

THE CARRIER WAVE



PHANTOM FLYERS R/C CLUB



AMA #393 SAINT CHARLES, MO

January 2019

Newsletter of the Phantom Flyers R/C Club

<http://phantomflyersrc.com>

CLUB OFFICERS

Contact Number

President - Jan Jansen	(314) 921-9420
Vice President - Bill Ahrens	(314) 913-3819
Secretary - Jim West	(618) 498-9058
Treasure - Jose' Espinosa	(636) 947-6067
Safety Officer - Dave Evans	(636) 448-4800
Field Manager - Don Grzina	(636) 233-0193
Chief Flight Instructor - TBD	
Activities Chairperson - Ed White	(636) 441-6431

Send Membership Renewals to:

Jim West
914 Hollow Avenue
Jerseyville, IL 62052

Board of Directors:

Work

Home

Ed White	(314) 232-1479	(636) 441-6431
Dan Sundman	(314) 749-4029	(636) 352-0150
Mitch Galatioto	(314) 234-5141	
Dave Evans	Retired	(636) 448-4800

**Phantom Flyers Club Meeting Minutes
November 19, 2018**

President Jan Jansen opened the meeting at 7:05 pm at Mark Twain hobby Shop. There were 10 members in attendance. The meeting opened with Jan apologizing for not getting the 2 week notice out prior to voting on the proposed increase in membership dues.

Tech Session

Jose reported that he had a bad transmitter that he recently bought from Horizon Hobby and had better luck getting a replacement from Customer Support than Tech Support. Tech support wanted to "repair" the transmitter instead of replacing it.

Secretary's Report

The Club currently is at 40 regular members. The October Meeting Minutes were approved.

Treasurers Report

Jose reported the club finances are doing okay for the year.

Field Managers Report

Don did not have much to report. The grass was not cut in October. The vehicles have not been winterized which includes changing oil & filters and adding Stabil to the fuel tanks. There is lots of gas in the tanks and cans. Don said he may buy the gas and he will run the motors after Stabil is added.

Activities Report

- Jan requested that members RSVP if planning on attending the Christmas dinner at Trailhead.
- January 1st is the Snow Fly

Old Business

- The annual membership dues increase to \$150 was voted on and passed unanimously(again).

Club Officer Election Results

President: Jan Jansen
Vice President: Bill Ahrens
Treasurer: Jose Espinosa
Secretary: Jim West
Board of Director: Ed White
Board of Director: Mitch Galatioto
Safety Officer: Dave Evans (Not actually Elected)

FAA Rulemaking

It was noted that the special exemption is not in the new FAA spending bill. Also registration is only good for three years.

For the new year and future meetings Jan encouraged all to bring in projects

Meeting Adjourned.

jjw 12/30/18

FAA Registration

Club Members,

I have become aware that the FAA registration we were required to do in 2016 is about to expire after the initial 3 year period. However, the FAA has moved the website and extended the expiration date to December 2020. The new web site address is

<https://faadronezone.faa.gov/#/>

As you may recall, we were supposed to print our registration and have it ready to produce on demand by whatever harassing government agent might happen by. So I advise logging in at the above site and printing the current registration with the extended expiration date so as not to confuse the harassing agent.

Don Grzina

Recreational Fliers & Modeler Community-Based Organizations

You are considered a recreational user if you fly your drone for fun, as a hobby. It is important to know when and where you can fly and how to register your drone.

2019 Snow Fly

The weather wasn't as nearly as bad as last year! The wind was blow directly down the runway and since the start time was 1:00ish, it was probably a degree or 2 warmer. I arrived at the field at 12:50 at and got to wave bye to Don Grzina and Jose Espinosa as they left. This left Ed White and Larry Anderson at the field.

Larry flew his electric powered glider and marked the low ceiling for Ed and myself. Ed had planned to maiden his Freewing Lippisch P.15 EDF and then backed out. With a wee bit of encouragement from Larry, the maiden was on! I launched it and Ed clearly had the tiger by the tail! It looked like he was dodging AAA (anti-aircraft artillery) for the first 30 seconds of flight and that was on LOW RATES! He later got it to calm down and landed with no issues.

Next up was the maiden flight of my FMS F/A-18F (70mm EDF) which I painted it to match the EA-18G Growler from the VAQ-132 Scorpions. The flight required constant trimming so the model is may be a tad tail-heavy, but looks the part of a Super Hornet in the air. I set up for landing and I got a too slow and low on final went to power out of it but it was too late. Not much damage other than a broken wingtip missile rail and a crease on the nose. At this point Dan Eaton showed up and I did a systems check on the Growler and decided it was airworthy and I really needed to nail a landing. Photo credit for EA-18G goes to Dan Eaton.





Interesting Stuff!

I received an email linked to Saint Louis Radio Control Flying Association <http://slrcfa.com> about battery storage. I contacted Marshall Henley to ask permission to include it in our newsletter and he agreed. The author, Jonathan Hendrickson, is the former SLRCFA president and a full scale aircraft tech!

Battery Storage - Principles / Offseason

01 Nov 2015 10:49 AM [Marshall Henley](#) (Administrator SLRCFA Club)

AUTHOR: Jonathan Hendrickson

Winter is on its way and you may not know it but your electric planes need some winterizing just like your gas or glow planes. You need to pay particular attention to your batteries. There are several different types of batteries and different storage methods/procedures for each.

LiPo or Li-ion

LiPo batteries should be stored at about 50% capacity. This is approximately 3.75-3.85 volts per cell. They should be stored in a cool dry location in a LiPo safe bag or fireproof container. To get the best possible capacity retention your LiPo should be stored at 32° F. Storage at this temperature has a capacity loss of 2% per year. Storage at 72° will result in a capacity reduction of 4% per year. A good way to achieve the 32°F storage would be to refrigerate them, but make sure that the batteries are placed in a plastic bag to protect against condensation before putting them in your LiPo safe bag.

LiPo's should always be stored in the method above even during the flying season. It is good practice to charge the battery to full the same day or the day before you are going to use it and then return it to 50% capacity for storage. LiPo's left fully charged will have their useful life drastically reduced.

LiFePO4

(A123 or Lithium Iron Phosphate)

LiFePO4 batteries store similar to LiPo's, but do NOT need the special LiPo storage bag for fire prevention. However the storage voltage is less at 3.2-3.35v per cell. They should also be stored at lower temperatures like the LiPo's.

Storage Voltages	
LiPo	LiFePO4
6s pack = 22.86v	6s pack = 20.1v
5s pack = 19.05v	5s pack = 16.75v
4s pack = 15.24v	4s pack = 13.4v
3s pack = 11.43v	3s pack = 11.2v
2s pack = 7.62v	2s pack = 6.7v
1s pack = 3.81v	1s pack = 3.35v

NiMH (Nickel Metal Hydride)

Ni-MH batteries should be kept clean and dry during storage. They can be stored for many months in a charged or discharged state without any detrimental effects as long as they are not exposed to extreme temperatures for any long period of time. After storage the battery should be charged and/or cycled before use.

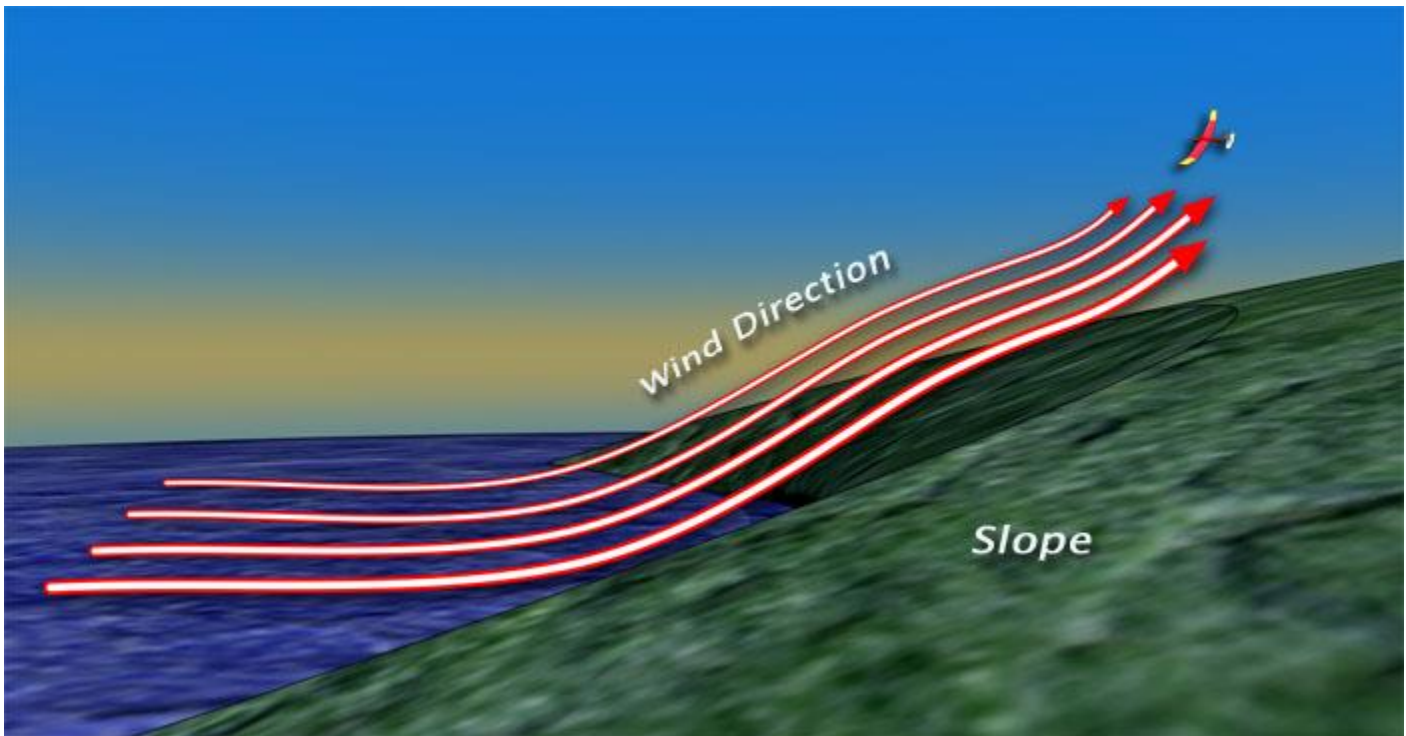


Slope Soaring Anyone?

Larry Anderson did a slope soaring primer at the Wright Flyers Tech session. With permission from the Wright Flyer's newsletter author. I will post some of it here. [The Wright Stuff December 2018](#)

First let's get a basic understanding of slope soaring, as described by Dave Garwood on the AMA site (<http://www.amaflightschool.org/getstarted/introduction-slope-soaring>)

In Slope Soaring, a sailplane is kept airborne when wind blows into the face of a hill or a cliff and the airstream is deflected upward, creating the lift in which our unpowered models are flown. A flight can last an hour or much longer—the aircraft can fly for as long as the wind blows.



The Wright Stuff

Monthly Newsletter of The Wright Flyers Model Airplane Club

Tech Session

Slope Soaring



Larry Anderson gave an interesting talk about slope soaring. He and his slope-soaring friends mostly go to Mills Mall Hill and Eagle Cliff. Fults Hill is another option and, being on a bluff like Eagle Cliff, has really good slope soaring conditions. The huge downside is that it requires a full 20-minute climb up a steep hill on a hiking trail labeled as “extreme” by the Illinois Parks department. Larry says if you are over 50 years old you better be a long-distance runner if you want to climb Fults Hill.

Mills Mall Hill is the closest. As you might suspect, it is near Mills Mall.



Mills Mall Hill, Looking West

Here is a link to some action on the hill.

Since there is a road and a school behind, all landings must be in front of the pilot on the hill, which can be a bit rough on the airplanes sometimes.



Coming in for a controlled crash!



Larry and Friends at Mills Mall Hill

Eagle Cliff Cemetery is on a steep bluff and has better conditions for soaring than Mills Mall. It’s located in Waterloo, IL. The centerpiece is a mausoleum built into the bluff. There are grave sites and memorials dating to the 1700s. The mausoleum is empty now. You can watch or do slope soaring and visit an historic place! It’s a twofer!



Flying from Tombstone Territory

The Wright Stuff

Larry told of a member of the Mississippi Valley Soaring Association (MVSA) who was trying to meet a Level V requirement for Slope Soaring Duration (8 hours). Partway through the flight it started raining, so he took refuge in the mausoleum and continued flying while looking out the doorway. He accomplished the eight hours.



Mausoleum / Slope-Soaring Shelter

The link below, from the (MVSA) web site describes a day at Eagle Cliff.

Fults Hill is also in Illinois. It's about 30 minutes south of Eagle Cliff.



Fults Hill

Here is a link to some Fults Hill Flying.

Larry brought four models and explained their design features. Each one was "optimized" for certain conditions.



Aluha (white model in the foreground) is for smaller slopes and wind 10-20 mph such as Mills Mall Hill. Because landing there is a challenge, the models can take quite a beating. This is a tough, flexible, almost unbreakable airplane.

The Weasel (black airplane) is for medium and high slopes with 15-30 mph wind, such as Eagle Cliff and Fults Hill.

The M60 (yellow) is for medium and high slopes and 20-40 mph wind, such as Eagle Cliff and Fults Hill. Weight can be added to give it more wind-penetrating ability if needed.

The Turbo (background) is for large hills and 20+ mph winds at sites with high slopes and an open smooth landing area. It's not a good model for local STL slope sites. An interesting feature, which does not show up in the pictures, is the pivoting wing. Instead of ailerons, each wing pivots on the spar, e.g., left-wing nose-up and right-wing nose-

down to roll right. This gives it good maneuverability for flight in high winds.

Here is a quote from Ed White on the

MVSA web page: “*SLOPE = Smashed, Lost Obliterated or Pulverized Eventually. Yeah, but it's still fun.*”

Thanks to Larry Anderson for the Tech Session, and for providing info to refresh my memory and for proofreading the article. If there are any errors remaining, they were probably added after he read it.

Here is a link to some action on the Mill Mall hill. https://youtu.be/J0gEVkLB_3U

Here is a link to some Fults Hill Flying. <https://vimeo.com/112605818>

<http://mvsclub.com/2016/02/10/eagle-cliff-flying-report-292016/>

2018 – YEAR IN REVIEW (by Jan Jansen)

In preparation for writing this article I looked back at the review from 2017. In many respects 2018 was similar to 2017. Except, I was much less active last year than in 2017. Personally I hope to rebound in 2019. But back to 2018.

The 2M glider contest was again the most popular activity and contest. Turnout was good with the usual Phantom Flyers suspects and MVSA guests as the results show. Some of us improved and some like myself did not. Winners were: Kevin Cox, Wayne Wimbish (MVSA) twice and Robert Samuels (MVSA). Honorable 2nd and 3rd finishers were: Don, Ed, Robert Samuels, Dan Sundman and Bob Gill (MVSA). I feel like I am missing contest results from one contest. So if I missed your name, I am sorry.

Pattern flying was somewhat marred by crashes. You know who you are. Participation was down from previous years. Or, is that just my personal perspective? I believe we suffer from lack of fresh blood and maybe we are just getting a bit tired of driving places. Let's hope for a better 2019, may your ailerons always be connected!

Second annual Fun Scale contest looked like a lot of fun (I.E. I missed it) with Bill, Wes, Don, Kevin and Ed participating. Thanks Don for the CD effort and for the collection to the American Diabetes Foundation in memory of Donn Albert.

Annual Fun Flies at our field and at the Wright Flyers field. These contests are a lot of fun. I truly recommend you all participate in the future. If I remember correctly the Phantom Flyers contest went reasonably well without a lot of drama. The Wright Flyers event got delayed and when the day came

we had a nice chili cook-off, but the flying was limited and the contest got canceled because the limited number of pilots left with flyable planes.

Float flies also looked like a lot of fun judging from the pictures.

This year, just as last year, I am concerned for the club future considering that we have not attracted many new members. For those who did join: Thank you. And for those who have been members for some time: Thank you for your support to the club. I hope to see all of you at our field several times this year.

Jan



<http://phantomflyersrc.com/>

<https://www.facebook.com/Phantom-Flyers-RC-Club-139791882811519/>

Check there for the back issues of the Carrier Wave Newsletter, mowing schedule, event calendar and club roster/contact information (handy for mowing).

Articles, pictures and tech notes for publishing in the Carrier Wave are always appreciated. Let us know what you are building, repairing or flying!

Send them to:

kevcox@charter.net