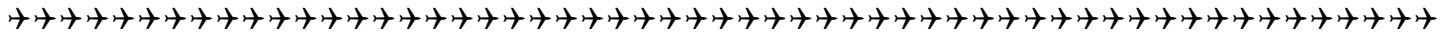




Squadron News October 2022

An AMA Gold Club

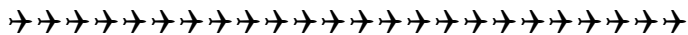


Newsletter Editor.

Hello everyone, I'm John Lawyer and I am the newsletter editor. I will admit I am terrible with names, so if I get your name wrong in the newsletter I apologize beforehand. If I get other facts wrong, I apologize. If you send me an email or hand me a note on any corrections, I will be glad to get it into the next newsletter. Besides, that will help me to take up space in the newsletter also. ☺ You can contact me at jlawyer41@att.net or 765-918-7229

I will always be happy to take input from anyone for the newsletter.

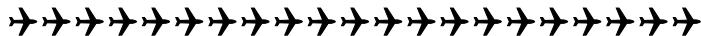
P.S. Pictures of your latest bird or project are always welcome



November 2 - monthly club meeting, 7:00 at the field.

December 7 - Christmas meeting, Fellowship Hall at the Danville United Methodist Church in Danville, time TBD.

January 1 – New Years day Fly-In



Upcoming Area Events

November 4 - Paragon Elementary Indoor Fly, Fri 11/4 @ 6pm, Paragon, IN
- www.indyrcsouth.org/forum/index.php/topic,3108.0.html

November 5 - Sugar Creek RC Fly-In, Sat 11/5 @ Noon, Crawfordsville, IN
- www.indyrcsouth.org/forum/index.php/topic,3123.0.html

November 13th & 27th – Lafayette Cloud Jockeys Indoor fly North Montgomery High School 2 till 5pm



October 2022 Meeting Minutes

Recorded by Tom Carlyle, Secretary

The October 2022 club meeting was held on October 5, 2022 at the flying field. President Rege Hall called the meeting to order at 7:00 PM. Approximately Thirty (30) club members were in attendance.

President's Report

- No report.

Vice President's Report

- No report.

Treasurer's Report

- Richard Gilmore said the club's treasury is in fine shape.

Secretary's Report

- No report.

Field Marshall's Report

- No report.

Safety Coordinator's Report

- No report.

New Members/Visitors

- .

Old Business

- The fall float fly was held at the Avon Town Hall Park on Saturday, September 17th. Scott Black said the park loved having us there and are looking forward to having us back this coming spring. We will also try to get them to let us fly, again, next fall.
- Our 15th annual Warbird Fly-in will be October 15th. Raffles will be drawn around 2:00 p.m. Lunch will be available (hotdogs/burgers/chips/drinks). The event will begin around 9:00 a.m. and end between 2:00 and 3:00 p.m.
- Our December club meeting will be our annual holiday dinner and, as during previous years, will be held at the Methodist Church in Danville. Raffle prizes as usual. Bring stocking hats, gloves, mittens, and scarves in support of the church's efforts to assist the community.
- *No further discussion on this topic – We've talked about creating a new bench on the west end of the pit area. We need a volunteer to design it and present a cost estimate to the club.
- *No further discussion on this topic – There was also more mention of building a shelter cover on the west end of the pit area. The club would entertain suggestions for a design.

New Business

- The Seymour, IN Southern Indiana Flying Eagles are hosting a fly-in at their field on Saturday, October 8th from 9:00 a.m. to dusk. The event is being held in support of the Jackson County Animal Shelter. No landing fee details available. Food will be available for purchase.
- Our 2023 NMAD event will be the 2nd Saturday in August. Tom Carlyle will file the sanction during the spring.
- Officer elections will be held during the November meeting. If you would like to run for office, or would like to nominate someone for an officer position, please contact a board member in advance of the meeting. Tom Carlyle will send out a notice of the officer nominations, along with an absentee ballot.
- Richard Gilmore said the storage sheds are going to need new siding. We'll look into that in the spring.
- We need to contact WM to get them to come out and roll the field this spring.

Show and Tell

- Joe Miller brought his Flight Test foam board twin 70mm EDF F-4 Phantom. Very nice-looking aircraft. Well done, Joe.

Raffle

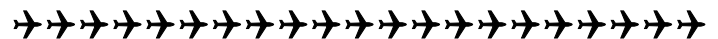
- No raffle was conducted.

With no further club business, the meeting was adjourned.

The November club meeting will be held on Wednesday, November 2nd. The meeting will begin at 7:00 p.m. The meeting will be held at the club flying site.

One last reminder, please support your local hobby stores. Special thanks go out HobbyTown USA in Castleton for extending a discount to our club for prizes for our raffles during events and for our year end club meeting.

Couple pictures of Joe Millers F4 from the Meeting.



Message from the President.

Presidents fly by:

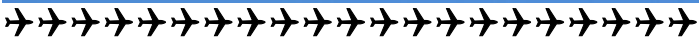
When you read this; November has most likely begun. Although we have had a windy fall, hope everyone got in some flying. Today, Saturday the 29th was a really nice fall day. Flew my Boomerang RC Ranger for the first time. It was a good flight, faster than I had anticipated. We should still see some nice flying days before the winter temps and snow flies. Get out and take advantage, the runway is in great shape!

Wednesday night's meeting is nominations for the 2023-2024 club officers, then the election of officers prior to and at the December meeting. Speaking of the December meeting, we have scheduled the Fellowship Hall at the Danville United Methodist Church in Danville. We will get

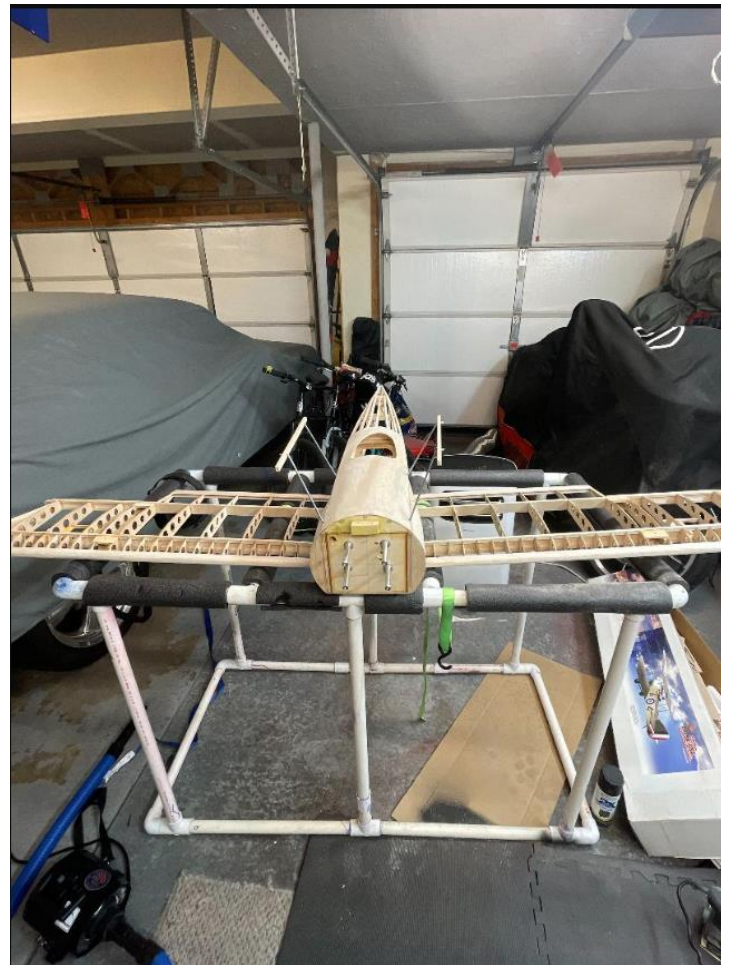
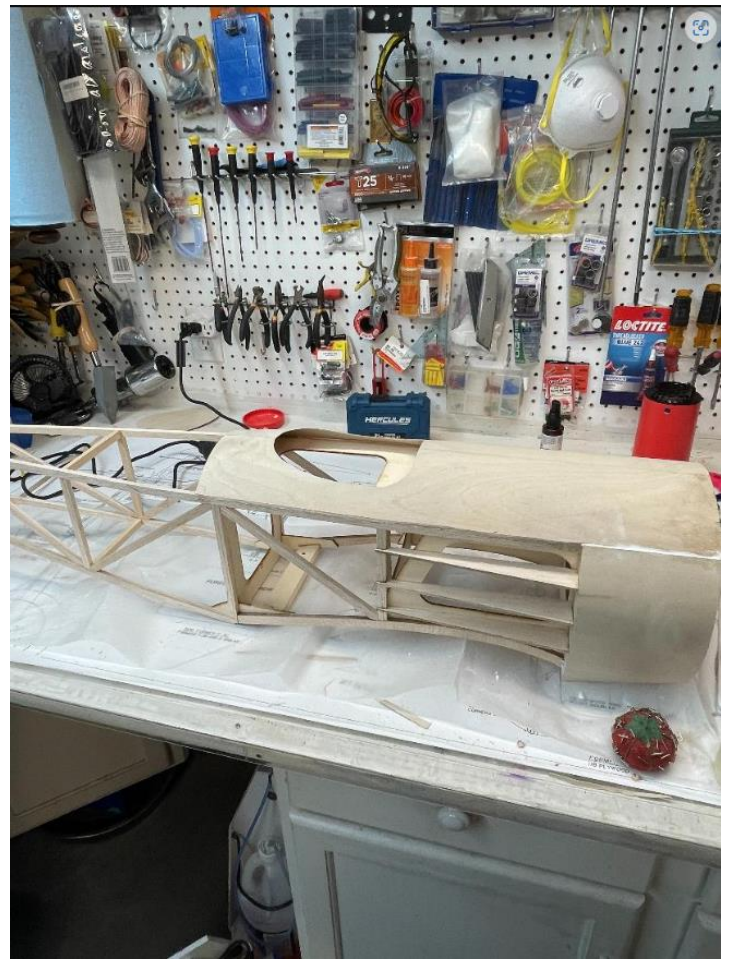
reminders and messages out prior to the meeting. We will again support the churches community outreach by filling the Christmas tree with hats, gloves, mittens and scarves.

Fly often, fly safe!

Rege

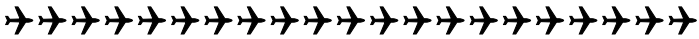
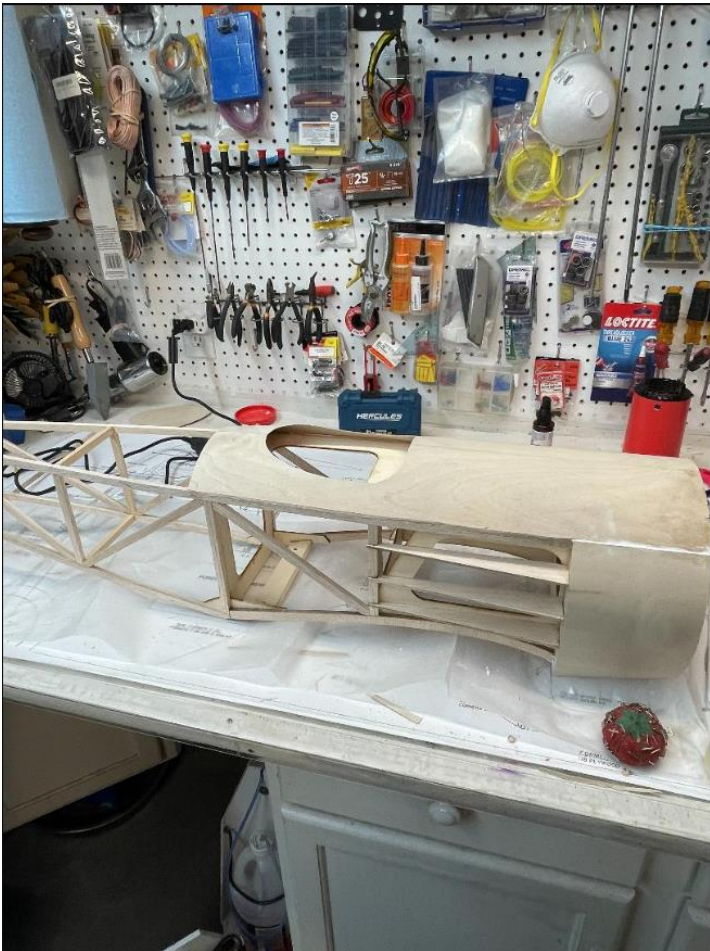


A few pictures of Don Darden's latest project, Balsa USA quarter scale Sopwith Pop.





Pictures from Warbird day.





some degree of swelling. So, the real question here is: why do LiPos puff up?

A LiPo battery is made of three main components: the positive electrode (cathode), the negative electrode (anode), and the liquid electrolyte. **Electrolyte** is a chemical inside your LiPo that enables the flow of ions from the negative end to the positive end during discharge, and vice versa when charging.

Your LiPos puff up due to a naturally occurring phenomenon known as **electrolyte decomposition**. When electrolyte decomposes, hydrogen, carbon dioxide, and carbon monoxide are formed as by-products. These gases are not only responsible for the physical swelling of your LiPos, but two of the three are also highly flammable.

Electrolyte decomposition will occur regardless of how you handle your LiPos. So, going back to our first question, should you dispose of your LiPos if they start to swell up? The correct answer is - it depends. When properly cared for and used responsibly, electrolyte decomposition will still take place, however, at a much slower rate. If you only had your LiPo for a brief period and it swells up exponentially, then you are either doing something wrong, or the LiPo could be faulty - under this scenario, we will recommend you to safely dispose of it.

On the other hand, if your LiPo has gone through 50+ cycles and starts to show some swelling, we would consider this to be perfectly normal and would not recommend you retire it just yet. In

theory, a swollen LiPo can still be fairly safe to use if everything else is intact and working properly. As noted, two of the three gases – hydrogen and carbon monoxide – are highly flammable and can become dangerous if there is a heat spike, or if exposed to air; both can be attributed to external factors which will be discussed below.

Physical Signs Of Damage

One of the first and most obvious ways to determine if your LiPos are safe to use is to physically examine them. A physically damaged LiPo, combined with swelling is really just a ticking time bomb. Most, if not all LiPo accidents happen for one reason: a punctured inner foil. When punctured and exposed to air, the mixture of gases and lithium ions will ignite and even explode.

After every use, check your LiPos for any glaring impairments. If you just came out from a hard landing with your RC aircraft or completed a bumpy ride on your basher, pay extra attention to surface dents, deformities, cracked wraps, wrinkled cells, and any damages to the battery connectors.

Internal Resistance



One of the best and more accurate ways to determine if your LiPo is functioning properly or not is to check the internal resistance (IR). IR ultimately dictates how efficient your battery is. A low IR implies greater efficiency while a high IR means the opposite. Just like electrolyte decomposition, IR will gradually increase over time, however, proper usage can significantly prolong the process.

A high IR will cause your LiPos to heat up very quickly while delivering a lower voltage; in layman's terms, it would mean that your LiPo is working two times harder while only delivering half of the results. Continued usage of a LiPo with a high IR will ultimately cause it to heat up and expand to a certain point where one of the inner cells may rupture causing it to explode.

When you first purchase your LiPo measure its IR. Generally, an increase of around 80-90% would indicate that your LiPo is nearing its end and you should probably dispose of it. So, for example, if you had an initial IR of 10 mΩ and after 150+ cycles the IR reads at 18 mΩ, this

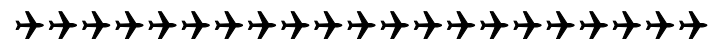
would suggest that your LiPo should be retired sooner rather than later.

In Conclusion...

As with most things, nothing is ever 100%.

However, next time you reach the crossroad of deciding whether your LiPo is near its end or not, you could use these simple steps:

1. When you first purchase your LiPo, label it with the date of its first use. Using this date, you can gauge if the swelling is proportionate to its usage. Generally, HobbyKing's LiPo batteries can last 2-3 years on average.
2. Check for any obvious damages that may be detrimental to the inner wrapping of the cells. This may include, but not limited to the following: surface dents, deformities, cracked wrapping, wrinkled cells, and damaged battery connectors.
3. Using a smart charger or battery meter, check that the IR is not overly high. Even if only one of your three cells has an off rating, discontinue using it as any rupture to any of the cells can lead to a major disaster.



Editor: John Lawyer

***** Till next month may all your landings be wheels down. *****

