



Volume 2022-01-Q1

Middlesex County R-C Fliers Club Newsletter – Spring 2022



Email: info@mcrcf.org

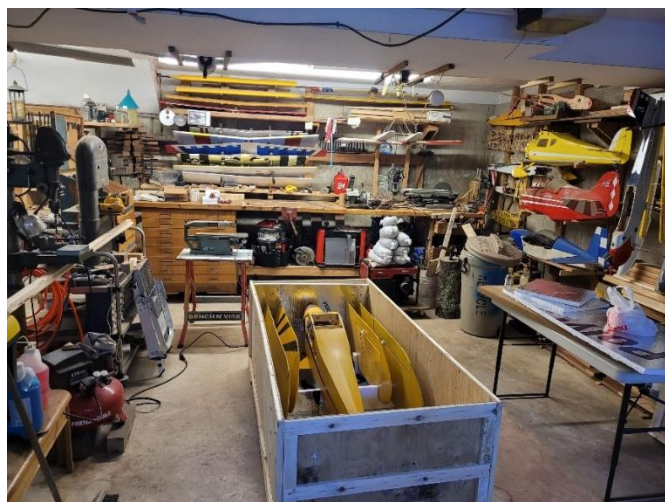
Web page: www.mcrcf.org

Newsletters: www.mcrcf.org/misc.htm

Facebook: <https://www.facebook.com/groups/MCRCF/>




YouTube: <https://www.youtube.com/user/MiddlesexRCFliers>

Next MCRCF Monthly Meeting – 3/2/2021



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2 FROM THE PREZ

Okay, being the president of a R/C flying club isn't as involved and stressful as a lot of other leadership positions, but there are some important considerations. There are the safety rules, membership numbers to be maintained, fiscal matters, flight training, and field maintenance to name a few. It's a fortunate thing for the club and myself that we have members who pitch in to get all these things worked out.

It's not just the club honchos either. The members who show up for meetings, help each other at the field, and participate in other club functions is really what makes a club work. Moreover, it makes a president's job pretty easy.

We're all looking forward to a great flying season, and another successful year for MCRCF in 2022. Thank you all for what you do.

Paul Sullivan

President

MCRCF



3 THE ATTACK OF CUB SCOUT PACK 7

Got an email from Clinton Braganza. He had met me at one of our Club's auctions and he wondered if our RC club might give the Lowell Cub Scouts a chance to get up close and personal to some RC airplanes after their rocketry launch at a nearby field.

He wrote: "I am one of the Den Masters with Pack 7 cub scouts from St Rita's Parish in Lowell. <https://www.pack7lowell.com/> "

Do, I lined up several of our Club's craziest and best pilots as well as the training core. Sure enough, I went over and met the Scout group during their rocket launch. Rockets mostly landed back on the soccer field, but a couple of them were grabbed by the trees thanks to a stiff wind.

As the troop came up the hill towards us, the kids were all sizes and shapes with Moms and Dads walking or carrying babies as well as a lot of interest to go around.

Neil Cumbie and Sharad ran through amazing aerobatic, 3D and extreme aerobatic (XA) maneuvers. The laughter and oohs and aahs made it evident that the kids (and the parents) were getting their minds blown.

Jerry, Tony, and Ray got several of the kids some intro stick time. I flew my racing drone and Micah flew several electric ducted fan (EDF) jets as well as a warbird.

As we were wrapping up, Clinton says, "Mel, my daughter just got here. She had a basketball game. Do you think she might be able to fly?" I look down at this 10-year old anxious little future pilot.

Sure enough, Jeff and Jerry were getting the Club's AeroScout trainer ready with a buddy box and were able to get her up in the air with the AeroScout.

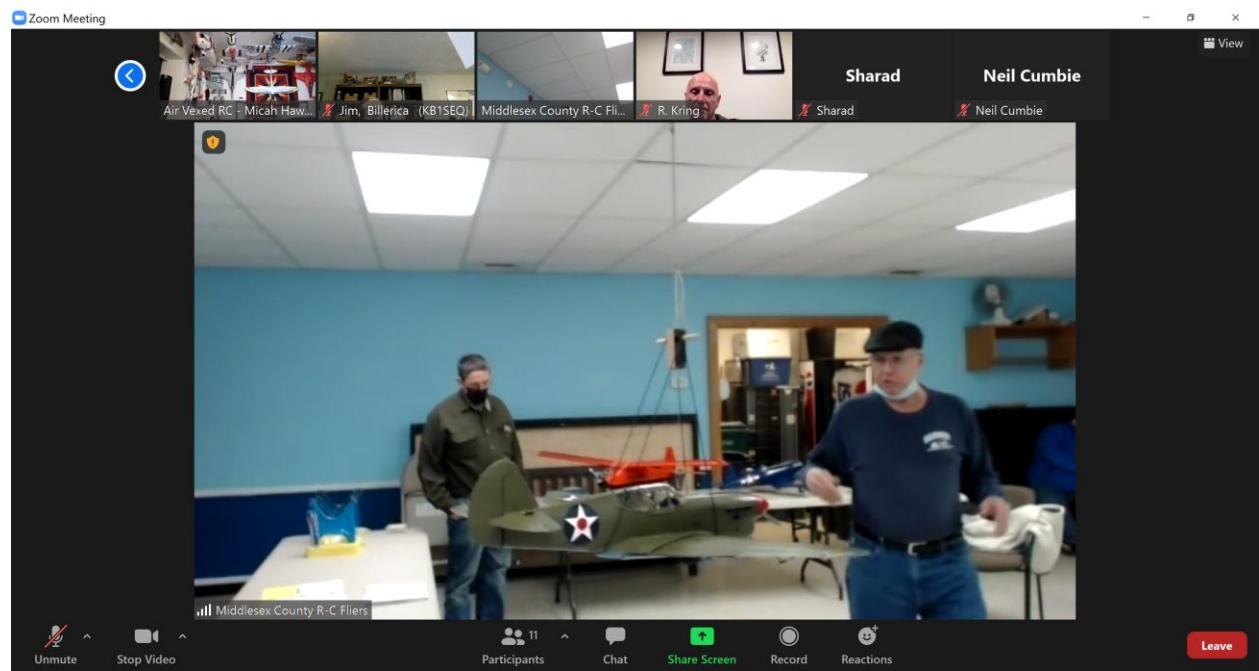
Great job, everyone who came, flew and/or helped in any way!



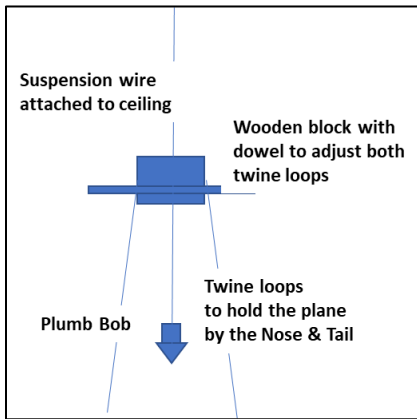
(picture courtesy of Paul Sullivan)

4 GETTING AT THE CG — BY JIM ORSBORN

In this article, Center of Mass (CoM) is a three dimensional view, whereas CG is a two dimensional view of the plane’s mass. CG is typically limited to just the pitch axis, whereas CoM can help asses balance on both the pitch and roll axis.



I’m sorry, but I could not locate any information on the specific design for the Center of Mass device that Dan Micalizzi presented at the Jan 5th meeting. Dan’s demonstration generated a lot of interest, so I thought it might be helpful to add some additional details. The following diagram [on the left] is a basic representation of Dan’s instrument.



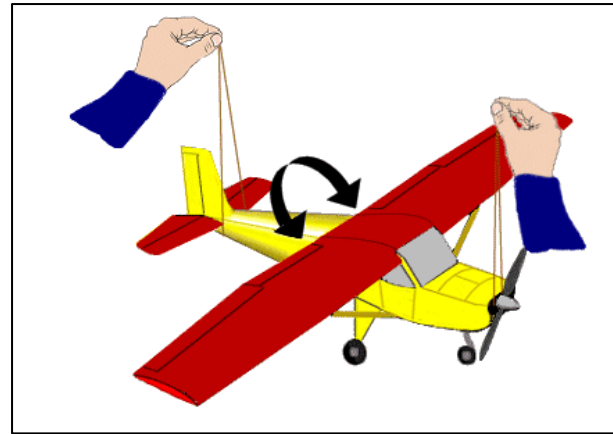
The instrument works by using two loops of twine to suspend a model. The dowels help adjust the plane's position until it is level. Weights are added and the plumb bob is used as a pointer to locate the plane's Center of Gravity (CG).

Theoretical Discussion

Whenever you suspend an object from a single point. The Center of Mass will always be located on a vertical line directly below the point of suspension. The following photo and diagram [below] both show how to assess a **planes lateral balance**. Notice that the plane is hanging from two suspension points in both examples. In both examples, the idea is to check the plane's lateral balance and not



our typical pitch axis CG.

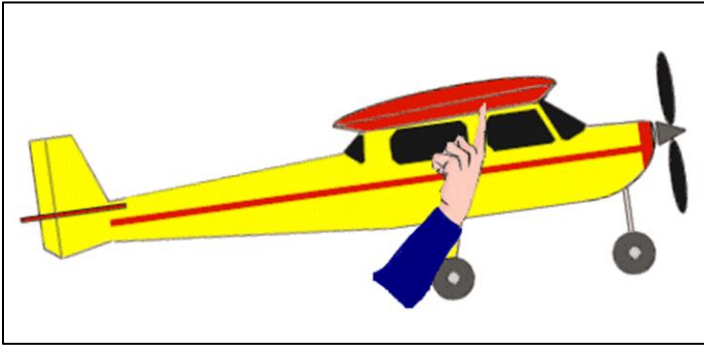


The unique thing about Dan's Balance demonstration was that he had moved both suspension strings to a point where they were together and were in fact hanging from a *single wire attached to the ceiling*. When Dan attached the plumb bob to the same suspension point, he was able to establish a vertical line for the common suspension point. By suspending everything from a single point, Dan's instrument guarantees that the Center of Mass for the airplane will then be located somewhere along the extension of that vertical line! This will always be the case, no matter how the plane is oriented.

Finding a plane's Center of Gravity (CG) or balance point involves a unique method of positioning the plane's Center of Mass. The plane's CG is found by moving the balance point until the CG and CM are in vertical alignment with each other. And an airplane is most stable when the CM is below the balance point on the wing. Getting the plane into a level attitude is simply a convenience feature of Dan's instrument that helps determine the plane's Center of Gravity (CG) for static flight. When finished, the plane's CG and CM are both located along the same vertical line.

Another very neat feature of Dan's instrument was that it became very easy to check a large, low-wing plane. Usually these planes have to be inverted in order to use a typical balance jig. The reason for this is that the Center of Mass for these planes is inside the fuselage and it becomes very difficult to balance a model when the Center of Mass is higher than the balance point. With a trainer, the fuselage and the Center of Mass are *below* the wing, so it is much easier to balance.

Back to Dan's Configuration; it will not matter how many suspension strings are used. Dan could have used two (Nose & Tail); two (Each wing tip), Three (Each wing and the Tail) or even four (Both wing tips, nose and tail). The *KEY POINT* is that all of the suspension strings must hang from a single point. In this case, the plane will always hang so that the Center of Mass is directly below that single point of suspension.



Consider this image of a model being balanced the conventional way; with finger tips below the wing. This model is apparently “Tail Heavy” at this point, because the nose is up and the tail is down. In fact, I’ve used this diagram, because it is pretty apparent that the Center of Mass is located in the fuselage area; probably near the intersection of the red trim line and the hand – remember it will be on a vertical line directly below the point of suspension.

Dan seemed to recommend a technique that would involve three repeated steps; 1) Rotate the model to get it level, 2) Check the plumb bob location, 3) Add weight to the nose or tail as appropriate and repeat the three steps until the plumb bob is in the correct location when the plane is level. All of this is done so that the Center of Mass is located directly under the desired Center of Gravity (CG) for Level flight. This (static balance configuration) will ensure that the plane can be easily controlled in flight.

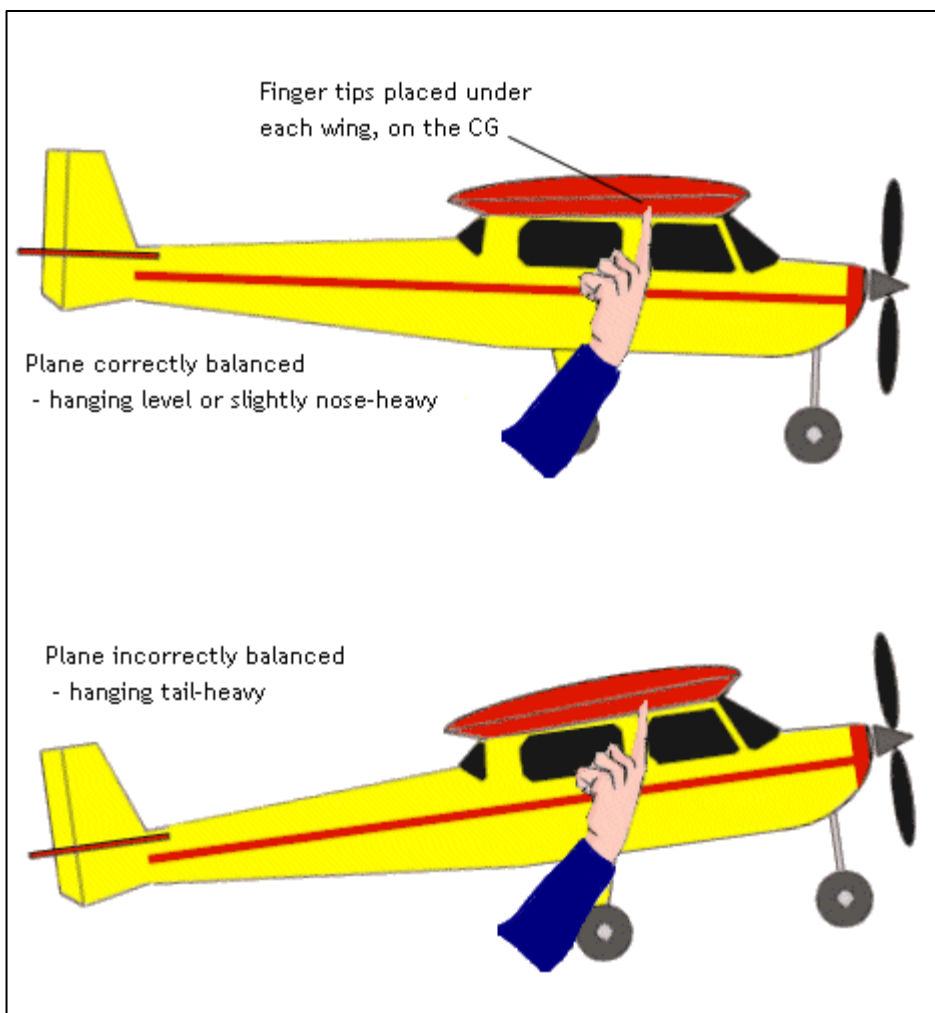
Two other measurements that might be attempted with Dan’s model would be to check lateral balance and thrust line balance. Hanging a model by the wings would check lateral balance by looking for the Center of Mass to be either left or right of center. By simply hanging the plane by the prop, one could determine if the Center of Mass is located on the Thrust Line or not.

Balance of Moments Method

In my readings I ran across another method of calculating a plane’s CG involving a Balance of Moments calculation. Position a large plane with the prop spinner located square to a wall. Raise the tail to a level position and measure the distance of the three wheels from the wall. Position a digital scale under each wheel and get a weight reading. Note that it does not matter if the plane has a tail wheel or a nose wheel. With three weights and three distance measurements, we have all of the information that we need to calculate the plane’s CG as follows.

First, multiply each weight by the wheel’s distance from the wall and add the results. Then divide this number by the sum of the three wheel weights.

$$CG = (Wt1 * D1 + Wt2 * D2 + Wt3 * D3) / (Wt1 + Wt2 + Wt3)$$



5 FROM THE HANGAR



5.1 MARK'S PITT SPECIAL

"The Pitts Special was a Christmas present from my wife. I added larger Dubro, no-bounce wheels but plan to wait for better weather to maiden it."



5.2 MARK'S PI LOGO

"She also made me the pi logo on the cowling."





5.3 MARK'S UMX ULTRIX

"I bought a UMX Ultrix to practice slow, high-alpha flying outside so I could get a feel for slow flying for the inside sessions. I also found a cool little 1S battery checker that I use with it."

The Ultrix has another different pi logo on the rear stabilizer, but I LOVE this plane. I have flown it in 25 mph winds and it still works well. It is a total blast to fly."

[E-flite] UMX Ultrix BNF Basic with AS3X and SAFE Select, 342mm, \$129.99]



<p>5.4 MARK KNIGHT'S EDGE</p>	
<p>5.5 FROM DAN MICALIZZI'S WORKSHOP</p> <p>Dan loves to build and repair. He just built this box for storing he Cub that Paul Sullivan found on the side of the road. He has two sets of wings – regular and “clipped”.</p> <p>He's working on floats for it now. They just need painting.</p> <p>Plans to maiden it this spring.</p>	
<p>5.6 YOUR PLANE'S PICTURE HERE →</p> <p>...</p>	<p>Guys/gals, send me pictures of your flying vehicles to share with the club.</p>

6 TIPS

(Readers, please think of sharing things that you've learned as you get deeper into this hobby. Thanks!)

6.1 SIMULATE, SIMULATE, SIMULATE — BY MARK KNIGHT

I found that using RealFlight was invaluable when training. I always tried to stay one step ahead of Jerry [Crowley, the instructor] which meant I was only half a step behind instead of being further behind. It helped me practice what Jerry was teaching and I also took off flying aids, i.e. using the simulator in expert mode when we were using intermediate at the field.

I also found it helpful to wiggle the sticks and lose control of the plane in the simulator. It forced me to develop better instincts for recovery. I started using one of the 3D foamy planes in the simulator, as I found it difficult to control. I was NOT trying to do 3D, but just to keep it in the air.

My goal was to finish the battery in the simulator without crashing. I found I liked the foamy so much that I bought one and built it over the holiday.

Other than use the simulator, my tip would be to always check your batteries so you have confidence in your timer and don't take off with partially charged batteries.

6.2 SPINNING UP A GASSER — INPUTS FROM JOHN PARISI

John saves his fingers and patience by using a starter for his gassers. He picked one up RC Universe but says to look for something that is able to crank the engine - a 60cc engine in his case.



I (Mel) found this one on-line, from Mayatec, for \$80 that looks similar. John noted that typically, the starters come with a pigtail for a large, 12v battery. He modified it to use a Lithium battery instead, as you can see in the picture.

[\(Link to Mayatec starter\)](#)

6.3 NEVER MIND THE COLD! – BY MEL SUAREZ



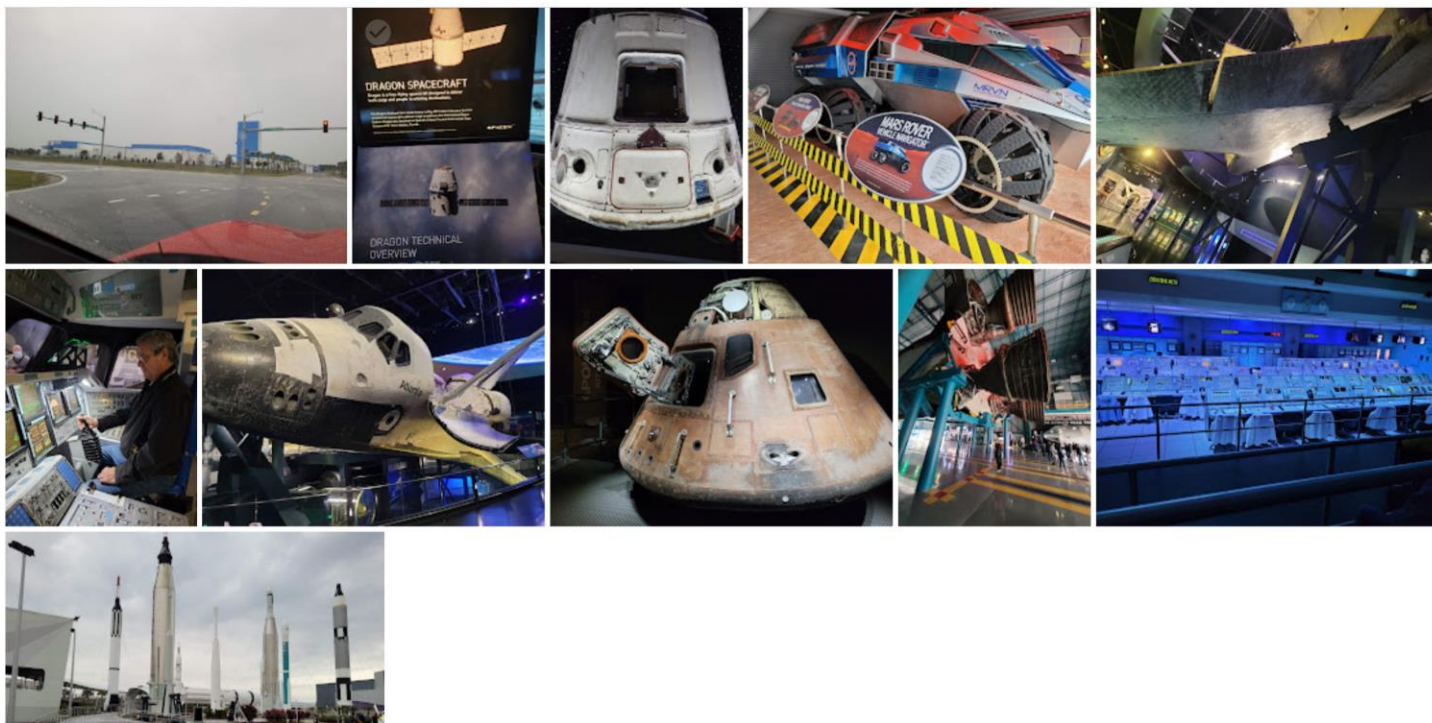
This spectator was keeping warm in a portable shelter during the Southern New Hampshire's Frozen Fingers Fun Fly this year while her husband played with motorized toy airplanes.

7 EDITOR ON THE LOOSE! – BY MEL SUAREZ

7.1 KENNEDY SPACE CENTER – Wow! Wow!

Got a chance to check out the Kennedy Space Center. Below are some pictures. Most impressive to me was being up close and personal to the Space Shuttle Atlantis. What an engineering marvel! To think that something so heavy could fly – or more accurately – glide. I did not know that the covering over most of the top of it (the white stuff around the cockpit) is soft, insulating material.

Other pictures include (left to right): a Blue Origin facility, SpaceX Crew Dragon module, a rover vehicle concept, pictures of Atlantis and a simulated Space Shuttle cockpit, an Apollo control room model, and the “rocket forest”.



In case you see me at the field. Please say hello and give me material. LOL →



8 AMA EVENTS – THINGS ARE QUIET IN OUR AREA

This list is from the Event Finder at <https://www.modelaircraft.org/event-calendar> for **District 1, 2/18/2022 – 4/30/2022.**

MARCH13
STEALTH SQUADRON FAC 49 3RD WINTER CONTEST 2022
CLASS A
Contact: STEPHEN EVANS
Location: 68 Elm Street Georgetown MA 01833
View Website
APRIL2
WINGBUSTER MAC SPRING SWAP MEET
CLASS E - NON-FLYING
Contact: ROBERT MANDEVILLE
Location: 1195 Bedford St Whitman MA 02382
View Website
APRIL3
STEALTH SQUADRON FAC 49 4TH WINTER CONTEST 2022
CLASS A
Contact: STEPHEN EVANS
Location: 68 Elm Street Georgetown MA 01833

[View Website](#)

APRIL21 - 24

NEW ENGLAND SCALE SOARING AEROTOW 2022

CLASS C

Contact: STEVE PASIERB

Location: 479 Norwich Rd Salem CT 06420

[View Website](#)

9 RANDOM STUFF



9.1 WHATSAPP??? -- A CHANCE TO TRASH TALK WITH FELLOW MEMBERS



How to get onto WhatsApp?

- Install WhatsApp on your phone
- Send your phone number to someone you know is on the MCRCF WhatsApp group (almost everyone is an admin) – e.g. any officer
- That admin adds your name/phone to their contacts on their phone
- Via WhatsApp, that admin sends you a link to the MCRCF WhatsApp group
- You click on the link and you will be in. You won't see old threads, just new ones after joining.
- Be sure to introduce yourself when you join.

Alfredo, Bob, Carl, Dan, Dan de, Dany, Don, Gerald, James, Jeff, John, Long, Mack, Neil, Paul, Randy, Ray, Rohan, Saket, Sharad, Stephen, Tony, Yaz, +1 (413) 687-8619, +1 (617) 828-3967, +1 (617) 877-7683, +91 98192 01230, You

9.2 LOANER REALFLIGHT SIMULATOR & LAPTOP AVAILABLE

If you're a new pilot or an instructor and would like to take advantage of our loaner laptop/simulator, contact Jeff Ward (see Page 1). Picture below.



It now runs RealFlight 9.5.

9.3 RC INSTRUCTORS

List of available instructors. Please note: this list is a work in progress. Some instructors may be listed below, however their schedules may preclude instruction at a given time. Contact Info will be added in the future but can be found in the Current Membership List.

Instructor	Contact Info
Ray Capobianco	617.697.4514
Jerry Crowley	978.857.1408
Tony DiPersio	978.430.2800
Jeff Ward	978.987.1142
John (Yaz) Yassemedis	603.321.8442
Stephen Faust – incl helis & FPV drones	978.925.9810
Neil Cumbie – 3D and XA	678.358.7006
Jose Mendes - drones	978.227.7124
Jim Orsborn (Horizon Hobby Coach)	https://www.horizonhobby.com/flight-school-find-a-coach.html

9.4 MCRCF.ORG MEMBERS ONLY PAGE

Contains our Membership List, RealFlight files that mimic our field, and other info. Go to mcrf.org and click on the "Members Only" link. You will need ID & password from a club member to get in.



Members Only

[Annual Financial Summary Reports](#) in Acrobat PDF format

[Current Membership List and contact information](#) in Acrobat PDF format

[MCRCF RealFlight Files](#) for download and use with RealFlight simulator.

[MCRCF YouTube Channel info and login](#) in Acrobat PDF format

9.5 NEWSLETTER GLOBAL TABLE OF CONTENTS

You want to buy a charger, say. And you know there was an amazing piece on it in one of the newsletters. But you which one??? We have a global table of contents listing some of the major articles. (Work in progress)
<https://docs.google.com/spreadsheets/d/1ZAbMnamPiclwd50E3XxQ2JhXYEQAZfkB3R0qvXZOiuo/edit?usp=sharing>

9.6 LIST OF MANEUVERS

Tired of flying the same patterns all the time? Check out 100 maneuvers and some links on how to do (some of) them:
<https://drive.google.com/file/d/1O0eF2NAFN7SgUS0sOMc5hXOCTJBdJeM0/view?usp=sharing>

9.7 SUPPORT YOUR LOCAL HOBBY STORE & GET DISCOUNT

This is one great hobby store and the owner, Bill Horton, has agreed to provide our Club with a discount. Show a current MCRCF membership card and receive a 5% discount for any purchase over \$25.



<http://abcrchobbies.com/> 11 Rockingham Rd,
Windham, NH 03087; (603) 458-6481

9.8 PLANE RETRIEVAL

Call Paul Sullivan – his friend, Mike, charges ~\$50 to retrieve a plane...depending on the complexity of the rescue!
 Also, several members have camera drones and can help with a search & rescue efforts. Carl ("Mack") McKenzie is one - 978 208-7969

9.9 CLUB SAFE LOANER TRAINER IS AVAILABLE

The AeroScout is ready for use in exposing people to flight. Contact Jeff Ward to reserve it. It comes with 1 22mah battery and transmitter.



The aircraft is kept in Jeff's workshop with a combo key enclosure.
 (photo courtesy of Jeff Ward)

9.10 TRAINING REPORT

Member	Training/Checkout Status	Type
Steve Marone	Checked out for drones. Needs fixed wing training. Student will inform us when he would like to schedule.	Jerry
Eli Wiel	Checked out for drones. Needs fixed wing training	Jerry
George Butch Balduf	Training In progress. Waiting for Covid relief.	Tony
Gerald Sunderman	Training In progress. Waiting for Covid relief.	Jerry
Hugh McNeil	In Training.	Jerry
William Lunt	Need to refresh need for training	Jerry
Charlie Petricone	In training. Needs to schedule appointment to resume training.	Nitro & Electric
Taylor Alexandra	In training for drones/plans fixed wing training in future	Jerry
Bob Forgione	Refresh training for fixed wing	Jerry
Eamonn Quinn	In training	Jeff
Elizabeth Jean	In training	Tony
Abigail McAdams	Needs checkout for drones(?) - Triton Systems	
Raheel Retiwalla	In training	Tony/Ray
Moaiz Retiwalla	In training	Tony/Ray
Tariq Retiwalla	In training	Tony/Ray
Thorsten Thielow	In training, Sent e-mail in January requesting appointment for training.	Tony/Ray/Jerry
Rio Thielow	In training, Junior status	Tony/Ray/Jerry
Caie Thielow	In training, Junior status	Tony/Ray/Jerry

SOLOED RECENTLY

Muhammad Sami	Soloed on 7/1/2021	Ray/Tony
Mark Knight	Soloed on 11/20/2021	Ray/Tony/Jerry

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If there's someone you would LIKE to subscribe, send their email along and thank you.