

February 2007

AMA #197 / IAMA687

Glitch Busters

Delaware R/C Club, WWW.Delawarerc.org



Next Club Meeting: February 6, 2007

- Location: Wm Penn High School Cafeteria 2
- Raffle Early renewal drawing
- Program Topic: TBA
- Next Club Event
Early Renewal Drawing Feb 6th

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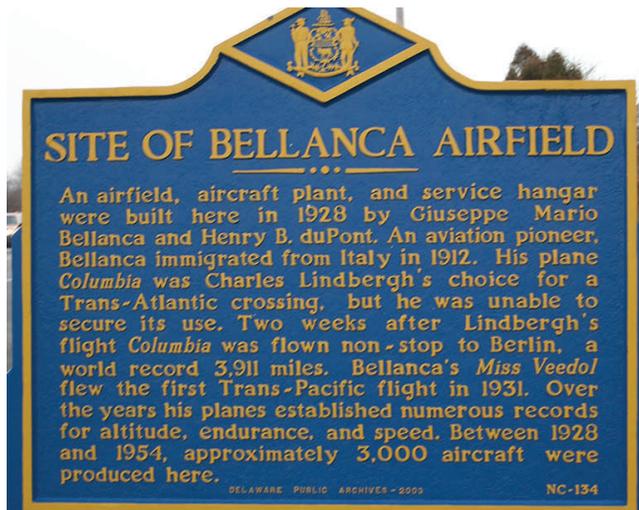
Delaware RC Welcomes New Members:
Taylor Fiederlein, Elena Zerfus, Scott Foster, Joe Sowiak and (welcome back) Kerry Stanley

Dick Stewart's Mr. Mulligan to Hang in Museum

Friends of Bellanca Airfield, Inc. are restoring the historic hangar at the Bellanca Site (part of Delaware's golden age of aviation - 1928 to 1954). Approximately 3000 aircraft were produced at this location. Until the museum is completed, "Mr. Mulligan" will be on display in the New Castle Library atrium.



Dick Stewart donates his 1/4 scale model airplane "Mr. Mulligan" to the Bellanca Airfield Museum.



Early Renewal Drawing at February Meeting

The first meeting of 2007 will be on Tuesday, Feb. 6th. Membership dues paid before the meeting will enter the member in the **Early Renewal Drawing**. Since we didn't have a January meeting, the dues renewal date has been delayed to accommodate those who wish to pay in

person.

Prizes for this year's drawing are a **Thunder Tiger .61** pro engine, a 10 ft. sq. **Pop-Up tent** and a Great Planes **SE 5 electric ARF** airplane..

The prizes will be awarded in the order drawn, with the win-

ners who are present getting the choice of the prizes.

Prizes for winners not in attendance will be distributed in order of their value.

Come to the meeting! You have a chance to bring home a nice prize!

The Third Annual
**Southeastern Keystone
 State
 R/C Sale and Auction**

Sponsored by Cloud Kings R/C Club
 AMA Chartered Club # 579, Oxford, Pennsylvania

SATURDAY, FEBRUARY 10TH 2007

The Oxford Red Men Pavilion
 114 Brick Road
 Oxford, PA

One mile south of Oxford, off route 472
 Setup starts at 8 AM, doors open at 9 AM
 Auction starts at 11 AM
 Tables + one admission \$15 each; admission \$5, under 12
 free

Local Vendors
Raffles and Door Prizes
Food and Beverages Available
Ample Parking Onsite

For pre-registration and tables call Dick Plyler 610-268-
 2156

*"NEVER allow
 any lithium type
 cell of any kind to
 be charged
 unattended"*

Lithium Ion & Lithium Ion Polymer Safety and Instructions

1. NEVER allow any lithium type cell of any kind to be charged unattended. Remove the pack from the model/device and charge it in a fireproof container such as a baking dish placed on a fireproof surface such as the ground or cement, well away from flammables.

Fires from Improperly charged and failed Lithium packs are well documented. It is possible that you may do everything correctly and still be subjected to a cell failure which could result in a fire. It is possible you may make an error in charging or may charge an out of balance pack unaware. It is possible your charger will fail you. Leave nothing to chance when handling lithium cells of ANY type.

2. ONLY use proven lithium Ion and Lithium Ion Polymer chargers to charge these cells. If you elect to use your Super Nova, your Super Turbo or any other non-lithium charger on a lithium pack you are going to ruin your pack. It is possible you'll cause an explosion or bursting of the cell housing, it is possible you'll also start a fire. Buy a charger with a good reputation that is designed for your application. Lithium warnings are REAL.

3. NEVER combine different brands or ratings of cells in packs.

If you put two different capacity or brands of cells together in a pack, the weaker or lower capacity cell will become fully charged (when charging as a multi cell pack) prior to the larger or stronger cell(s). The cut-off voltage will still not be reached because one cell is not full, the weaker cell will be overcharged while the charger tries to force the pack up to full voltage. This will result in a failure and destruction of the pack and possible fire.

4. BE CERTAIN that your cut off voltage is 4.2 volts per cell when charging. 1 cell cutoff is 4.2 volts, 2 cell cutoff is 8.4v, 3 cell cutoff is 12.6v, etc.

If the cut off voltage is above 4.2V per cell then your charger will damage your cells and will be much more likely to cause a fire.

5. BALANCE AND BREAK IN:
 Every pack needs a break-in / balancing charge to insure that all cells are of equal voltage in the pack. A single cell charger is required to do this. If you don't own a charger with single cell capability you need to obtain

one.

6. All multi-cell series wired packs shipped from Radical RC complete with wire include a center tap. Center tap(s) are provided at each + to - cell union to allow you to access them individually for balance charging. It is EXTREMELY important all cells in a multi cell pack be in an equal state of charge. We recommended that you check the individual cell voltage regularly with a quality digital volt meter to verify all cells are of equal voltage. This helps prevent cells from being charged above 4.2 volts. For example, a 2-cell pack will be charged to a full voltage of 8.4 volts (4.2volts per cell). If one cell in the pack starts at 3 volts and one at 3.5, the ending voltage will still be 8.4 volts when the charger stops charging. However, one cell will be 4.7 volts and the weaker one will be 3.7 volts. It is likely that the 4.7 volt cell in the pack will fail, this could lead to fire, injury or death. ...

7. DO NOT discharge Lithium type cells below 3 volts per cell. Under 3 volts chemical reactions start that ruin the cell's capability to store a future charge. Lithium type cells allow us to extend our projects to previously unknown capabilities. However, they must be treated with respect, care and caution at all times.

Copied and edited from RadicalRC.com

Below is an example drawing of a center tapped pack for individual cell charging. Note you can access either cell "A" or "B" by utilizing one wire in the main output plug and your center tap connector pin. Packs shipped from Radical RC completed with wire and shrink will have a center tap. This will appear between every cell union as a female gold pin or short section of wire with a female connector pin on the end. A 3 cell pack should have 2 taps, a 4 cell would have 3 and so on. Use this tap frequently to check that all cells in your multi cell pack are at the same voltage. Once the pack is out of balance by .05 volts or more you should charge the cells individually again to rebalance the pack. Use the same charger on exactly the same settings for each cell. Allow the pack to rest for at least 10 minutes after finishing the last cell. Check the voltage of each cell again to verify they are within .05 volts of each other prior to using the pack. An out of balance pack will eventually catch fire. Skip this important safety procedure at your own peril

WRAM Show—Bussing Again

The 39th **Westchester Radio Aero Modelers** trade show is scheduled for February 23-25, 2007. Approximately 150 vendors representing all facets of our hobby will be in attendance, most will be selling their products.

About a dozen seminars will be held, demonstrating topics from Monokote tips to choosing the right servo.

As in recent years, Delaware Rc Club will be running a bus trip to the show on Saturday. Seats

are available at \$35 per person. Admission to the show is an additional \$12,00.

The bus will leave at 7:30 from Fairplay station across from Christiana Hospital (By the Delaware Park Entrance)

WRAM Show is one of the premier shows and has been the place where new products are introduced.

This is the place to get your hands on those things you've seen in the catalog and on the Web. Additionally, many ven-

dors run Show Specials, which will give you a great price on this year's new toy.



Fairplay Station

Update from Dave

Hope everyone has had a good start to the New Year. The board has been busy working on the budget for the new flying season and we need your help. It is very hard to make plans that are necessary for the club to run smoothly when we are unable to get the membership to pay the dues in a timely matter. The budget that we have at this time is tentative because there are many members that have not paid their 07 dues. I

will go over the budget at our February meeting. If for some reason the school is closed due to bad weather on the day of our next meeting, the meeting will then be held at the field on Sunday, February 11th @ 12:00 pm.

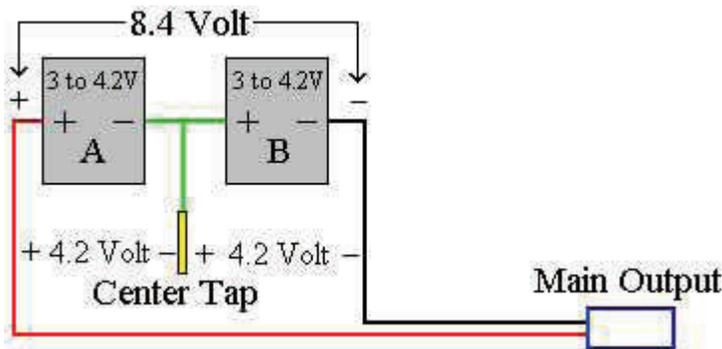
We are now committed to our bus for the WRAM show, so please send your payment into Dick Stewart if you want to go. If you are new to the hobby this is a good show to attend because

the seminars they run are very informative.

Dues that are paid before the start of the February meeting will be eligible for the early renewal discount. This is only because the January meeting had to be cancelled. Hope to see you at the next meeting.

That's all for now,
Dave

“Dues that are paid before the start of the February meeting will be eligible for the early renewal discount.”





Delaware R/C Club,
WWW.DelawareRC.org

Glitch Busters
is a monthly publication of the
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Set Your Course for Upcoming Club Events

Saturday, May 19, 2007	Two Tony's Electric Fly
Saturday, June 16, 2007	Fun Scale Contest
July 12 - 15, 2007.	Warbirds over Delaware

Additional Waypoints of Interest

February 23-25, 2007	39th Annual WRAM Show
March 10, 2007	Lebanon Flea Market
April 13-15, 2007	Toledo Show

Delaware R/C Club
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