

Newsletter of the Charles River Radio Controllers, Inc.



AMA CHARTER 339

June 2012

VOLUME 49 NUMBER 06

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Upcoming CRRC Events

CRRC 4th of July RC

Model Airplane

Demonstration

July 4th Davis Field

9:00 AM to Noon

MinuteMan Airfield Expo

July 14th Minute Man Airport

302 Boxboro Road

Stow, MA

GENERAL MEETING

Wednesday

06/20/12

@

7:30 PM

The Club Meeting for this month will be held at Davis Field in Sudbury. Bring a friend or just come alone. See directions on the last page.

CRRRC 4th of July Radio-Controlled Model Airplane Demonstrations



**Davis Field, Sudbury, MA
Monday, July 4th, 2012
9:00 Am to Noon**



Start your July 4th celebration with a mini RC Air-show

Learn all about this interesting hobby

See expert glider pilots perform precision landings

See hand-launch glider being tossed 100 ft in the air

See helicopters do rolls and fly inverted

See miniature jets perform high speed passes

See airplanes hover in the air and perform 3-D maneuvers

Learn how RC planes are used for aerial videos and pictures

- Pilots: CRRRC Members and guests
For an invitation please contact CRRRC
- Must have valid AMA membership
- Electric powered and Gliders only
- Pilots meeting at 8:30 a.m.

For more information please contact:
Dick Williamson [williamson \(at\) alum.mit.edu](mailto:williamson@alum.mit.edu)
John Eppling [jeppling \(at\) gmail.com](mailto:jeppling@gmail.com)

Or visit us at www.charlesriverrc.org

Charles River Radio Controllers and Eastern Soaring League Hand Launch Classic

July 7-8, 2012

Sportsman and Expert Categories
Awards: 1st-3rd place each day
Weekend champion

Davis Field, Route 117
Sudbury, MA



Entry fee: \$17 per day, \$30 both days
Lunch provided on the field

Advance registration at <http://www.flyesl.com/>

Check in: 8:00 - 8:45 am
Pilot's meeting: 9:00 am
First round starts: 9:15 am



Rudder-Elevator-Spoiler and 2-m Sailplane Contest

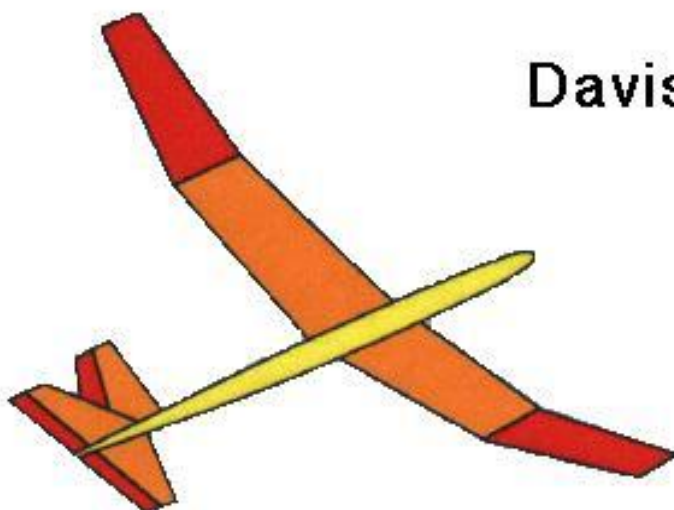
2-meter class will include any plane with a built-up open bay wing (e.g., Gentle Lady) or foam wing (e.g., Easy Glider). Wing span < 2m

Unlimited class will be RES

Saturday, July 28, 2012

Davis Field, Rte. 117

Sudbury, MA

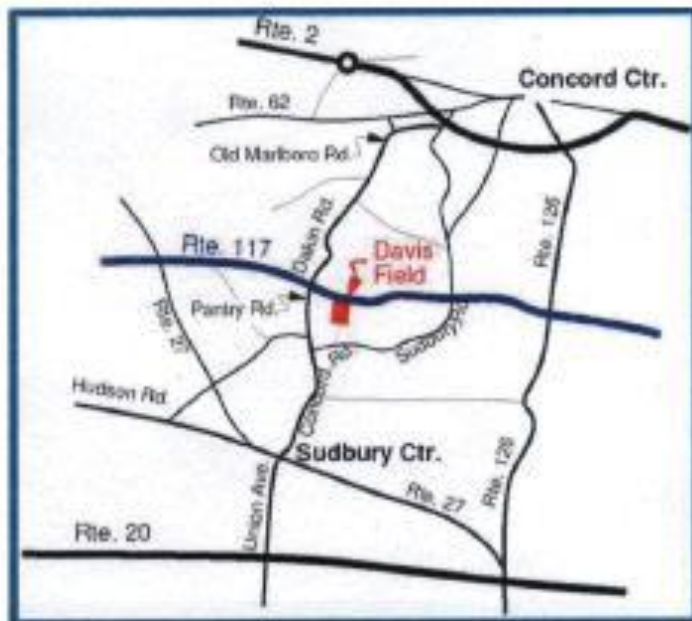


Entry Fee: \$15
(includes lunch)
or \$20 for both classes

12 V winches/retrievers

Registration at the field: 8-9 am
Pilots meeting: 9:05 am

For more information, contact:
Dick Williamson
williamson@alum.mit.edu
978-618-5475



RAFFLE

First Prize

Choice of

Snap & Fly 3-in-1 Micro RTF by Guillow



Flyzone Cessna 182 RTF -



President's Letter

Summer is here and its time to fly so I will keep this short. There is some pretty interesting news to report for the start of the summer season. First, I would like to thank Neil Kaufman for stepping forward and taking up the position of CRRC Vice President. He kindly volunteered at the last club meeting to take over the role and fill the gap! I look forward to working with Neil and the rest of our club officers through the rest of this year. I'm sure Neil has a few tricks up his sleeve for some interesting guest speakers for when the fall and winter close the fields up again. Speaking of fields, keep your eye on the web postings through yahoo groups for operations at Davis field with the giant Altius UAV. If this is news to you, jump on and check out the yahoo traffic concerning the matter. In short, we have a new group in the membership that is developing an 18 foot solar powered aircraft. If you are interested they are looking for pilots and technical assistance. The aircraft is very interesting and should prove to be a great booster for the club as well as technology in the hobby. The sun is getting low so I am going out to toss one up. When you see Neil congratulate and thank him for filling the void in our leadership and check out Sol-air and Altius this summer!

Big Plane (with solar panels)
Big Sky

New Members

Charles River Radio Controllers,

Hi everyone. We're Chris, Dave, and Nathan. We've recently joined CRRC and are working on a project to develop a solar-powered UAV (if you were at the last meeting, we're the guys that brought the big plane on the car). The plane has successfully flown several times already, and you can check out a video we made from a mounted camera on a previous flight below (there's also a cut scene from the ground):

<http://www.youtube.com/watch?v=1TcCzi96g1E>

We're at the point in the project where we start a more rigorous program of test flights. However, none of us has extensive experience with RC piloting, so we're turning to you all for help. We're looking for an experienced RC pilot who would be interested in helping us conduct test flights on our aircraft. Ideally, this person would have lots of experience with both powered and glider aircraft. We aren't trying to do any aerobatics and the plane should not be difficult to fly, but a lot of the tests require the ability to accurately hold airspeed and/or altitude. To help with that, the plane is equipped with an FPV/telemetry system, but this is not meant to be the main means of control - all flights would be VFR. The aircraft has an 18ft wingspan and is powered by two DC motors running off 4S LiPo batteries (50 Ah).

We are also installing an autopilot in the near future, but the first test flights would be using standard RC controls. This is a chance to fly an exciting new aircraft, and we can also discuss compensation for qualified pilots.

If this sounds interesting but you don't want to fly, we're also looking for some people to help us develop some safety procedures for the Davis field flying site, where we're hoping our next test flights will take place. If you're interested in this project in any capacity, we'll be having a planning meeting this Friday at 7pm at 10 Tyler

St, Somerville, MA (our workshop). If you'd like to attend, please send me an email:

chris.courtin@gmail.com

Hope to meet you all soon!

Chris, Dace, and Nathan

MinuteMan Airfield Expo

We have been invited to attend the Minuteman Airfield General Aviation Expo and Open House in Stow, MA. We have participated in this event in years past and after a recent hiatus, will be enjoying the event once again this season. Please visit <http://www.minutemanairfield.com/> for details and information about the airport and their other events. The address is listed below and Richard Gammon will be the primary contact for the event. He can be reached at gamzoom@charter.net for further inquiry. Their will be plenty of full scale interests and to entertain marvel at during this event. See you there!

Minuteman Airfield
302 Boxboro Road,
Stow, Massachusetts
(978) 897-3933

Treasurer's Report

May Activity Report Date 05/31/12

Starting Balance 05/01/12	
Checking	\$6,799.31
Cash Box	\$25.00
PayPal Acct	\$511.20
CD Accounts	\$6,886.39
Total Starting	\$14,221.90
Income - CDs	
Interest May	\$2.79
Total Interest	\$2.79
Income - Checking	
Membership	
Raffle	\$63.00
Total Income	\$63.00
PayPal Activity	
Membership	\$80.00
less PayPal fee	
Total activity	\$80.00
Expenses - Checking	
Millis Model Aircraft Club - Field Care	\$1,571.88
Speaker Expenses	\$100.00
R.C. Buyers Warehouse	\$54.00
Total Expenses	\$1,725.88
Ending Balances	
Checking	\$5,136.43
Cash Box	\$25.00
PayPal Acct	\$591.20
CD Accounts	\$6,889.18
Grand Total Ending 05/31/12	\$12,641.81

David Marshall
CRRC Treasurer

May Meeting

Business Meeting

President Sky Andrew opened the business meeting at 7:42 PM at the Goodnow Library, Sudbury, MA.



The treasurer and secretary reports were approved as written in the May newsletter.

Field Reports

Reports from Bill Martin Field fliers are that the field is in fine shape. Likewise, the Davis Field fliers had a fine outing this past Sunday. Note that Davis Field will be in use for model rocket launching on Sunday May 20, and will not be available for CRRC.

Membership Report

Membership chair Ray Harlan reports our membership is 92.

Board of Director's Meeting

A Board of Directors Meeting will be held next Tuesday evening via Skype at 7:30 PM. Chris Hall volunteered to join as member at large.

Old Business

As discussed at the last meeting, Sky had received a bid from RC Buyers Warehouse in Nashua, for \$54 for a box of 24 Guillows balsa gliders. A motion was made, seconded, and unanimously approved to purchase one box to be used as handouts at CRRC public events. Last month Sky showed us samples of some stickers with the CRRC logo that were printed by an

Internet vendor. Sky hasn't heard back from his contact, but if you are interested in purchasing some of the stickers, send an email to Sky. There have been discussions about updating the CRRC flier that we have distributed to hobby shops promoting our club. Dick Williamson offered to review and update the text discussing airplane types that has become out of date as technology has marched forward.

New Business

Pilot rating stickers that were voted on as part of the new Bill Martin Field rules were available tonight. See John Eppling, Sky Andrew, or Dick Williamson if you need a sticker. Instructor pilots get a red sticker, open pilots blue, park flyer green, and student pilots get a white sticker. These stickers are to be attached to your CRRC badge and are to be worn while flying at Bill Martin Field. (not necessary for Davis Field)



John Eppling has submitted the AMA sanction for our annual July 4th demonstration event at Davis Field.

Dick Williamson has submitted the Davis Field permit request to Sudbury Park and Recreation

department for the summer season. Dick will request that treasurer David Marshall prepare a check in the amount of \$600 payable to Sudbury Park and Rec to cover the permit fee.

With the onset of the summer season the general meetings for June, July, and August will be held at Sudbury's Davis Field. We will return to the Goodnow Library in September.

A request was made that webmaster Bert Cohen post the new rules for Bill Martin Field on the CRRC website.

Sky Andrew reported that words were recently exchanged between two pilots at Bill Martin Field concerning helicopter operations. Sky requests that pilots treat each other with respect while flying at Bill Martin Field.

Anker Berg-Sonne was contacted by Don MacPherson, owner of Stowe's Minuteman Airfield, asking if CRRC would like to participate in the Minuteman Airfield open house on Saturday, July 14. CRRC has flown at Minuteman in the past, although last year we decided against returning. The small size of the airfield doesn't leave adequate space for full-size and RC aircraft to fly safely. It was suggested that a static display promoting CRRC might be appropriate. This opportunity will be discussed during next week's BOD Skype meeting.

New Wings

No new wings.

Guests

John Evans of Concord was a guest and our newest member. John is interested in thermal duration gliders. He has a couple of gliders that have been under construction for a very long time, and would complete them and get them airborne.

Nathan Buch, David Hegermiller and Chris Courtin, all Princeton 2010 mechanical engineering graduates, joined us to share their project, Solair Altius.



Solair Altuis is a flying wing they designed for their senior thesis. Their design criteria included sustainable flight over a 24-hour period, with a solar powered and battery backed power plant.



The foam core wing is covered with carbon fiber and kevlar, has a wingspan of almost 18 feet, and a weight of 40 pounds. The wing they showed us was their second prototype, and is still awaiting the addition of solar panels.



It carries a 5000 mAh battery which delivers 90 minutes of flight powering two brushless motors. The range is line of sight, and the plane carries a fixed nose camera, gimbaled belly camera, and Xbee telemetry.

The business meeting was closed at 8:00 PM, and the meeting reconvened in the parking lot to see the Solair Altius, as it was too large to bring into the building.

Raffle

Andrew Bennet graciously donated a large collection of surplus RC modeling items from his Olin laboratory



Larry Wetmore was the first prize raffle winner of one of Andrew's donated items, an RTF micro Piper Cherokee.



Second prizewinner Jerry Schaufeld took home an Ultra Micro Sukoi SU-26.



Bryce Greene was the lucky third prize winner of a Walkera CH-47 helicopter.

Show And Tell

David Speilman put the finishing touches on his Allegro Lite after two years in the making.



It weighs in at 24 ounces; just a few ounces over Mark Drela's target weight. Dave says the build was very demanding, but now that he has finished, his confidence has been ratcheted up a few notches. The plane has already suffered a break in the tail boom from a hard landing, but a fix is in the works.

Anker Berg-Sonne showed his new 147" Supra wing, which he plans to use as his first line competition sail plane this summer.



Anker purchased a very light fuselage from an online contact. He anticipates the final weight will be 64 ounces.

Helmut Lelke displayed two sensors that he has been developing.



The sensors use two different techniques to measure air speed, which when coupled with a

PIC based microcontroller, will be used for active stabilization of a flying wing.

One sensor uses a wind driven paddle wheel and the second one uses a vane that placed in a magnetic field.

Bryce and his dad Jeremy Greene are nearing completion of their Four-Star 20 EP from a Sig kit.



They have finished the covering and the electronics installation is next. This is their first balsa kit, and Bryce has been the primary builder with a little help from dad.



Neil Kaufman displayed his new Mini Kaos parkflyer.

The design is an old time popular glow model that Neil converted to electric power. Neil says the Mini Kaos is very acrobatic.

Bert Cohen displayed his completed Great Planes Electric Cub. He was concerned about excessive vibration from the motor and propeller.



After a group discussion, Bert removed the propeller, turned on the motor, and the vibration was gone. The conclusion was that the propeller was out of balance. Bert has been taxiing the plane on the ground but has yet to take a leap into the air.

Guest Speaker

Tonight's guest speakers were Adam Fields and his colleague Mike from the Unmanned Systems and Warfighter Technology Team at the Natick Soldier Research Development and Engineering Center. Adam and Mike showed us a series of three small UAVs that have been under development at Natick starting in 1998.



The original prototype, called Pointer, was javelin launched, and weighed 12 pounds. The next prototype called Raven was half the size, weighed four pounds, and included front and side look video. The latest version of Raven is all-digital, and a few thousand have been deployed with troops in the field.



The Raven can be launched with a gentle toss in the air. The goal for these UAVs was to have a 90-minute duration, 10 Km range, and be flown by troops with some training, but not requiring skilled RC pilots. Onboard GPS navigation allows the UAV to fly to a target and remain on station while observing activity on ground from an altitude of 400 feet and relaying video back to the ground station.



The systems are small enough to be carried by soldiers. The UAV alone has a cost of about \$20,000.



Multiple ground stations can control the device and can hand off control from one to another. The UAV can also function as a relay station for other UAVs down range.

***Larry Wetmore,
Recording Secretary***

Float Fly May 19-20

The Spring Fun Fly was held the weekend of May 19 and 20th. The weather was ideal and the turnout was good. The burgers and hotdogs were pretty good also. All in all, it was a great experience and worth coming out just to see the latest seaplanes. Included below are a few photos.



The registration and onlooker's club.



Ruane Crummett gets the prize for largest entry





We had a fleet of three big yellow cubs.



Dick Roy's Dragon Seaplane



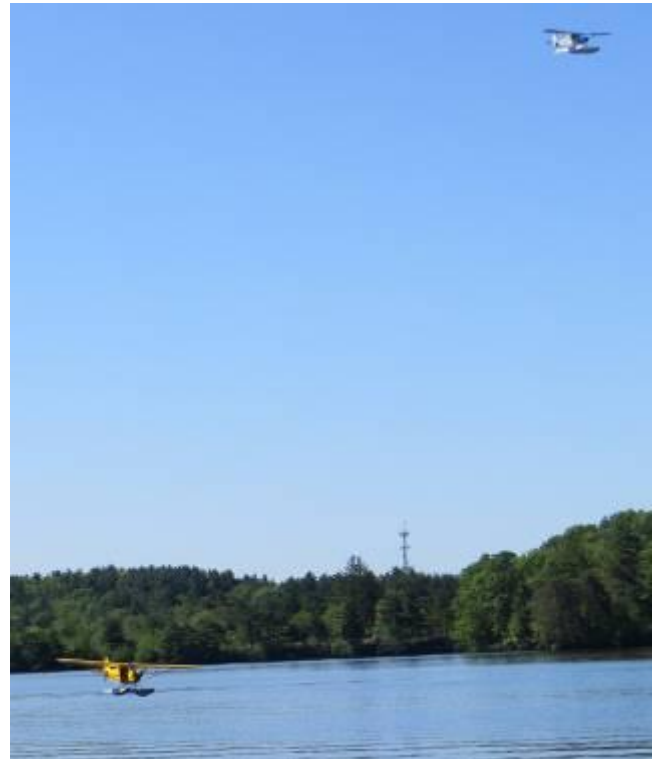
John Eppling's Fun Cub on floats. A lot of plane for the Money.



Ruane and the Cub's Maiden on water.



A classic shot.



A nice 'twofer' shot.



*Photos courtesy of
Fritz Bien
& Dick Roy*

CRRC BUILDING AND FLIGHT INSTRUCTORS

To start your flight instruction; please call our chief instructor:

Richard (Dick) Williamson
978-618-5475

Dick will match you with one club instructors. Our instructors are qualified and willing AMA pilots and fellow club members.

See <http://www.charlesriverrc.org> for directions to the flying fields. If you have any questions about the construction of your airplane, or want to have an experienced pilot pre-flight check your airplane before heading to the flying field, then call Brian or any of the building instructors.

Name	Town	Phone	Building	Glider	Electric	Fuel	Helicopter
Dick Williamson	Sudbury	978 618-5475	Yes	Yes	Yes		
Fritz Bien	Concord	978 369-1720	Yes	Yes	Yes		
Tom Bauer	Wellesley	781 235-7344	Yes	Yes	Yes		
Brian Rickman	Marlborough	774 249-2494	Yes		Yes		
Derick Veliz	Acton	978 337-7867	Yes		Yes		
John Weigel	Natick	508 655-2138	Yes				
Richard Gammon	West Boylston	508 835-2049	Yes	Yes	Yes	Yes	
Ken Antonellis	Natick	508 653-8369		Yes	Yes	Yes	
Bruce Schneider	Hudson	978 460-0305		Yes	Yes		
Lincoln Ross	Maynard	978 800-0608		Yes	Yes		
John Nilsson	Clinton	978 368-7136		Yes			
Dave Walter	Hudson	978 562-5400		Yes			
Jon Leehey	Wayland	508 358-5721				Yes	
Tony Davids	Stow	978 568-9598					Yes

TREE CLIMBERS, KEYS, MEMBERSHIP & BOARD MEETING

TREE CLIMBERS

Lloyd Keyes: [Wayland]
508-358-9197 or 508-341-0110

Michael Lynch [Wayland/Sudbury]
Lynch Landscape & Tree Service Inc.
508-665-0798
lynchlandscape@yahoo.com

Paul Harrington [Medfield]
508-376-2573

Monkey Man [Marlboro]
508-215-4290

Scott: 508-203-3845 [Sudbury]

Tony Morais
A1 Tree Services [Framingham]
508-626-0088 or 800-657-7788

Stephen Canessa
The tree guy
978-460-1000

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

Editors Note: If you know of any tree climbers or tree services, please send contact information to the Newsletter Editor

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 2012 season is key #27. Ken may have keys at the meeting. A \$5 deposit is required the first time you receive a key.

MEMBERSHIP

Here are the updated CRRC membership figures. The table summarizes the membership status from 2005 through 2012.

Year	Renewals	New Members	Peak Totals
2005	144	20	164
2006	124	26	150
2007	132	32	164
2008	100	23	123
2009	90	28	118
2010	74	22	96
2011	82	26	108
2012	60	16	76

-Ray Harlan
Membership Secretary



THE CHARLES RIVER RADIO CONTROLLERS, INC

2012 MEMBERSHIP APPLICATION

AMA Charter 339

Name _____ AMA No. _____

Street _____ Birth Date (AMA req'd) _____

Town _____ State _____ Zip _____ Tel. () _____ - _____

E-mail _____

IMPORTANT: You must be an AMA member in order to receive your CRRC membership card.

To receive membership card and field pass, bring this application to a club meeting or mail to the membership secretary (address below). You can pay by check or use PayPal.

(PayPal to membership@charlesriverrc.org)

Please make check payable to:

Charles River RC

Ray Harlan
Membership Secretary CRRC
15 Happy Hollow Road
Wayland, MA 01778
508-358-4013

E-mail: membership@charlesriverrc.org

SAVE \$5 - EARLY BIRD DUES RATES ARE LISTED

	MEMBERSHIP CATEGORY	On or before Mar 1, 2012	After Mar 1, 2012
☐	OPEN Member	\$40.00	\$45.00
☐	JUNIOR member, (Under 19 before Jul. 1)	\$10.00	\$10.00
☐	SENIOR member, (If age 60 before Jul. 1)	\$30.00	\$35.00
☐	SENIOR member, (If age 75 before Jul. 1)	Free if AMA member	Free if AMA member
☐	Full time STUDENT	\$20.00	\$25.00
☐	Family member additional to OPEN membership	\$20.00	\$25.00

Please choose from the options below:

- ☐ DO NOT include my personal contact information in the club phone book

**Help reduce operating costs by
downloading the newsletter
from the CRRC website.**

NOTICE: THIS MONTH CRRC CLUB MEETING

Guests are welcome!

When: **Wednesday June 20th, 2012 (3rd Wednesday)**

Note: Check for the meeting announcement in our monthly Newsletter.

Time: **6:30 p.m. (Summer only)**

Where: **Davis Field, Sudbury, MA – (June, July, August meeting only)**

Note: Starting in September, meetings will be held again at the Sudbury Library

Directions: **From the West**

Take the Massachusetts Turnpike to Rt. 495 North. Take Exit 27 "Bolton and Stow" off of Rt. 495 and turn east toward Stow. You just stay on Rt. 117 all the way. The field is almost exactly 11 miles from Rt. 495. You will pass the following landmarks:

From the East:

From Rt. 128 (I95), take Rt. 2 west. At second set of lights turn left to stay on Rt. 2 (Mobil station will be on your right after the turn). Turn left at 4th set of lights onto Sudbury Rd (it's the next set of lights after you cross Rt. 126). Follow Sudbury Rd. south to intersection with Rt. 117 (Rossini's Restaurant is on the right at intersection). Turn right onto Rt. 117 going west, follow it for 1.5 miles. Field is on the left.

