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April		The EFO Officers		2023	
<b>President:</b> Ken Myers 1911 Bradshaw Ct. Commerce Twp, MI 48390 Phone: 248.669.8124	<b>Vice-President:</b> Keith Shaw 2756 Elmwood Ann Arbor, MI 48104 Phone: 734-973-6309	<b>Secretary/Treasurer:</b> Rick Sawicki 5089 Ledgewood Ct. W. Commerce Twp., MI 48382 Phone: 248.685.7056			
<b>Board of Director:</b> David Stacer PO Box 75313 Salem, MI 48175 Phone: 313.318.3288	<b>Board of Director:</b> Arthur Deane 21690 Bedford Dr. Northville, MI 48167 Phone: 248.348.2058	<b>Ampeer Editor:</b> Ken Myers 1911 Bradshaw Ct. Walled Lake, MI 48390 Phone: 248.669.8124			
No Mailed Ampeer Subscriptions	Next EFO Flying Meeting: See note in this newsletter Time: 11 a.m., Place: Midwest RC Society flying field				

**What's In This Issue:**  
Upcoming April 2023 EFO Meeting - Pontiac Indoor Info - Brighton Indoor Info - The EFO Zoom Meeting for March 2023 - Will It? - The Ampeer Notice on RC Groups - A Question Regarding V-Tail Proportions - Source for A123 Batteries? - Upcoming Keith Shaw Birthday Party Electric Fly-in - Upcoming 39th Annual Mid-Am Electric Flies - Upcoming Events

**Upcoming April 2023 EFO Flying Meeting**

After months of ZOOM meetings, we'll get together physically in April! April's weather, and access to the Midwest RC Society flying field, at this time of year is **iffy** at best. The April scheduled meeting will be on Saturday, April 22 with Sunday, April 23 as the immediate alternate. If that weekend does not work, Saturday, April 29 and Sunday April 30 will be the alternates. The meeting time will be 11 a.m. for this time of year.

**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 March 2023

Five EFO members were present on Zoom for the March EFO ZOOM meeting.

**Pete Foss** and **Ken Myers** had a brief discussion about applying iron on film as trim over iron on film.

**Bob Blau** noted that he's been flying a lot at the indoor venue in Pontiac.

**Roger Wilfong** shared a lot of information regarding flying model rockets. The discussion got there because RC model flying height restrictions were being discussed. Roger was able to share a lot of info on model rocket contests and how they are handled. He has been into model rockets for many, many decades and is very knowledgeable about them and the contests where they fly them.

Jim Pollock shared information on his completed Sterling Fledgling.

He sent along the following information via email to share with the *Ampeer* readers.



I picked up the Fledgling kit (circa 1972) during a raffle at the Monroe Area Clodbusters Christmas dinner in 2016.

I put it with my airplane stuff and started assembly at the beginning of COVID.

The model is completed and covered with Monokote and Ultracote.

I would say that the finish quality is Stand Way, Way.....off and it looks fine.

I revised the Power Systems calculation from the 5 pound weight to 4 pounds and could have used a smaller motor. The specification are as follows:

Span: 56 in.

Wing Area: 545sq. in.

Weight: 4 lb. 1.25oz (4.08 lb.) (AUW)

Motor Cobra: C3520/10 Kv 980

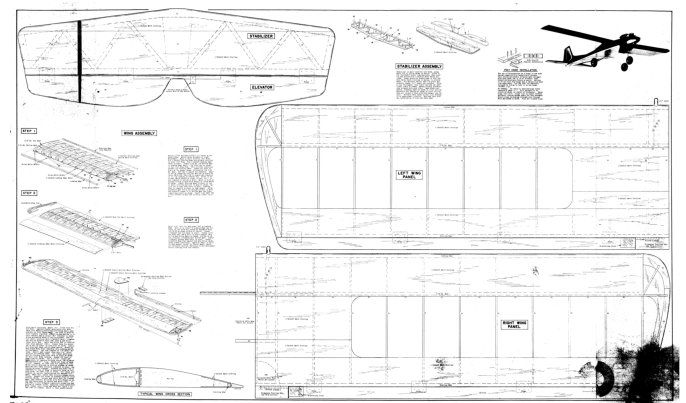
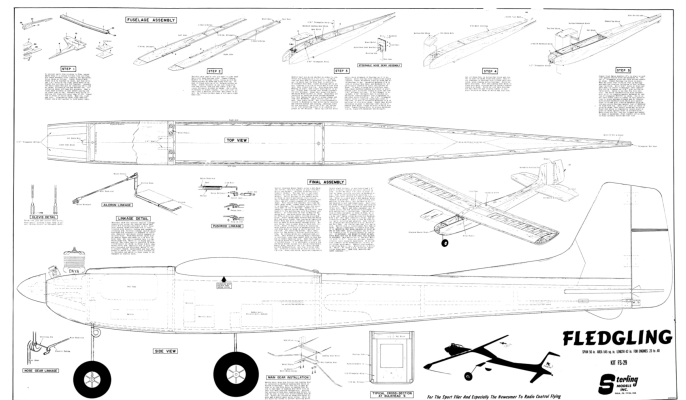
Prop: 10x6

Battery: 4S 2200mAh

ESC: 60A

Jim included his his Excel worksheet for calculating which power system to use. It can be downloaded from here.

<http://theampeer.org/ampeer/ampapr23/Fledgling-Power-System-Calcuation.xls>



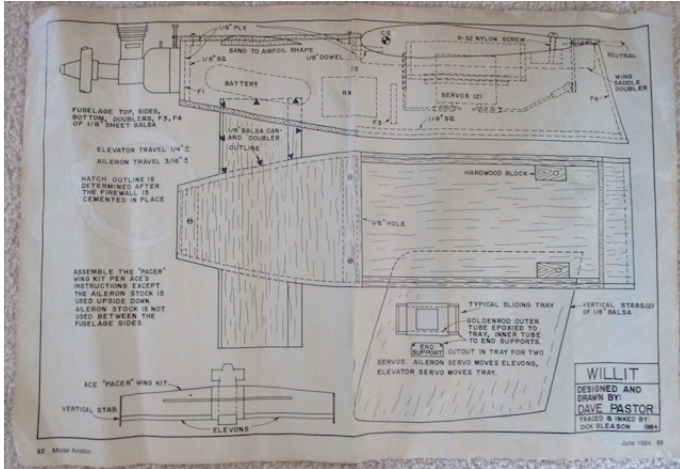
Thanks so much for sharing with us Jim. I can't wait to see this "classic" fly.



## Will It?

From Joe Hass via email

While going through some old aeromodeling paperwork I came upon a well crinkled, yellowed and water stained plan.



It came from the center section of the June 1984 Model Aviation.

Pictured were the plans for the WILLIT designed by Dave Pastor.

It is based on the semi symmetrical ACE R/C, Inc. Mini Foam Wings as used on the ACE Pacer. The constant chord wing forms the center section with the tapered wings forming the outer sections of the wing. I happened to have one each of the original foam wings in the original boxes but did not want use them. I asked Hall of Fame inductee John Hoover of ASPECT LASER <https://aspectlaser.com/> to create a laser cut wing kit based on the airfoil sections. John did an outstanding job. (Check out the February 2023 Ampeer to learn more about John and Aspect Aviation. <https://www.theampeer.org/ampeer/ampfeb23/ampfeb23.htm#ASPECT KM>)

The original WILLIT was powered by the glow COX .049 Black Widow. The original used a modeler built sliding tray for mechanical elevon mixing.

The fuselage is a box created from 1/8" balsa with a canard in front.

Current products (CA, rare earth magnets, etc) and technology (elevon mixing, small servos in the wing, brushless motors, LiPo batteries, etc.) greatly simplified construction.

Since I was a bit skeptical, the first flights took place before the wing was decorated, the fuselage was painted and canard was covered.



The first launch wasn't the best. The second launch with a hard toss, full throttle and the quick reflexes of my son Chris resulted in an enjoyable flight.

A larger battery moved the C/G forward, differential was added for the aileron function and the elevator throw was reduced.

A visit to Dennis Waske, at Waske Sign in Dearborn, Michigan came up the unusual font vinyl with the name for the wing. With a name like WILLIT I couldn't resist adding IT WILL to the back of the fuselage.

The staff at Model Aviation found the original article and magazine cover.

(The article is archived here.

<http://www.theampeer.org/ampeer/ampapr23/WILLIT-ARTICLE-JUNE-1984.pdf> KM)

The WILLIT spans 45" and weighs 13 oz. with a fully charged battery.

The ASPECT LASER PPK 1 power system consisting of 2300K motor, 20 amp ESC and 3 bladed prop is connected to a 3S 800mAh LiPo battery for thrust.

It is hard to believe we got things like this to fly almost 40 years ago.

Joe Hass  
248-321-7934

The answer to the question "Will It?" is shown in Joe's last photo.



### **The Ampeer Notice on RC Groups** By Ken Myers

I send out, to many of you, the notice that the current *Ampeer* newsletter has been posted via email. I also post a notice on RC Groups.  
<https://www.rcgroups.com/forums/showthread.php?p=1716843-Current-Ampeer-elec-flight-newsletter-posted>

I have recently missed some important information that was commented on in RC Groups that really needed to be shared in the Ampeer.

I am presenting that information here now along with an apology to those whose important information that I missed.

RC Groups Comments

Dec. 20, 2022 Ron van Sommeren  
<https://www.rcgroups.com/forums/showpost.php?p=50275037&postcount=236>

Ken,

The Hyperion Emeter II is still available, and still a great value for money.

A very long clearance sale, originally 200+\$, high quality, now literally peanuts:  
Hyperion Emeter II wattmeter with local & remote logging, optical & electrical tach, servo tester - RCG  
Contents - includes links to his articles on RC Groups. Log onto RC Groups to view them.

Closing out at

Reviews by Bernard Cawley and Ken Myers  
Tech info & help threads

Increasing max.current, double, triple, simple and cheap

Software and manuals downloads

Careful!

(Always!) keep battery-/watt-/multi-meter wires short:

Too long wires battery side can kill ESC over time: precautions, solutions & workarounds - RCG

Questions or problems?

Should you have questions, several experienced users in these two threads, including Randy from <http://www.rcdude.com>, he knows a thing or two about versions and the software/firmware:  
Hyperion Emeter II wattmeter with local&remote logging, optical&electrical tach, servo tester - RCG &

Hyperion's New Emeter II & RDU - RCG

Dec. 20, 2023 Ron van Sommeren  
<https://www.rcgroups.com/forums/showpost.php?p=50275105&postcount=237>

I could not agree more with you on naming motors.

Naming them by an IC equivalent is pretty much useless as you already stated.

Using that convention can lead to less optimal results.

For one because IC can be 2- or 4-stroke, very different.

Typical IC motor RPM is another issue, e-motors can swing bigger, more efficient props at lower rpm.

If there's enough space on the motor: max.power (in W), max.current (in A) and velocity constant\_Kv (in rpm/volt). That's the e-info the user needs.

Kv in rpm/volt, not e.g. 1000Kv, that is an incorrect notation. Kv is a physical property, like mass, speed and resistance, expressed in the physical measurement rpm/volt (kg, meter/second, ohm).

The incorrect notation also tends to make people think Kv is some sort of power, leading to mis-buys or even worse, burnt motor and/or controller.

Vriendelijke groeten Ron

- Without a watt-meter you're in the dark ... until something starts to glow •
- E-flight calculators • watt-meters • diy motor tips&tricks • Cumulus MFC •

Jan 18, 2023 AndyKunz

<https://www.rcgroups.com/forums/showpost.php?p=50405735&postcount=240>

Ken - one correction for the newsletter.

### **Spektrum radios are not a "captive import".**

The DX6e your correspondent Bob wished for on his Christmas list was designed in Champaign to specifications written in Champaign, is tested on fixtures built and programmed in Champaign, and is powered by software written in Champaign. I know firsthand - I was part of the team. I still am, in fact, but now I work on the NX line in addition to DX.

Please correct the error in your text, as well as in your mindset. I realize you have never been a fan, but at least convey accurate information.

Andy

(Andy,

*I cannot thank you enough for the correction. I truly appreciate the clarification and cannot agree more that I should be providing accurate information.*

*Thanks so very much,  
Ken)*

Jan 20, 2023 mrittinger (Mark Rittinger)

<https://www.rcgroups.com/forums/showpost.php?p=50415107&postcount=241>

Regarding covering iron

<https://www.woodcraft.com/products/wooddriver-digital-lcd-display-veneer-edge-banding-iron-wooddriver>

*(Thanks for the link to that iron that can be used for covering. KM)*

Feb 11, 2023 Ron van Sommeren

<https://www.rcgroups.com/forums/showpost.php?p=50526015&postcount=242>

Quote:

Originally Posted by Ken Myers

Thank you for the much welcomed info. It is very much appreciated. I'll be noting it in the March issue of the Ampeer.

I'm usually only on RC Groups once a month now, when I post the Ampeer notice.

**Best just to send me an email  
at kmyersefo@mac.com**

I will do that next time Ken, but not everyone will know that's the best/preferred way to contact you.

How about (also) an e-mail notification for this thread, belt and braces?

Prettig weekend Ron

Feb 11, 2023 killickb (Barry Killick)

<https://www.rcgroups.com/forums/showpost.php?p=50528187&postcount=243>

Good find Mark.

I have an identical iron only mine has a sticker on the handle with a fox head design logo. Cannot remember where I bought it now but was a couple of years ago. It works very well, very accurate temp control although the tip runs cooler than the main body (to be expected I guess). I use an I/R meter to validate temp before use anyway. Shoe is not as good of a shape as the old Century Iron was. Was the only digital iron I could find anywhere at the time.

With the slow death of the good old "plastic" coverings it does seem as though the art of building balsa sport models must be waning.



## A Question Regarding V-Tail Proportions

From "Buz" Benson via email

Ken

I have been looking at some V-tail designs of late and was wondering if you have ever gotten into the design of a proper sized V-tail? I assume there is a proper proportion relationship between the main wing and the V-tail.

If you have any idea where I might look for this information would be a great help.

Thanks

Buz

Hi Buz,

I'm attaching a PDF about v-tail design. *(The PDF attachment is titled "V-Tails for Models" by William F. McCombs, ModelAviation- July 1996 <http://theampeer.org/ampeer/ampapr23/v-tail-design.pdf>. KM)*

I did an Internet search, using Google, this morning and did find some information on V-tail design, but I'll leave you to separate the wheat from the chaff if you do a similar search.

The first somewhat popular electric powered v-tail, that I can remember, was by a company called GM and the plane was the Thermal Charger. It was sold as a kit, and I think some of the early EFO members had some.

[https://outerzone.co.uk/plan\\_details.asp?ID=4713](https://outerzone.co.uk/plan_details.asp?ID=4713)



*(This photo, of the Thermal Charger (1985), is from the Outer Zone and was not in my email response. Its basic setup went on to be used by many ARF*

*trainers made of plastic with a foam wing and V-tail. KM)*

Of course V-tails have been, and still are, on a lot of gliders, so that might be an avenue to explore as well.

For a time, v-tails were also popular on Speed 400 racers.

Hope this helps a bit,

Ken

*(If any Ampeer readers have any info on V-Tail proportions, I'd love to share it here. KM)*

## Source for A123 Batteries?

From David F. Plummer via email

Hello Ken!

I hope you're surviving the winter - we haven't seen the sun since it disappeared around Turkey Day ...

Is there currently any preferred source for A-123 (ca 3V) batteries? I want to build a small pack for an old TBF model that I'm going to try to convert to e-power.

RSVP if you have time.

Best regards,  
David F. Plummer  
Bellevue, WA

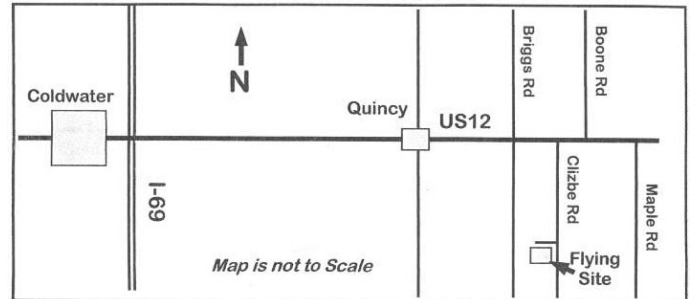
Hi David,

Our winter has, overall, been okay, but we have had one huge snowfall and one ice storm that knocked out power for over 600,000 here in southeastern Michigan.

A123 batteries/cells are now branded as Lithiumwerks. Most of us in the EFO purchase them from StorTronics.  
<https://stortronics.com/online-store/manufacturers/lithium-werks/>

Hope this helps,  
Ken

### 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 On Sat., July 8  
ONLY**

(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!4m1!1m1!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 - Saturday, July 8 ONLY**

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 for Saturday. A donation to the Midwest RC Society for the use of their flying field would be greatly appreciated.

## Upcoming Events

### Upcoming April 2023 EFO Meeting

After months of ZOOM meetings, we'll get together physically in April!

April's weather, and access to the Midwest RC Society flying field, at this time of year is **iffy** at best.

The April scheduled meeting will be on Saturday, April 22 with Sunday, April 23 as the immediate alternate.

If that weekend does not work, Sat., April 29 and Sunday April 30 will be alternates.

The meeting time will be 11 a.m. for this time of year.

Everyone with an interest is welcome to join us. Proof of AMA membership required to fly.

## 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:** See note in this issue **Time:** 11 a.m.

**Place:** Midwest RC Society 7 Mi. Rd. Flying Field