



# *The Dead Stick Flyer*

*Newsletter of Swan Harbor RC*

*Volume 30, Number 3, March 2019*

[www.swanharborrc.com](http://www.swanharborrc.com)



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*Treasurer: Steve Snyder (410) 638-2895*

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*Member at Large: Dale Davis (410) 459-0399*

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*Member at Large: Stephen Slotnick (908) 403-0273*

*Member at Large: Jae Jang (443) 910-2439*

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## Dale Davis Birthday

*At Saturday's club meeting we celebrated Dale's birthday with some birthday cake slices. He made a wish and blew out the candles. Dale's birthday was on March 14<sup>th</sup>.  
Happy Birthday Dale!!*



## Spring 2019 Fun Fly Event

*The Club Spring Fun Fly will be held on Saturday, June 8, 2019 starting at 10am. The rain date is Saturday June 15, 2019.*

*There will be food and fixings like last year. Other area flying clubs are invited to attend as usual.*



*Swan Harbor RC Club*  
Invites you to their  
**Club Spring fly-In**

June 8 – 10am

Rain Date – June 15

**- Food & Facilities Available**

Come out to enjoy and learn about the World of Radio Control Flying.  
All RC pilots are WELCOME...



For further information call –  
410-638-2895 or 410-838-6261

## **President's Club Meeting & Discussion Topics**

*The Meeting was held on Saturday, March 16, 2019 at the Golden Corral Restaurant*

- **Old Business:**
  - *None – we are all caught up*
  
- **New Business:**
  - **Lawn Mowers:** *The mowers are ready to go for the upcoming season. Over the weekend of March 16-17, 2019, Gary and Chris changed the oil & filters and put new blades on the mowers. All that is needed now is warm weather and a reasonable amount of rain this year.*
  
  - **Weed-N-Feed:** *The field has been treated with Weed-N-Feed to begin the season. Gary and Chris completed this chore over the same weekend.*
  
  - **Electricity:** *As stated in prior newsletters and meetings, the electric at the field is active and ready for use. There have been many flyers out at the field already since it was installed in December/January. This will certainly be a great asset for our club. Dale is getting ready to stock the fridge with snacks and get the coffee pot ready to brew us a hot cup of Java. Having electric in the shed and at each canopy will be a tremendous help for whatever we need to do.....charge batteries, cook, do maintenance, etc.*
  
  - **“Revised” Membership Dues Policy:** *The Board and members that attended the meeting, discussed and came to an agreement, on a revised set of policies for membership dues and proof of credentials for the AMA & FAA memberships. Please review the new Membership Dues Policy and help our club abide by these policies. Everyone can be an essential part of its success. Please refer to the section below on “Membership Dues Policy”. Returning membership dues need to be paid by the end of March 2019.*
  
- **Treasurer Report:** *Submitted by Steve Snyder*

## **Membership Dues Policy “Revised March 2019”: PLEASE READ!!**

At the March 16<sup>th</sup> club meeting, the Board and attending members discussed our current club's Membership Dues Policy and came to an agreement on a new set of guidelines to make it clear and fair for all members, new and existing. The following Membership Dues Policy was agreed upon and adopted.

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/YR (Payment is due by 3/31/19)
  - **Grace period is for 2019 only:** 4/1/19 thru 4/15/19
- ***If a member's renewal dues are not paid in full by 4/15/19, then that member is considered to be in default. If that member wants to join the club after 4/15/19, then that member is required to pay at the full new member rate. The member in default will not be permitted to fly at the field after 4/15/19 until their membership dues are paid in full. There will not be a Grace Period in 2020 and thereafter.***
- ***Note: All members are urged to pay their renewal fee as early as possible during the renewal period since club expenses are budgeted and paid based on membership fee receipts.***

### **New Membership Dues:**

- **Full year membership fee:** \$125.00
  - **Joining period:** 1/1/YR thru 12/31/YR
    - **Fee Includes:**
      - \$75.00 annual membership fee
      - \$50.00 1<sup>st</sup> 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.***

### **AMA & FAA Membership Requirements:**

***In an effort to ensure our club's compliance with AMA and FAA rules and regulations we are requiring that all members, whether a new member or an existing member renewal, the following documents are required to be submitted to Steve Snyder when dues are paid:***

- ***Swan Harbor RC Membership Form***
  - ***The form can be found on the Swan Harbor RC website***
- ***Proof of AMA & FAA membership***
  - ***Provide a copy of each membership's email or registration card***
  - ***The copy must include the registration number***

**Note: If any member sees an unknown person flying at the field, you should ask the flyer if they have a current membership card. If they say they do not, then ask them if they would like information on how to join. Explain that membership is a requirement for flying at the field.**



**Club Photo Gallery:**

***Bob Walker's pics:***

***Larry and his Rebel Jet***



***Jae, Tom, and Ron selling some RC stuff at the Lebanon Flea Market. Jae and Tom sold a good bit of their RC goods.***

***Darryl at the Lebanon Flea Market.***



## **Tech Corner:**

### **Lithium Battery Charging & Maintenance:** by Ron Lazzeri

*With all of the different Lithium battery chemistry types and charging equipment on the market today, I thought it would be good to write an article describing some general guidelines for the safe handling, charging, and storage maintenance of the various batteries.*

*This can be a very complicated topic to discuss with a lot technical details to observe and follow, but I will make this article easy to read and easy to follow for 3 of the most used RC batteries today. It will, however, take some thought and preparation on the user's part to be successful.*

*Note: Going forward "V" stands for Voltage*

- **Battery chemistry types:**
  - *LiPo (Lithium Polymer)*
  - *A123 & LIFE*
  - *Lilo (Lithium Ion)*
  
- **Standard battery voltage parameters per cell:**

	<i>LiPo</i>	<i>A123/LiFe</i>	<i>Lilo</i>
<b>Nominal Rated Voltage</b>	<b>3.7v</b>	<b>3.3v</b>	<b>3.6v</b>
<b>Maximum Charging Voltage</b>	<b>4.2v</b>	<b>3.6v</b>	<b>4.1v</b>
<b>Storage Voltage</b>	<b>3.8v</b>	<b>3.3v</b>	<b>3.7v</b>
<b>Minimum Discharging Voltages</b>	<b>3 - 3.3v</b>	<b>2.6 – 2.9v</b>	<b>2.9 – 3.2v</b>

- **Battery Pack Amperages (MAH) and Voltages (DC):**
  - **Battery Cells:** *all of the battery types listed above can be purchased in various amperage and voltage configurations. The batteries can be found in single or multiple cell configurations from 1 to 6 cells commonly known and packaged as:*
    - *1S: single cell,      2S: two cells,      3S: three cell*
    - *4S: four cells,      5S: five cells,      6S: six cells*

- **Battery Voltages:** each of the configurations above determine the nominal voltage of a battery pack. With each cell addition to the pack, the voltage increases by the nominal voltage of the individual cell.

- **Example:**

- 1S LiPo = 3.7v (1 x 3.7v)
- 2S LiPo = 7.4v (2 x 3.7v)
- 3S LiPo = 11.1v (3 x 3.7v)
- 4S LiPo = 14.8v (4 x 3.7v)
- 5S LiPo = 18.5v (5 x 3.7v)
- 6S LiPo = 22.2v (6 x 3.7v)

- **Battery Pack Amperages:** battery packs will be configured with a certain amperage capacity rating like 1400mah, 2200mah, or 3800mah, etc. The packs will also be given a certain charge and discharge rating known as the “C” rating. The “C” stands for the capacity rating or the overall ability of a battery to accept or discharge a certain amount of amperage per the batteries voltage rating.

- **Battery charging MAH/AMP rating:**

- A battery will be given a charging rating which is the charging amperage rate you should configure in your charger to safely charge the battery. Could be 0.5mah, 1.0amp, or higher.
- A battery’s charging rating is calculated as follows:
  - **Battery capacity / 1000 = 1C Rating**
    - Example 2200mah / 1000 = 2.2C (1C rating)
    - To calculate a higher C rating like a 2C rating you would multiply the 1C rating x 2 = 4.4C. Higher C calculations would be calculated the same way for 3C, 4C, 5C, etc.
    - The battery manufacturer should provide on the battery the safe charging C rating but if they don’t, 1C is a good rule to follow.

- **Battery Discharging MAH/AMP Rating:**

- The manufacturer should provide on the battery pack the discharge rating or capacity of the battery like 35-90C. This will enable you to properly match the battery discharge power capabilities to the power requirements of your plane, quad copter or car.
- The first number, 35C, is the normal sustained power discharge capabilities for the battery during its overall use.

- *The second number, 90C, is the burst power discharge capabilities of the battery but only for a short duration. If you need to climb and consume a lot of power in a short period of time, this rating will indicate how this battery should perform under these circumstances.*

- **Charging/Discharging Batteries:**

- *The process of Charging Lithium batteries is not that complicated. Here are some important tips for the proper charging of the battery types.*
  - *The most important tip is make sure your charger has the capability of charging the battery type or chemistry you need to charge. This is very important because selecting the correct battery type means you are selecting the correct charging and cut-off voltage for the battery and will ensure the charger does not over-charge the battery, causing damage and/or an explosive fire.*
    - *For example, your charger should have the capability of charging LiPo, A123/LiFe, and Lilo batteries and have the following charging functions like charge, balance charge, fast charge, storage charge and discharge. Additionally, the charger will have the ability to charge NiCD/NiMH batteries as well.*
  - *Before charging your batteries, you must be sure to select the appropriate battery type before connecting your battery to your charger. Next, while in the charger's battery configuration mode, you will need to verify or change the amperage rate, voltage, capacity, and whether you want to charge, balance charge, fast charge, storage charge, or discharge the battery. This will tell the charger exactly what you want to do. If you accurately select the correct battery type and have a current charger with the current battery chemistry configurations built in, it will handle all the voltage parameters for you.*
    - *Charge Function: this mode is a straight charging of the battery at the maximum charge voltage to arrive at the correct nominal battery voltage. This function does not determine if each cell is being charged correctly and could end up with one or more cells being over/under charged. The charger is only connected to the battery power lead.*



- **Balance Charge:** *this mode is a charge function that monitors each cell by using the balance lead on the battery. The power lead and the balance lead of the battery is connected to the charger. The charger will monitor and work to keep all cells at the same voltage by discharging any cell that is out of line with the others until they are all at the same voltage levels before the full charge process ends. This is by far the best way to charge Lithium batteries for safety, long term health of the battery and maximum performance with all cells at their peak voltage.*
- **Fast Charge:** *this mode is similar to the charge function except that it is done at a much higher amperage rate. This function is usually used when you are pressed for time and need the battery up to full amperage/voltage ASAP. This should be the exception charge rule and not your everyday rule. It will eventually wear your battery down if not handled correctly.*
- **Storage Charge:** *this mode is an automatic function to be used whenever you will not be using your batteries for 2 months or more. This function will get the battery to 70% charge level so the battery can be safely and optimally stored for a period of time. Generally, Lithium Polymer batteries do not hold up well long term by being stored at full charge. Both power and balance leads are connected to the charger.*
- **Discharge:** *this mode will discharge the battery down to each cells lowest permissible voltage level so you can then charge it back up and check on the health of the battery. It will tell you how much MAH capacity it took to discharge and charge it back up providing you an indication of the remaining battery capacity. Both power and balance leads are connected to the charger.*

▪ **Physical Storage of LiPo Batteries:**

*It is a good practice to store LiPo batteries in a fire proof container like a metal ammo case, an approved LiPo charging bag or box. LiPo batteries are the most vulnerable of all the Lithium batteries you will use so it is wise to safeguard your home, your car/trailer, or anywhere you store these batteries.*

**RC Vendor listing:** by Ron Lazzeri

*If you have a "Vendor" that you use and would like to add it to our RC Vendor Listing and share it with other members, please send me an email with the details and I will add it to the list. Sharing this information will help new & old members alike. Thank You... ronlazzeri@verizon.net*

<b>Hobby King</b>	<a href="http://www.hobbyking.com"><u>www.hobbyking.com</u></a>
<b>Redwing RC</b>	<a href="http://www.redwingrc.com"><u>www.redwingrc.com</u></a>
<b>Hansen Hobbies</b>	<a href="http://www.hansenhobbies.com"><u>www.hansenhobbies.com</u></a>
<b>Pulse Batteries</b>	<a href="http://www.pulsebattery.com"><u>www.pulsebattery.com</u></a>
<b>Electrodynamics RC</b>	<a href="http://www.electrodynam.com"><u>www.electrodynam.com</u></a>
<b>Valley View RC</b>	<a href="http://www.valleyviewrc.com"><u>www.valleyviewrc.com</u></a>
<b>RC Extreme Power</b>	<a href="http://www.rcextremepower.net"><u>www.rcextremepower.net</u></a>
<b>Aircraft International</b>	<a href="http://www.aircraftinternational.com"><u>www.aircraftinternational.com</u></a>
<b>Tower Hobbies</b>	<a href="http://www.towerhobbies.com"><u>www.towerhobbies.com</u></a>
<b>Sullivan Products</b>	<a href="http://www.sullivanproducts.com"><u>www.sullivanproducts.com</u></a>
<b>Motion RC</b>	<a href="http://www.motionrc.com"><u>www.motionrc.com</u></a>
<b>Revolectrix</b>	<a href="http://www.revolectrix.com"><u>www.revolectrix.com</u></a>
<b>Fromeco Scale Avionics</b>	<a href="http://www.fromeco-scale-avionics-llc.myshopify.com"><u>www.fromeco-scale-avionics-llc.myshopify.com</u></a>
<b>Horizon Hobby</b>	<a href="http://www.horizonhobby.com"><u>www.horizonhobby.com</u></a>
<b>Tail Dragger RC</b>	<a href="http://www.taildraggerrc.com"><u>www.taildraggerrc.com</u></a>
<b>Sonic-Tronics Inc.</b>	<a href="http://www.sonictronics.com"><u>www.sonictronics.com</u></a>
<b>B&amp;B Specialties</b>	<a href="http://www.bennettbuilt.com"><u>www.bennettbuilt.com</u></a>
<b>Falcon Propellers</b>	<a href="http://www.falconpropellers.com"><u>www.falconpropellers.com</u></a>
<b>Chief Aircraft</b>	<a href="http://www.cheifaircraft.com"><u>www.cheifaircraft.com</u></a>
<b>Wrong Way RC</b>	<a href="http://www.wrongwayrc.com"><u>www.wrongwayrc.com</u></a>
<b>NoBS Batteries</b>	<a href="http://www.hangtimes.com"><u>www.hangtimes.com</u></a>

**RC Extreme Hobbies**     [www.xtremerchobby.com](http://www.xtremerchobby.com)

*Note: The Musser's hobby shop has been downsized and is now a combination of outdoor hunting, fishing, and RC products store. The website will eventually be renamed to the new store's name.*

**35 Friendly Drive • Quarryville, PA 17566**

**Phone: (717) 284-0164**

**Email: [info@xtremerchobby.com](mailto:info@xtremerchobby.com)**

**Hours: Sunday 10AM-6PM**

**Monday-Saturday: 10AM-8PM (except holidays)**

**Radio Control Hobbies**     [www.rc-hobbies.com/baltimorenorth](http://www.rc-hobbies.com/baltimorenorth)

**1512 York Road, Lutherville, MD 21093**

**Tel: 410-376-7076**

**Email: [BaltimoreNorth@rc-hobbies.com](mailto:BaltimoreNorth@rc-hobbies.com)**

**Hours: Mon-Friday 11:00am - 7:00pm**

**Saturday 10:00am - 6:00pm**

**Sunday 11:00pm - 4:00pm**

### **April Club Meeting:**

*The next club meeting will be held on Saturday, April 13, 2019 from 10:00am-12:00pm at the Golden Corral restaurant located on Route 40 in Aberdeen, MD. Members are urged to attend and participate in the meeting discussions and planning for the club.*

### **Indoor Flying Cancelled for Remainder of the Winter Season:**

*To all Members: We have been notified by HDG Parks & Recreation that the gym is no longer available during the times we wanted to fly. Unfortunately that means that all indoor flying is cancelled for the remainder of the season.*

## **Club Meeting Schedule**

- **January thru April and October thru November:**
  - **Monthly club meetings will now be held at the Golden Corral in Aberdeen, MD on Route 40 on the 2<sup>nd</sup> Saturday of each month 10:00am-12:00pm. We will be meeting in one of the small dining rooms and enjoy their full breakfast buffet.**
- **May thru September:**
  - **Monthly club meetings and a cookout will be held at the Swan Harbor RC flying field on the 2<sup>nd</sup> Saturday of each month starting at 10am. The Fall Club Picnic will be held on the same day as the September club meeting.**
- **December:**
  - **The December club meeting will be held at the annual Christmas Party. Details of this event will be made available in advance of the party.**

## **General Information**

**Protection from the Sun:** The nature of our great RC Hobby dictates that we are out in the sun while we fly our aircraft. We need to be mindful and diligent about taking care of ourselves against the harmful rays of the sun. It is very important to apply sunscreen and wear hats to protect our heads, necks and faces from sunburn and the problems that can cause down the road. Just friendly words of advice for our members.

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

**Newsletter:** To receive the Swan Harbor RC Newsletter by email, please send a request to: [sslotnick@mac.com](mailto: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](mailto: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](http://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](mailto:snyder800@gmail.com).