

Charles River Radio Controllers

Flight Log

April, 2022



April Meeting:

Wednesday, April 20th, 7:30 PM

In Person at

Goodnow Library, Sudbury

President's Message

Dear Members,

Spring is here. It's time to fly! By the time you are reading this, we have already completed our spring field cleanup at Davis, and our 2022 flying season is very much under way.

Our April online auction is **in progress**, until April 26 with some amazing deals on planes and accessories, so please stop by the site at <https://www.32auctions.com/CRRCApril2022> and place a bid.

At this time, our July 4th Demo Day is **on**. This is the first time we'll be back at our annual Demo Day since the Covid pandemic began, so this is very exciting. We'll also be back to in-person meetings at Goodnow Library for April and May.

Our April club meeting will be **Wednesday April 20th** at 7:30pm **in-person at Goodnow Library**. There will be a raffle and show-and-tell, as well as some build materials being given away, so please join us.

Fly well,

- Mike Whidden, CRRC President



April Meeting - In Person!

Our next general meeting is scheduled to be ***in-person at Goodnow Library, Sudbury*** on **Wednesday, April 20th, at 7:30PM.**

Club meetings are open to the public, we welcome visitors and guests to learn about model aviation and CRRC!



April Meeting Raffle

With in-person meetings come the chance to give away raffle prizes! This month attendees will get a shot at the following items:

- UMX Habu Ducted Fan BNF
- Transmitter Tray
- Large LiPo Charging Bag

(If it's been too long for your memory - get one ticket for \$1 or three tickets for \$2; one free ticket if you show your membership badge; one free ticket for a show-and-tell item or topic; and one free ticket for each item used in the newsletter!)



Spring Cleanup at Davis Field

Thanks to the members who came out for the traditional Davis Field spring cleanup, on Saturday, April 9th! A worthy amount of trash was removed from the field on a favorable spring day (and if you check the groups.io mailing list for a post with video, you'll see that the opportunity to fly after working wasn't wasted.



A raffle was added for attendees of this year's cleanup.

In the first picture you may notice Dan Ross with his raffle prize — a UMX Whipit DLG.

Dan Sullivan won a wattmeter/power analyzer.

Sam Sparks won a z-bend pliers.



Charging Up for Spring

Is forming charging your NiMh and NiCd batteries important? "You bet your sweet bippie" it is. This time of year you are getting ready to use your transmitter and receiver pack and some of them have the type of battery I'm talking about. I did a test today with two identical batteries that had been stored in a discharged state for over a year. Using a battery meter, I measured how much energy in milliamp hours, remained. Both had about 1 to 2 mAh remaining.

One of the batteries I fast charged. The other I put on a forming charge for 24 hours. I put both batteries on identical battery capacity testers. The moment of truth, the 300 mah battery on forming charge measured 289 mah and the identical battery on fast charge measured 89 mah. Wow, that's cool, but was one of the batteries dead? Let's check.

The Sirius Super Test battery tester was used. It's no longer made, but most new chargers have a discharge cycle that shows battery capacity.

I took the battery that was a dud and put that on the forming charger for 24 hours and the good one on the fast charger. The good battery measured at 306.8 mah. That's supposed to happen, with each successive charge, the battery gets slightly more capacity! The moment of truth, did the bad battery improve? YES!!!! The battery now has 306.1 mAh capacity.



two identical 300mAh NiMH batteries



The Sirius Forming Charger, now out of business. Your wall wart will do the same at 1/10th of the battery rated capacity for 14 to 16 hours.



These charging charts for NiMh batteries from Radical RC are excellent references for form charging your NiMh batteries. They based the chart on using the wall wart type charger that comes with many transmitters. A peak Charger will not work for this process. Some chargers have a 12 or 24 hour constant current charge cycle which will work as long as you charge for the proper length of time shown in the chart.

Transmitter Pack Forming Charge Chart

Capacity	Chemistry	Form Charge Hours @50mah	Form Charge Hours @70mah	Form Charge Hours @100mah	Form Charge Hours @150mah	Peak Charge After Forming	Discharge Current
700	NiCad	19.6	DAMAGE	DAMAGE	DAMAGE	.4 to 1.4 amps	100-200mah
1100 (MFG Discontinued)	NiCad	30.8	22	15.4	DAMAGE	.6 to 2.2 amps	200mah
1650	NiMH	46.2	33	23.1	15.4 Not Advised	.8 to 3.3 amps	300mah
2000	ENELOOP NiMH	56	40	28	DAMAGE	NEVER! Will Ruin	400mah
2500	NiMH	70	50	35	DAMAGE	NEVER! Will Ruin	500mah

Right: <https://www.radicalrc.com/category/Receiver-NiMH-Packs-19>

Above: <https://www.radicalrc.com/category/Tx-Packs-NiMH---NiCd-20>

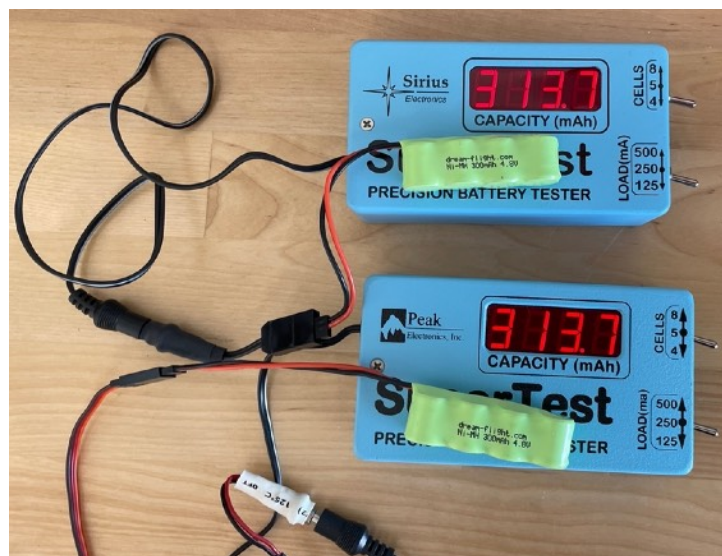
Receiver Pack Forming Charge Chart

Capacity	Chemistry	Form Charge Hours @50mah	Form Charge Hours @70mah	Form Charge Hours @100mah	Form Charge Hours @150mah	Peak Charge After Forming	Discharge Current
160	NiMH	DAMAGE (15mah max!)	DAMAGE	DAMAGE	DAMAGE	80 to 320 mah (.32amp)	32mah
260	NiMH	DAMAGE (25mah max!)	DAMAGE	DAMAGE	DAMAGE	100 to 520 mah (.52amp)	52mah
720AAA	NiMH	20.2	14.4	DAMAGE	DAMAGE	.36 to 1.4 amps	100-150mah
800 AAA TW/ENE	NiMH	22.4	DAMAGE	DAMAGE	DAMAGE	NEVER	100-150mah
1000 AAA Super Lattice	NiMH	14	DAMAGE	DAMAGE	DAMAGE	NEVER	200mah
1500 2/3 SC	NiMH	42	30	21	14	.75 to 3.0 amp	300mah
1650 AA	NiMH	46.2	33	23.1	15.4	.85 to 3.3 amps	300mah
Enloop 2000 AA	NiMH	56	40	DAMAGE	DAMAGE	NEVER	400mah
2150 4/5A	NiMH	60.2	30.1	30.1	20.1	1 to 4.3 amps*	400mah
2500 AA	NiMH	70	51.4	DAMAGE	DAMAGE	NEVER	500mah
2700 A	NiMH	75.6	54	37.8	25.2	1.3 to 5.4 amps*	500mah
4000 5/4A	NiMH	112	80	56	37.3	2 to 8 amps*	800mah
5000SC	NiMH	140	100	70	46	2.5 to 10 amps*	1 amp

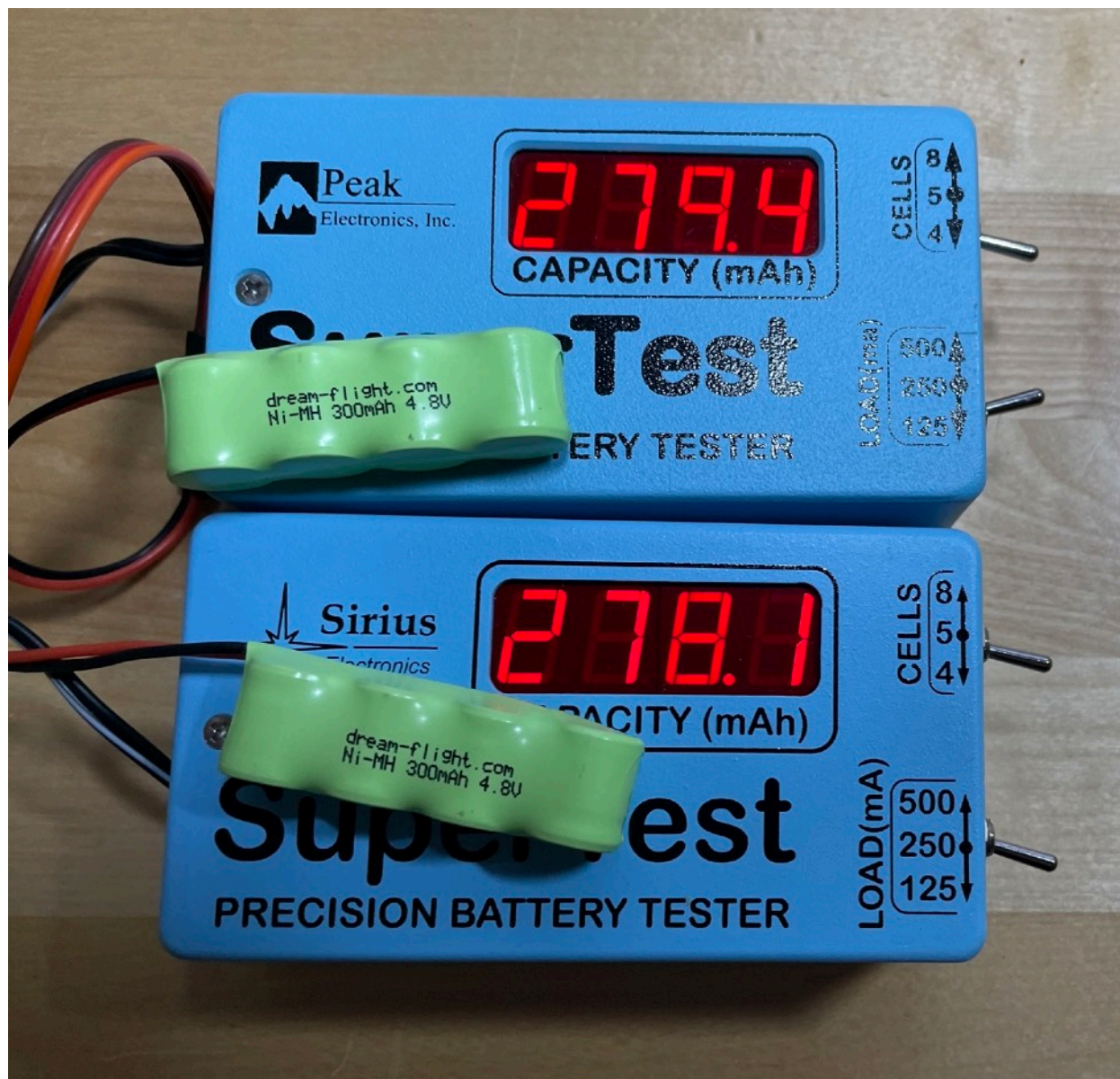
*Charge current through standard hobby plugs (fit your RX pins) is limited to 4 amps.

Addendum:

I charged one battery with a peak charger and the other 14 hours with a slow forming charged for 10 hours followed by a peak charge. Both were discharged within seconds of each other and ended within a minute of each other. I would say that the initial forming charge formed the battery properly. There was no trick photography here (see image at right), just two identical batteries on identical dischargers.



Finally, how much capacity is lost with batteries that have been charged and then stored for two weeks? Well, these two 300 mAh batteries (see image below) have lost 10% of their charge. That does not seem like it's much, but it is significant. I should have stored them in a discharged state, but thought I was going to use them within a day. I'd recommend that you at least charge these batteries before going out to fly to ensure you get full capacity and a safe flight.



- Article by David Spielman

COVID Updates

CRRC requests all members to follow state guidelines and any location- or facility-based requirements at all fields & meetings.

Update: January 2022 - CRRC has not received specific guidance from the Town of Sudbury recently. Please continue to be aware both of state & local guidance and requirements each time you fly, as well as considerate of the health and preferences of those around us, as the situation with vaccinations and variants evolves.

Membership Renewal

Support CRRC by renewing your annual membership! See the last page, or contact John Eppling (membership@charlesriverrc.org).

You may have missed the winter discount, but there's so much to look forward to this year! Renew for summer events with your new card.

FAA Registration

Please remember to visit <https://faadronezone.faa.gov/#/> to check and renew your FAA registration ID. Also, beware some commercial entities who are claiming to process registrations - often for increased prices. The FAA charges \$5 for a three-year registration, or extension.

Check your registration when you mark each new plane/drone, so you don't forget!

TRUST Test

The FAA has authorized several organizations including the AMA to administer the knowledge and safety test required by congressional action.

You are now required to show proof of passing the test (along with your FAA ID number) to law enforcement or FAA representatives upon request.

The test is free and can't be failed! Take it at:

<https://trust.modelaircraft.org/>

Club Information

Officers - 2022

President

Mike Whidden
[president at charlesriverrc.org](mailto:president@charlesriverrc.org)

Vice President

Dan Sullivan
[vicepresident at charlesriverrc.org](mailto:vicepresident@charlesriverrc.org)

Treasurer

Dave Marshall
[treasurer at charlesriverrc.org](mailto:treasurer@charlesriverrc.org)

Membership Secretary

John Eppling
[membership at charlesriverrc.org](mailto:membership@charlesriverrc.org)

Recording Secretary

Roger Silva
[secretary at charlesriverrc.org](mailto:secretary@charlesriverrc.org)

Webmaster

Suhas Srinivasan
[webmaster at charlesriverrc.org](mailto:webmaster@charlesriverrc.org)

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[newsletter at charlesriverrc.org](mailto:newsletter@charlesriverrc.org)

Chief Instructor

Dick Williamson
[chiefinstructor at charlesriverrc.org](mailto:chiefinstructor@charlesriverrc.org)

Safety Coordinator

Jimi Two Feathers
[safety at charlesriverrc.org](mailto:safety@charlesriverrc.org)

Raffle Chairman

Scott Ritter
[exofficio at charlesriverrc.org](mailto:exofficio@charlesriverrc.org)

Instruction

To inquire about instruction please call the Chief Instructor, Dick Williamson.

Types of instruction

B = Building
 G = Glider
 E = Electric
 F = Fuel
 H = Helicopter
 Q = Quadcopter/
 Multirotor

Dick Williamson - B,G,E
 Sudbury - 978-618-5475

David Spielman - B,E
 dspielma (at) gmail.com

John Weigel - B
 Natick - 508-655-2138

Richard Gammon - B,G,E,F
 West Boylston -
 508-835-2049

Ken Antonellis - G,E,F
 Natick - 508-653-8369

Lincoln Ross - G,E
 Waltham - 781-891-0332

Dave Walter - G
 Hudson - 978-562-5400

Jon Leehey - F
 Wayland - 508-358-5721

Tony Davids - H
 Stow - 978-568-9598

Scott Ritter - Q
 Sudbury - 978-443-2373

General Info

Flying Sites

Go to charlesriverrc.org and select the Flying Sites tab to see the various sites. CRRC reserves time seasonally on Davis Field in Sudbury, and shares Bill Martin Field in Medfield with the MMAC.

Keys to the

Bill Martin Field

To get a key for Bill Martin Field in Medfield please email Ken Antonellis at kxa@verizon.net. Ken is the key-master. The key for the 2021 season is key #15. Ken may have keys at the meeting. A \$5 deposit is required the first time you receive a key.

Tree Climbers

Tom Hurney
 508-272-7489

Scott (Sudbury)
 508-203-3845

Stephen Canessa
 The Tree Guy
 978-460-1000

Hartney Greymont (Medfield)
 Sean Comer
 781-444-1227
thescomer@gmail.com

Membership Application - 2022

Name					
Street					
Town		State		Zip	
Telephone		Email			
AMA No.		Birth Date			
I agree: []	Club membership and activities are bound by the CRRC handbook, available at: http://charlesriverrc.org/newsite/Documents/CRRC%20Handbook%202020.pdf				

IMPORTANT: You must be an Academy of Model Aeronautics member to join CRRC.
AMA Junior membership is free! <http://www.modelaircraft.org/membership/youth.aspx>
 By submitting this membership application you agree to comply with the AMA safety code,
 including documents 550 and 560 found at: www.modelaircraft.org/documents.aspx

To receive a membership card, bring this application to a club meeting or
 mail to the membership secretary:

John Eppling
Membership Secretary CRRC
43 Nylander, Acton, MA 01720
membership@charlesriverrc.org

You may pay by check or use PayPal.

Make **checks** to **Charles River RC**, or send **PayPal** to the email above.

Member category	Before March 1, 2022	After March 1, 2022
OPEN Member	\$60	\$65
SENIOR member If age 60 before July 1st	\$50	\$55
SENIOR member If age 75 before July 1st	Free if AMA member (<i>Voluntary donation appreciated - e.g. \$50</i>)	Free if AMA member (Voluntary donation appreciated - e.g. \$50)
JUNIOR Member Under 19 before July 1st		
NON-FLYING member If age 75 before July 1st	(<i>Voluntary donation appreciated</i>)	(Voluntary donation appreciated)
Full time STUDENT	\$40	\$45
Family member additional to OPEN membership		
Additional / optional donation (supports field rental)	Voluntary \$10 / \$25 / \$50 / etc	