

the

# Monitor

April

The MRCS Officers

2022

**President:**

Greg Eilers  
3061 Budd Rd.  
Stockbridge, MI 48285  
Phone: 517-416-2685

**Vice-President:**

Ken Myers  
1911 Bradshaw Ct.  
Commerce Twp., MI 48390  
Phone: 248.669.8124

**Secretary:**

Lynn Morgan  
15790 Penn  
Livonia, MI 48150  
Phone: 734.679.8468

**Treasurer:**

Dave Stacer  
PO Box 75313  
Salem, MI 48175  
Phone: 313-318-3288

**Safety Officer:**

Bill Brown, Jr.  
18659 Fox Hollow Ct  
Northville, MI 48168  
Phone: 313.268.4167

**Head Flight Instructor:**

Ken Myers  
1911 Bradshaw Ct.  
Commerce Twp., MI 48390  
Phone: 248.669.8124

**Newsletter Editor:**

Ken Myers

**Next Meeting: Date:** Wednesday, April 6, 2022

**Time:** 7 p.m. video, 7:30 p.m. meeting, EAA Building

**What's In This Issue:**

March Meeting - Ken's Presentation: Bringing LiPo Batteries Out of Storage - Jim Lapham's Goose - Pete Waters Latest Model - Our meeting info - Upcoming Birthday Party Electric Fly-in info - Mid-am info - Indoor Flying; Pontiac & Brighton, MI - Eating and Gabbing Help Wanted - Upcoming Events

## The March Meeting

The Wednesday, March 2, meeting was held at the EAA building at Mettetal airport. It was our first non-Zoom meeting of 2022.

The 7 p.m. aviation video was about building the B-24 at the Ford Willow Run plant. The film followed the assembly through the very long assembly line.

**Greg Eilers**, club president noted that this evening was the last time to rejoin for the \$100 fee.

He also announced that a new renewal process is being developed for 2023. **Dave Stacer**, club secretary, added that this year is the last time for our usual paper form and that we already have a PayPal account set up. Using checks will still be a viable option!!!

The exact details are to be discussed at an upcoming officers' Zoom meeting.

Once the officers have met, they will bring the proposed by-law changes to be

approved by membership. That whole process is up-coming.

Greg said that he would like to see an increase in our membership of at least 5 people this year. He is asking the members for suggestions on how to do this and everyone's ideas are welcome and NEEDED.

He also noted that maybe we could host the EAA young Eagles at the flying field.

Greg the noted the events that are being planned for this year; the Tuesday evening glider league, the Ladies' Evening potluck, another club fun fly, the Mid-Am, the annual Swap Shop in November and the Christmas dinner again.

This year we are planning to have the altitude limited glider competition at the field (schedule is TBD, probably the same as last year). **Larry Markey** is heading this event; it is a LOT of fun so we hope you are considering coming out and

participating!

After the business meeting, Ken Myers did the following presentation.

### **Returning LiPo Batteries to Service and How to Know If Your LiPo is Dying**

In the June 2021, *Model Aviation*, starting on p. 31, Greg Gimlick presented an article titled “BATTERY MAINTENANCE”, with the subtitle: Emerging from long-term storage.

Much of the following information was discussed in Greg’s article and presented by Ken.

When LiPos are stored for long periods of time they should be stored safely at a resting storage voltage of about 3.8ish volts per cell.

Ken showed his real “LiPoSack” brand LiPo safety bag.

<https://www.liposack.com/>

He noted that he had two 3S 2200mAh LiPo batteries in it, and that they had been stored at about 3.8V per cell.

He demonstrated measuring their resting voltages. They were;

Pack 1: 3.791V, 3.787V, 3.785V

Pack 2: 3.791V, 3.785V, 3.787V

Ken was asked how much voltage difference is acceptable or that might indicate a problem with a cell.

His response was that these resting voltages all round to 3.8V pre cell.

He also noted that resting voltage does not indicate a whole lot about a cell’s or pack’s “health”.

He said that it is a good idea to check and note a pack’s internal resistance before and after storage.

He showed two of his meters that provide an internal resistance (IR) value.

Before continuing he noted that what is called the IR is not an ohmic resistance that can be measured with an Ohm meter. He noted that it is a mathematically calculated value, and that how various IR measuring instruments implement the calculations varies and therefore, their values vary.

He said that once a device was selected for noting the IR value, it should always be used when gathering

the IR value at about the same temperature and state of charge (SOC).

Ken shared two of the devices that he has used.



First he showed the commercially available ESR meter. He had used that before he acquired his Volrath meter. The ESR meter is still available from Progressive RC.

<https://www.progressiverc.com/products/lipo-esr-meter-mark-ii?variant=34490840678535>



Next he showed a Battery IR meter designed by Denny Volrath. It is NOT a commercially available unit and must be assembled from components listed in the build thread on RC Groups.

<https://www.rcgroups.com/forums/showthread.php?2809231-Battery-IR-Meter-Circuitboard%21>

It was also noted that some chargers can provide an IR value.

Ken emphasized that at no time should the IR values of one device be used to compare to IR values from a different device.

More IR Information can be found in the *Ampeer* electric flight newsletter.

Pack's Internal Resistance (Ir)

<http://theampeer.org/ampeer/ampsep17/ampsep17.htm#IR>

Measuring a Battery Pack's Internal Resistance Part 2

<http://theampeer.org/ampeer/ampoct17/ampoct17.htm#IR>

Pack Test and Comparative IR Using Three IR Meters

<http://theampeer.org/ampeer/ampjan19/ampjan19.htm#IR>

He continued by noting that if you generally do parallel charging, it is a good practice to not parallel charge when bringing LiPo batteries back into service after a long rest.

It is also a good practice to cycle each pack a few times before flying it. He recommended starting with a 1/2C charge followed by a no greater than 1C Discharge.

Reducing the flight time for first couple of flights on each pack brought out of long term storage is also a good idea.

He encouraged the to user properly discharge and dispose of packs that are puffed, or show a large imbalance or higher than normal IR.

Continuing, he noted that it is best to discharge/charge to storage level before putting the packs away for awhile.

He said that it is a good idea to keep a log for each battery, but that it can prove to be quite difficult.

**Denny Sumner** noted that he uses a piece of tape to put baseline IR numbers on each pack. That may prove to be the most practical means of checking its history.

Ken said that it is important to keep in mind that the exact pack health may only be known when the pack is put into flying use.

He reminded folks that it is also necessary to remember to cycle and check radio batteries if they are of the NiMH type.

Ken reiterated that resting voltage tells little about the condition of the battery.

Ken referenced his article in the December 2021 *Ampeer* titled "My LiPo Died".

<http://theampeer.org/ampeer/ampdec21/ampdec21.htm#DEAD>

In that article, he told about two exactly the same packs, with the same age, that were purchased from the same source on the same date.

He had always charged them, stored them and flew them in the same plane.

He had been flying one of them the day before, and planned on flying both packs the following day. The voltages were checked and both packs read 3.8v per cell on both packs.

He put the not recently used pack on charger. The charger had a problem when trying to charge it. The charger stopped very quickly on its own showing 3.8V on two cells and 3.4V on the other.

Ken's first thought was that the charger had developed a problem, but the other pack was put on the charger and it charged just fine.

Before putting the suspicious pack back on the charger, he checked the resting voltages of the suspicious pack and ALL THREE cells read 3.8v.

Again, that's why voltage doesn't tell much about condition.

The suspicious pack was put on charge again and the charge screen showed one cell lagging well behind and quite unbalanced compared to the other two.

He then checked the suspicious pack with his Volrath meter. Two cells read 6 milliohms and "suspicious" cell 0.25 ohms! That's 250 milliohms.

Since this pack was quite obviously dead, he later, in his article, demonstrated how discharged the pack for safe disposal.



I'd like to thank Mr. Greg Gimlick for his great article, as it provided the perfect outline for this presentation. Ken

### The March Model of the Month



Jim Lapham shared his Grumman Goose. It has been a build of his for the last 4 years, as he only worked when he was in Florida.

He noted the fuselage stringers are made from balsa instead of spruce and that they are quite fragile and brake easily.

Over time he has misplace the original outrigger pontoons and to start building some soon.

He also noted that fitting the windshield was a real pain!

He shared a 2S "A123" 2500mAh pack that he'd planned to use to power the plane.



Several members questioned whether that would be enough voltage to power the plane, compared to a 3S LiPo.

### Pete Waters Latest Model

From Pete Waters via email



Getting there, 1945 kit I had to have! 4 1/4 lb. all up with a 60 inch span.

It is all aluminum and uses 1/16" squeeze rivets and #2 small screws.



### Winter, Indoor Monthly Club Meeting Information

During the winter months, the club's monthly meetings are held at the EAA building at the Canton-

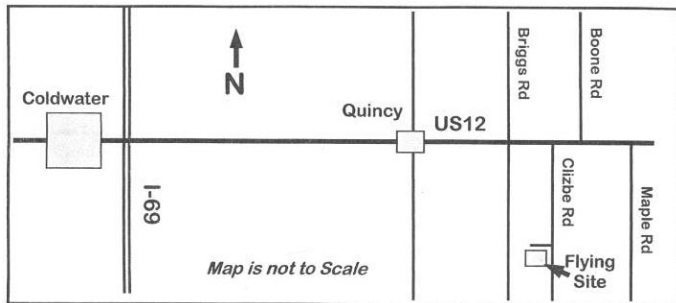
Plymouth Mettetal. Airport, 8550 N Lilley Rd,  
Canton, MI 48187.

[https://www.google.com/maps/place/Canton-Plymouth+Mettetal+Airport+\(1D2\)/@42.348509,-83.4574059,15z/data=!4m5!3m4!1s0x0:0xe86a0bfb10bd82b!8m2!3d42.348509!4d-83.4574059](https://www.google.com/maps/place/Canton-Plymouth+Mettetal+Airport+(1D2)/@42.348509,-83.4574059,15z/data=!4m5!3m4!1s0x0:0xe86a0bfb10bd82b!8m2!3d42.348509!4d-83.4574059)

The meetings are held on the first Wednesday of the month. There is usually an aviation related video from 7 p.m. to 7:30 p.m. The business meeting starts at 7:30 p.m. and usually includes a guest speaker.

The EAA building is the first building on the right when entering off of Lilley Rd.

Everyone with an interest is welcome.



### The Upcoming Keith Shaw Birthday Party Electric Fly-in 2022

The Balsa Butchers are hosting the "Keith Shaw Birthday Party Electric Fly-In", for the 20th year, at their field near Coldwater, MI. The event takes place on Saturday, **June 4, 2022**. 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:  
[grifesd@yahoo.com](mailto:grifesd@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.

### Mid-America Electric Fly Dates Announced

Keith Shaw and Ken Myers announced that the 38th Annual Mid-America Electric Flies (AKA the Mid-Am) will be held at the Midwest RC Society 7 Mile Road flying field on Saturday, July 9 and Sunday, July 10.

More details will follow shortly.

### Skymasters Indoor Flying

From Pete Foss, Skymasters' President

### HELLO INDOOR FLIERS!

We're back for Indoor Flying **starting October 20th!** I'm very happy to announce that through the efforts of Fred Engleman and Paul Goelz we have an agreement with **ReImagine Recreation** to fly on **Wednesdays** at **United Wholesale Mortgage Sports Complex (formerly Ultimate Soccer)**. It was a bit of a struggle dealing with the new owners of the facility and I would really like to thank Fred and Paul for stepping up and pushing us to the finish line!

There are some differences beyond the fact that we will be flying on field 4 (the one in the back) since field 3, where we used to fly, is now a basketball and volleyball arena. **Everyone who enters the building for any reason during our time slot MUST SIGN A LIABILITY WAIVER.** It would be helpful if you print a copy, sign and bring to your first flying session but we will have printed waivers on hand too. Park out back by field 4. You will not be allowed to enter the front door.

To simplify this year, we went with only Gold (season pass) cards for \$150 and single sessions at \$10 each. Also, since ReImagine charges Skymasters for each and every pilot who flies, youths and spouses are no longer free.

Here is a direct link to register and purchase a Gold Card or print out a registration form for your first single session.

<https://www.skymasters.org/index.php?page=register&event=indoor>

Hope to see many of you on the 20th, or before, at the Night Fly and Free Tailgate Swap at Skymasters Field.

Indoor Flying - **Wednesday**, October 20, 2021 -  
UWM Sports Complex, 837 South Blvd, Pontiac, MI  
Time: 10:00 AM

Sponsor: Skymasters

Indoor Flying At UWM Sports Complex

On Field #4 (Park and Enter on the north "back" end of the complex)

Wednesdays starting October 20, 2021 thru April 13, 2022

View Event PDF Flyer.

[http://www.skymasters.org/index.php?page=events&flyer=data/flyers/2021/2021\\_indoor\\_full\\_pg\\_color\\_flyer.png](http://www.skymasters.org/index.php?page=events&flyer=data/flyers/2021/2021_indoor_full_pg_color_flyer.png)

View Event Map.

<http://www.skymasters.org/index.php?page=information&type=wherewefly&item=ultimate#ultimate>

Contact: **Fred Engleman** Phone: (248) 770-3239  
Email: [indoorfly@skymasters.org](mailto:indoorfly@skymasters.org)

**Updated Information**

**11/01/21:** FYI - For those of you who want to park a little closer, we found out that the early morning Wednesday, UWM Training Sessions let out at 10 and the parking lot empties out quickly making more room for us closer to entrance of Field #4.

Season Passes are still available online for \$150 at [www.Skymasters.org](http://www.Skymasters.org). If you have any problems with the online registration process, give me a call at (248) 770-3239. Or you can purchase a \$10 Single Session at the door (NOTE: there is no longer an ATM machine in the building, so you will need to bring the proper change/cash only).

Pilots/Drivers and Spectators you can read the Indoor Flying Rules, Schedule and Release Form Liability Form on-line at [www.Skymasters.org](http://www.Skymasters.org) **Each Pilot/Driver and Spectator will be required to sign a onetime Release Form Liability Form.**

**11/10/21:** It seemed to work well that pilots who arrived few minutes after 10 were able to park closer to entrance for Field #4.

With a ceiling height of 75 feet pilots do not have luxury of flying 3 mistakes high. We are also surrounded by 4 walls, fellow pilots and spectators all around. The utmost care must be taken when flying at all times. Pilots flying the faster delta wing planes must give way to slower planes. That said, if you are flying a slower plane, you may want to land when faster planes are in the air. Batteries only last a short time and you can return to the air to fly without costly mishaps. Everyone wants to have a good time and return home with our planes intact.

A quick reminder, if you are charging batteries the batteries must be in or on a fire retardant surface like a LiPo sack. **No charged or discharged batteries may be left at UWMSC.**

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

Indoor flying takes place from November 3rd, 2021 until March 30th, 2022 at the Legacy Center Sports Complex, 9299 Goble Dr., Brighton, MI 48116, phone: 810.231.9288, on Wednesdays from 12:30 PM until 2:30 PM.

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

**Eating and Gabbing  
Help Wanted**

From Pete Waters via email

We need help to fill the empty seats on **Wednesday mornings** at **The Conners Coney Island Restaurant** situated at the N.E. Corner of 5 Mile and Haggerty.

**We meet at 7:30 a.m.**, and cover many topics, except Politics and Religion.

This get together, used to have several tables filled, but time has passed, and now we're down to just a few. This is an ideal stop off for the field workers, breakfast and then the field. Please make an effort, we used to be **"The R.O.M.E.O. Group, "Retired Old Men Eating Out!"**

**To change your email address contact Ken Myers at [kmyersefo@mac.com](mailto:kmyersefo@mac.com)**

**The 2022 membership application is available at the club Web site,  
<http://www.midwestrcsociety.org>,  
for downloading with the link on the homepage.**

**Upcoming Events:**

**Wednesdays:**

Indoor Flying 10 a.m. Pontiac (details in this issue)  
Indoor Flying 12:30 p.m. Brighton (details in this issue)

**Toledo Swap Shop**, April 1 - 2, 2022 (more details at <https://toledorcswapmeet.com/>)

**Wednesday, April 6**, Midwest RC Society Monthly meeting, 7:00 p.m. video (TBD) 7:30 meeting, EAA building at Mettetal Airport, 8550 N Lilley Rd, Canton, MI

**Saturday, June 4, 2022**, Keith Shaw Birthday Celebration Fly-in, Coldwater, MI (details in this issue)

**Saturday and Sunday, July 9 & 10, 2022**, Mid-America Electric Flies (the Mid-Am), (details to follow)

Midwest RC Monitor  
Editor: Ken Myers  
1911 Bradshaw Ct.  
Commerce Twp., MI 48390

**The Next Meeting:**

**Date:** Wednesday, April 6, 2022

**Time:** 7 p.m video (TBD) 7:30 p.m. meeting

**Place:** EAA Building, Mettetal Airport, Plymouth, MI