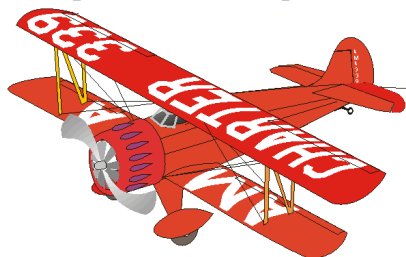


NEWSLETTER OF THE CHARLES RIVER RADIO CONTROLLERS, INC



CRRC FLIGHT-LOG

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

AMA CHARTER 339

October 2002

VOLUME 39 NUMBER 10

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GENERAL MEETING

Wednesday
OCTOBER 16th

7:00 PM

Verizon Labs

See Map on Cover

Guest Speaker

Jim Reith

Jim is the Owner
and chief of RA
Cores. He will
speak about
computer
controlled core
cutting

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October Raffle

1st Prize

Piper J-3 Cub 40

Weight: 6.5-7.5 lb

Length: 49 in (1245mm)

Uses Standard Size Radio

Gear

Wingspan:

Standard Wing: 76.5 in

Clipped Wing: 61.5 in

Wing Area:

Standard Wing: 820 sq in

Clipped Wing: 653 sq in

2nd Prize Choice of:

Gallon of 10% Premium Nitro
fuel, Soldering Kit: Case, Gun,
Iron, and more

**3rd Prize Choice of a "Cool
Tool"** (Including, but not limited
to):

11" Easy Sander Bar, Razor
Plane, Balsa Stripper, Hemostat,
Butane Solder iron, Iron
Thermometer, 100 #11 Knife
Blades, X-Acto Needle files, 8pc
ball driver set, or a Peck Polymers
ROG FF-Kit

**One prize awarded from
each category.**

Show and Tell prize will be
selection from Cool Tools.

Tom Bauer

Raffle Chairman

TREASURER'S REPORT

Treasurer's Report:

Report Date 9/30/02

Starting Balance 8/31/02	
Checking (after #1272)	\$1,912.95
Savings	4,556.74
Cash	25.00
Total Starting	6,494.69
Income	
Interest on Savings (July, August)	9.44
Soar-In	731.90
Total Income	741.34
Expenses	
Chris Schuch – Soar In #1273	321.13
Derick Veliz – Collings Foundation #1274	300.00
Derick Veliz – Raffle Prizes #1275	53.99
Bank Fees (June, July, August)	27.48
Total Expenses	693.19
Ending Balances	
Checking (after #1275)	1,942.25
Savings	4,566.18
Cash	25.00
Total Ending 9/30/02	\$6,533.43

Signature: *Miner Cray*

PRESIDENT'S COLUMN

Well, I am sure that everyone who made it out to the Collings Foundation last month had a great time. Bob Colling's aircraft collection is outstanding and his car collection makes you forget about the airplanes. We had such a good turnout (estimate 60 members and guests) that he had to skip some my favorite parts of his collection. His early '60s Indy racer was in a room too small for our group. I hope you got a chance to see it – it is gorgeous.

As on previous visits, Bob was a gracious host and gave us a personal guided tour of all of the air and ground craft, complete with history lessons that amused and informed. A number of us stayed as late as we could to go over the details of the WWII aircraft on display. His Fiesler Storch was especially interesting. We had a great time trying to figure out the purpose of what turned out to be the oil cooler. At the end of the evening, Bob surprised us by inviting CRRC to hold a Fun Fly on his property!

We could not believe our ears. When he asked if we were interested in holding it this fall we had to tell him that that would be hard to schedule on such short notice but that early spring would be good. Moments later in the parking lot, Bob Scott and I were practically drooling over the possibilities. We are definitely going to take Bob Colling's up on his offer! So stay tuned.

Although I missed it, it sounds like flying at the Woodsom Farm Festival was another success this year. Thanks to Bob Scott, Pete Young and all the other CRRC members who helped out. I strongly believe that these public service outings are good for the club and for the hobby in general. And they are a lot of fun for all.

Just a reminder - We are still looking for a few good men (or women) for club officers. Please consider running for office!

TREE CLIMBERS

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

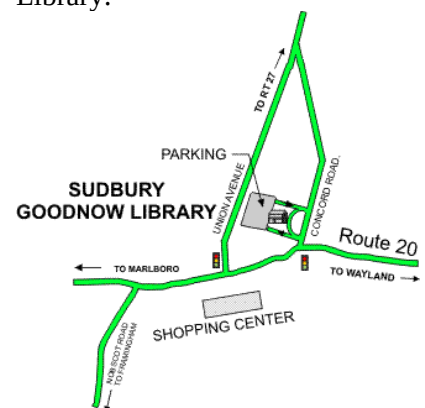
Brian Pikarski
Burlington, MA
617-797-2136

Kenny Greeno
Office Phone: 617-661-8591
Cell Phone: 617-839-1814

Paul Harrington
(508) 376-2573 [Medfield Area]

October DIRECTOR'S MEETING

The next directors meeting will be, Tuesday, October 22nd at 7:30 PM, at the Sudbury Goodnow Library.



SEPTEMBER MEETING NOTES

Laurie Hurwitz

The Collings Foundation Tour started at 7:00 PM with Bob Collings as the Tour Guide. Bob Collings made his money from working with the Bar Code in its infancy. He showed the airplane collection that is not currently flying around the U.S.

Jon Leehey opened the meeting at 9:15 PM.

Secretary's Report approved as written in newsletter.

Treasurer's Report approved as written in newsletter.

Meeting ended at 9:20 PM and the tour of the Collings Foundation resumed.

Pictures by Tomer Jackman



Figure 1 Group listening to Bob Collings explaining the Vin Fiz, replica of the first airplane to fly across the US. It did so by making 25 mile hops.



Figure 2: Homer Eckhardt stands in front of the Vin Fiz.



Figure 3: Gathering in front of the Fiesler Storch.



Figure 4: An example of the famous Fokker DR I. This one, painted in Baron von Richtoven's red, does not have the engine attached. Also note the tailwheel.



Figure 5: Several of the beautiful sprint cars collected from just before and after WWII. These restored cars were originally all hand-made, each with a history which Bob graciously described.



Figure 6: Cessna UC-78 Bobcat "Bamboo Bomber" next to the Storch and T-33 Shooting Star.

FLYING IN THE SLOW LANE

Bruce Schneider

OK everybody! Start your engines and move slowly to the indoor flying season. I know it hardly seems possible that summer is all but gone, and those warm outdoor breezes are becoming a thing of the past. Don't be too disappointed since we now have a regular indoor

flying site at Teamworks sports center in Northborough.

We will be using one of their indoor soccer fields, and have contracted with them for five dates. They are all Sat. nights from 9 to midnight. The dates are as follows. Nov.9, Dec.7 (bring those WWII indoor flyers), Jan.11, Feb.8, and March 8. As usual, there will be a fee for flyer and donations if possible. Teamworks is charging us \$40/hr. It should not be too hard to cover this with the crowds we have had at other indoor event.

The directions to Teamworks are under the flying sites section of our CRRC web page.

Now would be a great time to either buy or put together one of these fun indoor planes, or check out your old one on a calm morning. If you have never built or flown an indoor slow flyer, you don't know what you are missing.

Most of these planes are ARF's and very fast to put together. The radio equipment is relatively

cheap. Some planes, like the GWS Tigermoth can be flown both indoor and out. I don't want to leave the free flight people out either. The format for flying will give exclusive time to FF. Again, if it has been a long time since you have flown a rubber indoor FF plane, try it again. You may have forgotten how much fun as well challenging to get these to fly well.

I will keep the club notified as we get closer to each flying date. Please come out to support the club and have great time as well.

Here is a picture of the Dumas Kestrel. It is an all carbon kit with polyester tissue and Mylar for covering. With all the equipment on board it weighs 5.5oz., and has a 36" wingspan. This should be a blast indoors!!

Happy flying,

---Bruce



Figure 7: Bruce's Kestrel is ready for the Indoors Season!

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.charlesriverc.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	TOWN	TELEPHONE
------------	------	-----------

POWER

Chief Instructor: Ruane Crummett

	Wayland	508-655-2234
Bob Scott	Norwell	781-982-0268
Pete Young	Watertown	617 923-4184
Larry Copeland	E. Walpole	508-668-0448
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

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

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

HELICOPTERS

Joel Foner	Natick	508-653-3560
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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

CRRC LIBRARY

The club keeps a library of videos and books. They are made available at club meetings. If you cannot come to the meeting, and would like to borrow a video or book, call Ken Antonellis at **(508) 653-4513**.

Videos:

1996 World Masters Aerobatic Championships
 AMA – The Pioneers (25 min)
 Byron – New Generation of Modeling Products (17 min)
 Byron – R/C Wars

Combat Models – Fighter town Demo (8 min)
 Coming of Jets & History of the DC3
 Dynamic Soaring
 Elmira '97
 Endless Lift
 Hot Stuff Video (60 min)
 Local Flying (Medfield)
 Military Aircraft
 Monokote 1 & 2
 Old Buzzard Goes Flying
 R/C Helicopters
 R/C Info and Tips
 R/C Ornithopter Research
 Project R/C Soaring from the Ground Up

R/C Video Magazine, Vol. 1-13
 Scale Aircraft Documentation
 The Light Stuff (Daedalus Project)
 Wring It Out, Vol. 2

Books:

1993 Don Edberg Complete Source Book
 AMA – Sound and Model Aeronautics
 Aviation Heritage Magazine – B2 Flying Wing
 Completely Cars – Harry Higley
 Trainers (R/C Magazine)

JOHN ROSS 1919-2002

John Ross, one of CRRC's founding members and a leader in the Academy of Aeronautics, passed away on August 29th.

John was a Canadian Air Force Pilot in the Pacific Theatre. He flew his missions in a Spitfire MK VIII over Burma and India.

John was involved in early radio control in New England, getting involved with it just after WWII, when he was working for Jordan Marsh.

At this job, he was able to retail R/C though the Department Store!

John served as one of the first AMA Vice Presidents from New England, and was a very active R/C proponent in his younger days.

We will all miss John and the great stories that he would tell.

-Fritz

FLYING THE FMA DIRECT CO-PILOT™ INFRARED FLIGHT STABILIZATION SYSTEM

By Pete Young

The FMA Co-Pilot™ is an interesting “plug and play” stabilization device designed for fixed and rotary winged aircraft. A two-axis infrared module senses the temperature difference between earth and sky and uses this information to provide autonomous pitch and roll stabilization. The Co-Pilot™’s flight hardware consists of an octagonal sensor unit which has to be installed so that it has unencumbered view of the horizon during flight; and a mixer unit which is hooked up between the receiver and the elevator and aileron servos.

I installed the Co-Pilot on my Horizon Easy 2, an ARF trainer which I use for training new fliers, powered by a Saito 56 4-stroke. The sensor module was simply Velcro’s to the top of the left wing panel, several inches off centerline, so that the motor exhaust wouldn’t interfere with the readings. A flat ribbon cable connects this module to the mixer unit installed inside the fuselage.

The 24 page instruction manual is quite detailed and provides separate instructions for installing the Co-Pilot on a fixed wing ARF trainer; a FMA Razor S-400 flying wing; and a helicopter. You have to take some care to install the plugs correctly into the mixer unit but even so, I completed the installation in less than 20 minutes. There’s a variable gain setting on the mixer unit that sets the sensitivity of the corrective commands to the servos.

It’s worth noting at this point that there are several ways to operate the Co-Pilot in flight. The first way is to “enable” the CP with your transmitter’s toggle switch on/off function. If done in this fashion, you wouldn’t be able to adjust the Co-Pilot’s gain setting in flight but would have to adjust gains prior to flight. The second way is to control the Co-Pilot with a variable control

and this is how I connected the Co-Pilot to operate with my Airtronics Stylus radio system.

Initial pre-flight calibrations consist of checking that the unit is providing correct control responses and this is important – get this backwards and your airplane would have a tough time flying properly! It was interesting to see the elevator and ailerons move as the aircraft’s pitch and roll attitudes was changed. It is important, by the way, to set the aircraft’s control surfaces to high deflections so that the pilot can override the Co-Pilot’s responses at any time.

At the field, the instructions recommend that the Co-Pilot receive a field calibration to compensate for flight day temperatures as well as general backgrounds. I first flew the unit at Medfield on a clouded over overcast day, temperatures in the low 70s, without any direct sunlight. I felt these conditions would be a good test for the unit.

For the first flight, I dis-enabled the Co-Pilot using the transmitter slider and took the aircraft to a safe altitude before activating the unit. I soon found that the Co-Pilot worked as advertised: with the airplane’s trims properly set beforehand, the Co-Pilot restored the aircraft to level flight when the transmitter controls were released and the aircraft in a variety of attitudes: climbs, dives, inverted flight, or midway through rolls and spins. Being able to vary the unit’s sensitivity in-flight was very useful and I found that a setting of approximately 40% gave a good balance between immediate response and good control “feel”.

Regarding the item just mentioned, control “feel”, I was curious to see how the Co-Pilot would interfere with normal flight commands in aerobatic maneuvers as it’s effectively always trying to level out the aircraft. What I found was that at maximum sensitivity, I

could definitely tell that the unit was making the aircraft slightly more sluggish, an effect to be expected. At the 40% settings, or in that vicinity, the aircraft responded quite normally to aerobatic inputs yet corrected itself to level flight when the controls were released. It was quite educational to repeat the maneuvers just mentioned with the autopilot either off or set at various gain settings.

One impressive item to observe was that the Co-Pilot gave very crisp responses after taking control of the aircraft in climbing, diving or spiral dive maneuvers: the airplane automatically leveled out without going through pitch (or roll) transient oscillations as normally occurs.

I finished up my flights by flying the Easy 2, with the Co-Pilot active, on low level passes over the Medfield grass strip. As most of you are aware, there are tall trees as well as a tall hillside adjacent to the field, and I was curious to see what the IR autopilot would do. At the 40% gain setting, I didn’t notice any unusual flight behavior although, for safety’s sake, I dis-enabled the Co-Pilot while climbing out from fairly low altitude.

My conclusions: the FMA Direct Co-Pilot™ has impressive performance with desirable traits that new fliers would appreciate. If I can answer any questions about this unit, please contact me.

CALENDAR OF EVENTS

The calendar of events for the year was determined in the January Board of Director's meeting. If you have a favorite event you want included on the 2002 Calendar, please come to the Board Meeting and bring it up. For a up-to-date list of area events check http://www.charlesriverrc.org/calendar_events.htm.

DATE	EVENT	WHERE	CONTACT	EMAIL
September 15	Woodsom Farm Festival R/C Demonstration	Amesbury MA	Bob Scott	vintagehomes@aol.com
September 18	General Meeting at the Collings Foundation	Stow MASS	Bob Collings	www.collingsfoundation.org
September 21	CRRC Helicopter Fun-Fly	Bill Martin Field (Medfield)	Chris Baker	christian@appliedtissue.com
Oct 20 2002	CRRC Electric Fun-Fly	Bill Martin Field (Medfield)	Tom Bauer	tbauer@wellesley.edu
Nov 17 2002	CRRC RC Auction	VFW (Natick)	Ruane Crummett	crrcplanes@aol.com
Nov.9 2002	CRRC Indoors Flying	Teamworks Sports Center Northborough	Bruce Schneider / Wayne Nelson	bruceden@rcn.com
Dec 7 bring those WWII flyers	CRRC Indoors Flying	Teamworks Northborough	Bruce Schneider / Wayne Nelson	bruceden@rcn.com
Jan 1 2003	CRRC Frozen Finger Fun Fly	Bill Martin Field (Medfield)	Fritz Bien	fritz@spectral.com
Jan.11 2003	CRRC Indoors Flying			bruceden@rcn.com
Feb.8	CRRC Indoors Flying			bruceden@rcn.com
March 8	CRRC Indoors Flying			bruceden@rcn.com

WEEKEND IN MID-SEPTEMBER

As us the usual case, September brings the Diaspora of CRRC flyers from Davis field. Its not that we have nothing else to do, when the little soccer and football players overrun our flying field, however.

The month featured the NEAT fair in New York, an Air Festival in Fitchburg, LISF soaring contest in Long Island, Woodsom Farms Festival on the North Shore, and a Helicopter Fun-Fly in Medfield. Here are some of the reports:

LISF September 21-22 **Anker Berg-Sonne:**

This was a man-on-man contest. What this means is that 3 or four pilots will launch right after one another and be scored against each

other. The winner gets 1000 points and everyone else gets a fraction depending on how well they did against the winner of the group. The advantage of this format is that you all fly in the same conditions, so at least in theory it is your skill that determines your score and not luck or sandbagging.

Team CRRC sent the usual big contingent: **Anker Berg-Sonne, Fritz Bien, Jose Bruzual, Crary Miner, Jan Kansky, John Nilsson, Bruce Schneider, Stuart Strong** and **Dave Walter**. Only **Ron Cichowski** was absent. If just number counted, we should have walked away with a third of the wood! Jose's sunshade provided great shade, and the CRRC banner was in its usual place at the back of

the awning so our view of the sky doesn't get obstructed.

Winds were about 15MPH both days, and we didn't have the usual early morning rounds of floating in still air. This breeze was strong enough that you had to be careful not to end up too far downwind, and when the wind picked up it could get pretty hairy. Team CRRC had a lot of small equipment problems. Jan had at least three soldering sessions, I pulled out a wire from a connector, I also had two servos work themselves loose from their wells, once causing significant flutter on a launch, Bruce buckled an outer wing panel and had to fly his new MH32 wing without the luxury of setting up first, and Miner buckled his center panel. Because of the

wind, and the fact that LISF was running the winches without retrievers, launches were really hard on the planes. Terry Luckenbach blew up his molded super Mantis on launch (almost as good as me blowing up my Sharon).

Saturday the only CRRC wood was Stuart Strong with a third place. Fritz and I almost caught the top three, but had to contend with fourth (Fritz) and fifth places. Sunday Team CRRC did a bit better. I had my first third place as Expert - this after competing in Expert 9 years - and Jose had a second place in Sportsman.

John Hauff crashed and destroyed his Sharon. The cause is still undetermined. He lost control at about 500 feet altitude flying back from downwind and augured into the ground. Fritz landed off-field and had a terrible time finding his plane. Finally he was able to find it using his Ralston transmitter and a hand-held scanner. Otherwise there were remarkably few off-field landings.

My home trip was incredibly fast. We left the field at around 2:30 and I rolled into my driveway at 5:50!

-Anker

WOODSOM FARMS September 22 -Bob Scott

Guys and Gals,

First I would like to thank all the CRRC members that showed up for this years Farm Festival event. Special thanks to Dick Williamson for taking over after twelve (I had to bring my daughter to a birthday party). Also special thanks to Pete Young for bringing his trainer and helping with the planning.

The two other clubs had quite a good showing this year as well.

I've forwarded below an e-mail sent to me from Nancy Platt the chairperson of the Festival. As before, she wants us to return again next year.

Please note the change in date. It's planned for a Saturday with the rain-date the next day.

Thanks again

Bob Scott

From: "Nancy Platt"

Hi Bob,

What a great day last Sunday was! Your aircraft show was spectacular.

There were many positive comments from the festival goers. How much of a crowd did you end up getting during the day? We advertised your event heavily from the main stage at least once every hour. I hope that helped.

Please let me know your feedback as it helps with planning future events.

I've already started planning for next year's festival. The date will be Saturday, September 20 with a rain-date of the 21st. You are all invited again, of course.

As I mentioned to you earlier, next year I plan on renting a train which will be used to ferry people for free from the main festival field over to the radio-controlled aircraft field. I'd also like to plan the raffle a bit earlier in the year. Then we will have an opportunity to advertise it earlier and sell advance tickets. Let me know what you think.

Regards,

Nancy

Chairman Woodsom Farm Festival Committee

Pictures:



Figure 8: Few of the Electric powered airplanes displayed at the NEAT Fair Sept. 13-15 attended by

Derick Veliz, Ron Weissman and Abbot Lahti.



Figure 9: B-17 electric at the NEAT Fair. Derick Veliz -photos.



Figure 10 Keith Shaw showing his beautiful scale flying wing at NEAT



Figure 11: Ruane Crummett got his picture taken with Mike Goulian at the Fitchburg Airshow.



Figure 12: Mike and Ruane standing in front of the full-sized aircraft.



Figure 13: Some of the action taking place at Woodsom Farm Festival. Pete Young is pointing to a plane flow by North-shore pilot Kenny Walker.

Photos by Tomer Jackman

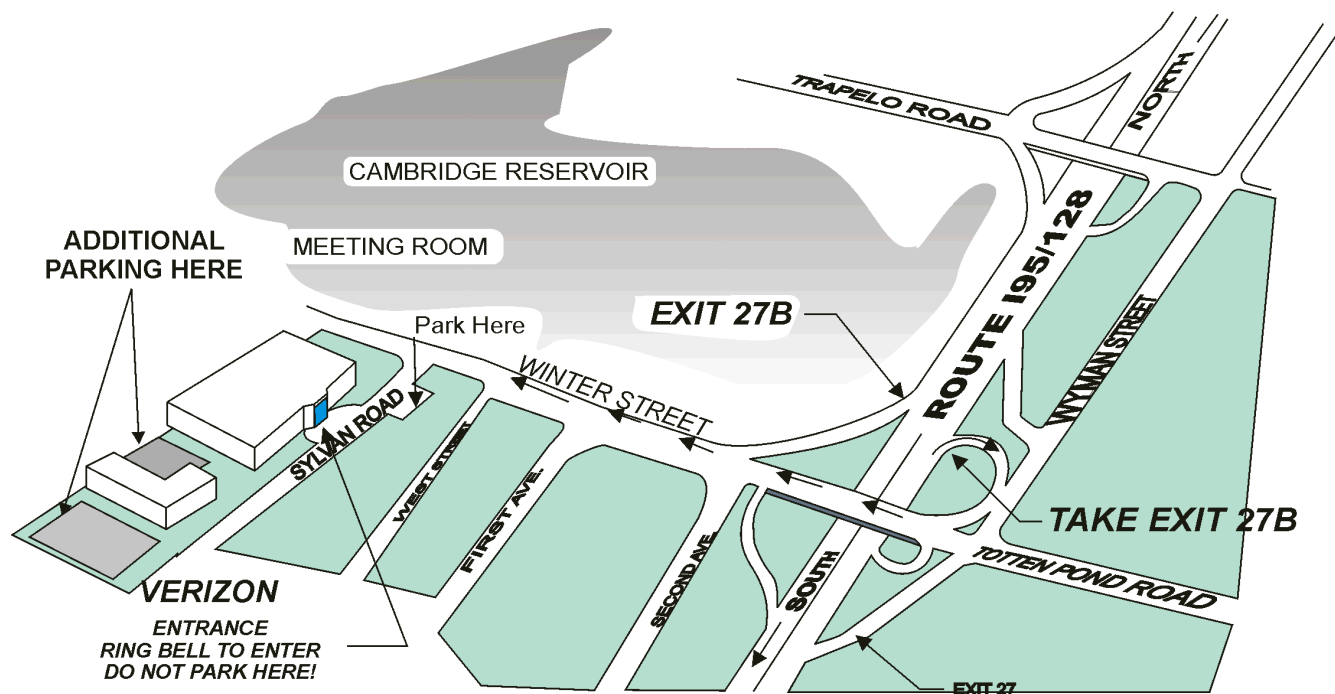


Figure 14: More Woodsom Farms activity. Dick Williamson in red hat explaining to guest what was going on at the flight line. Tom Bauer is in front fussing with his electric.



Figure 15: One last car from Collings Foundation.

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



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41 Saw Mill Road
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