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March		The EFO Officers	2021
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No Mailed Ampeer Subscriptions	EFO Meeting, Wednesday, March 10, 2021, 7:30 p.m. Place: ZOOM, details to be sent via email		

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 February 2021 Midwest RC Society Zoom Meeting - Keith Shaw Builds Retro RC's Chicken Hawk -
 The AeroFly Flight Simulator for the Mac - LiPo Discharger Question - Yep, Another *Ampeer* Anniversary -
 Upcoming Keith Shaw Birthday Party Electric Fly-in 2021 - Upcoming Events

Toledo RC Swap Meet
 From Joe Hass via email

toledo RC swap meet
<https://toledorcswapmeet.com/>

APRIL 9 & 10, 2021
 9:00 am - 5:00 pm FRIDAY
 9:00 am - 11:30 am SATURDAY
 SeaGate Convention Centre - Main Floor

THE FIRST OF MANY SHOWS TO COME!

Featuring door prizes every hour with an auction on Saturday at noon!

Be sure to keep checking this site for news and additions to the show!

<https://toledorcswapmeet.com/>
 This show is for any hobby! RC planes, cars, boats, helicopters, trains, and more!

All necessary COVID-19 precautions will be taken, and the show will go on unless Ohio shuts us down!

GENERAL ADMISSION
 Tickets will be sold at the door.

There will be no ticket sales in advance for general admission.
 Admission is \$10.00
 Women and children are FREE

VENUE

SeaGate Convention Centre - Main Floor
 401 Jefferson Ave, Toledo, OH 43604
 Admission is \$10.00
 Women and children are FREE

Floor plan will be built as reservations for tables come in. We will contact vendors with preferences. The floor plan will be made in compliance with state of Ohio regulations due to COVID-19.

VENDORS

Vendors can reserve 8' tables at \$25.00 per day. If the show is cancelled due to COVID-19, a full refund will be given.

All efforts to table location will be done on a first come first serve basis and in conformity with COVID restrictions.

Interest is high! Table sales are going well, so get your reservation in! We can accommodate as many tables as we can sell and fit in the main floor with ample

spacing according to Ohio COVID restrictions.

Show put on by www.toledorcswapmeet.com
 LLC · © 2020

IMPORTANT! Read Carefully!

*This is **NOT** the former Toledo RC Expo put on by the Toledo Weak Signals. It is a swap meet only. To the best of my knowledge, there is **NO** connection between the Weak Signals and this swap meet and the group, or individual, presenting this swap meet, although the dates are similar to the former Weak Signals' Toledo RC Expo.*

It notes on the Website that the checks, for tables, are to be sent to Pittsburg, PA. KM

HINTS AND KINKS

A Bit on Bits

From Pete Waters via email
 Midwest RC Society Member
 and
 Member of AMA Hall of Fame

This month covers the topic of drilling “round” holes in thin metal.

We all have had the problem of a drill chattering and producing a sort of roundish hole, but it is actually a three lobed hole, and the exercise is known as “Three Point Ovality”. The hole shape looks like the cavity of a Mazda Wankel.

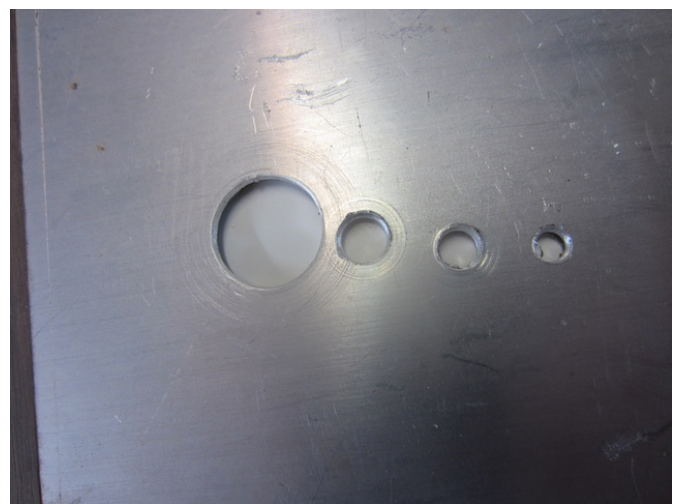


This occurs when one lip of the drill grabs the material and then uses that point to pivot a short distance, where the opposite lip of the two fluted drill bit takes its turn to grab and pivot. This action is repeated and produces the three lobed hole.

Strange is that a 4 fluted drill will produce a 5 lobed hole with the intermittent cutting action.



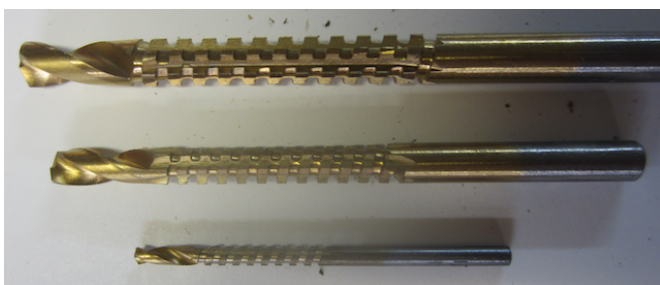
A trip to the local Harbor Freight will get you a set of “Stepped Drill Bits”, and they usually have a selection of sizes. I often use the smallest as it has a point to start easily. These bits have two full length cutting edges and at each step section are two partly constant diameter guides, so these two areas keep the bit centered. These steps will also allow gradually enlarging the hole’s diameter, and deburr the last one cut.



The holes in the photo are all made with the same drill.

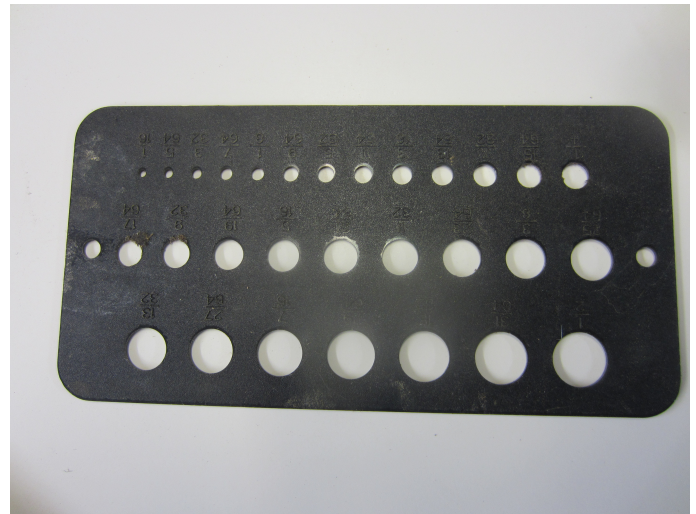
The diameters of these bits are not standard, and another type, with no steps, just a full length taper,

can be used to produce an accurate hole diameter. Maybe, Production Tool will carry standard sized units, but will be more \$\$\$.



I also show a “Rasp Drill Bit” in three sizes. These are great to cut irregular holes in most materials, even “move” a wrongly place one!

Pick up a Drill Gauge, plastic, but very convenient when you cannot read a drill size, or check the step drill bit’s diameters.



Some Interesting Planes Shared during the February Midwest RC Society Zoom Meeting
By Ken Myers

I do not normally share information from the Midwest RC Society meetings here in the Ampeer, but there were some interesting planes shared during the February Zoom meeting, and I thought that Ampeer readers might enjoy the information.

The following is an edited version of the notes that I took during that meeting. KM

The February 2021 Midwest RC Society Zoom Meeting (edited)

The meeting started with our special guest, **Doug Hart**, of Willie Nillies speaking about his kits and other items that he sells through his Website.

<https://willynillies.com/>

There was a lot of discussion about using old plane kits and adding the 3D printed Willy Nillies’ motor mounts and motors to give them that retro small glow motor look.



Photo from the Willy Nillie's Website
Doug shared the information on his latest design, the Hornet.

Wee Series Hornet Specifications

Wingspan; 21.5"

Wing Chord: 4.625"

Wing Area: 99.4375 sq.in.

Length: 18"

Power: Willy Nillies' TD .010 power pack

Weight ready to fly: 150g (5.3 oz.)

Wing Loading: 7.65 oz./sq.ft.

Wing Cube Loading: 9.2

Video of the Hornet on YouTube:

https://youtu.be/86K5_ac6zZQ

Larry Markey noted, with quite a bit of enthusiasm, that the original E-flite T-28 E-is back. The original was an extremely fine flier for beginner to expert.

Ken Myers said that he'd used his for many years as a buddy box trainer.

Larry noted that there are several upgrades including the motor mount, steering arm, and nose gear, which were quite fragile on the original, and the option to use a 4S pack out of the box. He said that he loves flying it with the 4S pack!



E-Flite T-28

<https://www.horizonhobby.com/product/t-28-trojan-1.1m-bnf-basic-with-as3x-and-safe-select/EFL08250.html>

Video of the "new", original E-Flite T-28 on YouTube

<https://youtu.be/BawP05INEtQ>



Photo from the BMJR Website - NOT DENNY'S PLANE!

<https://www.bmjmodels.com/astro-hog>

Denny Sumner shared his new BMJR Astro Hog. He noted that he modified it by making the wing bolt on and also changed the tailwheel a bit.



Photo of an Alpha 2.0 from the Aloft Hobbies Website. Not Larry's version!

<https://alofthobbies.com/alpha-2-0m.html>

Larry Markey shared his new Alpha 2.0 glider for electric power. It is an all composite 2m glider from the Ukraine. Its ready to fly weight is 12.8 oz. with 6 servos.

Keith Shaw Builds Retro RC's Chicken Hawk From Keith Shaw via email

While Keith usually build his own designs, he had very fond memories of the original Chicken Hawk, so he built Mark Freeland's, Retro RC's kit. The kit is available from Retro RC.

<http://retrorc.us.com/retroemoth-1-2-2.aspx>

The Retro RC kit is also reviewed in the February 2021 Model Aviation starting on page 43. It is reviewed by Bob Benjamin, a name that should be very well known to all electric modelers! KM



In this very extended building season I have had a chance to build some projects "just for fun".



My most recent is a 1963 design from Ted Strader called the Chicken Hawk. It is the newest offering from RetroRC. Of course I just had to modify a few things, but overall it is "scale".



I thought I would send a few photos of the airframe before I start covering.

With motor, ESC, 3S x 500mAh LiPo, prop, wheels, Rx, servos, pushrods, etc, it weighs 12.9 oz.

It will get Pennykote (aka Docolam) applied to the open areas of the wings with about 1/4" overlap onto the wood before applying the paper.



I'm still deciding on the color scheme and whether I will go with colored silkspan or jap tissue. The silkspan has much more "saturated" colors, particularly the yellow. All of my yellow tissue is more like faded cream.



Note the Willy Nillie's Motor Mount and Motor. KM

I will be using nitrate dope to apply the covering, as fortunately it doesn't bother my asthma the way butyrate does. I just have to remember to

open the windows to prevent the headaches and pretty colors.

Take care,
Keith
And in a follow up email:



I just finished my Chicken Hawk, a 1963 design by Ted Strader and recently kitted by RetroRC.

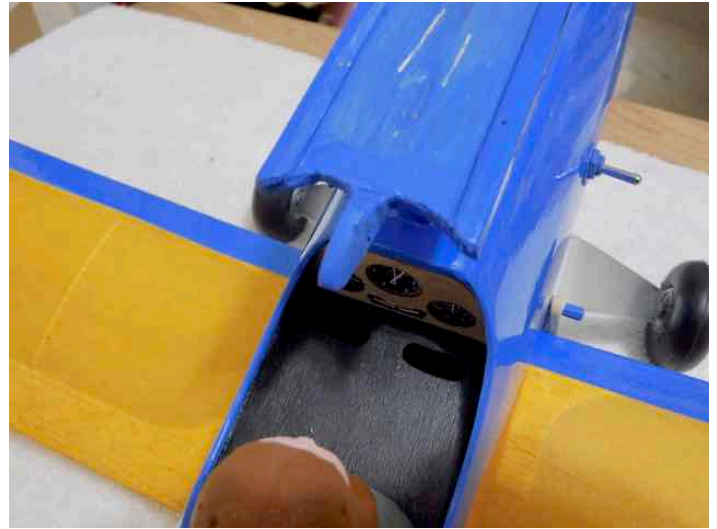


It is a 34" span and weighs 15 oz on the nose. It uses a Willy-Nillies GoldenBee motor mount for a small outrunner on a 3S 600mAh LiPo pack, at about 100 watts in on an APC 6x4E.

The finish is yellow silkspan with nitrate dope.

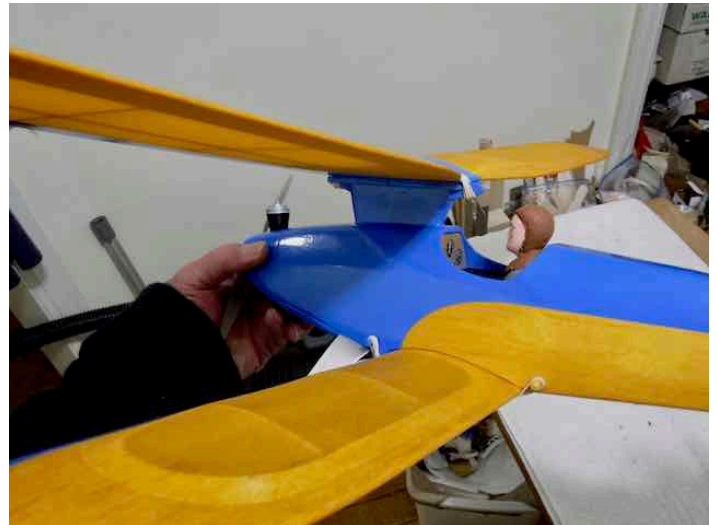
I had planned to do the blue trim in silkspan also, but was disappointed to find that the blue was very translucent, and became pale blue over the uncovered balsa and turned GREEN over the yellow!

I went to Plan B, which was to do all the blue trim in Ultracoat. I was pleased to find that it bonded extremely well to the doped silkspan.



The dummy pilot is a one-hour special, knocked out of scrap styrofoam and painted with craft store acrylics.

I always admired the classic lines of the design. Now I just have to wait for the gale force winds to subside for a test flight.





Continuing to enjoy this extended building season.

Keith

Update by Ken:

Keith has flown the plane, and it is a fine flier.

The Aerofly Flight Simulator for the Mac

By Ken Myers

I recently received a PM (private message) on RC Groups about the Aerofly program for Mac Computers.

In May of 2014 I had reviewed this program. <http://theampeer.org/aerofly-RC-7/aerofly-RC-7.html>

I hadn't really used it very much after 2015, and not on my latest MacBook Pro.

This is the PM I received:

Hello Ken,

Grant here, about to begin flying by joining a club in coastal NC. I've been scanning this excellent forum for any hints around simulation software that will run well on a Mac.

My initial research indicated that I might finally have to buy my first PC and learn something about Windows OS, which I had little interest in doing... but thanks to something you have posted, I seem to be closing in on being able to use my MacBook Pro8.3 (late 2011) with Aerofly 7 software and controller. (A thread you participated in during 2014).

I don't know if you're a tech savvy Mac user, but if you have any comments about my machine, here are the specs:

MacBook Pro8.3 (17-inch, Late 2011)

Graphics : AMD Radeon HD 6770M 1024 MB

Intel HD Graphics 3000 512 MB

Operating System : macOS High Sierra, Version 10.13.6

I can feel how keen Apple is to get rid of my computer and relegate it to the scrap heap - it is now the longest servicing Mac I have owned (decades of history) and is still doing a fine job.

The company Ikarus doesn't seem to be too well set up to answer new customer questions, and I see that (at least back in 2014) there were plenty of us attempting to share the collected knowledge.

It would also be interesting to determine if I can just upgrade straight to the latest version of Aerofly, using the original controller.

I hope this finds you well and looking forward to the next flying season ahead of us.

All the best! - Grant.

Note from Ken: I thought that I could get my reply to Grant, but I cannot, so this is my reply, as I can best recall.

Hi Grant,

I've not used Aerofly in many years and have since purchased a different MacBook Pro.

I only have found RC Flight Simulators useful for doing horizontal flight maneuvers.

I see that the new version of Real Flight, for Windows, supports 3D goggles. Aerofly did support a certain brand of 3D goggles.

The use of 3D goggles might aid in the vertical flight perception, but I've never used them, so I don't know.

It would probably be less expensive to just purchase a UMX Champ from Horizon hobby to gain flight experience.

Rats. I just checked and the Champ has been discontinued along with almost all of the UMX planes.

Good Luck With Your Quest,
Ken

Addendum:

I should have noted that the Sport Cub S 2 RTF with SAFE, for \$140 could work for him.

<https://www.horizonhobby.com/product/sport-cub-s-2-rtf-with-safe/HBZ44000.html>

LiPo Discharger Question

From Jim Young via email

Hi Ken,

I'm getting my fleet ready for spring, and will probably need some new batteries. I haven't been getting much mileage out of my LiPos, and I didn't think I was being too hard on them and none of my planes push the pack near their limits.

Poking around online, always dangerous, people are saying that you need to discharge LiPos between uses.

My CellPro 4S will put a storage charge on a pack, but will not discharge them.

I tend to charge a pack after each flight so it is ready to whenever the mood strikes, so I may be stressing them out leaving them fully charged for days, weeks, months.

I was wondering if you have any experience with these little devices:



https://www.amazon.com/VIFLY-StoreSafe-Battery-Discharger-Heatsink/dp/B08PBCTRKC/ref=sr_1_1?dchild=1&keywords=VIFLY+2pcs+StoreSafe+Sma+rt+LiPo+Battery+Discharger+to+Storage+Voltage+with+Heatsink+for+2S-6S+RC+FPV+Drone+Battery+%282pcs%29+%28XT60%29lipo+discharger&qid=1613502789&sr=8-1

They look like a nice solution to help maintain your batteries, just plug them in at the end of the day and they discharge your pack to a storage charge and then go into a low power mode.

The other option would be a new charger/discharger, do you have any suggestions?

Thanks,
Jim

Hi Jim,

As you've learned LiPo batteries don't like to be left fully charged.

I don't know anything about the discharged that you linked to, but this is the one that I've been using for several years now.



Photo from Supplier's Website

<http://www.myrcmart.com/rcx-3in1-battery-balancer-discharger-voltage-indicator-150w-discharging-p-4767.html>

I can't recall where I got mine, but it could be the place that I've linked to above.

I know they are sometimes available on Amazon, and some other sources. They go by various names, but if you want one, be sure to get the one with the bulbs.

I did find this one available on Amazon now.
https://www.amazon.com/TargetHobby-Discharger-Voltage-Balancer-Battery/dp/B01ET16214/ref=sr_1_33?dchild=1&keywords=3+in+1+Lipo+discharger&qid=1612041426&sr=8-33

Hope this helps some,
Ken

Addendum:

I forgot to mention the “recommended” discharge voltage for storage. There really isn’t a proven one, only what most folks are doing. The majority of what I’ve read, is 3.8ish volts per cell.

I set my discharger to 3.77V per cell.

Something in that area should work for you and keep your LiPos much happier.

Yep, Another Ampeer Anniversary

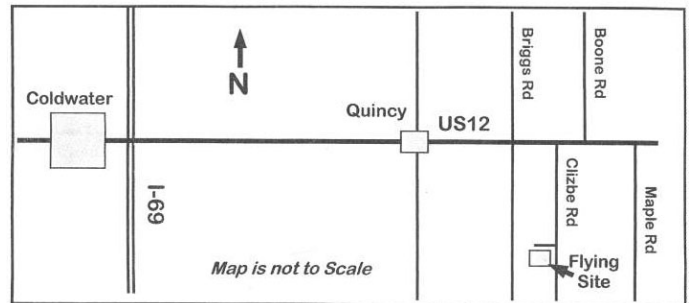
The first edition of the *Ampeer* was the March 1988 issue. At that time I called it the Wolf’s Call.

The name of the newsletter came about because I proposed that the name of the new club be the West Oakland ‘Lectric Flyers (WOLF), but the members decided on the name Electric Flyers Only (EFO).

Using EFO showed our roots and beginnings in the Union Lake Flying Organization (UFO) located near Union Lake, MI.

Today, the UFO still exists as the United Flying Organization after their move to Tepple Lake Rd. in Highland, MI.

The first issue is available here:
<http://theampeer.org/ampeer/ampmar88/ampmar88.htm>



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

Volume I March, 1988 Issue 1

PUBLISHED FOR THE WEST OAKLAND 'LECTRIC FLYERS

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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.]

The Upcoming Keith Shaw Birthday Party Electric Fly-in 2021

The Balsa Butchers are hosting the “Keith Shaw Birthday Party Electric Fly-In”, for the 19th year, at their field near Coldwater, MI. The event takes place on Saturday, **May 29, 2021**. It is a one day event again this year.

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.

Upcoming E-vents

Legacy Center, Brighton, MI, Indoor Flying Wednesdays from October 14 through March 31, from 12:30-2:30.

Ultimate Soccer Arenas, Pontiac, MI, Indoor RC Flying

Tuesdays starting Oct. 27 thru April 13, 2021

Hours: 10 a.m. - 1 p.m.

\$10 for a single session, discounted 5 session & season passes are available. Dates and Times are subject to Change!

Ultimate Soccer Arenas, Pontiac, MI, Indoor Free Flight Flying

Thursdays at field 3 of the Ultimate Soccer Arenas starting at 10 a.m.

Premier Sports Center, Indoor RC Flying

14901 23 Mile Rd, Shelby Charter Twp, MI 48315
Indoor RC Flying has begun at Premier Sports Center, 23 Mile and Hayes, every **Thursday** from 9 AM to 3 PM.

03/10/21 EFO Meeting on ZOOM, 7:30 p.m. EST.
EFO members, I will email the URL for the meeting close to the meeting date.

APRIL 9 & 10, 2021 Toledo Swap Meet (details in this issue)

May 29, 2021, Saturday, Keith Shaw Birthday Party Electric Fly-in 2021 (details in this issue)



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

The Next Monthly Meeting:

Date: Wednesday, March 10, 2021, 7:30 p.m.

Place: Zoom