



CRRC Flight-Log

September 2014

<http://www.charlesriverrc.org>

AMA Charter 339

Next General Meeting

Wednesday September 17, 2014 7:30PM at Goodnow Library

The Speaker, Frank Krzciuk from MMAC, will discuss converting a 72 Mhz transmitter to 2.4 Ghz

Please review the AMA Documents on pages 16, 17 and 18



CRRC General Meeting Minutes for August 20, 2014

Dave Spielman opened the business meeting at 7:30 PM at Davis field in Sudbury, MA.

Meeting minutes and treasurer's report from last month's meeting were approved.

Field Reports:

Davis field is in excellent condition.

Medfield is in excellent condition.

New Business

Brian Rickman was elected by acclamation to the post of club vice president, replacing Neil Kaufman. The vice president's main role is organizing speakers for the club meetings and

Brian already has a near complete slate of speakers for next year. Congratulations to Brian and thanks for taking on this role.

Upcoming Events and Schedule:

The fall float fly will be held on September 20 and 21.

The electric streamer combat contest will be held on Saturday, October 4, at Bill Martin field in Medfield, starting at 9:00 AM. The contest is open to any plane with a 2-cell lipo or power system that draws less than 100 watts.

Contact Dan Sullivan (daniels115@yahoo.com) for more details.



Presidents letter September 2014

My dilemma for the night, do I fix the tail of my Allegro Lite or do I write my presidents letter. Mmm... I think a little of both. A slight mistake in the interpretation of the plans of the Allegro Lite tail resulted in a little mishap. Actually, it was a little bit more dramatic than a mishap. The tail's horizontal stabilizer flew off my plane during a zoom launch and the plane came down to ground pretty quickly. Other than a little hurt pride there was no other damage then the tail.



So with this and a few moments of drama at the RES contest we're going to open up a new section in our newsletter "The Safety Corner" in the hope that you can avoid other's mistakes. Look for this later in the newsletter.

Hear ye hear ye, all CRRC members. Our next club meeting is September 17th at 7:30 at the Goodnow library in Sudbury. Brian Rickman our newly appointed vice president has lined up some excellent speakers for the fall. For the September meeting Frank Krzciuk from the MMAC will show us how to transform that Old and Busted 72 Hz transmitter into the New Hotness 2.4 GHz update. That sounds like a winter project to me. Guests are welcome.

A lot of things have happened in the world of radio control this summer. We had a bunch of contests. Drones have become the new hot topic. This new type of flying is pretty easy to do and a few irresponsible people have made the headlines. The FAA is trying to implement rules limiting the use of radio control aircraft and our right to fly openly. An FAA comments page has been opened for you to express opinions on the newly proposed guidelines. In response, the AMA conducted mass emails to AMA members, successfully got an extension for comments and has sued the FAA citing that they have overstepped their authority and violated the Senate's recommendations regarding the use of model airplanes. The broad-brush approach from the FAA does more damage than benefit. To make your voice heard, go to the FAA website and enter your opinion in the comment section. <http://www.regulations.gov/#!submitComment;D=FAA-2014-0396-0001> Links to the FAA comment section can also be found on the AMA's website www.modelaircraft.org. Please make your voice heard.

cont'd

More fun to come! Join us at the September 20th and 21st float fly at the Wayland town beach. A raffle and food will be available for a nominal fee. My inside informant said that there will be a floatplane as the grand prize. It's worth coming to the float fly just for this. So bring your fuel or electric powered floatplane and join us for two days of fun. All AMA pilots are welcome. On Sunday the 21st, the Marine Modelers Club of New England will join us on the beach and water. CRRC members have the option to join the Marine Modelers for a potluck lunch on Sunday the 21st. If joining in, bring something good to eat and share some food and stories. A full-scale rescue boat will be available on both days and model rescue boats are at your service on Sunday.

On October 4th we have the joint combat contest with the MMAC and

CRRC clubs. This fun combat event requires you have a 100-Watt electric combat plane similar (or not) to the Fast and Furious. Planes will be outfitted with crepe paper tails, which are chopped off by your opponent's plane in flight. Last plane flying with some crepe paper tail wins. This event runs from 9 AM till noon at the Bill Martin field in Medfield. Bring a plane or two, since none make it out unscathed. Rain date is Sunday the 5th.

My favorite nonflying event happens on Thanksgiving weekend. The awesome, stupendous, fabulous, best RC auction in our area takes place at the VFW hall in Natick. Buy and sell anything RC. Bring some good stuff to sell because I might be in the mood to buy something. I don't know what, but something.

Fly Safe
David Spielman

Safety Corner September 2014

Lets talk about field safety. We all want to have some fun and come home with great stories to share with family and friends. A near miss or tales of woe are not the best subjects to share. People on the ground have the right of way. Don't fly over them and always avoid them on landing approach. It's better to ditch an aircraft then land on a fellow pilot or pedestrian. If you haven't looked at the AMA safety guidelines, now is a good time to brush up. And when you've boned up on safety, share your newfound knowledge with fellow pilots.

We have some new challenges with the advent of quad copters and first person video similar to the introduction of

helicopters a decade ago. When you go the field, remember that quad copters are planes too. It's tempting to hover over the pits or over a sporting event to get up close and film the action to test out this new technology. Don't do it. Loss of signal, depleted battery, open solder joint or other unforeseen glitch can send your four bladed wonder straight home or down depending on failsafe setting. Share the air and keep a generous distance from pedestrians.

Membership hand books have been sent out! Check out the club rules and updates to the AMA safety code.

David Spielman

Raffle Prizes

Prize # 1 : FliteTest Quad-rotor kit (excluding motors):

FliteTest Electrohub Quad-rotor kit (<http://store.flitetest.com/electrohub-quadcopter-kit/>)

ReadyToFlyQuads SimonK flashed 20 A ESCs (<http://witespyquad.gostorego.com/speed-controllers/f-20a-fire-red-normal-esc-with-rapidesc-fw-for-multirotor.html>)

MultiWII Flight Controller: Flip 1.5 with case (<http://witespyquad.gostorego.com/flight-controllers/flip-mwc-flight-controller.html>)

Prize # 2: Choice of FliteTest Simple (Fiesler) Storch (<http://store.flitetest.com/ft-simple-storch-speed-build-kit/>) or FliteTest Mustang (<http://store.flitetest.com/ft-mustang-speed-build-kit/>)

Prize # 3: Orange RX 610 channel (Spektrum DSM2 compatible) from HobbyKing

Top prize is a FliteTest Electrohub quad-copter kit with the Flitetest Electrohub kit. This kit has PCB for simple power distribution that eliminates a lot of wires. The flight controller is a MultiWII Flip 1.5 that is simply amazing - no adjustments needed. The speed controllers are Simonk firmware flashed ESCs that provides for smooth operations even when descending straight down at a fast rate. Just put it together with the motor of your choice. The T2212-980KV motor (<http://witespyquad.gostorego.com/motors/t2212-980kv-rtf-motor.html>) from ReadyToFlyQuads works really well for lifting FPV equipment and a heavy battery, but less powerful options are available for less money. If you wanted to get into larger multi-rotors beyond something like a Nano QX, this is the way to start. The Electrohub kit comes with wooden booms that are easy to repair for minor damage with a little CA. Put different colored props on the front and back (maybe paint the arms different colors or put lights on the booms) for improved orientation. Once you are ready, you can add a camera/battery tray to add a GoPro or Mobius camera.

Here is a picture of mine:



The other top prize (if you don't like multi-rotors) is your choice of either a FliteTest Fiesler Storch kit or a FliteTest Mustang kit. The Storch can be used as a trainer but can do more with the right motor. Flaps is an option. This is part of the swappable power pod series (also part of the warbird series along with the Mustang).

RES August 30, 2014

Our annual RES contest was held at Davis field. We had 15 pilots entered, with ten planes in the 2 meter class and seven in the unlimited class. The pilots were predominantly local CRRC members, but we also had some familiar entrants from New Hampshire and Maine. The weather was nice and sunny, with good thermal lift cycles passing through; however, breezy conditions made it quite challenging to find and stay in lift. The winch line was directly into the breeze, making for some impressive launches. There was a fair bit of drama, with planes on launch shedding some tail pieces or having servo mounts loosen, or simply being launched with the receiver turned off. Fortunately, none of these incidents lead to permanent or truly devastating damage, and all planes were recovered.

After six rounds in each class, the awards belong to...

2-meter Class:

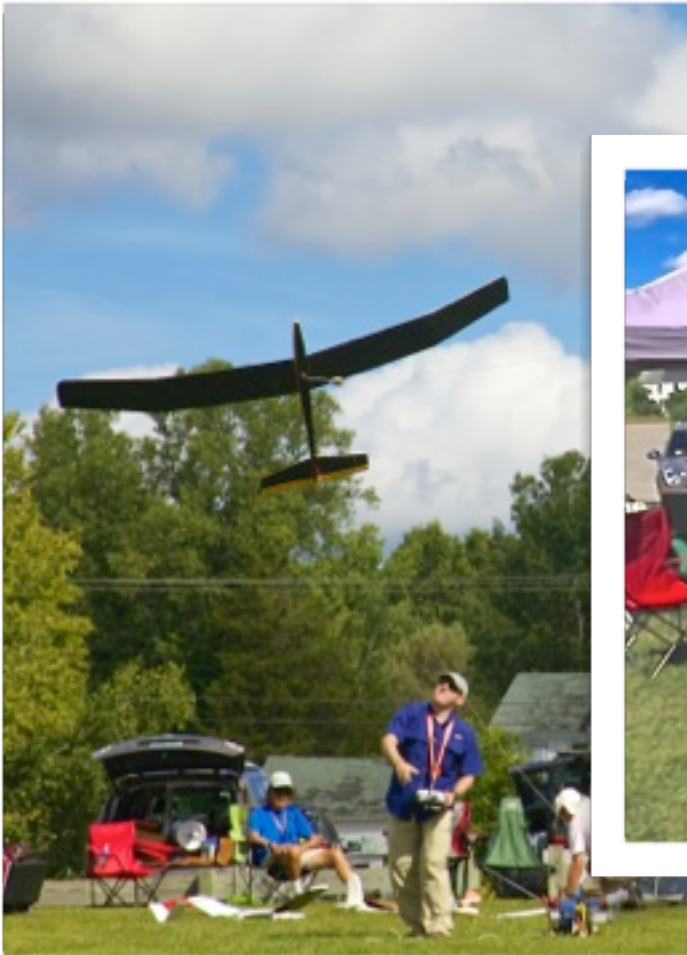
1st place	Dave Walter	1468 pts
2nd place	Anker Berg-Sonne	1268 pts
3rd place	Bruce Schneider	1112 pts

Unlimited Class:

1st place	Mark Higgins	1795 pts
2nd place	Lincoln Ross	1549 pts
3rd place	Alex Haro	1445 pts

Many thanks to the pilots for competing, the several folks who hauled equipment to the field, and the several more who helped set it up and kept it operating. Special thanks to our scorekeeper Dave Marshall, and lunch-runner Miner Crary.



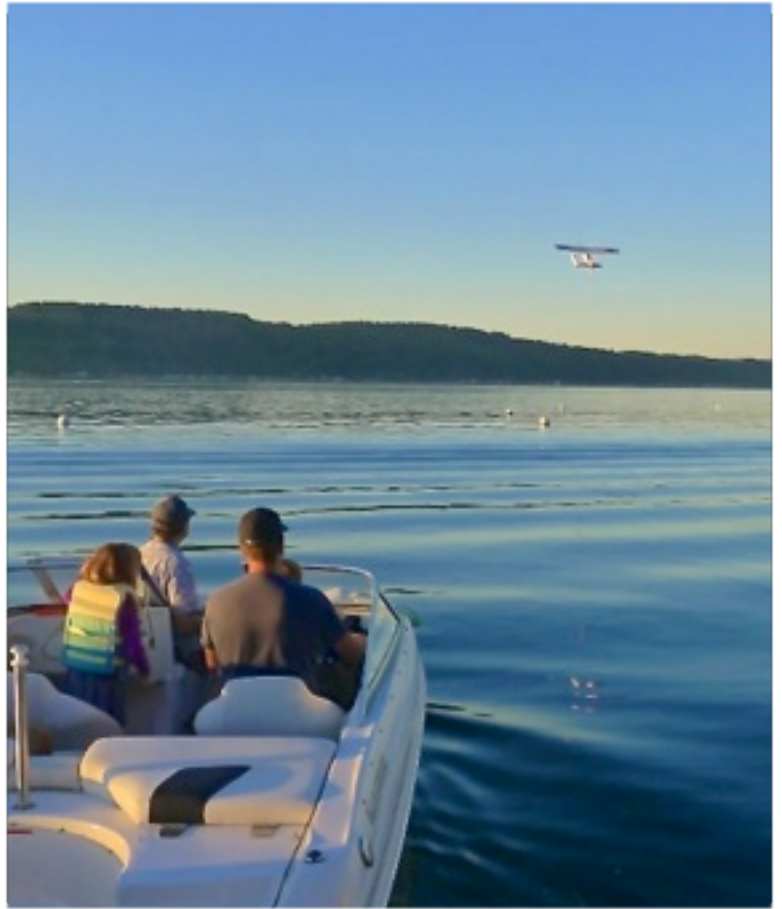




Tom Bauer wrote:

Today my brother-in-law stopped by with his boat and I flew my float plane to his place while I was riding in the boat. He was doing about 28MPH which was as slow as I could fly my Multiplex Fun Cub. I did 8's in front of the boat much like swallows would do in front of our boat on the Mississippi River in my childhood. His place is about five miles away, so I guess you could call this cross water flying. It was easier and harder to do than I might have thought. It was easy when calm, but much harder to control when crossing boat wakes. Also we came home just around sunset and I got cold and started shivering which did help the plane's stability. It was neat flying the plane right next to the boat in "formation" it reminded me of the film shot of red macaw parrots flying along side a boat in the Amazon from a Nature show.

I would highly recommend this, but pick a calm day and one with very little boat traffic.



Davis Field

Ken Antonellis resurfaced the bulletin board with new cork.

CRRC 2014 September Float Fly

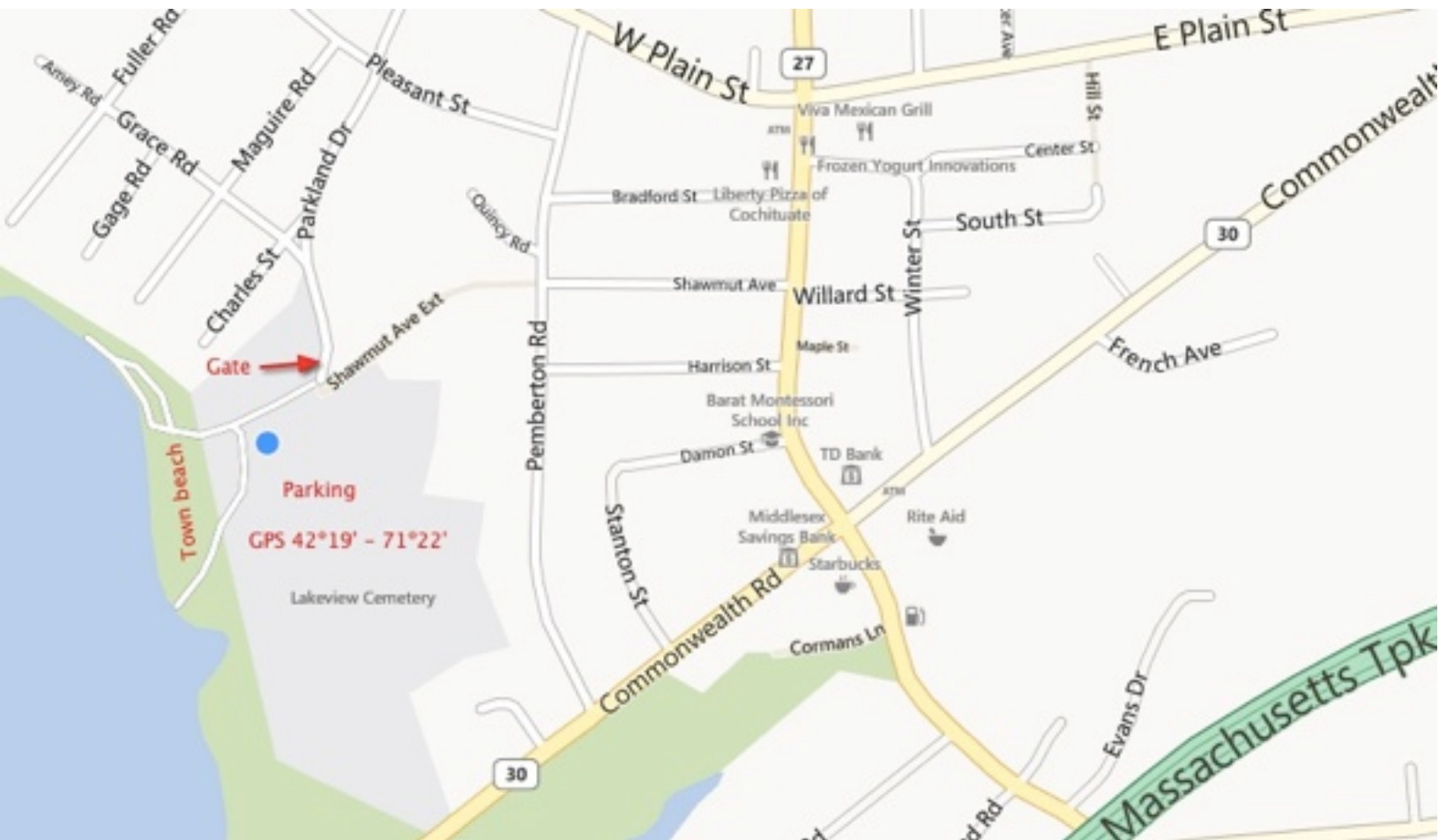
(AMA Membership required)

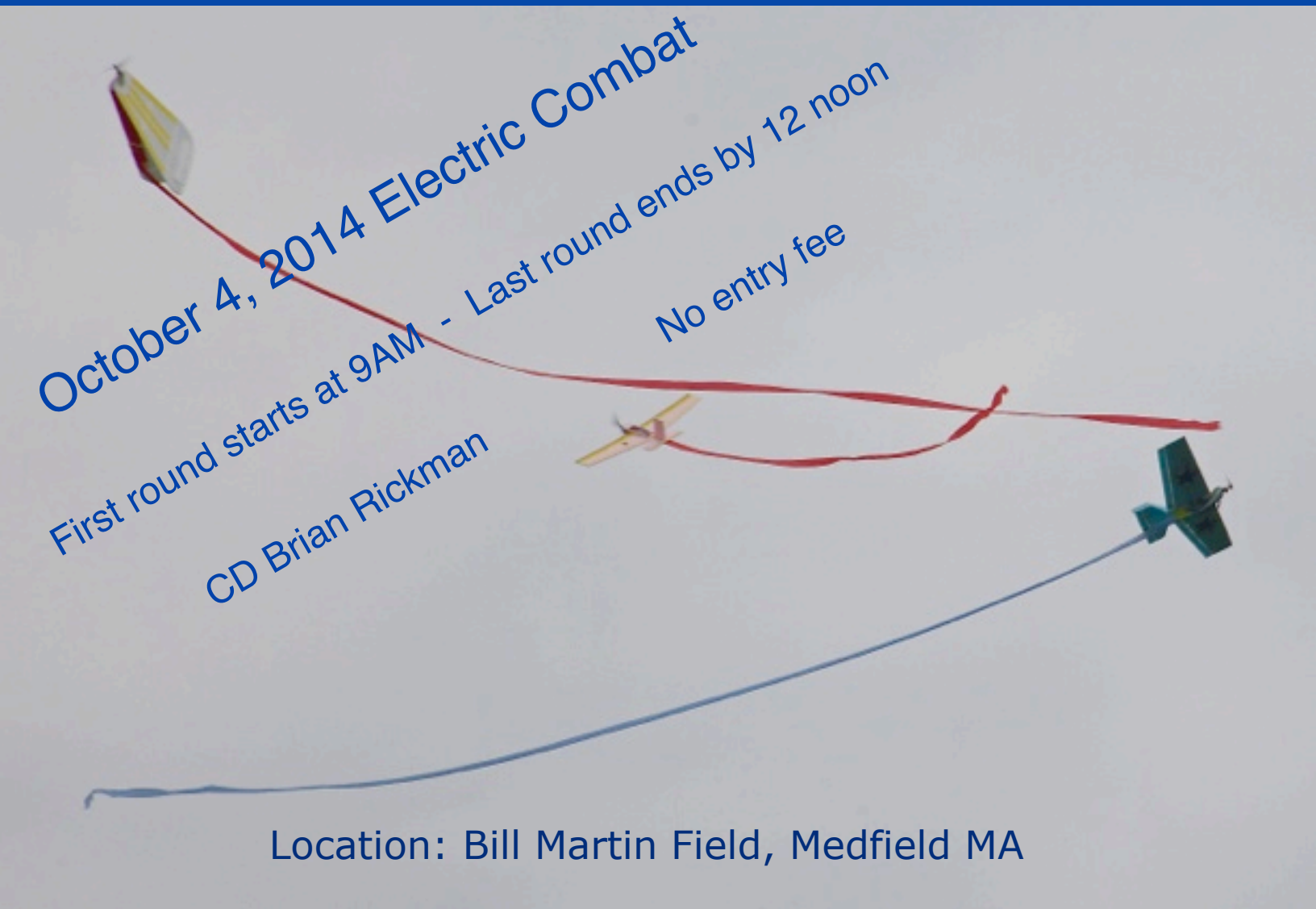
September 20 and 21, 2014

**Flying 9AM to 3PM both days
\$10 landing fee for the weekend**



Wayland Town Beach, 25 Parkland Drive, Wayland MA





The Rules

Any size and type of plane is allowed, but the power system must conform to one of the following limits:

At full throttle the power system uses 100 watts or less or

The battery has a capacity of no more than 1000 Mah and a no-load voltage of no more than 8.4 volts (2S LiPo).

Streamers will be 2" wide crepe paper, 18' long.

Each round will last 4 minutes.

If your streamer gets cut or falls off, you must land and sit-out the rest of the round.

If your plane touches the ground, you must sit-out the rest of the round.

Scoring:

10 points for cutting a streamer

5 points for being in the air at the end of the round with a full-length streamer attached to your plane

Recommended planes include, but are not limited to:

3d profile planes (<http://www.racores.com/FlatFoamies.html>) ,

Mini Gremlin (<http://www.racores.com/MiniGremlin.html>), and

Fast and Furious (<http://groups.yahoo.com/group/crrc/files/Fast%20and%20Furious%20Combat%20Plane/>).

4th Annual Plum Island Fun Fly

Plum Island Airport 24 Plum Island Turnpike Newbury MA

October 18 & 19, 2014

Scale or not, bring what you have!
Glow, gas, electric and turbines welcome.
Helicopters welcome, but must fly the pattern.
No hovering please.

\$10 for any one day
\$15 for Saturday and Sunday
9:00 am – 4:00 pm

2100 Ft Paved Runway
Food on site. Campers welcome.
No hook-ups

Contest Director: Michael Turocy

☎ 978.514.2591 / Email: onrunway34@comcast.net.

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John Epping

xofficio@charlesriverrc.org

Building and Flight Instructors

To start your your instruction please call the Chief Instructor, Dick Williamson. You will be match with one of the Instructors. All Instructors are qualified AMA pilots and willing to give assistance to fellow club members.

Types of instruction - B = Building, G = Glider, E = Electric, F = Fuel, H = Helicopter

Dick Williamson - B, G, E

978-618-5475 - Sudbury

Fritz Bien - B,G, E

978-369-1720 - Concord

Tom Bauer - B,G, E

781-235-7344 - Wellesley

Brian Rickman - B, E

774-249-2494 - Marlborough

Derick Veliz - B, E

978-337-7867 - Acton

John Weigel - B

508-655-2138 - Natick

Richard Gammon - B, G, E, F

508-835-2049 - West Boylston

Ken Antonellis - G, E, F

508-653-8369 - Natick

Bruce Schneider - G, E

978-460-0305 - Hudson

Lincoln Ross - G, E

978-800-0608 - Maynard

Dave Walter - G

978-562-5400 - Hudson

Jon Leehey - F

508-358-5721 - Wayland

Tony Davids - H

978-568-9598 - Stow

Calendar

September 17, 2014
General Meeting at Goodnow

September 20 and 21, 2014
CRRC Float Fly at
Wayland Town Beach

October 4, 2014
Electric Combat at
Billy Martin Field

October 15, 2014
General Meeting at Goodnow

November 30, 2014
CRRC Auction
at VFW Hall Natick

November 19, 2014
General Meeting at Goodnow

December 17, 2014
General Meeting at Goodnow

January 1, 2015
Frozen Finger Fun Fly

January 21, 2015
General Meeting at Goodnow

February 18, 2015
General Meeting at Goodnow

March 18, 2015
General Meeting at Goodnow

April 22, 2015
General Meeting at Goodnow

May 20, 2015
General Meeting at Goodnow

June 20, 2015
General Meeting at Davis

General Information

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. Effective March 25 the key for the 2014 season is key #27. Ken may have keys at the meeting. A \$5 deposit is required the first time you receive a key.

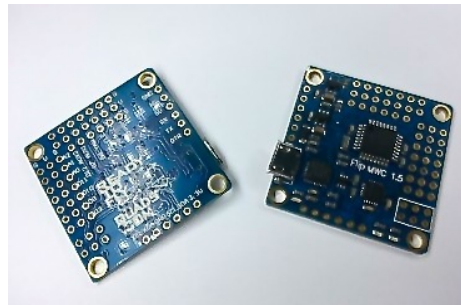
New Wings

No new Wings this month.

Flying Sites

Go to the [CRRC Website](#) and select the Flying Sites tab to see the various sites. The site page will give current weather and site information.

Raffle Prizes



Tree Climbers

LloydKeyes(Wayland)
508-358-9197 or
508-341-0110

Paul Harrington (Medfield)
508-376-2573

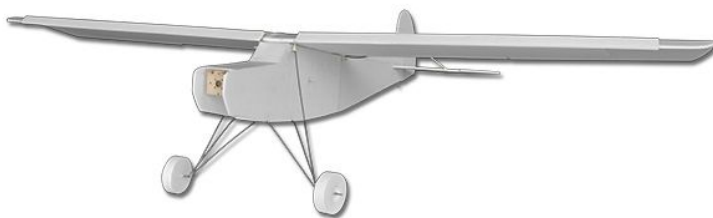
Monkey Men (Marlboro)
508-481-8461

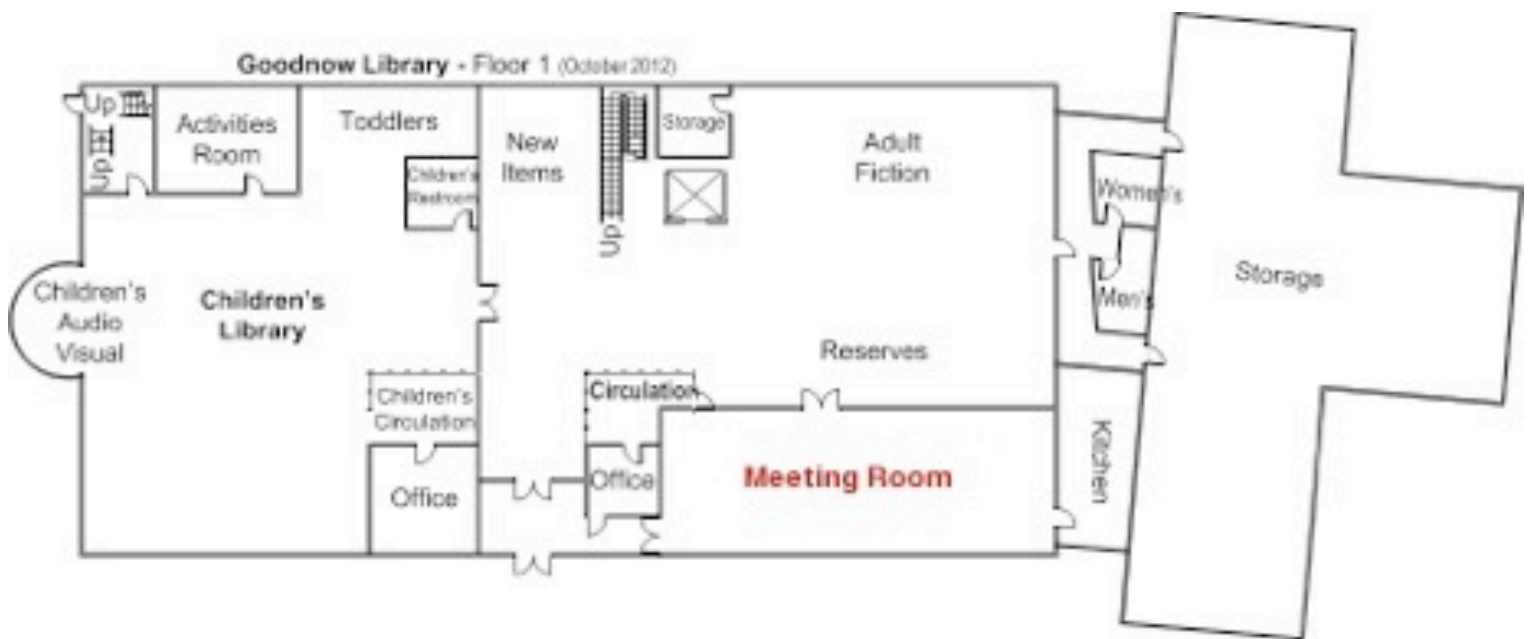
Scott (Sudbury)
508-203-3845

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





September Club Meeting Guests are Welcome

Wednesday September 17, 2014
7:30PM at the Goodnow Library
21 Concord Rd, Sudbury, MA 01776



AMA Document #550

Radio Controlled Model Aircraft Operation Utilizing “First Person View” Systems

GENERAL:

FPV flying of radio control model aircraft by AMA members is allowed only for noncommercial purposes as a hobby/recreational and/or competition activity and must be conducted in accordance with AMA’s current National Model Aircraft Safety Code and any additional rules specific to a flying site/location.

OPERATIONS – REQUIREMENTS – LIMITATIONS:

1. a) FPV novice pilots undergoing training at low altitude must use a buddy-box system with an FPV spotter, or must go to a safer altitude if no buddy-box system is used.
2. b) All FPV flights require an AMA FPV pilot to have an AMA FPV spotter next to him/her maintaining VLOS with the FPV aircraft throughout its flight.
3. c) The FPV pilot must brief the FPV spotter on the FPV spotter’s duties, communications and hand-over control procedures before FPV flight.
4. d) The AMA FPV spotter must communicate with the FPV pilot to ensure the FPV aircraft remains within VLOS, warning the FPV pilot of approaching aircraft, and when avoidance techniques are necessary.
5. e) During an FPV flight, the FPV spotter must be prepared to acquire the transmitter/control from the FPV pilot and assume VLOS control of the model aircraft at any time safe operation of the flight is in question.
- f) If an FPV pilot experiences a safety issue that does not appear to be a brief glitch, they must abandon FPV mode and fly VLOS.
1. g) Before the initial FPV flight of an FPV model aircraft and/or after any changes or repairs to essential flight systems, the FPV model aircraft must have an R/C test flight by conventional VLOS.
2. h) FPV model aircraft must use frequencies approved by the FCC for both the RC system and the wireless video system. Pilots must meet applicable FCC licensing requirements if they choose to operate the RC flight control system or the wireless video system on Amateur Band frequencies.
- i) AMA FPV pilots must first be capable of flying their FPV model aircraft manually before utilizing FPV flight.

4. RANGE – ALTITUDE – WEIGHT – SPEED:

- a) One of the requirements in Federal Law (Public Law 112-95 Sec 336 (c) (2) February 14, 2012) for model aircraft to be excluded from FAA regulations is that model aircraft must be flown within VLOS of the operator.
- b) Model aircraft flown using FPV must remain at or below 400 feet AGL when within 3 miles of an airport as specified in the AMA Safety Code.
- c) Model aircraft flown FPV are limited to a weight (including fuel, batteries, and onboard FPV equipment) of 15lbs. and a speed of 70mph.

5. RECOMMENDATIONS & INFORMATION:

- a) AMA FPV novice pilots should consider using a cockpit view flight simulator to become accustomed to FPV flight.
- b) AMA FPV pilots should consider using a programmable autopilot (AMA Document #560) with a failsafe “return to launch” (RTL) feature that will maintain control of the aircraft in the event of signal loss.
- c) When purchasing FPV operational systems, always try to select quality equipment, verify its compatibility, install components for interference rejection, and determine that signal range is adequate for maximum VLOS range.

6. **PRIVACY PROTECTION SAFEGUARDS:** The use of imaging technology for aerial surveillance with radio control model aircraft having the capability of obtaining high-resolution photographs and/or video, or using any types of sensors, for the collection, retention, or dissemination of surveillance data information on individuals, homes, businesses, or property at locations where there is a reasonable expectation of privacy is strictly prohibited by the AMA unless written expressed permission is obtained from the individual property owners or managers.

AMA Document # 560

Radio Controlled Model Aircraft Operation Utilizing Failsafe, Stabilization and Autopilot Systems

GENERAL: All model aircraft flights utilizing stabilization and autopilot control systems must be conducted in accordance with AMA's current National Model Aircraft Safety Code and any additional rules specific to a flying site/location.

OPERATIONS – REQUIREMENTS – LIMITATIONS:

a) AMA members flying radio controlled model aircraft equipped with flight stabilization and autopilot systems must maintain VLOS with the aircraft at all times including programmed autopilot waypoint flight.

b) AMA Pilots must be able to instantaneously deactivate programmed flight of autopilot systems at any time during flight and resume manual control of the model aircraft.

c) AMA Pilots must perform an R/C Test Flight of a model aircraft before activating a newly installed autopilot or stabilization system and/or after any repairs or replacement of model aircraft essential flight systems.

d) Model aircraft exceeding 15lbs and/or 70mph may only use an autopilot for a programmed "return to launch" (RTL) flight and not for programmed waypoint flying of a predetermined course.

e) STABILIZATION & AUTOPILOT SYSTEMS MAY BE USED FOR/TO:

- Stabilization/automatically stabilize aircraft to level flight when control sticks are centered.
 - Recovery/activate TRX switch to recover an out of control aircraft to level flight.
 - Heading/activate TRX switch to hold a model aircraft's heading for precision flight path.
 - Altitude/activate TRX switch to maintain fixed aircraft altitude while allowing directional control.
 - Return GPS/activate TRX switch to return aircraft via GPS to launch point.
 - Return FSS/failsafe activated from radio signal loss to return aircraft via GPS to launch point.
 - Fixed circle/activate TRX switch to circle aircraft at point of activation at fixed altitude.
 - Waypoint/activate TRX switch to initiate an autopilot programmed flight path via waypoints.
 - Fencing/autopilot programmed to display site unique boundaries on video monitor/goggles.
- PAGE 2 OF 3 (Revision 01/14/2013)

4. RANGE – ALTITUDE – WEIGHT – SPEED:

a) One of the requirements in Federal Law (Public Law 112-95 Sec 336 (c) (2) February 14, 2012) for model aircraft to be excluded from FAA regulations is that model aircraft be flown within VLOS of the operator.

b) Model aircraft must be flown at or below 400 feet AGL when within 3 miles of an airport as stated in the AMA Safety Code.

c) Model aircraft utilizing an autopilot for waypoint flying are limited to a maximum weight (including fuel, batteries, and onboard autopilot systems) of 15lbs and a speed of 70mph.

RECOMMENDATIONS & INFORMATION:

a) If your radio system lacks failsafe capability, consider using programmable digital servos or auxiliary failsafe modules. In the event of a radio signal failure these components will activate desired safe servo settings or an autopilot for return to base/launch (RTL).

b) When using an autopilot system the "return to launch" (RTL) feature should be programmed to return the aircraft to a safe location and safely terminate the flight should manual control of the aircraft be lost. When using RTL, pay particular attention to the manufacturer's throttle recommendations to prevent stalling.

c) The use of stabilization systems is recommended when flying FPV to improve flight stability and video quality.

Cont'd next page

AMA Document # 560

Radio Controlled Model Aircraft Operation Utilizing Failsafe, Stabilization and Autopilot Systems

d) Pilots usually choose to incorporate stabilization and autopilot systems for model aircraft flying to enhance flight performance, correct bad tendencies of the model aircraft, maintain stability in windy weather, establish precision heading holds for takeoffs/landings, flight training for novice pilots, create a steady flight platform for cameras, and generally just to make an airplane easier and safer to fly.

e) When purchasing stabilization and autopilot systems, always try to select quality equipment from reputable dealers, ensure for compatibility with other onboard systems, and install components according to manufacturers' instructions.

6. PRIVACY PROTECTION SAFEGUARDS:

The use of imaging technology for aerial surveillance with radio control model aircraft having the capability of obtaining high-resolution photographs and/or video, or using any types of sensors, for the collection, retention, or dissemination of surveillance data or information on individuals, homes, businesses, or property at locations where there is a reasonable expectation of privacy is strictly prohibited by the AMA unless written expressed permission is obtained from the individual property owners or managers.

The definition of terms may be seen in the AMA documents at:

<http://www.modelaircraft.org/files/550.pdf>

<http://www.modelaircraft.org/files/560.pdf>



2014 MEMBERSHIP APPLICATION

Name
Street
Town State Zip
Telephone
E-mail

IMPORTANT: You must be an AMA member in order to receive your CRRC membership card. By submitting this membership application you agree to comply with the AMA safety code including documents 550 and 560

AMA No.

Birth Date (AMA req'd)

To receive membership card and field pass, bring this application to a club meeting, or mail to the membership secretary (address below).

Ray Harlan

Membership Secretary CRRC

15 Happy Hollow Road Wayland, MA 01778

508-358-4013

Email: membership@charlesriverrc.org

Please make check payable to: **Charles River RC**

You can pay by check or use PayPal.

(PayPal to membership@charlesriverrc.org)

SAVE \$5 - EARLY BIRD DUES RATES ARE LISTED

	MEMBERSHIP CATAGORY	On or before Mar 1, 2014	After Mar 1, 2014
☐	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 chose 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.

☐ I DO NOT have access to a computer or the Internet - Please send me the Newsletter via US Mail.