



THE FLIGHTLINE



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

RRCC December Issue
December 19, 2021 Newsletter

WE ARE ON THE WEB
www.racinerclub.com

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Racine R/C Club Meeting Minutes

November 14, 2021

Time: 1:00 PM

Location: R/C Flying Field

Open Meeting

- Jim opened the meeting at 1:00PM.

Welcome – New Members & Guests – No new members or guests.

Minutes – Last Meeting – The minutes of the October were not published in the Newsletter due to Bob Johnson being in the hospital due to an injury.

Reports

President – The setting of the annual membership dues rate will occur at the December club meeting next month. This gives the newly elected officers a chance to present their agenda to the membership and the corresponding dues to accomplish it.

Commented about the night flying activities that have been occurring. Lot’s of fun!

The Milwaukee RC Association 2022 SWAP Meet & Auction will be occurring on Sunday, January 30th at the Washington County Fairgrounds 8:30 AM – 2PM. A copy of the flyer will be in next month’s newsletter.

Vice President – Roger had nothing to report.

Secretary/Treasurer – Jim and Darrel Hossalla updated the club membership on Bob’s medical condition after his accident. Jim indicated he had the checkbook, and would be collecting dues next month. Dennis Vollrath will be making the new membership cards. Jim reported the checkbook balance to the membership, and indicated that our roster shows 60 members.

Safety Officer – Dan had nothing to report.

Field Chairman – “Hoss” thanked everyone for the help with the wood splitting “Party” that took place on November 6th. Lot of wood, and it will be covered with a tarp in a few days.

Newsletter Editor – Dennis is out of town today, but had indicated that he had nothing to report.

Tractor Chairman – Eric had nothing to report. He will be disconnecting the batteries on the mower & tractor.

Compost Director – Jerry indicated we are almost done for the season, and that Mt. Pleasant is happy with how things have gone.

Web Master – Justin indicated that everything going well, and that we continue to get a lot in “hits” (inquiries) on our Facebook site.

OLD BUSINESS

At last month’s meeting a discussion on the possibility of having a New Year’s Day party was held over till today’s meeting. There was a brief discussion on this possibility, with all comments in favor of holding the party. A motion was made, seconded, and membership voted to have the party. Hossalla getting the Turkeys and oil.

NEW BUSINESS

Paper ballots with the two proposed By – Law changes were distributed. There was a discussion on each of the proposed changes, and the membership voted on each. Vice President Nickolaus counted the ballots and reported the vote

was unanimous in favor for the changes. These items were #1 – Changing the description of a Junior club member, and #2 – Clarifying a 3 shift compost obligation & club members responsibility to find replacement in the event of inability to work assigned shift.

A call for nominations for club officers was made and there were no nominations. The current officers were all standing for re-election. Motion was made, seconded, and there was a unanimous vote to retain the current slate of officers for the next year.

There was a discussion, and distribution of a letter from club member Pete Luks concerning missing his assigned compost assignment on October 6th, 2021 from Noon – 2PM. After much discussion, a motion was made, seconded, and received an affirmative vote from the membership that:

A letter of reprimand be sent to Pete Luks

No change in his membership status

Make up the missed 2 hours this calendar year

Reaffirm need to closely read the Newsletter which contains the compost schedule and any changes to the clubs responsibility at the compost site.

NEW PILOTS – None

SHOW & TELL – None

RAFFLE DRAWING – Raffle was won by Ray Fisher, with \$12 going to the club.

CLOSE MEETING – Meeting closed with a reminder that the next meeting is being held on Sunday, December 19th at 1 PM.

JIM'S CORNER

We are in the holiday season, and we are all probably eating too much. I know I am! The weather has not been too bad given the time of the year, but don't fret, the snow is coming.

At our last meeting, as indicated in the minutes published elsewhere in this newsletter, all this past year's officers were re-elected for the upcoming year. I would like to again take this opportunity to thank them for their service to the club, and thank the membership for their confidence in us. We will continue to try and make your flying experience at our field enjoyable.

We voted to have the New Year's Day "First in the Air" event again, so be on the lookout for email messages from Hoss concerning food and snacks to bring.

At the upcoming meeting, on Sunday, December 19th, we will be voting on the membership dues schedule for 2022. At the present time the dues rate is:

ANNUAL REGULAR MEMBER \$ 70.00

FAMILY RATE (Two adults residing at the same address) \$80.00

JUNIOR RATE (Under the age of 18) \$1.00

SENIOR MEMBERS (65 years old & over) \$40.00

NON-FLYING MEMBER \$30.00

*After August 1st of each year, dues are 50% of the shown schedule for new members.

It is my recommendation that the membership dues schedule remain the same. NO increase in membership the dues rate.

Attached also in this newsletter is the informational flyer for the Milwaukee RC Association RC Auction / SWAP Shop being held on Sunday, January 30, 2022 at the Washington County Fairgrounds, in West Bend WI. I know several of our members are having tables there to sell "Stuff". So consider going.

This is the last Newsletter for the year 2021, so I would like to extend to everyone a very merry holidays, a Merry Christmas, and a Happy New Year!

Fly Safe and Have Fun

Jim Litwin
President



Hoss's huge-
new model
airplane!

Dennys Stuff

Well, Ona May and I are home for good after visiting family and friends in Fargo MN, Sauk Center MN, Alexandria MN (My home town) Maplewood (Minneapolis) MN, and St Louis MO.

I'm thinking of getting my Canon camera out during the December 12, 2021 meeting, and take individual photos of all of the members that show up. Then, place those photos in a PDF file, along with the respective first names and last names.

This will then become a handout in the January meeting. This photo shoot will help our newer members for the RRCC members names along with their photos. (And it will help some of the older members who have problems remembering names and faces!)

Your editor built up a few A123 battery packs for the RRCC membership last fall. I have received a request for building up a few more packs early next year. Let me know if you need more packs.

Dennys Stuff

Time for school!!!!

Over the past years, I've heard our members talk about our battery pack technology such as volts, milliamperes, milliamperere hours and so on, and using the wrong terminology for them.

Electronics!

So just what is "Electronics" and what are the various terms used with electronics?

Surprisingly, there are only a few major

terms in electronics. And much of the remaining stuff can be derived from those few terms.

VOLTAGE CURRENT RESISTANCE

These three terms are directly related to each other. In a given circuit, if you know any two of them, you can quickly calculate the third term.

Voltage:

The electrical term for voltage is "Volts" Voltage is the "Electronic pressure" behind any electrical wire carrying "Current" Typical voltage values around our homes is 1.2 Volts DC for a Nickel Metal Hydride cell, 1.5 Volts for an alkaline cell, 5 to 7 Volts for our receiver battery packs, 9 Volts on a 9 Volt battery, and 12 Volts DC for the lead acid batteries in our vehicles.

Skipping to higher power model stuff, we have voltages ranging from around 10 to 40 Volts for those RRCC club members flying electric models. Last, the top of the line Tesla car uses a 400 Volt battery pack.

Skip to the common 120 or 240 Volts AC for powering our homes. Factories use 440 Volts AC for higher powered machinery. They may even use 370 or 440 Volts for factory lighting.

Typical voltage on the power lines you see around the neighborhood include 4800 Volts AC and 14,400 Volts AC. Next we have 38,000 Volts AC and 69,000 Volts AC powerlines for in between small cities.

Skip to 128,000 Volts, 240,000 Volts and 350,000 Volts for those power lines in-

stalled on transmission towers.

It takes around 1000 Volts AC voltage to deliver power effectively with out to much voltage loss over a distance of one mile. So, that 4800 Volt power line is good for around 5 miles of wire, while the 350,000 Volt transmission lines are used to interconnect the electric power generation plants hundreds of miles apart in the USA.

Note that the stuff we use in our models is DC or Direct Current, while the stuff we have in our homes is AC or Alternating Current. I'll cover DC first, with further newsletter articles covering Alternating Current, (AC) and why and where it is used.

Just what IS Voltage? As previously mentioned, something similar to Voltage in the mechanical world is water or air pressure. Or even closer is what is used to power those log splitters that were recently used to split logs at our field.

Take a look at what stuff is bolted to that log splitter. First you have an engine. The engine drives the hydraulic pump.

The hydraulic pump increases the hydraulic oil pressure up to 1000 pounds per square inch, or perhaps much higher, depending on the application.

Note that the hydraulic cylinder is the device that produces the necessary forces required to split the logs. AND, there must be a return hose from the hydraulic cylinder back to the input of the hydraulic pump.

Also note, even closer to electricity, you can replace the hydraulic cylinder with a "Hydraulic Motor" This setup is used on the RRCC Jacobsen riding lawnmower, where its Diesel engine drives a hydrau-

lic pump that delivers high pressure oil to the hydraulic motors located on the lawnmower deck. The hydraulic motors on the lawn mower deck connects to the three lawn mower blades by a simple "V" belt drive.

There must be a high pressure hose from the hydraulic pump to the input of the hydraulic motor, and a low pressure hose from the hydraulic motor back to the hydraulic pump.

Note that the hydraulic oil in these setups only flows one way out of the engine powered hydraulic pump. That pretty much describes what happens with a DC generator for electric power.

We can compare the engine powered electric generator to the engine powered hydraulic pump. The engine powered generator puts out Voltage. That voltage is comparable to the hydraulic pressure coming out of the engine powered hydraulic pump.

An engine and generator could be used for our models receiver power, in theory at least. But, that would be far to complex, and far to heavy.

(The airlines use an APU (Auxiliary Power Unit) used on the commercial jet airplane planes to provide backup power to the airplane in case of total failure of power to the airplane controls.)

That engine and generator can and is replaced by a simple receiver battery to power our receiver and its servos. By definition, a battery **IS** defined as DC or Direct Current power.

Lately, our RRCC members have been using the electric motor battery in their electric models to power a pile of LED lights in their models for night flying.

One last thing on the voltage on our receiver and electric motor batteries.

These A123 cells deliver around 3.3 Volts DC per cell for the full discharge capacity of that cell. Two cells **IN SERIES OR END TO END**) is 6.6 Volts DC, three cells is 9.9 VDC and so on.

So, the voltage in **SERIES** battery cells adds up when placing them in series.

Now, we have covered putting cells in series to get more voltage. These cells can also be placed in **PARALLEL** to get more Ampere Hours out of the receiver battery pack to power those giant RC models that have engines over 100 cc up front.

For parallel connection of these A123 cells, first make up two sets of A123 cells whose cells are in series. Next, lay the two series connected packs side by side, and connect their negative posts together, their positive posts together, and their center terminals together. You've just doubled the Ampere Hour capacity of the battery pack.

DO NOT DO THIS WITH THOSE NICKEL METAL HYDRIDE CELLS! THEIR DESIGN WILL RESULT IN THE BATTERY PACKS NOT CHARGING PROPERLY.

The January RRCC newsletter will cover the electronic Ampere (Or MilliAmpere) term, and all of its various related terms.

In case you think DC voltage isn't dangerous, some idiot on you tube got access to 200 standard 9 volt alkaline batteries. He connected them all in series for 1800 Volts. That 1800 Volts is enough to kill something. That idiot was drawing arcs a half foot long when he shorted out the pack.

Even 12 Volts can be dangerous. In the early 1960's, I ran across an engineer that shorted his metal watch band across a 12 Volt car battery. The resulting red hot watch band caused permanent damage to the tendons in his wrist.

This series continues with the January RRCC newsletter issue.



This photo was taken on Sunday December 5th at our club house. Even though it was raining outside, and flying was not possible, we still had a number of RRCC members show up.

(This photo was taken with my Samsung Galaxy A10E cell-phone with its panoramic feature on its camera.)

RC

43rd ANNUAL

SUNDAY
JANUARY 30th, 2022

MILWAUKEE, WISCONSIN

AUCTION & SWAP SHOP



Sponsored by
MILWAUKEE R/C ASSOCIATION



Chapter #7

ADMISSION: \$5.00 ADULTS
(UNDER 16 FREE)

SWAP SHOP: 8:30-2:00
NO SELLING before 8:30 A.M. no exceptions

AUCTION
Every 30 minutes in 15 minute segments

TABLE FEES
All tables are \$20.00 each
Admission \$5.00 per person.

Contact event Coordinator Laurie for table
reservations and questions at 414-461-6013
or email register.mrca@gmail.com

FOOD – BEVERAGES – AMPLE PARKING

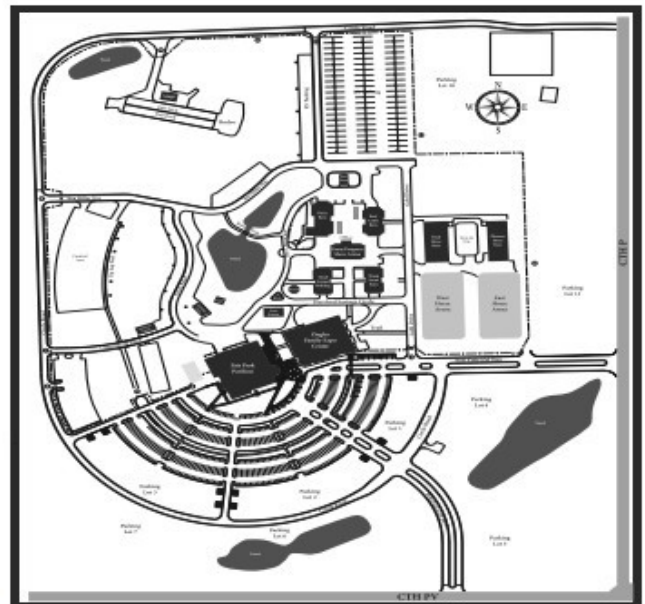
RAFFLE immediately after auction

Visit us on FACEBOOK@ Milwaukee R/C Association

MEMBER CLUBS:

ABC R/C; Astro Wings of Wis; East Troy R/C; Lakeland R/C; Milwaukee Area Radio Control Society (MARKS) Club; Fond Du Lac Aero Modelers Assn.; Flying Electrons, Inc; Pebble Creek Flyers, Inc; Racine R/C Club, Inc; Rainbow Aero Modelers Society (RAMS) Club; Rubicon Area Flyers (RAF) Club; SE Wis. Area Rotary Modelers (SWARM); Sky Ranch Flyers; Watertown Aeromodelers R/C Club.

AFFILIATE CLUBS; Bong Eagles; Circlemasters Flying Club; Model Engine Collectors Association (MECA).



Washington County Fairgrounds
Pavilion Building
3000 Pleasant Valley Rd
West Bend, WI 53095

***“Bring your Airplanes, Cars,
Trucks, Boats, Parts etc. We
have buyers for all!”***