



The Dead Stick Flyer

Newsletter of Swan Harbor RC

Volume 32, Number 4, April 2021

www.swanharborrc.com



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The April 2021 issue of the Swan Harbor RC Newsletter

Inside this Issue

- *April Board Meeting: Tuesday, April 13, 2021 at 7:00pm*
- *Membership & Treasury*
- *Grass Maintenance*
- *Mower Maintenance*
- *Emergency Board Meeting: Monday, April 19, 2021 at 7:30pm*
- *Spring Fly-in & Summer Meetings*
- *2021 Member Survey & Responses*
- *FAA NOTAMS, TFRs, and Aircraft Safety Alerts*
- *FAA Recreational UAS Safety Test - FAQ*
- *Ed Sugg's Passing*
- *Tech Corner – LIPO Battery Internal Resistance (IR) & Balance Charging*
- *Club Pics*
- *General Information*

April Board Meeting: Tuesday, April 13, 2021 at 7:00pm

On Tuesday, April 13, 2021 at 7:00pm the Swan Harbor RC Board held a virtual call-in meeting with the following members in attendance: Steve Snyder, Ron Lazzeri, Dale Davis, Jae Jang, and Bob Bartell. The Board did not hold a meeting in February or March. The details of the April meeting are contained in the following discussion points. The Board is hopeful for a better 2021 year regarding the Covid-19 virus and vaccine roll-out. However, until such time that an all clear is apparent, the safety of our club members and spectators is paramount at the flying field. We still want all members to follow the current CDC, state and local safety guidance measures. We greatly appreciate and thank everyone for their cooperation with this endeavor. Better days are ahead for sure!

Membership & Treasury

Steve announced that the club has 69 members enrolled as of the April meeting. This is a great start for the year. We want to thank all members, new and old, for their continued interest and participation in this great hobby. We would like to see more members come out to the field this year to use our flying field and amenities we have for all to enjoy.

Grass Maintenance

Here are several updates regarding the grass maintenance which is the top priority for the Board and for members according to the member survey conducted earlier this year.

- The 4-Evergreen lawn service has applied (2) treatments to the grounds so far in 2021. A 3rd treatment will be applied in May or June to help promote grass production throughout the summer months. During the summer we will decide what the next steps will be after seeing the condition of the grass at that time. It is possible that a late summer or early fall aeration and over-seeding may be needed. This will greatly help the grass to fill-in even more and provide a lush and smoother runway and pit area.*
- The 1st grass cutting for the 2021 season occurred on Wednesday, April 14, 2021 by Dale, Jae, Bob, and Ron. Jae installed new blades on the mowers for this cutting.*
- Dale cut the grass a 2nd time on Tuesday, April 20, 2021.*

Mower Maintenance

The most important maintenance task for our flying club is taking care of the lawn. Lawn care and having good mowing and trimming equipment to cut and maintain the grass on a weekly basis is vitally important in achieving this task. Additionally, it is critical to keep the equipment maintained and serviced on a regular basis, so the equipment is always ready to go when we need it. This will help keep the costly equipment running as long as possible before it needs to be replaced. A well-maintained runway and pit area is essential for our models to take-off and land on.

- Over the weekend of April 17th, Gary Gunter performed the annual maintenance on the mowers which included an oil and filter change along with other routine service items. Thanks Gary! This will keep them running.*
- Dale purchased and installed a new battery for the newest Zero-Turn mower as the original battery was failing to start the mower even after a full charge.*
- Over the winter, Steve purchased (2) sets of blades for each mower and the needed supplies for the annual mower maintenance. This should keep the mowers cutting well throughout the summer. As a backup, Lewis sharpened all the old blades.*
- In the spring, Steve and Dale purchased a new tractor floor lift for the mowers so that maintenance can be performed on the mowers in a safe manner. Changing the blades on these larger mowers can be a bit tricky without the right tools.*

Emergency Board Meeting: Monday, April 19, 2021 at 7:30pm

On Monday, April 19, 2021 at 7:30pm, Steve called for an emergency virtual call-in Board meeting to discuss the growing issue with the oldest Toro Zero-Turn mower. This meeting was called to order after the 1st grass cutting to discuss the hydrostatic transaxles on this mower which started showing signs of failing last year and is continuing to exhibit the same condition this year. The issue shows up after the mower has been running for about 30-45 minutes when the Hydrostatic oil heats up. The mower has separate left and right hydrostatic transaxles and each are self-contained. The failing left transaxle starts to slow down and makes it harder to steer and turn the mower to the right properly.

The Board was planning to start a mower replacement budget reserve in 2021 for this likely event. However, Steve announced that Dale went to Walter G. Coales, Inc. the week after the 1st cut to discuss the problem with them. Coales told Dale the problem will continue to get worse and will eventually fail completely. They told Dale that each individual transaxle's replacement cost is estimated at \$1,100 per side plus labor.

This would make the repair of the old mower, given its age and current condition, a bad investment for the club. In another effort to save money in 2020, Lewis welded part of the mower's deck to help keep it running and avoided the cost of a new or used deck.

The Coales' company gave Dale the following pricing on a new 60-inch Toro Time Cutter Zero-Turn mower with a heavy-duty built-up steel deck:

- *The retail price on the mower is \$4,299.00.*
- *The net purchase price with trade-in of the old mower is \$3,600.00.*
- *The Toro Time Cutter mower is a top-of-the-line residential mower.*
- *The delivery date on the new mower would be the middle of June.*

- *The Board made the following decision:*
 - *Approved the purchase of the new Zero-Turn mower and the trade-in of the old mower.*
 - *Sold the Husqvarna tractor to a club member and will allocate the proceeds towards the new mower.*



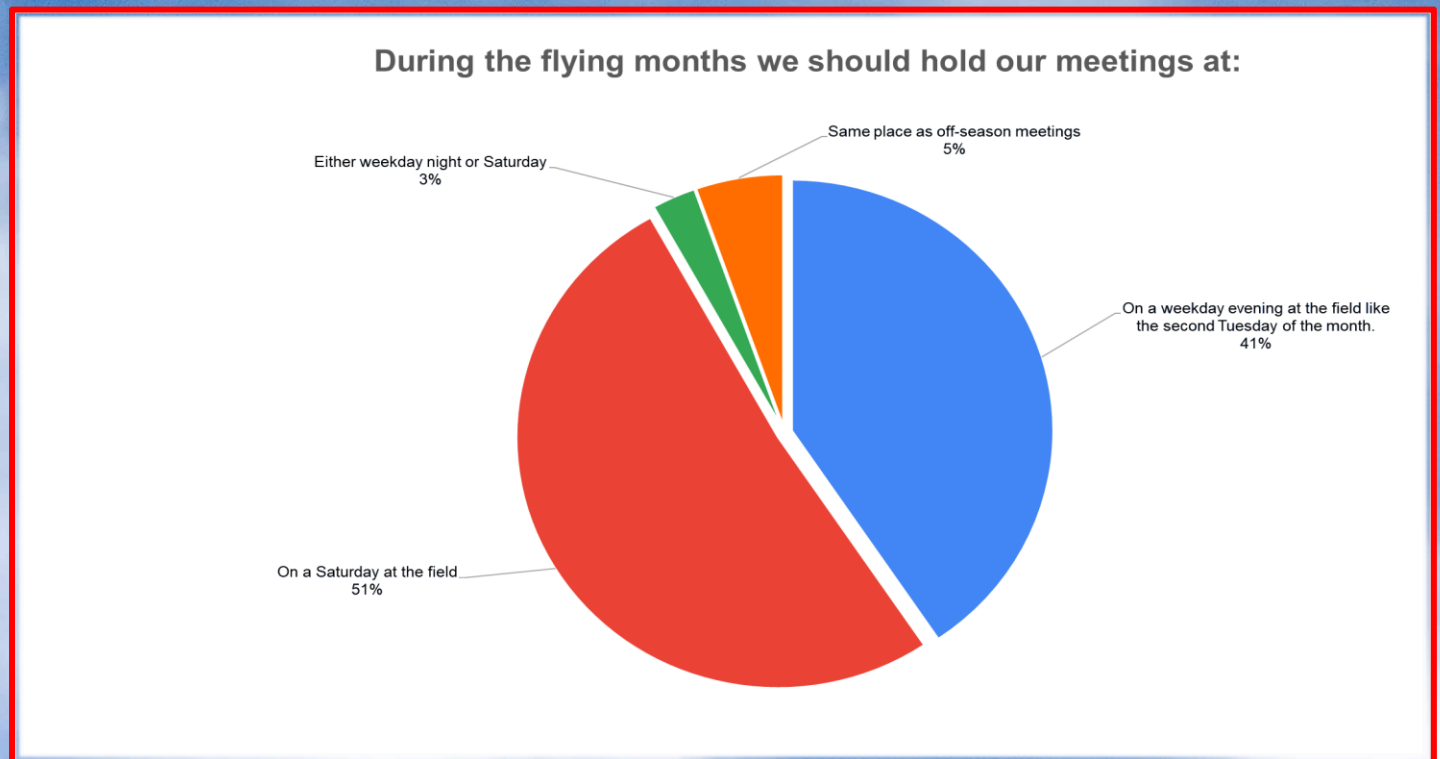
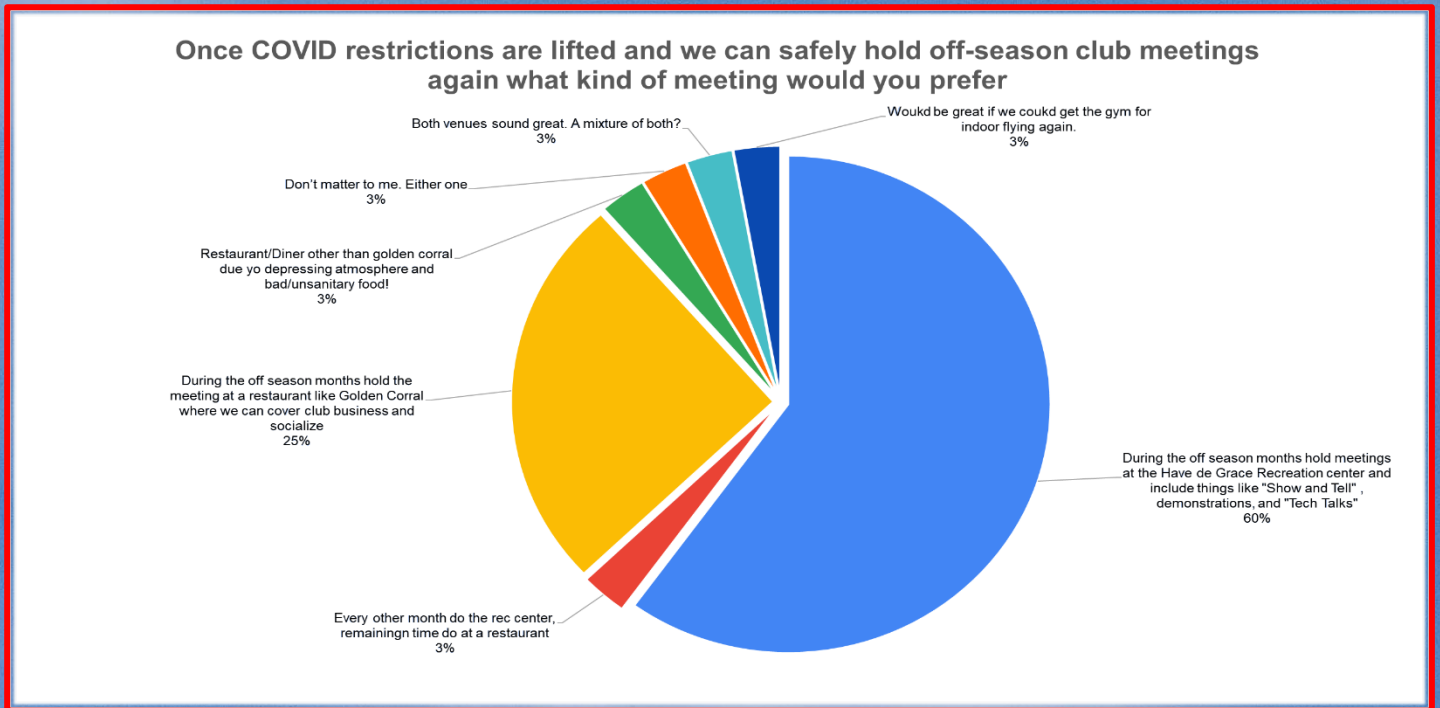
Spring Fly-in & Summer Meetings

Due to the current status of the Covid-19 virus in Maryland and the continuing CDC, State, and local guidance on holding events, the Board has decided it is in the best interest of club members and spectators to forego holding a 2021 spring fly-in event. We will keep reviewing this status with the hope to possibly hold an event in late summer or early fall.

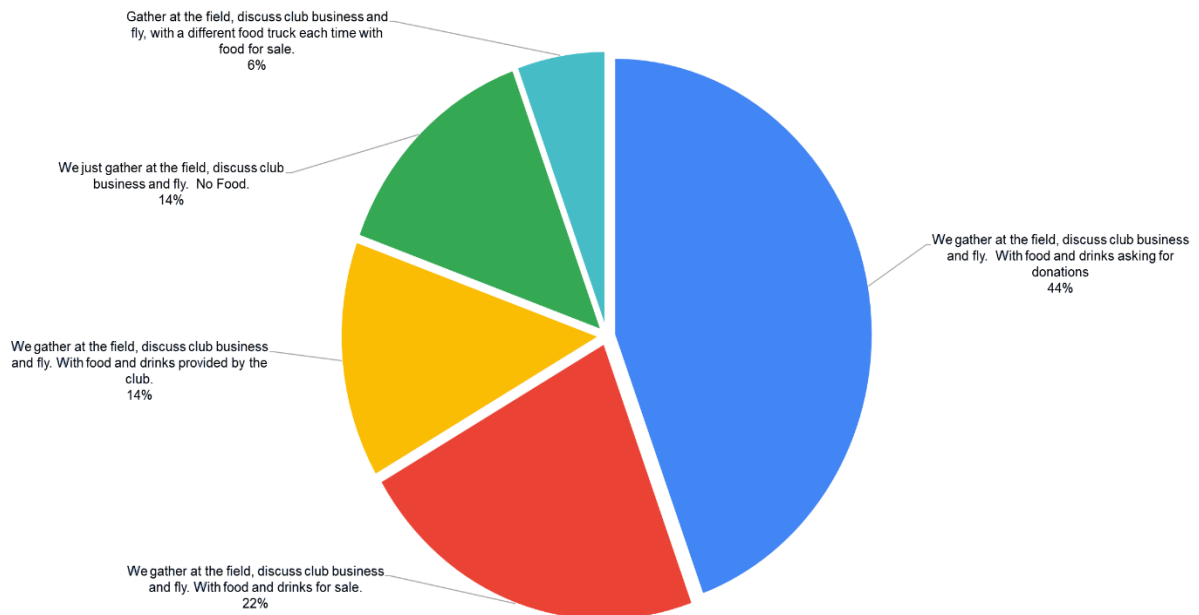
The same goes for holding in-person club meetings at the field during the summer or at the Havre De Grace Recreation facility in the fall and winter. The Board will continually stay informed of current guidance and will decide when it is acceptable to hold in-person meetings in the future.

2021 Member Survey & Responses

Earlier this year, Steve conducted a member survey and here are the results of the survey for your review. This is the raw unedited results from the survey.



What do you think the format of field meetings should be assuming we have them:



Any additional comments concerning meeting time and format: 9 responses.

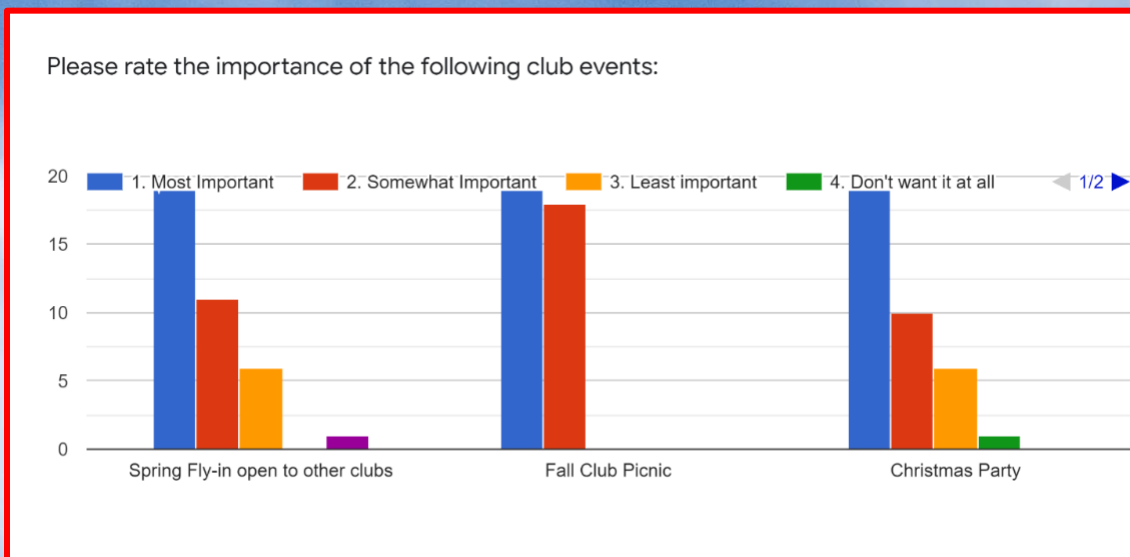
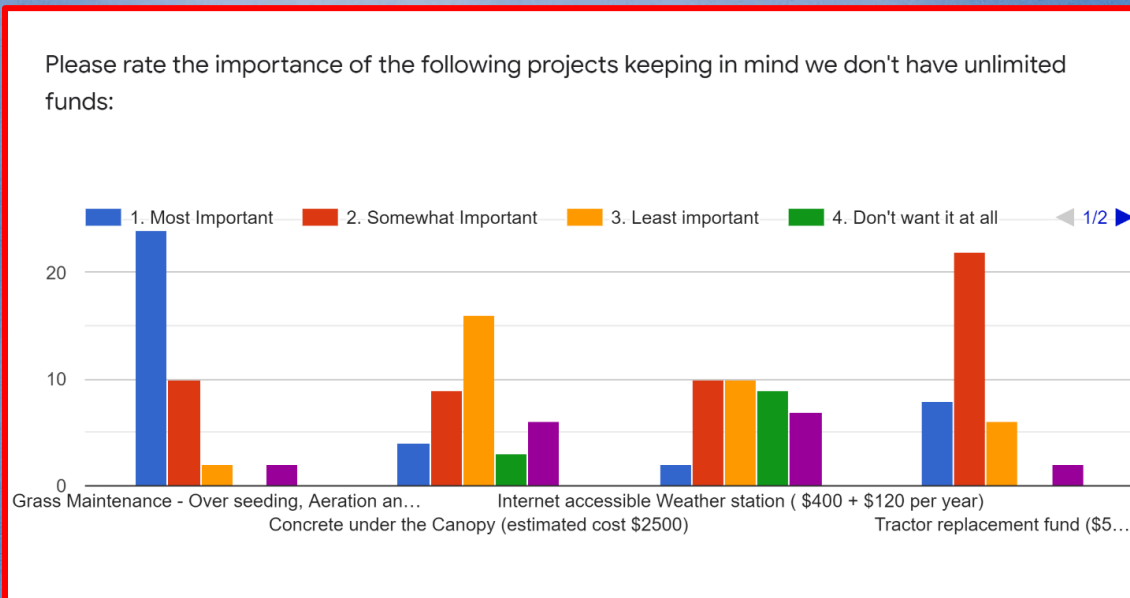
- **The best turnouts for club meetings are with food at the field. It is only \$80-90 for the food and if donations are accepted it would probably be half of that for the club to pick up.**
- **Na**
- **Any large purchases over \$500 to maybe \$1000 and up should be held for discussion and a vote. What happens at the field should be a club decision not one officer or the board's decision. This way everyone one has a say and feels included in being part of a club.**
- **Gather at the field discuss club business. Bring our own food and drinks.**
- **No meetings should be held at restaurants.**
- **None**
- **Closer to noon to accommodate food sale and to add funds to club.**
- **No**
- **I feel meeting cook outs should be donation and fly in food should be sold.**

What would help you to decide to attend some or all of the club meetings? 17 responses

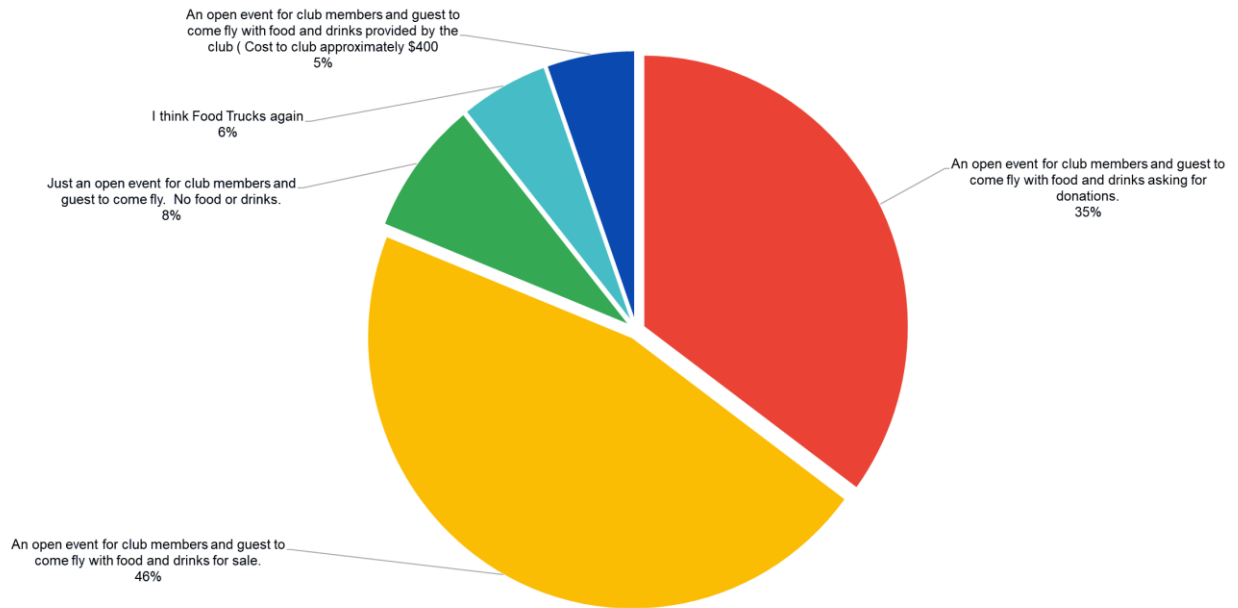
- **Have it during a weeknight evening.**
- **Mostly about day and time. I expect to be traveling a lot again soon so generally Monday is best for me after 1700.**
- **Saturday meetings I believe are the best.**
- **Time to many hobbies**
- **I can only attend on weekends.**
- **Food!**
- **Information about what is going on and what the board has been discussing.**
- **Just discuss club and no food**
- **Nothing needed.**
- **later times on Saturday**
- **Time and day**
- **less political conversation**
- **Food and socializing :-)**
- **Having them around noon on Saturday or Sunday**

Other projects you would like to see or comments on the above projects. 12 responses

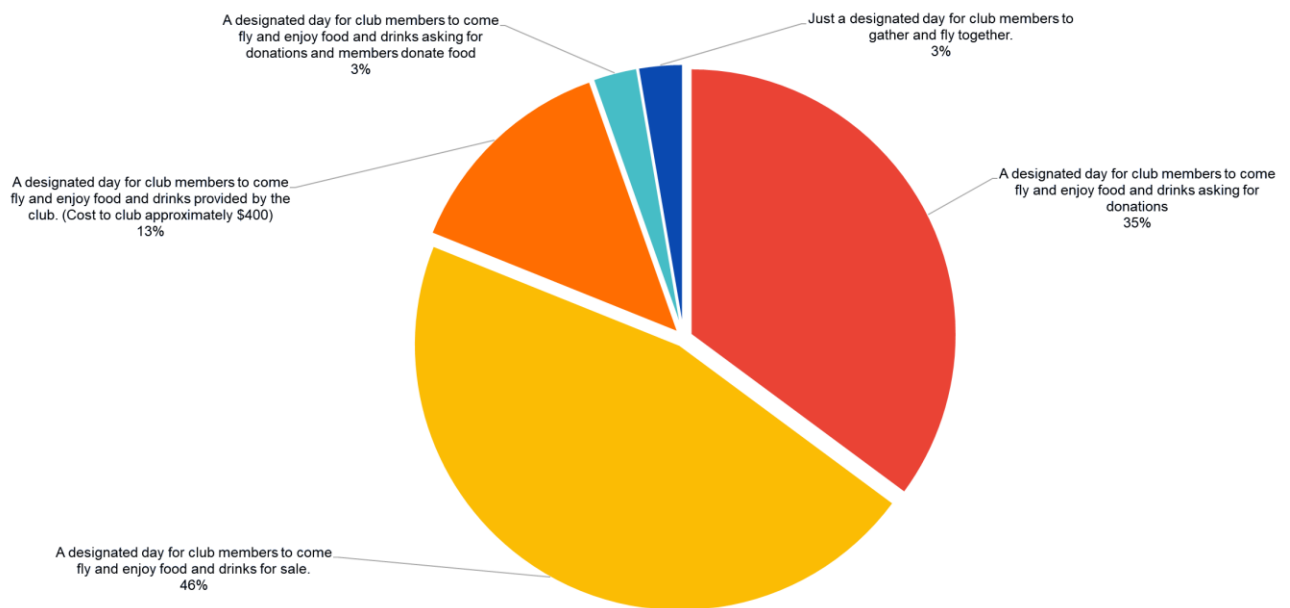
- *Regrade a primary grass runway of adequate width and length.*
- *Too new to really have an informed opinion yet.*
- *Internet at the field is a waste of money, everyone has a cell phone and if there is something that important that has to be found out they can look it up on their phone.*
- *Would love to expand the asphalt runway.*
- *Why do we need to waste money on internet? There is no use or reason. If it is only to have weather access, you can find that information on your phone easily. Cell reception is perfect at the field. This is a complete waste IMO.*
- *Would really like to have a paved runway or Geotex. Would allow for a whole set of new planes to fly.*
- *NA*
- *I feel the grass is most important for obvious reasons and that concrete should be priority as it will be a huge improvement and also that it is a one-time expense and will not have to be within the annual budget!*
- *Front entrance is not secure. People drive around.*



What do you think the format of Spring Fly-in should be assuming we have it:



What do you think the format of Fall Picnic should be assuming we have it:



Comments about club events, suggestions for new events or improvements to the format. 4 responses

- *Raffles like planes or 50/50 raffles may be a good way to generate some extra revenue for the club. A lot of clubs hold 50/50 drawings at every meeting, either way the club gets half the money.*
- *None*
- *NA*
- *I feel that the fly-ins should be more advertised as in Model Aviation mag and such for better turn out.*

General Comments and suggestions: 11 responses

- Thank you very much for putting out this questionnaire.
- The cost of the field maintenance is a lot of money, but we did need to get the weeds and grass under control. If the Aberdeen group pulls out is that extent of field maintenance still affordable? I feel the three annual group functions are excellent and should be continued. With all the mowers we now have is there a need for any replacements in the near future or are we looking three or four years down the road.
- I need 8 days in a week maybe I will catch up.
- How do we get Biden to stay in DC on the weekend? :o)
- I have heard about the possibility of replacing the fence at the field. There honesty is no reason to do so. The costs are in the thousands of dollars and that is a complete waste of money. Getting quotes for such a thing should not even be done since the club has other higher priorities and the fence currently serves its purpose just fine. I have seen throughout the years that many members just fly, and all the big decisions are made by the board or one person. This club should be about everyone and the fun of flying. It is a shame how political things have gotten recently at the field over the past years and honestly this is not what this hobby is about. Everyone should get along and respect each other, and that needs to be fairly applied to ALL members. Just my opinion honesty and I hope this brings some weight in your discussions.
- Would really like a non-grass runway!
- You are doing great work! Thanks!
- Love the electricity.
- I feel that concrete under pavilions and field maintenance should be priorities this year. The runway condition continues to improve and with covid still lingering maybe not have fly-ins this year. Instead use those saved expenses toward further improving the runway condition and concrete under pavilions for an even nicer spring fly in next year!!

FAA NOTAMS, TFRs, and Aircraft Safety Alerts

Please be advised that it is the responsibility of each individual member to read and adhere to each FAA NOTAM-TFR (temporary flight restriction) that impacts our field. An email will be sent out to all members when a NOTAM is issued by the FAA. The Board of Directors will not be policing the NOTAM advisories as it is your responsibility to adhere to it accordingly.

[TFR List](#) [TFR Map](#) [Map Airports](#) [TFR Help](#) [NOTAM SEARCH](#) [SUA](#)

NOTAM

Number : FDC 1/4560 [Download shapefiles](#)

Issue Date : April 23, 2021 at 0049 UTC

Location : Wilmington, Delaware

Beginning Date and Time : April 24, 2021 at 1530 UTC

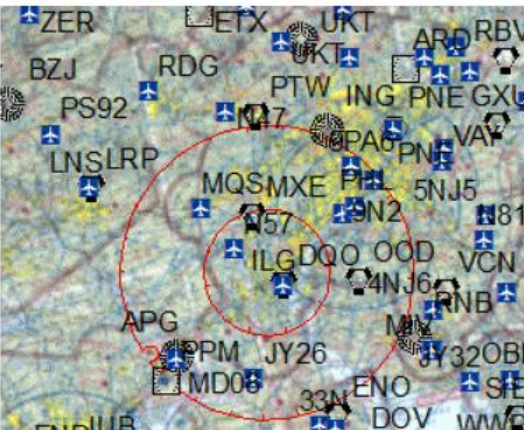
Ending Date and Time : April 26, 2021 at 0100 UTC

Reason for NOTAM : Temporary flight restrictions for VIP Movement

Type : VIP

Replaced NOTAM(s) : N/A

Jump To: [Affected Areas](#)
[Operating Restrictions and Requirements](#)
[Other Information](#)



FAA Recreational UAS Safety Test - FAQ

On February 22, 2021, the FAA released information regarding the next step of implementation of the Recreational Knowledge and Safety Test. This step also includes the application process for organizations interested in serving as test administrators for The Recreational UAS Safety Test (TRUST). See below for FAQs regarding the test:

Q: What is "TRUST"?

A: "TRUST" stands for The Recreational UAS Safety Test

Q: Why do I need to take TRUST?

A: The Knowledge and Safety Test is a congressional mandate in the FAA Reauthorization Act of 2018. All UAS users must pass the test in order to operate a recreational model aircraft (UAS) within the National Airspace System (NAS).

Q: I have a Part 107 Certificate; do I also need to complete TRUST?

A: Yes. There are no exemptions from taking the test, including for currently certificated pilots. Anyone flying recreational UAS is required to complete the test.

Q: Are youth under the age of 18 required to complete TRUST?

A: Yes. There are no exemptions from taking the test, including for minors. Youth can get assistance from an adult, if needed.

Q: How often do I need to take the test?

A: At this time, recreational operators only need to take the test once to comply.

Q: What will be on TRUST?

A: The test will have approximately 25 multiple-choice questions about basic safety guidelines and recreational flying knowledge that most AMA members likely already know. Early indications are that this test will be fail-proof and every recreational user will be able to complete and pass the test.

Q: Does TRUST cost anything?

A: No. Test administrators are prohibited from charging a fee, either directly or indirectly, to individuals taking the test.

Q: How will I know that I have passed TRUST and am able to fly my UAS?

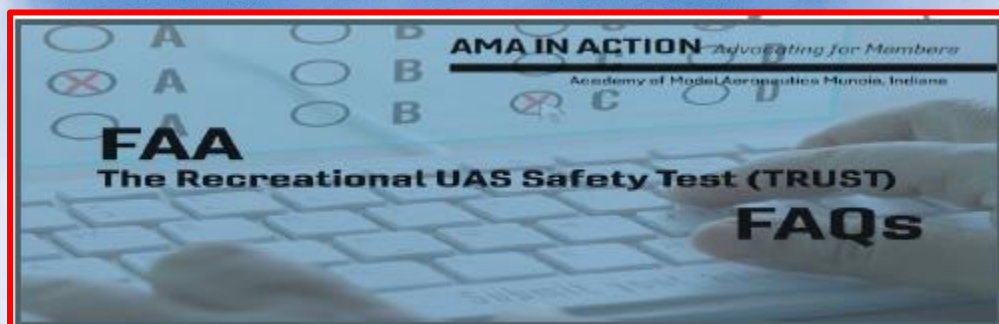
A: Once you complete and pass the test, your test administrator will provide you with a TRUST completion certificate that you can either print or save electronically. This certificate is proof of your compliance with the Reauthorization Act of 2018 and your passage of the test.

Q: Will TRUST affect my AMA membership benefits?

A: Proof of test completion will not be a requirement for AMA membership. However, each member affirms that they will follow AMA's safety code, including applicable laws and regulations, when he or she signs up to be a member.

Q: When will recreational users be required to take the test?

A: The FAA has not yet released dates regarding when the test will be available to users, but members should expect the testing requirement to be in place sometime in the second half of 2021.



Ed Sugg's Passing

Fellow club members: It is with a heavy heart that I tell you that one of our members, Ed Sugg, passed away suddenly on March 29, 2021. Ed has been a member of our club for several years. He loved model aviation and enjoyed being a member of our club. He was a good friend of mine and will be missed. I have attached a picture I took of Ed, along with Bob Bartell, for the August 2019 newsletter. Ed is pictured on the right.

Thanks, Ron.



Additionally, Ed's family has contacted me regarding the sale of Ed's RC planes and equipment. They will be gathering up his belongings and I will visit his home to see what is available for sale. As it stands right now it looks like we will be having a yard sale at the field on a chosen Saturday or Sunday in May as soon as the family is ready. We will send an email out to all members so that you can come and participate in the sale.

Thanks in advance for your assistance in the yard sale.

Tech Corner – LIPO Battery Internal Resistance & Balance Charging

Internal Resistance of LIPO Batteries - What is the Internal Resistance (IR) of a battery and why does it matter?

When a battery is made, the manufacturer designs the battery to have a specific voltage, amperage capacity, and amperage discharge rating (“C” rating). Most batteries also provide a constant and burst “C” rating (like 35C-45C). All the internal components of the battery are designed and tested to provide the best power delivery for the rated amperage capacity and voltage. However, over time the battery’s internal electrical components degrade and the battery does not perform as well as it once did when it was new.

This is where Internal Resistance comes into play. First, you will need a battery charger that can read and provide the IR of a battery. Note all batteries (LIPO, LIFE, A123, LION, NICAD, and NIMH) all have Internal Resistances and can be tracked with a qualified battery charger. If you plan to track the IR of your batteries, it is good to do so from the beginning, so you have a good starting baseline to monitor the life and degradation of the battery. Keeping a simple chart would also be helpful.

As the battery ages, its internal components and ability to retain and discharge its stored capacity changes and degrades. The best way to monitor the degradation of the battery is to monitor the IR of each cell in the battery (or the battery’s IR if the individual cells cannot be monitored like that of a NICAD/NIMH 4 or 8 cell battery pack).

Let us look at an example of a 3S LIPO battery pack and compare the IR readings of its cells over 3 readings to see how the IR degradation can be monitored and catch a failing battery pack:

Internal Resistance Chart

Day 1	Cell 1: IR = 10	Cell 2: IR = 10	Cell 3: IR = 12
Year 2	Cell 1: IR = 10	Cell 2: IR = 12	Cell 3: IR = 13
Year 3	Cell 1: IR = 10	Cell 2: IR = 12	Cell 3: IR = 21

Note that in year 3, the IR for **Cell 3** has jumped to 21. This is a good indication that the battery has degraded and is likely to fail. The battery case may swell which is a physical sign of the battery beginning to fail and it is time to think about replacing this battery. You should take IR readings on a regular basis weekly, monthly, semi-annually, or yearly whichever interval fits best into your routine if you decide to do this maintenance.

Here are some basic IR rules of thumb to rate the health of your batteries:

- **IR values of 1-10 are GREAT**
- **IR values of 11-15 are GOOD**
- **IR values of 15-20 are POOR**
- **IR values over 20 are BAD and the battery should be replaced**

Monitoring Internal Resistance and Balance Charging – the Dynamic Duo:

Monitoring the Internal Resistance of a battery pack's cells goes hand in hand with balance charging the battery and monitoring each of the battery's individual cell voltages. All multi-cell Lithium batteries should be balance charged on every charge cycle. This will help to ensure and guard against the following:

#1 Reason: Balance charging multi-cell battery packs helps keep any one cell from getting over charged, getting hot, swelling up, and possibly catching fire or exploding. The charging process is probably the most vulnerable time period for a battery to fail, catch fire, or explode. It is critical to set up the correct charge settings and charge rates for the type of battery (LIFE, LIPO, A123, NICAD, NIMH) you are charging.

- **Note the charger will do its best to monitor and keep each cell's voltage as close as possible to each other before the charging process is complete. Not all chargers complete the balance charge function the same. Most chargers do not fully complete the balancing of the battery's cells until the last phase of the balance charge cycle. So, if you stop the balance charge process before the cycle is done, the battery pack may not be getting perfectly balanced.**
- **Monitoring the IR of a battery's cells can help detect any potential problems about to occur like in the 1st example. As shown in the chart above, cell 3 has the potential for not accepting a charge properly, failing during the charge cycle, and catching fire and exploding.**
- **Also, it is best not to fly your airplane constantly at full throttle or beyond the discharge capacity of the battery as this will eventually cause the battery to heat up, swell or puff up, and degrade prematurely.**
- **If you find that your charger is not perfectly balancing your batteries when the balance charge cycle is complete, then there are several possible reasons for this:**
 - **#1 Reason: Your charger's settings may not be configured properly to do balance charging, in which case, you should double check the charger's settings and make sure it is set up correctly.**

- *Check the IR of the battery to see if any cell is out of line and may be failing.*
- *If you own an RC Battery Voltage Checker/Balancer, try to balance the battery pack manually. Put it back on the charger and discharge it a little bit, then start the balance charge process over to see if that helps.*
- *Try balance charging the battery on another charger to see if the current charger may be faulty, in which case, that charger should be replaced before an unwanted mishap occurs.*
- *If all else fails and you cannot determine why it is not working correctly, check with another flyer at the field. Maybe they can provide some assistance and insight as to what may be going wrong.*

Club Pics

Tom Insley - Grand Tundra "In the Snow"



Ron Moyer - Aeronca C3



Dan Seldomridge - Waco



Dan Seldomridge - Twin Otter



Dan Seldomridge – E-flite T28



Bob Walker – Air Tractor



Tom Insley submitted this image capture off his TV of a missile launch at Wallops Island 2-20-21



Lewis Fillinger's Dad

This picture was submitted by Dale of Lewis Fillinger's dad, Earl (left), and his best friend, Stuart Mitchell (right), in 1953 at the Presideo, San Francisco, California. The picture was taken outside his grandfather's quarters where he was a Colonel in the Army. His "Mustangs" RC plane had an 8'6" wingspan. Lewis's brother was also involved in flying and was the manager at an airport from 1981 through 1985...



FAA Remote ID - Reminder

On December 29, 2020, Steve sent out the following FAA Remote ID summary to help simplify and explain to our membership how it will apply to their RC flying going forward.

Fellow Club Members,

Yesterday the FAA released the final “Remote Identification of Unmanned Aircraft” document. I have listened to several Pod Casts, including one by the AMA on this subject and basically the information that follows is what I believe this document from the FAA says and how it affects us.

Basically, if you are operating an Unmanned Aircraft System (UAS) all be it a drone, helicopter or fixed wing airplane within the confines of our field you WILL NOT be affected by this ruling and have nothing further you need to do. Let me say this one more time, if you fly at our field, you just keep flying the same safe way following AMA and club rules like you always have. This is great news, and my hat goes off to the AMA for protecting our rights as model aviation hobbyist.

If you fly outside of our field (your backyard for example) you will have to comply with other aspects of the Remote ID ruling. Below I will try to provide a summary of the Remote ID ruling.

There are 3 classifications described in the Remote ID document:

- **Standard Remote ID** – This applies to manufactures of UAS that are 100% complete and ready to fly right out of the box like a DJI Mavic. Manufacturers will have 18 months to incorporate a Remote ID module into their aircraft weighing over 0.55 pounds that will broadcast flight data such as location, air speed, altitude and an identifying ID.
- **Remote ID Module** – This option is for existing UAS operating outside a FAA-recognized identification area (FRIE). In other words, flying my existing drone, helicopter or airplane in my backyard or local park. In this case operators will have 2.5 years to comply. Basically, you will need to purchase a Remote ID module and install it in your aircraft. They anticipate this module being the size of a small receiver and costing between \$20 and \$50. Basically, this is how you can legally operate your existing aircraft at someplace other than our field.

- **FAA-recognized identification area (FRIA):** Basically, this is the category most of us fall into. We will register our flying field with the FAA, then any aircraft operating within the confines of our field is exempt from having a Remote ID. You will still need your FAA registration and you will need to affix the FAA number to your aircraft, but you will not be required to have a remote ID module broadcasting your flight information. We will have up to 2.5 years to complete the registration of our field as a FRIA. This registration will have to be renewed every 2 years. The AMA anticipates coordinating this registration process much like they did with the Letter of Agreement (LOA) between us and Phillips Airfield.

Like anything with government regulations there are a lot more details but what I tried to do was provide a quick overview of the salient information.

Thanks, and Happy Flying, Steve

General Information:

Membership Dues Policy

To pay your club dues for the season, either as a renewing member or a new member, please forward them to Steve Snyder, Treasurer. As you all know we depend on our dues to fund projects and general maintenance for our club.

Existing Annual Membership Renewals:

- **Annual renewal membership fee:** \$75.00
- **Renewal period:** 1/1/YR thru 3/31/YEAR
- **Payment is due by:** 3/31/YEAR)

New Membership Dues:

- **Full year new membership fee:** \$125.00
- **Joining period:** 1/1/YR thru 12/31/YEAR
 - **Fee Includes:**
 - \$75.00 annual membership fee
 - \$50.00 1st year initiation fee

- **Note new members joining the club on 9/1/YR or after of that same year are considered paid in full for the current year and the immediately following year. The reason for this exception is that the current flying season is about 75% over and we want to give new members an incentive to join our club.**

What are Members Working On: Building a new aircraft, assembling an ARF, working on an old reliable? We would love to hear what you are working on. Send us some information and a couple pics of your project and we will post it in the monthly newsletter. Send your emails to: ronlazzeri@verizon.net.

Newsletter: To receive the Swan Harbor RC Newsletter by email, please send a request to: sslotnick@mac.com.

Photos: Anyone who would like to have new photos appear in the slideshow or the photo gallery is encouraged to send their photos to Stephen Slotnick at sslotnick@mac.com and he will add them as soon as he can.

Interest in Joining the Club: Please see the instructions on the Swan Harbor RC website www.SwanHarborRC.com under the heading "How to Join." Additional membership information or questions can be obtained from Steve Snyder at (443) 243-4324 or email: snyder800@gmail.com.

Harford County's No Smoking Policy on County Property: We follow all county rules and regulations and ask for your cooperation. Thank You!

