on the north side of Seven Mile Road about 1.5 Miles west of Currie Rd. entrance is on the north side of Seven Mile Road about 1.6 Miles west of Currie Rd.



The address is 7621 Seven Mile Road, Northville, MI 48167. The entrance is through a private residence drive and out past the barn.

### Directions from Google Maps to the flying field

<https://www.google.com/maps/place/MIDWEST+R%2FC+SOCIETY/@42.422025,-83.6170775,805m/data=!3m1!1e3!4m13!1m7!3m6!1s0x8823559bdf962b57:0xd100df97d9dcebf112s7419+7+Mile+Rd,+Northville,+MI+48167!3b1!8m2!3d42.4187058!4d-83.6190072!3m4!1s0x882355a2c9e29cb5:0xaaaf592068692b984!8m2!3d42.422025!4d-83.6148888?hl=en>



To locate the Midwest R/C Society 7 Mile Rd. flying field, site of the Mid-America Electric Flies, look near top left corner of the map, where the star marks the spot, near Seven Mile Road and Currie Rd.

Because of their convenient location and the easy drive to the flying field, the Comfort Suites and Holiday Inn Express in Wixom, MI have been added to the hotels' listing. They are only 10 miles northeast of the field and located near I-96 and Wixom Road. See the map-hotel .pdf for more details.

<http://www.theampeer.org/map-hotels.pdf>

### Open Air Swap Meet

There is a designated area for swappers. Please check-in at the event registration table before setting up. Someone from registration will point out where you may set up. Bring your own table(s) and chair(s).

There is no swap meet fee. A donation to the Midwest RC Society for the use of their flying field would be greatly appreciated.

### A Mid-Winter Night's Dream(er)

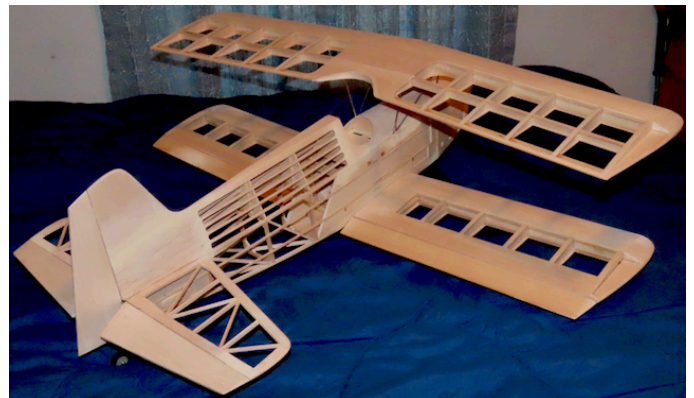
From Keith Shaw via email

With apologies to the Bard.

Thought I would send out some photos of my most recent project, a vintage-class Dreamer, first published in Flying Models in 1972.

One of my club members back then built one from plans and I test flew it for him. It was a nimble rocket and a ball to fly, and I promised myself to build one someday.

Finally, fifty years later, it has happened.



The Dreamer was designed by Don Foster to be a hot, rugged small biplane (37"), powered with something like a SuperTigre 40, giving it performance like a souped-up Pitts Special.



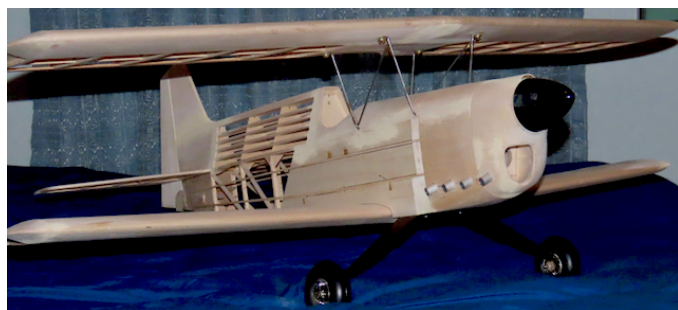
Of course, I can't leave well enough alone, so I added/changed the design a bit. The airfoil was changed to a 1412 from a 15%symmetrical, fuselage stringers were added, some of the structure lightened, and the nose was changed from a utilitarian model nose for the upright 40 and muffler to an inverted four cylinder look.



It weighs 31 oz. as you see it, so finished weight with all equipment should be just under 4 lb.

Power will be a Scorpion 3020 on 5 A123 cells, giving a P/W ratio of well over 100 watt/lb.

The original glow article showed 5 lb., so I am much lighter as an electric with similar power to the old bypass engines.



I am still working on a color scheme while the final sanding is in process, but right now leaning toward dark yellow with black scallops and a red pinstripe, much like the GeeBee Z. I'll send out photos when it is complete.

Keith

## Happy Birthday to the Ampeer!

The first issue of *The Ampeer*, called *The Wolf's Call* for one issue, was published in March of 1988. The club name was also changed after that issue.

the **W.O.L.F.'s CALL**

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Volume I      March, 1988      Issue 1

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PUBLISHED FOR THE WEST OAKLAND 'LECTRIC FLYERS  
 EDITOR: Ken Myers 9043 Satellite Dr., Union Lake, MI. 48085  
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### OFF AND RUNNING

The first meeting of a new electric club was held at Ken Myers's house on Feb. 10, 1988. Thirteen interested persons attended, Dan Behrend (Milford), John Burt (Hartland), Keith Clark (Howell), Jerry Guest (Union Lake), Jeff Hauser (Northville), Jack Lemon, Jr. (Pontiac), Debbie McNeely (Milford), Ken Myers (Union Lake), Jimmy Northmore (Farmington), John Revello (Farmington Hills), Richard Utkan (Milford), Jack Violes (Sterling Hts.), Gus Wiklund (South Lyon).

The meeting opened with freshly baked brownies and cookies, provided by Dianne Myers. (Thanks Dear!) Ken had an agenda ready, and word on the July contest.

Discussion followed, leading to club formation. The purpose of the club was defined. In essence, it is to promote electric flying to the general public and active R.C. population. Jimmy Northmore pointed out that the real value of this type of organization is in providing practical knowledge to the electric flyer and flying skills to the



beginners of R.C. electric flying.

A board of directors and officers were elected(?). The outcome is printed at the top of this newsletter. It was decided to go with no formal meeting rules at this time.

Ken said that the club charter had been applied for, it has since come back. We are AMA charter club #2354. Ken also read a letter that he had sent to Proud Lake, requesting the use of the old U.F.O. field. The "members" have been asked to bring any good field rules, that they have used in the past, to the next meeting for discussion and possible adoption. Safety is the key factor in electrics retaining a good flying site.

Expenses and dues were discussed only briefly. Ken asked that dues not be set until March. This might allow enough time to check the costs the club will incur.

[Continued on the next page.]

That issue can be found here <http://theampeer.org/ampeer/ampmar88/ampmar88.htm>.

All of the *Ampeer* issues have been archived to the Complete *Ampeer* Index page. <http://theampeer.org/ampeer/Complete-Ampeer-Index.html>



**Upcoming Events**

**Wednesday, March 8, 2023** the EFO monthly winter meetings resume with winter meetings via ZOOM. The Zoom meeting URL will be placed on the EFO Website.

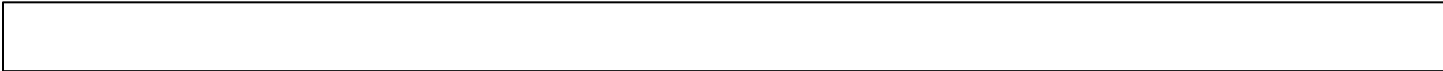
<http://theampeer.org>

Everyone with an interest is welcome to join us.

**Indoor Flying**

Pontiac, Tuesdays 9 a.m. - 12 p.m. (details in this issue)

Brighton, Wednesdays, 12:30 p.m. - 2:30 p.m. (details in this issue)



The Ampeer/Ken Myers  
1911 Bradshaw Ct.  
Commerce Twp., MI 48390  
<http://www.theampeer.org>

**January Monthly Meeting:**

**Date:** March 8, 2023 **Time:** 7:30 p.m.

**Place:** ZOOM