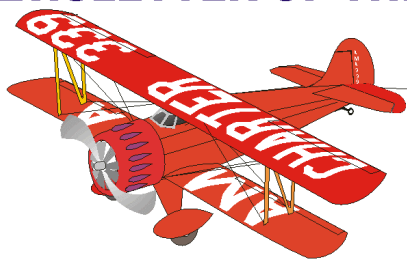


NEWSLETTER OF THE CHARLES RIVER RADIO CONTROLLERS, INC



CRRRC FLIGHT-LOG

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

AMA CHARTER 339

December 2005

VOLUME 42 NUMBER 12

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508-653-8369
ex.officio@charlesriverrrc.org

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Joel Foner
508 653-3560
webmaster@charlesriverrrc.org

GENERAL MEETING

Wednesday
December 21st
7: 30 PM

FLIGHT SIMULATOR NIGHT

Share your virtual flying experience with other club members. Bring in your computer loaded with a flight or R/C simulator.



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DECEMBER RAFFLE

First Prize

CAP 232 EP ARF



A 100-watt set-up will make this plane go like crazy.

Second Prize

Transmitter Case



and
WON
a
COOL TOOL
for
Show-n-Tell

President's Letter



Photo: Jeff Newcum

This is President's letter number 12 for me. I'll probably put off the opportunity to write another set of 12 for a couple of years, but this year has been a great experience. I'm also looking forward to my next year's assignment of buying goodies for the raffle. The Wednesday night crew can vouch that I have experience in buying RC stuff beyond my years.

I was going to spend much of this letter thanking various members of the club for their help during the past year... then I realized that there is no way I could remember all the names of the people that helped during the last year. That is one reason that we have such a great club!

I would like to thank all of this year's officers for all of their help and I would like to welcome the officers that will be at the helm for the coming year.

Don't forget your show and tells. You can show off some of those early Christmas presents that you gave yourself from one those recent sales.

Safe flying and many happy landings,

-Andrew Johnsen

Treasurers Report

TREASURER'S REPORT

Report Date 11/30/2005

Starting Balance 10/31/05	
Checking	\$3,151.24
Savings	\$916.67
Cash Box	\$25.00
PayPal Acct	\$404.51
CD Accounts	\$4,528.94
Total Starting	\$9,026.36
Income	
Scale Masters '05 reimbursement	\$600.00
Auction '05 commissions	\$729.90
Auction '05 seed money reimbursement	\$400.00
Raffle income, Oct.	\$90.00
Transfer from PayPal account	\$404.51
November indoor flying	\$115.00
Interest: Savings	\$0.45
Total Income	\$2,339.86
Expenses	
Scott Anderson, Auction '05 seed money	\$400.00
Ken Antonellis, Nov. raffle prizes, #1453	\$68.01
Void #1454	
MMAC, Field expense (grass cutting), #1455	\$650.00
Account fee -Savings	\$5.00
Total Expenses	\$1,123.01
Ending Balances	
Checking	\$4,372.64
Savings	\$912.12
Cash Box	\$25.00
PayPal Acct	\$0.00
CD Accounts	\$4,528.94
Grand Total Ending 11/30/05	\$9,838.70

-Scott Anderson

NOVEMBER GENERAL MEETING NOTES

Secretary's Report: October 2005 General Meeting

Andrew Johnsen opened the meeting at 7:43 PM

The Secretary's Report and the Treasurer's Report were both approved as written in the October 2005 newsletter

Field Reports:

Davis Field – Overall, field is good shape. Goal posts and grandstand are still up, but the lights are out. Cooperating weather has extended the flying season. Many fliers, including myself were out on November 20 for some good soaring.

Medfield – Nice shape, some tractor marks. The rain has finally dried up.

Old Business

Membership: John Nilsson Reports:

- We have 141 renew members
- New members 21
- Total 162

New 2006 membership badges are available. Thanks to Fritz Bien for printing them up.

The annual fall auction went extremely well. Thanks to the many volunteers who donated their time and effort to make this event run smoothly. Bruce Schneider donated a Aeromaster kit. Fritz Bien donated a Viking plane.

New Business

2006 CRRC Officers Election Night Results:

President – Jean-Pierre Riu

Vice President - Tony Davids

Membership Secretary – John Nilsson

Recording Secretary – Lee Arnold

Treasurer – John Leehey

Newsletter Editor – Dave Spielman

Newsletter Circulation – Tomer Jackman

Ex-Officio and Raffle Chairman – Andrew Johnsen

Webmaster – Joel Foner

Dick Williamson volunteered to attend the next BOD meeting at the Sudbury Library.

Tomer Jackman sent out E-mail to members who might be interested in a bus trip to the 2006 annual WRAM Show in February. Plans are in the works for the best way to finance trip.

Tomer, also reports the gym at Marlboro Elementary School will cost \$350.00 per session for indoor flying.

Andrew Johnsen stressed the need for more volunteers to help with the web site.

Jessie Heftner requested a letter for permission for use of the monthly meetings at Verizon Labs in Waltham, MA for 2006. We can't thank Jessie enough for letting CRRC use the Verizon facilities for the monthly meetings.

Raffle

1st Prize – John Leehey – Drill Press

2nd Prize – Dick Williamson – Transmitter Case

Show and Tell Winner – Dave Walter – Cool Tool

New Pilots

None

Meeting closed at 8:30

Show & Tell

Warren Chaffe – Sky Rangers Pee Wee Flyer from Estes. Perfect for Small Park flying, complete and ready to fly. Single channel control, 14" Wingspan, 300 ft. flying range, 6 – C size batteries (not included). About \$20.00 at Wal-Mart.



Dave Walter – Supra Fuselage molded by Mike Lachowski



Jessie Heftner – Beautiful AT – 6 Trianer. 60” wingspan, .46 size engine, 5 – 6 lbs.



Andrew Johnsen – Plane bought from E-bay. 21 oz. w/battery and motor. 3 cell lipo. T – Tail Electric glider.



John Leehey – Trainer wing from Super Star 40 size kit.

Tony Davids – OS 91 Surpass II w/pump, 4 cycle. Rated at 1.6 HP. Tony will be installing the engine in his Lancair. Engine should run 13 – 15 minutes on a full tank.

ENTERTAINMENT OF THE NIGHT

Remote Control Aerial Photography

CRRC member Derick Veliz, gave a presentation on Aerial Photography using cameras mounted in R/C airplanes to capture fascinating pictures. Derick demonstrated practical applications for this technology

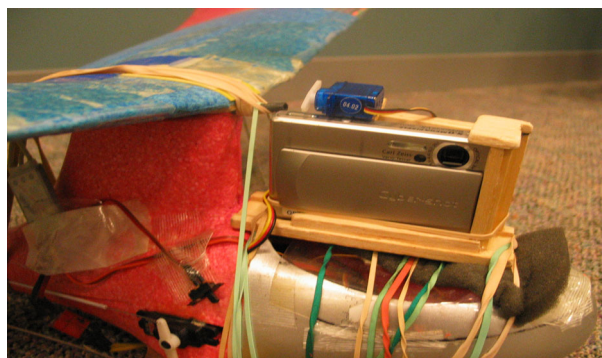
and uses Aerial Photography on regular basis for his work as an Architect.



Here's the camera eye view looking down the wing.

Aerial photography project sites included:

- Newburyport High School
- Sudbury High School
- A bridge in Kentucky
- Plus many more



Looking into the camera lens from the side.

Progressing from 35mm film to digital cameras, Derick took eye-catching shots from above. The list goes on for possible applications:

- Teaching
- Travel
- Real Estate (breath taking shots of ocean front property on Gloucester).
- Finding lost R/C airplanes

Derick's photography can be viewed from the pictures section of the CRRC site or:

<http://groups.msn.com/AerialPicturesbyDerickVeliz/newarialphotos.msnw?albumlist=2>

ELECTION RESULTS

The election was quick and painless for the voters and definitely quick for the elected board. I'm not too sure about painless. Seriously, elections this month went very well. Motivated volunteers filled all positions. We had a big turnover with 6 new BOD members and 3 incumbents elected for 2006.

And the BOD members are...

President: Jean-Pierre Riu
Vice President: Tony Davids
Membership Secretary: John Nilsson
Recording Secretary: Lee Arnold
Treasurer: John Leyhee
Newsletter Editor: David Spielman
Newsletter Circulation: Tomer Jackman
Webmaster: Joel Foner
Chief Flight Instructor (safety): Jeremy Harkin



The position of Chief flight instructor is also the club safety officer. Jeremy will be wearing two hats this year. That's what happens when you take a year off.

-David Spielman

AUCTION 2005

The CRRC auction went over wonderfully. Quality of items at this year's auction was great! There were some super buys, heated bidding and a few buy backs.

One bidder, made a lot of the sellers happy by getting right in there with heated bidding wars, winning a few of the larger powered airplanes.



This year, the layout in the VFW hall was a bit different than in the past. Auctioneers were located at the rear of the hall next to the cashiers and our chief audio mixer, Joel Foner. Thanks to Joel, we had studio quality sound.

Items for sale were located on folding tables double stacked along the side wall. This was a much more efficient display



method than last year. There was plenty of room for the paying customers and their wares.

The Antonnellis' served the usual fare of hot dogs chips and cookies, keeping the customers well fed and happy. A bartender, located near the entrance of the hall was a refreshing treat.

Dave Walter and Scott Anderson supplied this year's statistics for the auction.

Year	Items	Sale	Commission
2004	162	\$6534	\$653
2005	144	\$7943	\$717

-David Spielman

INDOOR FLYING

Indoor flying will be held Jan. 7th, 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.

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



UPCOMMING EVENTS



FLIGHT SIMULATOR NIGHT

The theme for the December meeting will be simulator night. We are looking for any one who has a computer that they can bring in with a flight or R/C simulator loaded.

We will run one simulator through the room projector. The rest of the computers will need monitors.

Joel Foner is bringing in the needed equipment to network computers. Real Flight G2 and G3 will run together, allowing for multi player competition. We'll only have a couple of Ethernet cables, so anyone bringing a computer that might be networked for this sort of thing, should bring their own Ethernet cables. If you're running a standalone simulator like FMS you don't need to bring a cable!

If you have a different simulator than Real Flight G2 or G3, bring it in; this is a chance to compare what is available out there.

This should be a great night! The more computers that are brought in, the better.

CRRC SIM

CRRC-SIM is a flight simulator designed by Jan Kanski and Mark Drela a while ago. It is an open source simulator, and is available freely on the web. CRRC-SIM is being maintained by a bunch of enthusiasts from all over the world, and is compatible with Linux, Mac, and Windows operating systems.

Read more at:

<http://groups.yahoo.com/group/crrcsim>

You can download the latest version here:

<http://crrcsim.sourceforge.net/wiki/index.php?n=CRRCsim.Download>

-Tomer Jackman

FROZEN FINGER FUN FLY

The annual FFFF will be held January 1, 2006 at the Bill Martin Field in Medfield. This event is open to all club members and friends. Refreshments and food will be served.



Jean-Pierre Riu gets his 2000 Cougar ready for flight at the 2005 FFFF

THE WRAM SHOW FEBRUARY 24, 25 & 26, 2006



Westchester Radio Aero Modelers show information can be found at www.wram.org.

COVERING BALSA AIRCRAFT

An early snow and cold weather helped jump-start the winter building season. If you are thinking of covering you model, the experts of the CRRC Yahoo group have some advice. Steve Vaglica is getting ready to cover his Gambler+ DLG glider. Steve asked what he needed to buy to make his project a success, keeping his model light and strong.



Preparing the wood surfaces:

Everyone agrees that sanding surfaces smooth is the first step to an excellent finish. Use 200, 300 and 400 grit aluminum oxide sandpaper. The better papers are long lasting and can be easily cleaned. A vacuum cleaner is a good way to remove unwanted sawdust from balsa surfaces. Follow by wiping with a tack cloth. Tack cloths are available in most hardware stores.

Fill in gouges and indentations with Red Devil Lightweight Spackling. It adds almost no weight and helps make a smooth surface. Follow with a light sanding and cleanup with the tack cloth.

You don't need Balsarite or Stix-It. They are adhesives for use with coverings that do not have the adhesives built in like Koverall and silkspan. For extra adhesion on surfaces that the films don't stick to well, like epoxy and fiberglass, surface preparations are needed. Oracover/Ultracote, Oracover light, Monokote, and Econokote all have adhesive.

Sig Nitrate dope is an excellent surface preparation that hardens the balsa, improves surface smoothness and adhesion to the film covering. The improved adhesion increases the overall strength of the airframe.

If you decide to apply Nitrate dope, apply at least two coats followed with light sanding and a tack cloth clean up. The nitrate dope makes a smoother finish than raw balsa and filler. The other nice thing about dope is that it dries very fast.



Sig Sanding Sealer applied with an end grain sheet balsa squeegee is a good alternative to the Nitrate Dope. Apply between two and three coats, with light sanding.

Covering the airplane:

To get started, Santa's list includes:

- Film (Ultracote, Oracover lite, MonoKote, or EconoKote)
- Covering Iron (21st Century is a good choice)
- Exacto knife and a box of 100 #11 blades (film wears them out after only a couple cuts each)



Plus a few things I bet you already have:

- A good straightedge (flexible metal one is useful)
- Something to cut on other than the kitchen table
- Vacuum cleaner and tack cloth to get all balsa saw dust off.

If you want to economize, the only things you really need are: covering, an iron, and a cutting tool (razor blade, scissors, etc.). The other things listed make the job easier or neater, but are not essential.



I want to echo the recommendation to use sharp blades. Stock up with a package of 100 #11 blades and replace the blade frequently when working with coverings. Cutting is best done on a rubberized mat like those that Tower Hobbies sells.

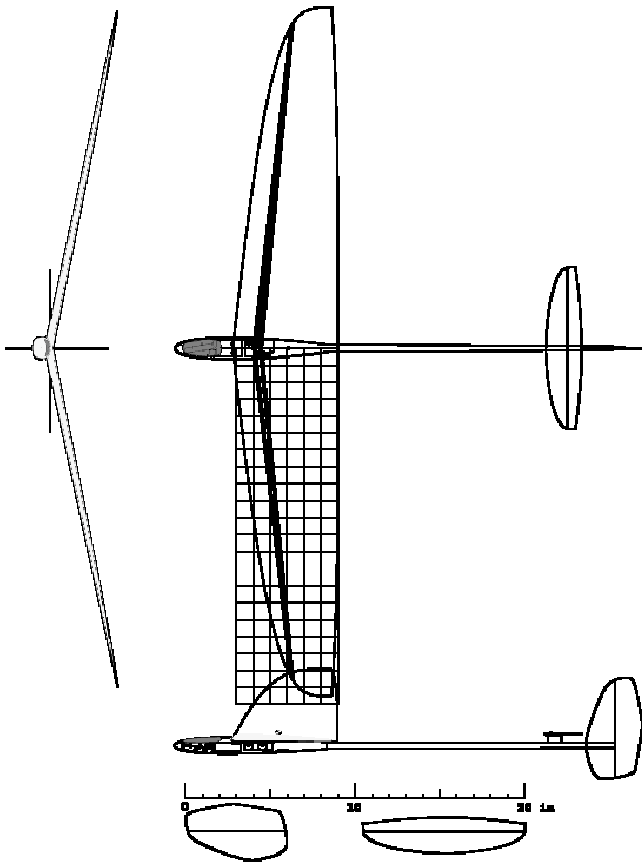


When covering, use an iron to adhere the covering to a solid surface like a fuselage. The iron is used at the temperature appropriate for tacking to adhere the covering to the frame and ribs. Some builders prefer to use a heat gun to over open bays. Watch the covering to see when wrinkles have disappeared and the covering seems taut, and then remove the heat. If you do this, there is no danger of melting the covering. Also, a heat gun is very handy when straightening the twist in a wing or when putting in a desired amount of washout.

This article was compiled of notes from Dick Williamson, Jeremy Harkin, Eddie Ellis, Brian Rickman, Lincoln Ross and David Spielman.

APOGEE 400

One of the cool things about flying with my CRRC friends is the exchange of ideas, stories and experiences. A few years back when I lived in MA, a group of us at CRRC decided to buy the materials to build the wooden version of the Apogee. My friend Jan Kansky graciously offered to get all the materials for building the kit. I think from the group of eight, only two ended up building it. Just the tough of sanding the airfoil is probably what got to the rest of us. A few years later, my friend Tom Sheehy, was looking for a production model of the Apogee. He soon realized he probably would have to make his own.

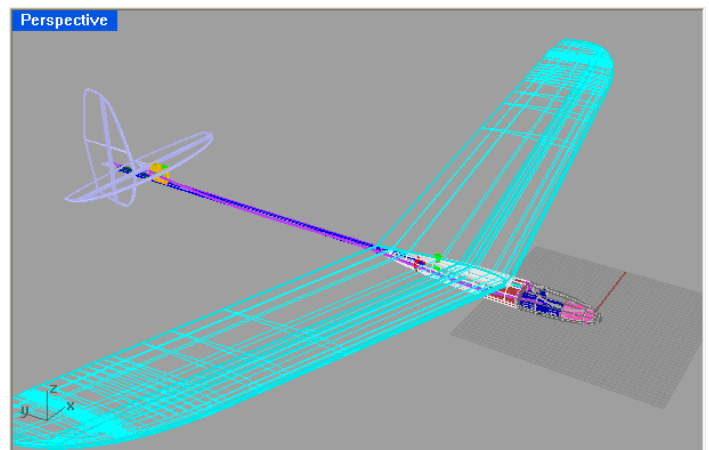


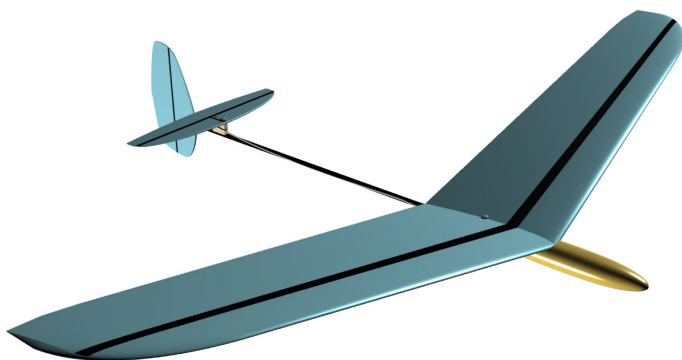
Last year, I decided to do some research on the possibility of manufacturing a production model of the SuperGeeII or Apogee, and with Mark Drela, the designer's permission, I plunged head first into the project. I can't say there was one reason why I decided to make kits. Maybe it was a personal challenge, my friend Tom, who wanted an Apogee, the trash I sometimes read online or just perhaps producing an established design for others to experience, including myself. And there it was, my mission statement "Manufacturing a great design for others to experience".

After careful consideration I decided to go with the Apogee. Since it would be a production model of the original, calling it something else would be silly, and calling it an Apogee would be arrogant. So the Apogee 400 it became (code name "lizard" or if you ask Fritz the "Apologee").

After reading everything I could about composite modeling, and reviewing Marks publications, and consulting with Mark, I was quickly put on a path to meet additional design objectives. At the same time, my friend Tom (who has one of the greatest analytical minds), Fritz Bien (the reluctant mentor), and Mark were being bombarded with email, asking every possible question. I think Fritz had one of his IT guys deployed a new POP server just for my emails.

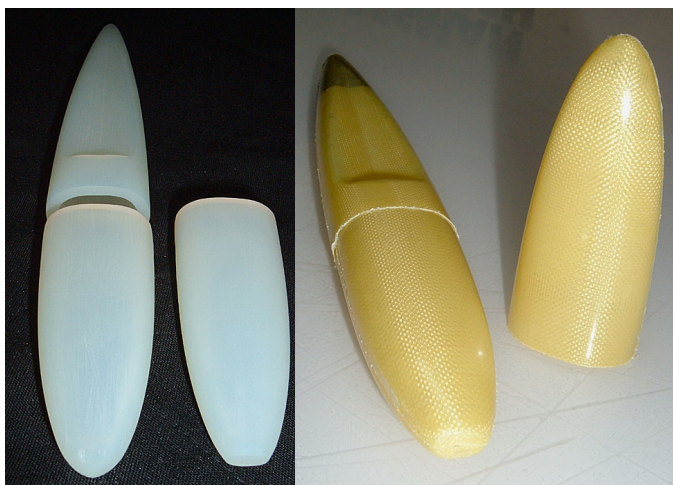
Proof of concept; I set out to redesign and implement some of the new design objectives recommended, such as a cross tail to sustain SAL and Discuss launches. I didn't just want to glue some tail to the poor little thing, I wanted an evolutionary looking design, something complementing Mark's original design. It also had to meet aerodynamic principals, and I had to solve the ever-challenging wing production problem, since I was not about to make aluminum or fiberglass molds for the wings. I had to take a more traditional approach with out sacrificing performance, so I went with a CNC machine. I chose a CNC to keep the design in digital form for as long as possible. I embarked to produce what could be a reproducible model. From that build, I was able to come up with jigs, processes and trouble areas to be address at a later point. All through this, I had much help by the people mentioned above.





Process, process and process; by making several prototypes and understanding what it would take to manufacture this model, I realized, the production would have to integrate some of the building methods used by the designer. I was at an advantageous position since I didn't have an established process or a set "way of doing things". I could design a process to fit my shop – a very important thing. I decided to hinge the process on the philosophy of "staying digital for as long as possible". This meant evolving the original design into a full 3D CAD version from the available 2D files while incorporating all the new design objectives.

That was fun; from there I was able to dispatch parts to other vendors, such as laser cutters, pod patterns made from an SLA process, chords cut by the CNC, gear sizing and documentation. I even found a company in VT that cuts carbon and Kevlar with a CNC, but I didn't use them, too expensive☹. I was happy to get the biggest headache out of my way, the pattern for the pod.



From there, I revised some of the process, made some of the needed tools and jigs, and developed the more mundane tasks. I also needed a website to go with this new product. So an entire new process began, all while lining up final beta testers and reviews. There should be a review coming up in the R/C Groups shortly. You can read more on one of the builds, with pictures and videos at:

<http://www.rcgroups.com/forums/showthread.php?t=436102>

The Apogee is an excellent plane, and the Apogee 400 gives people a little bit of what is like to build and fly one of these ships. Much is attributed to all the help I got from friends.



Mike Baker holds the Apogee 400

With this I would like to introduce the Apogee 400 kit, and thank my reluctant mentors; Mark, Fritz, Tom, Mike Baker and others.

Please visit the website and the associated threads to learn more about it.

Thank you,
Jose E. Bruzual
ECM
www.flyecm.com
info@flyecm.com

5th Annual Central NH Radio Control Auction



Sponsored Jointly by
**The Concord Skyhawks &
The Concord Aero Guidance Society**



Tons of great items for the hobby: planes, engines,
boats, cars, helicopters, electrics, radios and more!!!

**Free Admission
Raffles**

Saturday, January 21, 2006

Doors open 10:00 A.M.

Auction starts at 12:00 P.M. sharp

Location: Bow Community Center & Fire station Bow, NH

**Food & Drink
available**

Everything will go – no reserves!!!!!!

Cash and credit cards accepted.

New this year!!! Buyer pays 10% premium

to Club so seller gets 100% of bid (if bid is lower than
sellers desired price, the seller may bid and pay 5% to club).

\$20 and under flea market

Directions: I-93 north or South to I-89. I-89 north or south
to Exit 1. Turn right at stop sign. Go approximately 1 mile.

Bow Community Center / Fire station is on the left.

For more info contact Dick Smith: 603 224-2078 soozies@comcast.net

Dan Weed: 603-228-3188 weedfamily@comcast.net

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]

in Belmont also has keys (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

—John Nilsson

DECEMBER DIRECTORS MEETING

The next directors meeting will be, Tuesday, December 22nd at 7:30 PM, at the Sudbury Goodnow Library. This months meeting is a day before the general meeting. All club members are invited to attend.



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



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)

This completed form may be emailed to membership@charlesriverrc.org following your paypal payment.

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.

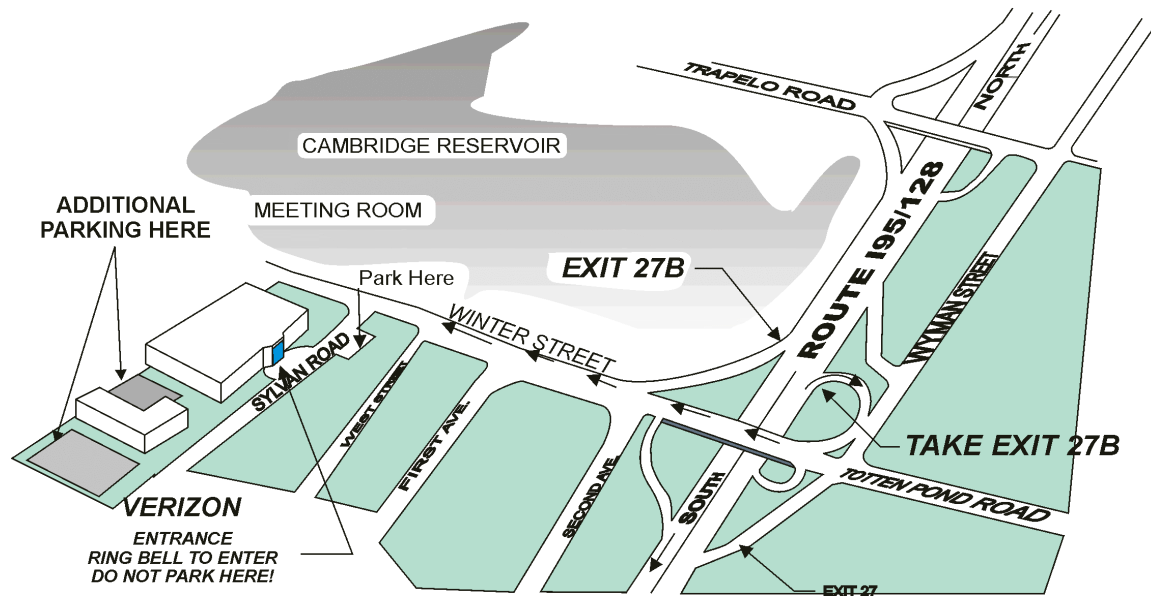
☐ I DO NOT want my address to appear in the club phone book

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



Davis Field November 05



Larry Wetmore launches his Oly 2 on a near perfect flying day in early November.
Notice that the retriever line is missing. A bit of walking was required for each launch.