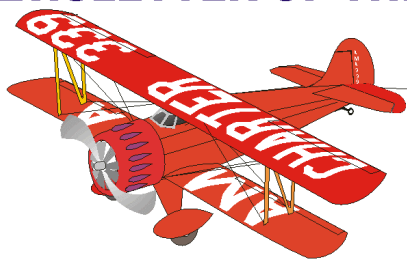


NEWSLETTER OF THE CHARLES RIVER RADIO CONTROLLERS, INC



CRRRC FLIGHT-LOG

<http://www.charlesriverrrc.org/>

AMA CHARTER 339

February 2006

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GENERAL MEETING

Wednesday
February 15th
7: 30 PM

SCALE HELICOPTERS

Adam Tashjian from East Coast Scale Helicopter USA will be bringing in several of his scale helicopters. These are rather large, so make room on you calendar.



FEBRUARY RAFFLE

First Prize

Your choice of
Scorpio F6F Hellcat Electric



OR



Super Chipmunk sized for
size 40 engines

Second Prize

A pair of servos
HS81's or HS55's

and

WON

a
COOL TOOL
for
Show-n-Tell

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President's Letter



I became interested in R/C in the late 60's. I was in college and worked part time at a gas station so the investment was quite sizeable, but I had the bug. I would drop in at Wayland High School where Bob Fish was a one man R/C school. He helped anyone who showed up and there was usually a waiting line. Radios were not all that reliable and it was not unusual to hear calls of "look out!" as a plane would spin out of control into the ground.

About this time Kraft came out with their reliable 4 channel proportional radio that became the standard for the hobby. At the same time Bob started a hobby shop out of his basement. The standard first airplane at the field was an H Ray by Andrews. It featured rudder, elevator and throttle. So I gathered my savings and picked up a kit, radio and engine.

After many late nights, lots of trips to Framingham for supplies, advice from Bob and a constant stream of complaints from my parents about the smell of dope coming up from the basement, I was ready to fly. For weeks I had been thinking about this moment. The morning of my first flight, I gathered up all the equipment, checked and rechecked the list, carefully packed everything in the car and with great excitement took off for Wayland. As I got to the end of our street, ready to turn off, something in the corner of the rearview mirror caught my eye. It was my mother, not know for her athletic ability, running down the street waving her arms. She had watched from the window as I put the transmitter down on the roof of the car while I packed the plane and she had watched as I drove off, transmitter still on the roof. She became the first person to save me from a crash. I had never imagined that my first crash might involve the transmitter, not the plane.

The lesson to be learned was that no matter how careful you are, someday you would probably make a stupid mistake. Whether it involves reversed ailerons, forgetting to switch on your radio or taking off with an empty tank (not that any of these things have ever happened to me), if you're in this hobby long enough, it's going to happen. A second pair of eyes is your best defense against your own stupidity. If your mother is not available, your fellow flyers may be your guardian angel. Last summer someone asked me "how come your engine is shaking so badly?" Sure enough the engine mount was hanging by a thread and I had not noticed it. Keep your eyes and ears open; the plane that you save may be your own.

By the way, that day the H Ray, under Bob's control, flew perfectly. I was totally amazed that something I built could fly. To this day I feel the same excitement during the first flight on any new plane.

-JP

**RENEW YOUR 2006
MEMBERSHIP
TODAY!**



Sign up by March 1st and receive a discount. Rates return to normal in March. You can now use PayPal when renewing your membership.

AUCTION ACTION

Here is a comprehensive list of the local and not so local auctions this winter.

February 12th, Northern Connecticut RC Auction, New England's largest Vernon, CT
www.NCRCC.ORG

February 19th, 107th RC Flyers Auction. Time: 1:00 PM, \$2 admission. Location: VFW hall off Main Street near the Hilltop Steakhouse in Saugus, MA.

February 19th, Cape Ann RC Auction, VFW Hall, Rowley, MA www.carcmc.org

March 5th, South Shore RC Auctions, Vets Club Route 18, Bridgewater, MA www.ssrcc.org

March 11th, Central Penn. Flea Market, The East coast's largest, Lebanon, PA www.cpaa.us

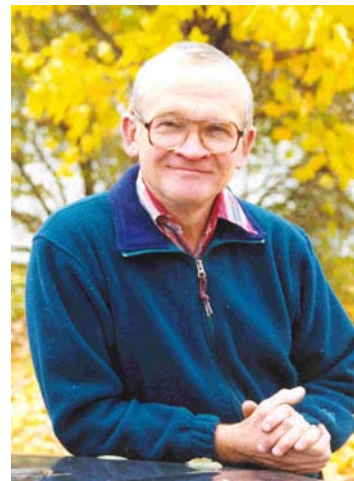
Treasurers Report

TREASURER'S REPORT Report Date 2/4/2006

Starting Balance 01/01/06	
Checking	\$4,764.15
Savings	\$912.12
Cash Box	\$25.00
PayPal Acct	\$58.63
CD Accounts	\$4,528.94
Total Starting	\$10,288.84
Income	
Teamworks, indoor flying, Dec '05 receipts	\$120.00
Teamworks, indoor flying, Jan '06 receipts	\$80.00
Raffle income, Dec '05 & Jan '06	\$128.00
Transfer from PayPal account	\$0.00
2006 Dues income	\$712.00
Interest - Savings	\$0.92
Interest - CDs, from 2005 (correction)	\$67.85
Interest - CDs	\$11.87
Total Income	\$1,120.64
Expenses	
Teamworks, indoor flying, Jan & Feb, check #1467	\$330.00
Raffle prizes, checks #1459, #1460 & #1469	\$237.50
Newsletter expenses, checks #1461 & #1468	\$121.30
Soar In sanction, check #1470	\$40.00
Polecat HLG contest sponsorship, check #1471	\$70.00
The Brain Trust, in memory of Rick Hallet, check #1472	\$50.00
Dues overpayment refunds	\$30.00
Account fee - Savings	\$10.00
Total Expenses	\$888.80
Ending Balances	
Checking	\$4,925.35
Savings	\$903.04
Cash Box	\$25.00
PayPal Acct	\$193.35
CD Accounts	\$4,608.66
Grand Total Ending 01/31/06	\$10,655.40

-Jon Leehey

The Charles River Radio Controllers recently learned about the sudden passing of Rick Hallet, on January 22, 2006.



Rick was one of those rare people who participated in the sport of Model airplane flying for the fun of it. Winning was not important, and his ability to shrug off mishaps was amazing. This positive attitude also helped his family and friends deal with his brief and serious battle with brain cancer. Rick was a driving force in the DownEast Soaring Club of Maine and CDed many contests for them. He was a regular at the CRRC Soar-In, the northernmost ESL contest, and other contests in New England that were in reasonable driving distance from his home in Central Maine.

The CRRC has sent a condolence card to Rick's family and made a contribution to The Healing Exchange Brain Trust in Rick's memory on behalf of the membership.

For those of you who would like to send condolences to Rick Hallet's family, or make a charitable donation in his memory, I have the following information:

Cards can be sent to:

The Hallett Family
65 Somerset Ave.
Pittsfield, ME 04967

Charitable contributions can be made in Rick's memory; the family asks that donations be made to The Healing Exchange Brain Trust at:
www.braintrust.org

Or via USPS at:
The Brain Trust
186 Hampshire Street
Cambridge, MA 02139-1320

The family is especially interested in any stories or anecdotes you may be able to share about Rick.

-Anker Berg-Sonne

JANUARY GENERAL MEETING NOTES

Secretary's Report January 2006 General Meeting

Field Reports

Davis field has been windy and wet. Medfield has been plowed and has been flyable especially for those on skis!

Old Business

John Nilsson on membership.

3 new members

67 renewals

70 total

At the Frozen Finger Fun Fly all were excited to be there. With 3 inches of snow on the ground, skis were the order of the day. A good time was had by all. Special thanks to Ken and spouse for taking care of the food.

New Business

Dick Williamson reported good news at the Sudbury Park and Recreation meeting regarding the club use of Davis Field.

New Pilots

There were no new pilots and no solo flights.

Guests

There were no guests present.

Raffle

The first prize was a Cemech Reflex 3D electric plane. Won by: Dave Spielman.

Second prize a Transmitter/Tool case was won by Jan Kansky.

Show & Tell

We were all treated to a video by Derick Veliz. The video started out with Derrick's usual fine footage of his new TwinStar II. This is an \$80.00, twin motor EP

plane. Powered by two brushed speed 400 motors. About half way through the video the Point-of-View changed and we were treated to a pilot's eye video from the cockpit of the TwinStar.

David Spielman brought his, as of yet, unflown Ascent Powered Glider. It will fly with a brushless motor and 1500 mAh li-poly battery.

Pete Young showed off his Horizon Hobby XL biplane. With approximately a 1.8 to 1 thrust to weight ratio, it has excellent vertical performance. Pete also showed a wet fuel to electric conversion of a Funtana 40. At the Frozen Finger Fly the plane was on skis. At first the skis stuck like the brakes were on. When the skis popped loose, the plane took off in about ten feet!

Fritz Bien Brought in three sailplane fuselages. First was an Aegea of Kevlar and carbon fiber. Second was a real speed demon F3B/F3J type, super clean. Last was a Supra fuse sporting a \$100 nose, a \$30 boom and a slight droop in the nose for spot landing.



Next we were treated to a dual large plane show. Jeremy Harkin with a 30% Edge 540 that will be trimmed out in Red Bull colors. With a DA 50 engine, it should hang on the prop.

Then we saw John's Extra. With the largest of wet engines, a Satio

180, it was the largest plane that would fit in his car.

The last show and tell was a ceramic "Battery Bunker" shown by Tony Davids. Designed for safely charging Li-Poly batteries.



The winner of the "Cool Tool" for show and tell was Jeremy.

Entertainment of the Night

We were shown a great slide presentation of Dave Walter and John Nilsson's excellent adventure, subtitled "July in Indiana". This was the visual record of their trip to the AMA.

It started with a gag photograph showing the VW loaded to about five times the height of the car. It was obvious that in loading the car, V-tail and cross-tail planes have trouble coexisting in a crowded vehicle.

We saw great shots of aeronautical museums on the way to and from Muncie.

Monday and Tuesday were the two-meter contests. There were approximately 60 contestants.

The Open Competition took place on Wednesday and Thursday. Long rain delays caused extended flying schedule "and third place goes to Dave Walters. This announcement made it all worthwhile.

We all enjoyed the beautiful photography and the humor presented at the meeting.



UPCOMING EVENTS



INDOOR FLYING

Indoor flying will be held February 11th and March 11th from 9:00 to midnight. The location will be at Teamworks.



The cost is approximately \$10 per night for flyers. You will have to qualify by flying three circles and three figure eights with your plane before being given permission to fly.

There are field changes for Feb. and March. When you go down the stairs turn to the left field not the right field that we previously used.

From Boston/East:

Mass Pike (I 90) to I 495 North. Take I 495 to Route 9 West to Westborough/Shrewsbury. Stay on Route 9 for approximately 5 miles. Turn right onto Otis Street at Fountainhead Apartments, TEAMWORKS - 200 yards on right.

-Bruce Schneider

FEBRUARY GUEST SPEAKER

Adam Tashjian from Worcester is going to be speaking at the February 15 Charles River Radio Controllers monthly meeting. He will be bringing several scale RC helicopters. I saw one of his one of a kind in the US, Forestale Air Crane, on the AMA Ultimate RC DVD Volume IV from the IRCHA Jamboree 2005 (International Radio Control Helicopter Assoc.). I believe he is also bringing a twin cylinder OS four-cycle model and maybe others. These are very large too! See you then.



Built by Adam Tashjian from East Coast Scale Helicopter USA. This is the first Vario Airplane to fly in the USA. It was modeled after the Italian Forestale fire fighter unit. This machine is the Benzene powered version, and it fly's like a dream. Thank you Vario for another fine scale helicopter.

-Tony Davids

THE WRAM SHOW FEBRUARY 24, 25 & 26, 2006



Eddie Omiccioli and his first place winning entry in last years WRAM show

This is one huge aero modeling event where many vendors will be showing off their wares. Once a year, an opportunity to see this show comes along. Carpool and enjoy the company. Westchester Radio Aero Modelers show information can be found at www.wram.org

DAVIS FIELD USAGE FEES



Davis Field was 45 degrees with no wind, a beautiful February day.

I just sent to the CRRC list a long description of the information from the Park and Rec. meeting. The BOD needs to consider some dollar issues. The adult field usage fee is going up from \$20 to \$30 per hour.

In order to block out spring Sundays last year, CRRC took out a permit for two hours (11 am to 1 pm) for eight Sundays in the spring (mid April to mid June) for a total of 16 hours. If we do the same thing in 2006, the cost will be \$480.

For summer contest days, we reserved five hours on each day. If we have two days for a HLG contest, two days for a RES contest and two days for the Soar-In, the total cost will be \$900. This will be partially offset by registration fees.

In fall 2005, CRRC had a permit for two hours on four Sundays in the middle of the football season when Pop Warner did not use Davis Field. If field construction at the high school is completed during the summer, Davis Field should be available every Sunday in fall 2006. If we reserve two hours on each of eight Sundays in September and October, the total will be \$480.

Adding all of this up, the yearly total paid to Sudbury Park and Rec. will be \$1,860. Offsetting this relative to prior years, CRRC will not have to pay for a Porta-Potty because Park and Rec. will rent a unit for Davis Field. That saves around \$250 relative to earlier years.

The amount we pay to Park and Rec. is really earnest money. They are well aware that CRRC uses Davis Field on a lot of days and for a number of hours not covered by the specific hours listed in the permits. Also, we can only take out a permit for times when youth sports programs don't want the field. So why pay anything? The best answer is that our willingness to pay and coordinate with the sports program has made CRRC a "legitimate" user in the eyes of Park

and Rec. They have recognized CRRC's special needs for a place like Davis Field and this had a small part in the future plans for Davis Field.

As a final note, a spring clean-up day for Sudbury's recreational fields is scheduled for Saturday, April 8. CRRC might consider participating in a clean up of Davis Field on that day. I think it would be good politics.

-Dick Williamson

JOIN THE CRRC EMAIL LIST TODAY

If you recently joined CRRC you may not know that the club maintains an email list hosted by Yahoo Groups. The list is restricted to current and past club members. It is used for organizing CRRC events, announcing club business (like the monthly meeting), and general discussion of RC matters.

We invite all members to sign up for this list. To do so, you can send a message to the list moderator Dave Walter (walter "at" TopLayer.com), or visit the sign up page on the club website at http://www.charlesriverrc.org/crrc_emaillist.htm.

This service allows you to tailor it to your needs. To do so, you need to establish a Yahoo account. Once you have an account, you can adjust your mail preferences to get individual messages, one bulk message once a day, or no mail at all. If you select the no mail option, you can still read the message using the Yahoo web interface at <http://groups.yahoo.com/group/crrc>. Note that even if you select the no mail option, high priority messages like meeting announcements will still be mailed to you. If you don't want to bother with the Yahoo account, send a message to Dave Walter and he can set your mail delivery option.

-Dave Walter

FLIGHT RECORDERS

Progress Report – Eagle Tree Flight Data Recorder and GPS Module evaluation

I've been operating the miniature flight data recorder (FDR) designed and marketed by Eagle Tree Systems for some time. The basic Eagle Tree FDR is a solid state data recorder that's designed to be carried on-board an r/c airplane and can be setup to record the following data: pressure altitude, up to 4 servo commands, airspeed (using an external pitot-static tube), engine RPMs (using a Hall sensor), receiver voltage, and thermocouple temperature (useful for cylinder head temps, jets' exhaust temps, or electric aircraft motor temps). An optional plug-in "electric expander" designed for electric models allows you to measure electric motor current and battery voltage plus providing displays of amp-hours consumed in flight. Power for the FDR can be tapped from the radio control system so an additional battery for the FDR is not required. The Eagle Tree FDR weighs 1.5 ounces with cables and is about the size of a standard 7-channel radio control receiver.



Dynaflyte Butterfly II equipped with Telemetry

Another option is the Eagle Tree "Seagull" telemetry system that allows you, for only an additional ½ ounce airborne weight, to downlink selected data to a small battery powered digital display unit. In addition to having numerical data available, the user can pre-set individual alarms to signal when various parameters are reached or exceeded – such as altitude, airspeed, rpms, or low voltage.

The purpose of this piece, written as we're watching the Super Bowl, is to provide a 'progress report' on the most recent option for the ET FDR: a 1 ounce

Global Positioning Satellite (GPS) module weighing only one ounce. This is an intriguing little receiver that's quite compact (45mm x 50 mm x 10 mm). In a 'bare bones' mode, a telemetry system is not required and all that's needed are the upgraded Eagle Tree FDR Pro model and the GPS module. There's a tremendous amount of data available from this module – the primary ones of interest to me are latitude and longitude, GPS-computed ground speed and altitude, distance from the model to the starting point, and GPS UTC time.



Close up of the Eagle Tree equipment

I discussed various ways to evaluate this device with several MIT GPS-savvy grad students as well as consulting with Jan Kinsky. First off, I wanted to verify that the ET GPS module gave good results on absolute position. To verify this, I happened to recall that there are brass medallions, known as GIS "monuments", permanently buried in sidewalks and other immovable sites. The absolute three-dimensional position of these GIS markers is certified to be within +/- 30mm relative to digital models of the earth's surface. A quick web search turned up a listing showing GIS markers around Cambridge and I settled on one such outside a McDonalds located on Western Ave. in Brighton. I placed the Eagle Tree GPS module on top of the GIS marker and it's reading was a perfect match to the GIS values! I plan to take additional verification measurements around town, primarily for 'photo op' purposes and have my heart set on taking GPS measurements in Harvard Yard. Watch for me, I could be on the 11 o'clock news soon – "CRRCer Arrested for Acting Suspiciously in Harvard Yard". Right.

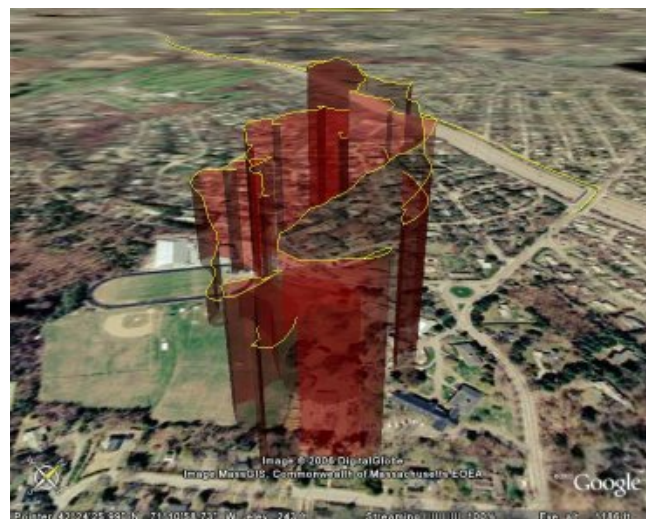
My most recent GPS measurement was made with my 100" electric powered motor-glider, a Dynaflyte Butterfly II, powered by a geared Kontronik brushless motor. The site was the athletic field at Belmont Hill, a preparatory school just off Rte 2 in Belmont. I simply Velcro'd the GPS receiver to the fuselage behind the wing and placed the FDR inside the fuselage where it was powered up by a jumper plug to an R/C receiver's spare channel. What's really nice is that the resulting flight data is easily mapped to Google Earth and the results are as shown. Although the flight tracks may resemble the migration of snails, what they show (to me, at least), is the trajectory of my aircraft as I climbed to altitude against a brisk wind, shut the motor off and thermalled, set in down trim and cruised upwind, and finally circled back to an uneventful landing on the field. The data was acquired at 10 hz and as previously mentioned, on-board system data is also being measured for later playback.

I know many of you are wondering whether the FDR airborne flight data recorder provides any value to the user considering its costs. My response is that a lot depends on the extent of your interest in determining model aircraft performance. Measuring velocity and altitude measured by GPS is very easy and, in the case of velocity measurements, is far less trouble than fiddling with an externally mounted pitot-static tube that can be misaligned or that needs individual calibration TLC. Having in-flight data on electric propulsion systems is very useful to telling you the flight conditions under which electric current limits are being exceeded. And finally, having GPS-derived model location data during powered and gliding flight is just plain fascinating to play back and analyze!

Let me know if there'd be interest in hearing more details on the actual operational procedures used to setup, initialize, playback, and mapping onto Google Earth imagery, and if so, I'll write a follow-up article next month.

I'd like to express my thanks to Jan Kansky and Yuto Shinagawa for help setting up the Eagle Tree FDR.

Peter Young
pwyoung@ix.netcom.com



CRRC BUILDING AND FLIGHT INSTRUCTORS

This is our list of qualified and willing instructors. Power planes are flown only at the Bill Martin Flying Field in Medfield. Sailplanes and Electrics can be flown at the Davis Farm Field on Rte. 117 in Sudbury. 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 any of the building instructors.

INSTRUCTOR CONTACTS

Chief Instructor and Safety

Officer: Jeremy Harkin

jeremy_harkin@yahoo.com

(781-894-6683)

POWER:

Bob Scott	Norwell	781-982-0268
Pete Young	Watertown	617 923-4184
Ken Antonellis	Natick	508-653-4513
Jon Leehey	Wayland	508 358 5721
Dave Walter	Hudson	508-562-5400
Fritz Bien	Concord	978-369-1720
Neil Kaufman	Sudbury	508-443-9647

ELECTRICS:

Bruce Schneider	Hudson	978-562-9900
Fritz Bien	Concord	978-369-1720
Dave Walter	Hudson	978-562-5400
Derrick Veliz	Acton	978-266-1739
Pete Young	Watertown	617 923-4184
Lincoln Ross	Waltham	781-891-0332

SOARING:

Dick Williamson	Sudbury	978 443-8549
Dave Walter	Hudson	978-562-5400
Bruce Schneider	Hudson	978-562-9900
Fritz Bien	Concord	978-369-1720
John Nilsson	Clinton	508-368-7136
Pete Young	Watertown	617 923-4184
Lincoln Ross	Waltham	781-891-0332

HELICOPTERS:

— None Available at present—

BUILDING:

Ruane Crummett	Wayland	508-655-2234
Fritz Bien	Concord	978-369-1720
Joel Foner	Natick	508-653-3560
John Weigel	Natick	508-653-3560
Pete Young	Watertown	617 923-4184
Derrick Veliz	Acton	978-266-1739

TREE CLIMBERS & MEMBERSHIP STATISTICS

TREE CLIMBERS

Tony Morais

A1 Tree Services-Framingham, MA
508-626-0088 800-657-7788

Kenny Greeno

Office Phone: 617-661-8591
Cell Phone: 617-201-5300

Paul Harrington

(508) 376-2573 [Medfield Area]

KEY INSTRUCTIONS

The best way to get a Key to Bill Martin Field in Medfield is to email Jean-Pierre Riu or Ken Antonellis. They will send out instructions as soon as they hear from you. Ken Antonellis is the keymaster. Try kxa@verizon.net. Alex of Alex's RC

in Belmont also has keys. You have to show him a club badge to get the key. If neither of these pan out then they should be available at the next club meeting.

MEMBERSHIP

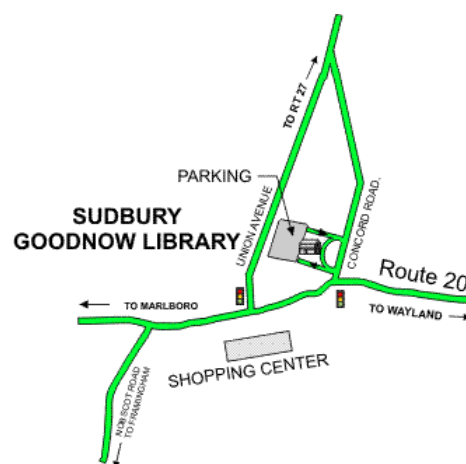
Here are the updated CRRC membership figures for 2005. The table summarizes the membership status for 2005, and compares recent years.

Year	Renewals	New Members	Peak Totals
1999			135
2000	112	62	174
2001	124	50	174
2002	138	58	196
2003	156	40	196
2004	153	42	195
2005	144	20	164
2006	75	3	78

—John Nilsson

FEBRUARY DIRECTORS MEETING

The next directors meeting will be, Tuesday, February 21st at 7:30 PM, at the Sudbury Goodnow Library. All club members are invited to attend.





THE CHARLES RIVER RADIO CONTROLLERS, INC

2006 MEMBERSHIP APPLICATION

AMA Charter 339

THIS FORM EXPIRES ON MARCH 1ST 2006!

Name _____ AMA No. _____

Street _____ Birth Date (AMA req'd) _____

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

E-mail _____

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)

Make Checks Payable to:
Charles River RC

MEMBERSHIP CATAGORY	Rates now until March 1, 2006
☐ OPEN Member	\$35.00
☐ JUNIOR member, (under 19 before 7-1)	\$1.00
☐ SENIOR member, (if age 60 before 7-1)	\$25.00
☐ SENIOR member, (if age 75 before 7-1)	Free if AMA member
☐ Full time STUDENT	\$20.00
☐ Family member additional to OPEN membership	\$20.00

John Nilsson /Secretary CRRC
511B Ridgefield Circle
Clinton, MA 01510
Telephone 978 368-7136
E-mail: photoguy205@comcast.net

Rates reflect a \$5 early bird discount.

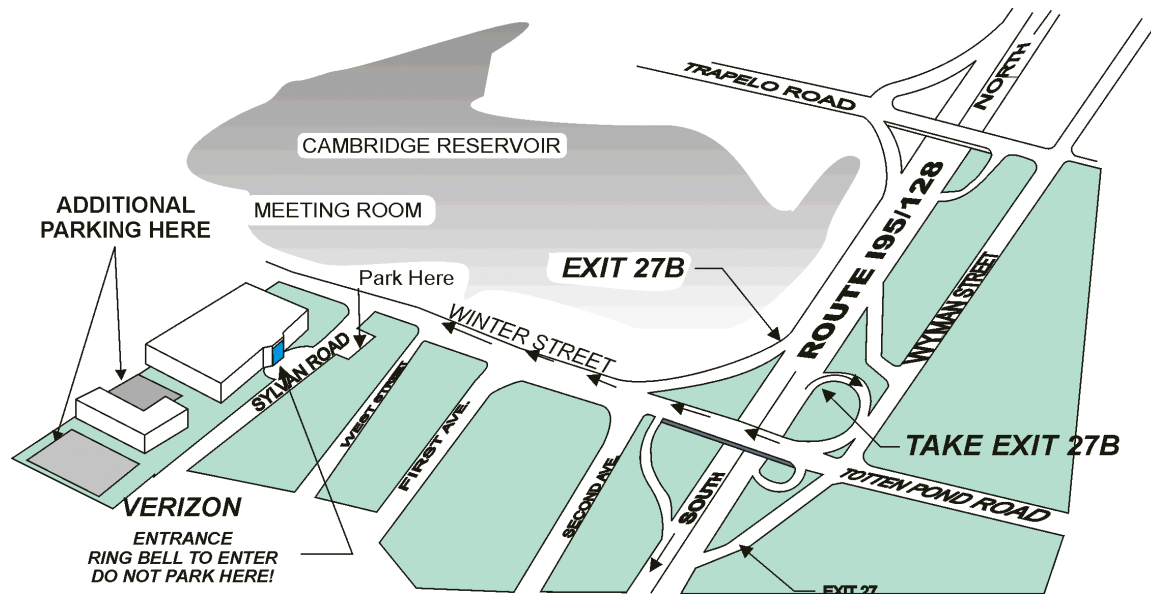
☐ I DO NOT want my address to appear in the club phone book

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

To receive your newsletter by us mail, please contact Tomer Jackman, newsletter circulation at the next meeting. See the newsletter cover sheet for additional contact information.

Help reduce operating costs by receiving your newsletter on line. CRRC pays roughly \$10 per year for each mailed newsletter subscription.

LOCATION OF MONTHLY MEETING
FOR THE CHARLES RIVER RADIO CONTROLLERS
at VERIZON LABS



The Charles River Radio Controllers meets the third Wednesday of each month at Verizon Labs on Sylvan Road in Waltham Mass. Look for the Newsletter announcement one week before the meeting.

Winter Flying at it's Best



Bruce and Fritz made the best a several January days. We had two absolutely beautiful weekends in a row. The field had a healthy showing, but no crowds.



David Spielman / Editor