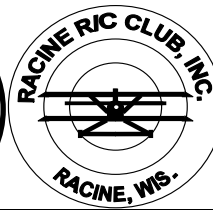




# THE FLIGHTLINE



**AMA CLUB 668 SINCE 1968**  
**RACINE RADIO CONTROL CLUB INC SINCE 1968**

**RRCC September Issue**  
**September, 2022 Newsletter**

**WE ARE ON THE WEB**  
**[www.racinerclub.com](http://www.racinerclub.com)**

## **Club Officers**

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## **NOTE NOTE NOTE NOTE NOTE**

The RRCC fun fly has been rescheduled to September 18, 2022, the same day as our September meeting. It was rescheduled due to the forecast of rain for the Sunday of September 11, 2022.

### **Racine R/C Club Meeting Minutes** **August 21, 2022**

**Time:** 1:00 PM

**Location:** R/C Flying Field

**Open Meeting** - Jim opened the meeting at 1:00PM. We had a total of 18 members present.

**Welcome - New Members & Guests** - Ed Jenkins was present at the meeting as a new member. Ed is a retired SC Johnson employee and has flown U control model aircraft in the past. He has an electric RC plane and is ready to start flight training. Welcome Ed!

**Minutes - Last Meeting** - There were no changes to the minutes from the last meeting.

### **Reports**

**President-** Jim Litwin Thanked Rich Smentek for donating a small floor jack. It will be used to lift the mower when changing tires, etc.

Thanks to Chuck Roberts for donating more bottles of water to the club.

(Your editor has been watching the clock at the south end of the club house. That is, when its time is correct, twice a day. Just picked up another el-cheapo clock to replace it on 9/9/2022)

There is no news from the FAA or AMA about the

registering of our RC field location so that we don't have to use transponders in our planes per the new FAA regulations. No news is good news at this point.

**Vice President-** Roger Nickolaus had nothing new to report.

**Secretary/Treasurer-** Bob Johnson  
Here is the current membership as of the May meeting.

Senior Members	41
Open Members	18
Junior Members	<u>6</u>
Total	65

The general Fund continues to be healthy. We are well positioned to deal with any expenses (planned or otherwise) for 2022.

**Newsletter Editor-** Dennis Vollrath had nothing new to report. Denny was thanked by the membership for his technical article last month.

**Field Chairman-** Hoss had nothing new to report and thanked the guys for the help cutting the field.

**Tractor Chairman-** Eric Armantrout was unable to attend.

**Web Master-** Justin Francisco was unable to attend. Jim mentioned there are 2022 picnic photos posted on our website.

**Safety Officer-** Dan Pozel had nothing new.

**Compost Director-** Jerry Rose was unable to attend. Jerry continues to work through issues with his knee replacement. He is getting better and will have another operation to correct the issues with the first knee replacement. Get well soon Jerry we miss you!!

**Old Business-** Nothing to discuss.

**New Business** – It's been suggested/

requested that we hold our annual invitation fly-in again. This would be held on **Sunday September 18** in place of the previously mentioned "Warbird Event". We will have hot dogs, soft drinks and chips for all pilots that will be provided by the RRCC club.

Jim asked the membership for a motion to hold the event and approve \$100.00 for the food. The motion was made by Hoss and the membership voted to approve the motion.

The lack of instructors was brought up as a possible issue going forward for our club to train new pilots. Eric Armantrout said he will continue to provide training on Tuesday late afternoon only.

Roger Nickolaus will train on Mondays and Tuesdays. Pete Redel is available as well. Ron Hayes was nominated as a new instructor at the meeting and a vote was taken to approve Ron as a new trainer. As of this article Ron already has a new student.

**New Pilots** – None

**Show & Tell** – Chuck Brzezicki had miscellaneous electric items for sale and Jason Fisher had miscellaneous item available as well.

**Raffle Drawing** – Jim Smith won the raffle and donated \$9.00 to the club.

**Close Meeting** – Jim closed the meeting with a reminder the next club meeting will be Sunday September 18th at 1PM at the field. That is the same date as of the RRCC fun fly.

## **JIM'S CORNER**

As I get older my memory might be failing, but I can't remember when we have had such challenging weather when trying to fly.

Constant winds, cloudy, and rain or threatening rain on the weekends.

The weather conditions have forced us to change some of our scheduled events. The September 11<sup>th</sup> invitation-  
al flying event has been moved to our September meeting date of the 18<sup>th</sup> due to the projected 100% chance of rain.

The event will take place with a break in activities where our guests will take a break and eat while we hold our business meeting.

We have a number of items to bring to your attention that will be dealt with at the November meeting. Briefly they are shown below.

This is the time of the year where members can propose Field Rule changes & By-Law changes.

To accomplish this, club members must: Submit their proposed changes, in writing (or email message), to the club Secretary. The club Secretary must receive your proposed change by noon of Saturday, October 1<sup>st</sup>.

The proposed changes shall be as you want the change to read. It would also indicate what you want eliminated if that is the case. The proposed change cannot be amended, nor changed after submission.

The proposed change will be published in the October & November newslet-

ters, and voted on at the November meeting.

The club officers will meet, as per club bylaws after all submissions have been received, to discuss, and possible submit proposals of their own as a collective body.

Also note, that at the November meeting, club officers for 2023 will be elected. Nominations can be made up to the time of the election vote is taken.

This is your chance to get involved in the club activities. If there is something you would like to see run differently, this is your chance to submit your name, and run for an officers position.

I would encourage anyone interested in running for a club officer position to review the job descriptions for these positions as published in the club handbook, pages 14-15, Section 4.08 "Duties of Officers".

If you have been watching some of the email / text messages that have been going out, there have been a number of evening "Night Flying" events. While they can be challenging, they are fun, and numerous modifications have been done to the planes to make them more visible at night. This really sharpens your flying skills!

As noted above, our next club meeting is on September 18<sup>th</sup>, which will also be the invitation-  
al fly in event.

We'll make it work.  
Fly Safe & Have Fun  
Jim Litwin  
President

## DENNYS STUFF

Ok, The past newsletters covered what's happening while charging our various battery packs.

Starting off decades ago, we had those old NiCad four cell receiver battery packs that worked OK for powering the receiver and low power servos of that era.

The chargers used long ago were rather simple in nature. The NiCad packs were simply connected to a wall wart charger that charged them overnight. It was simple, and it worked quite well.

These old chargers worked on the "Constant Current" principle, where the charging current stayed the same while the NiCad battery pack slowly came up to full charge.

Generally, the charging current was around 50 Milliampères (0.05 Amps) Now then, if the old NiCad pack was discharged, it slowly came up to full charge over many hours.

When the pack was "Full" or fully charged, the cell voltages stayed at around 1.4 Volts DC per cell indefinitely.

That 50 MilliAmpere charge current is no longer charging the battery pack, since it is fully charged. That 50 MilliAmpere charge current simply goes into heating up the pack. There isn't much heat involved, since that 50 MilliAmpere only represents about 1/4 Watt or so.

Then, later on, some smart guys figured out how to fast charge these old NiCad battery cells. They increased the charge rate from that original 50 Milliampères to 2000 Milliampères, or more.

Again, that 2000 MilliAmpere charge current goes into charging the battery pack.

But, when the battery pack hits full charge, that 2000 Milliampères again goes into heating up the battery pack.

And, the characteristic of those old NiCad battery packs, when they got hot during charging, their voltage **DROPPED** by 10%. That's a half volt or more.

It was a simple job for the early high speed chargers to watch for that half volt drop. When that voltage dropped, the charger just ended the charge cycle.

So far, so good. But, these old NiCad battery packs had Cadmium in them, and Cadmium was not good when it wound up in a land fill.

So, these old NiCad battery packs got replaced with the newer Nickel Metal Hydride battery packs. What was once a 500 MilliAmpere hour NiCad battery pack with a AA sized cell, is now a 2500 MilliAmpere hour Ni-MH battery in the same AA sized cell.

Something had to give. What gave is the ability for the Ni-MH battery to deliver the same high currents that the old NiCad batteries could put out.

That's bad enough. But worse, when being fast charged, the voltage on these Ni-MH cells only dropped a half percent or less in voltage when the cell hit full voltage, and the cell got hot. That's only 0.005 Volts or so. That's difficult to measure while charging these cells.

Now, when you have four Ni-MH cells in series, you may have one cell hit full charge first, shutting off the charger. And you could wind up flying with a half charged Ni-MH receiver pack, even after the charger finished charging it.

The only safe way to charge these Ni-

MH receiver packs is to charge them for 10-15 hours with a slow charge.

Lets advance to charging those common Lead Acid batteries used in our cars, trucks and the like.

The alternator again is a "Constant Current" charging device, that applies a constant charging current while the battery comes to full charge.

But, when the cells in the lead acid battery comes to full charge, the alternator must stop charging. If it doesn't, you boil all of the water out of the lead acid battery.

So, the Alternator in your car or truck is a "Constant Current/Constant Voltage" type of charger. When your lead acid battery is discharged, your alternator might be charging at 40 or 50 Amperes or so.

It keeps charging at that 40 or 50 Amps until the voltage on the lead acid battery hits around 14.5 Volts DC. At this time, the Alternators regulator automatically dials back the 40 or 50 ampere charge current down to an ampere or less, keeping the voltage on the lead acid battery at the constant 14.5 Volts DC.

FYI, if you pick up a decent digital multi-meter from Harbor Freight or similar for perhaps over \$30.00 or so, it is easy to verify proper operation of your alternator in your car or truck.

Simply read the voltage on your lead acid battery with the meter. Then start the engine, and watch how high the voltage rises while the engine is running. The voltage should increase to around 14 Volts DC or so. That voltage will vary slightly. The alternators regulator will change the voltage maximum, depend-

ing on the temperature outside the car or truck.

And, the cells in these Lead Acid batteries is self balancing. If one cell hits full charge first, it simply starts bubbling the acid in the battery while the other cells come up to full charge.

So, this is how the lead acid charging process works in our vehicles. And, it hasn't changed for the past 100 years, starting off with the old DC generators that were used at that time.

And, over the past decade or so, our battery packs have evolved into the Lithium type battery cells. They include the Lithium Ion, LiFe, A123 and LiPo cell types that are used in our models.

And, the same "Constant Current/Constant Voltage" charging process is used on these Lithium cells.

But, there is one very big difference on these Lithium cells. That difference is what happens when each cell hits full charge.

The old NiCad and Ni-MH cells got hot when they were at full charge. The Lead Acid cells started bubbling if the high charge current continued after it was fully charged.

That doesn't work with the Lithium type cells. As an example, an A123 cell will hold around 3.4 Volts DC across its terminals while it is being charge at 10 Amperes or so. And, the voltage stays at that 3.4 Volt level while the cell comes up to full charge.

But, when the A123 cell comes up to full charge, there is no internal "Gas to Bubble", no cell heating up, no nothing. And, that cell Voltage sky rockets to 4 Volts, 5

Volts or more. And, here is where the bad things happen. Do that to an A123 cell, your cell gets damaged, and, then gets very hot. And, the cell blows apart, **WITH NO FIRE!** (Personal experience from decades ago, before I had a balance charger)

Do that to a LiPo cell, and your cell ignites, turns into a blow torch that nothing can put out.

Here is where these new balance type chargers do their thing. These chargers monitor the voltage on each cell of your battery pack. And, if that voltage gets out of range, these balance type chargers automatically limit the maximum voltage on each cell, preventing damage to the A123 or LiFe cells, or fire in the LiPos.

FYI, you may have noted some of the battery powered power tools don't have balancing plugs on them.

Well, they do have internal balancing. If you remove the case off of these battery packs, you will find an internal circuit board permanently wired directly across each cell of the power tools battery pack to prevent this sort of stuff from happening.

#### **More Info:**

I did cover the use of a digital multimeter in the RRCC newsletter many years ago. I've got a copy of that article attached with this email.

Next issue, I'm going to update that digital meter file to show what is currently available, and provide more details on how useful they can be in our hobby, and else where.

DennyV  
RRCC Editor.

## **RACINE RC CLUB 2022 CALENDAR**

<b>August 21</b>	<b>Sunday</b>	<b>1:00 PM</b>	<b>Club Meeting - Flying Field</b>
<b>August 28</b>	<b>Sunday</b>	<b>9:00 AM</b>	<b>RC Club "Open House"</b>
<b>Sept 18</b>	<b>Sunday</b>	<b>1:00 PM</b>	<b>Club Meeting - Flying Field</b>
			<b>Get proposed rule changes submitted</b>
<b>October 1</b>	<b>Saturday</b>	<b>Noon</b>	<b>Deadline for submission of Proposed Field Rule &amp; By-Law Changes</b>
<b>October 1</b>	<b>Saturday</b>	<b>8:00 AM</b>	<b>Shelter setup</b>
<b>October 16</b>	<b>Sunday</b>	<b>1:00 PM</b>	<b>Club Meeting - Flying Field</b>
<b>Nov13</b>	<b>Sunday</b>	<b>1:00 PM</b>	<b>Club Annual Meeting - Election of Officers; Vote on proposed Field Rule &amp; By-Law changes</b>
<b>Dec 7</b>	<b>Wednesday</b>	<b>12 – 6 PM</b>	<b>Last day Club Compost Duty</b>
<b>Dec 18</b>	<b>Sunday</b>	<b>1:00 PM</b>	<b>Club Meeting - Flying Field – Establish-Membership Dues schedule for next year</b>
<b>Jan 1, 2022</b>	<b>Sunday</b>	<b>9:00 AM</b>	<b>New Year's Day, "First in the Air" Event &amp; Noon lunch (Electric Sunrise - Gas/Glow 9:00 AM)</b>

Date	Time	Name(1)	Name(2)	Substitute
08/10/22	12-2	Bob Johnson		
08/10/22	2-4	Trygve Smalley	Gary Bokowy	
08/10/22	4-6	Roman Kirykowicz	Helmut Schmidtke	
08/17/22	12-2	Raymond Redlin Sr		
08/17/22	2-4	Jim Smith		
08/17/22	4-6	Roman Kirykowicz	Jeff Lee	
08/24/22	12-2	Raymond Redlin Sr	Matthew Holl	
08/24/22	2-4	Dennis Vollrath	Matthew Holl	
08/24/22	4-6	Wayne Greisen	Matthew Holl	
08/31/22	12-2	Terry Peterson	Bruce Napierkowski	
08/31/22	2-4	Dennis Vollrath		
08/31/22	4-6	Wayne Greisen	Gary Bokowy	
09/07/22	12-2	Terry Peterson	Ronald Schroeder	
09/07/22	2-4	Dennis Vollrath	Ronald Schroeder	
09/07/22	4-6	Roman Kirykowicz	Ronald Schroeder	
09/14/22	12-2	J Fisher		Steve Knackert
09/14/22	2-4	James Houtsinger		
09/14/22	4-6	Eric Armantrout	Ron Dixon	
09/21/22	12-2	Buzz Paricka	William Wampler	
09/21/22	2-4	Buzz Paricka	William Wampler	
09/21/22	4-6	Bill Flannery	Jeff Lee	
09/28/22	12-2	Buzz Paricka	William Wampler	
09/28/22	2-4	James Houtsinger		
09/28/22	4-6	Arland Matson	Jeff Lee	
10/05/22	12-2	Charles Brzezicki	Kenneth Dalton	
10/05/22	2-4	Charles Brzezicki	Kenneth Dalton	
10/05/22	4-6	Charles Brzezicki	Kenneth Dalton	
10/12/22	12-2	Helmut Schmidtke	Bruce Napierkowski	
10/12/22	2-4	Helmut Schmidtke	Roger E Olsen	
10/12/22	4-6	Helmut Schmidtke		
10/19/22	12-2	Donald Parkinson	Calvin Thomas	Helmut S
10/19/22	2-4	Donald Parkinson	Calvin Thomas	
10/19/22	4-6	Donald Parkinson		
10/26/22	12-2	Carl Bergquist	Tim Brehm	
10/26/22	2-4	James Houtsinger	Tim Brehm	
10/26/22	4-6	J Fisher	Tim Brehm	Steve Knackert
11/02/22	12-2	Jim Litwin		
11/02/22	2-4	Jim Litwin		
11/02/22	4-6	Jim Litwin		
11/09/22	12-2	Carl Bergquist	Bruce Napierkowski	
11/09/22	2-4	John Boticki	Calvin Thomas	
11/09/22	4-6	James Strelitzer		
11/16/22	12-2	J Fisher		Steve Knackert
11/16/22	2-4	John Boticki		
11/16/22	4-6	James Strelitzer		
11/23/22	12-2	Carl Bergquist	Roger E Olsen	
11/23/22	2-4	Arland Matson		
11/23/22	4-6	James Strelitzer		
11/30/22	12-2	Ronald Hayes		
11/30/22	2-4	Ronald Hayes		
11/30/22	4-6	Ronald Hayes		
12/07/22	12-2	Steven Navone		
12/07/22	2-4	Steven Navone		
12/07/22	4-6	Steven Navone		

# COMPOST DUTY ROSTER