

# Pilot Briefing

Mid Hudson Radio Control Society



Volume 9, Issue 7

July 2017

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## President's Corner

Okay July is upon us and the summer is in full swing. We're about mid-season, for those that don't fly year-round. Seems like quite a while we were out on the soggy Saturday opening up Wallkill.

Hope everyone had a good and safe 4<sup>th</sup>.

I know the weather for the early flying season has not been kind to us, I do know some people have been out flying a lot, good for you. The weather has been great at the moment, some really hot days, make sure you bring lots of water to drink.

The Spring Fun Fly at the Old Rhinebeck Aerodrome was on Sat & Sun 3, 4 June

Keep an eye out for info on this year's Jamboree, there is a lot of work that has to be done. The club voted to have the mission again due to numerous pilot's asking for it. Warren will be sending out more details for the Jamboree.

The Geo-Tec runway has been put on hold for now and that we will try and cut an area lower and more often for the small electric's.

Some quick update notes since the last newsletter:

I want to thank the members who showed up at the work party to get the George Buso (Wallkill) field ready for this year's flying season. Many members showed up despite the weather being cloudy and drizzling on and off throughout the day. It did make for a good temperature for working. The field was rolled the roadway coming in had ruts filled put could not be rolled as the roller was getting stuck. The field was also marked off the show the area of the 30 feet

by 150 foot fabric run way, and a good discussion on it. It was decided to paint the 30 feet by 150 foot with line paint so members can see how they can take-off and land using the paint as a guide.

Hopefully there will be some new models flying at the field this year. If you are doing a build, send some notes to the newsletter editor as this topic is one of big interest to the rest of the club members. I plan on having my scratch built 1/3 scale Dr-1 flying with the help of Warren for its maiden flight.

Since the last newsletter, some who attended the AMA Expo East (WRAM) show stated that it was okay and they expect that next year it should be better, and that AMA had a great presence there.

As you may know, the Redwing field has a for sale sign on it. At this time no one knows what the future brings for Redwing. So if any of you know of any farms or large properties out there that we might be able to use, even if it is for sale we might be able to use it before it is sold. Get the information to one of the board members.

I hope everyone who turned out for the Sat, 20 Jun Float Fly had a good time. It seemed like a good flying day with cool temps, light wind, and overcast skies. Thanks to Jerry Rohling for running the event.

Regards,

Pete

MHRCS 2017 President

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## **MHRCS Membership Renewals**

A Fresh Reminder – Be Mindful of your AMA Membership Renewal Date!

Something to be aware of...

As many of you are aware by now, the AMA changed its billing policy last year so that your membership is on a rolling 12-month basis, where single- and multi-year AMA memberships had previously started 1 Jan and ended 31 Dec of any year.

It is up to you to keep current on your Membership. You cannot fly at any MHRCS field without active AMA registration. Revised MHRCS Bylaws will include a clause reflecting serious penalties if you do fly without a current AMA membership.

## **Where in the World is Rick Rizza?**

Rick Rizza – MHRCS's Travelling Team Captain

If there is one member who partakes in travelling to other sites for summertime flying events, it is Rick Rizza. It is hard to keep track of just what regional flying field he will be at on any given weekend, and he did find time to produce an article about his trip to Mercer County NJ RC Society's Warbirds 2017 event.

## **Mercer County RC Society Warbirds 2017**

By Rick Rizza

The Mercer County (NJ) RC Society is an AMA Gold Leader club (Charter #422) (<http://mcrs.com/>) who's flying field is located in the beautiful Assunpink Wildlife management area. Known as the Warren Kruse field, it is about a 2.5 hour drive from our area, and worth the trip for any major event, such as the Warbirds event I recently attended. The MCRCS events are always attended by high quality builders and flyers. This is the home club of the well-known modeler/builder Keith Zimmerly whose half scale original Standard biplane can be seen hanging in the museum at Old Rhinebeck. Keith is a regular at our Jamboree in September and can be depended upon to bring and fly any number of his 1/2 scale masterpieces



*Illustration 1: My Planes*

I left my house about 5:30 am and arrived at the field shortly after 8 to find quite a few folks already there. The event is/was a 2-day affair, but I was only there for Saturday. I claimed my spot on the flight line and then went to register and bought a nice breakfast sandwich which was expertly prepared by the club onsite, served hot and fresh right off the grill by none other than club president Keith Zimmerly. Then I went and set up my tent and assembled my planes. I brought my Sopwith Camel, my U2 spyplane, and my new Cessna 150, which of course is not a warbird, but often later in the day the club will lift the sanction and allow "all fly." I went for my first flight with the Camel and enlisted the services of Gene Gavin, whose scratch built Pfaltz Eindecker is a fixture at most major RC flyins including Warbirds over Delaware and our own Jamboree. My take off was interesting, to say the least, but I hung in there, got her straightened out and had a good flight including a smooth landing which stayed on the wheels and allowed me to taxi in. No "walk of shame" for this pilot today!



Illustration 2: 40% SPAD

I flew my U2 a little later, and had another flight with the Camel, and felt great with that. I planned to leave around 3 pm and did do that, feeling quite comfortable about the day. The flying going on around me was outstanding with many giant WW 2 heavy metal warbirds flying all day, and there was one flight of 6 that was formation oriented and well executed, including high speed low passes in a tight group and at least twice, they all pulled up into the vertical going way up till each fell off in a stall turn to return toward the Earth. It was quite a show! I recommend it!



I believe we will get more trip reports from Rick as he travels thru the summer – Thanks Rick, nice share.

## **Builder's Corner**

(all building tips and accounts welcome!)

1. Helloooo to Tom Smith, MHRCS's most distant member???

**After my email to members soliciting build tips and stories, I heard back from Tom Smith with some notes and good pics of the Honker Bipe – here you go...**

Hi Pete. Not sure if we ever met but I am a life member of MHRCS now living in North Carolina. I was news letter editor for many years and feel your pain.(Editor's note – I am pleased to be eeditorr!) I have submitted a few articles in the past and have another one for you now.

It's a **Honker Bipe** from a 1974 kit by Dave Thornberg. I built one back then but never got to fly it because I sold all of my RC stuff, everything I owned, to buy a full scale 1940 Taylorcraft from Cole Palen and Gordon Bainbridge. Never knowing how that little OS 25 bipe flew I jumped at the chance to get another kit when I saw it for sale last fall on RC Groups. This one is electric powered with a 400 watt outrunner on the nose using

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a 3s lipo. I added a removable front hatch to give me easy access to the lipos. The build is rather easy because it utilizes a Jedelsky wing plan form that consists of two pieces of balsa glued together in a slightly under cambered airfoil configuration. Easy to build and cover and very strong. My original had more dihedral and was rudder elevator and throttle controlled. This one has ailerons with considerably less dihedral. Covering is Solartex I had laying around after building my Balsa USA Aeronca C3, which I flew at the Jamboree a few years ago. I replaced the wire main gear with a Dubro stamped aluminum setup I had laying in my parts bin as well as a a Dubro steerable tail wheel assembly. I put a few holes in the firewall to allow some air in to cool the batteries and the 30 amp controller as well a a few exit holes in the underside of the fuse just in front of the stab to let the hot air our. Wings are held on old school with rubber bands.

I installed my new Spektrum DX8 Gen 2 radio in it and headed to the field. It flew perfectly the first time out and now has over 50 flights on it with not so much as a scratch. So, now I know that the earlier one would have been a great little flyer as well. What goes around sometimes comes around. Tom Smith



**Thanks Tom, nice share, great looking plane, and good pics... Great cap, by the way...**

## 2. 3D Printing - from Peter G.

Sometimes in life, you get more than you ask for – in a good way. Without even requesting one, I was gifted a brand-new 3D printer at work back in January, which I am integrating into my courses at Mt. Saint Mary College. Over the period of 5 months, I came a long way up the learning curve, which actually never ends. I thought I would include some chatter, here, about what this 3D printing is all about.

**What is 3D Printing?** Best start at the beginning, as is often said. It is a big topic, as complex as you care to make it. However, to a great extent, 3D printing is a glorified hot-glue gun with motor controls that can position the “gun” in 3 dimensions – x, y, and z. 3D printing is a good case for the adage “a picture is worth a thousand words.” It is easier to show than describe, so you can click the pic of the MBot+ to watch a video about this model of printer. The core to 3D-P: There are different 3D Print technologies but I will talk about the really common one, FDM (Fused Deposition Modeling), which means material drawn from a spool of colored, plastic filament is melted and crammed (by motorized grippers) through a blazing hot nozzle. Again, think “elaborate hot-glue gun.” This “hot-end” is called the Extruder. The MBot+ holds a replaceable 1kg spool of filament. Motor controls position the extruder in 2 Dimensions as it squirts this molten plastic, creating one layer of the item being fabricated at a time. The table the molten filament squirts onto periodically descends one layer

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at a time, creating the 3<sup>rd</sup> Dimension. The molten material is therefore “deposited” and “fuses” to whatever it is being squirted onto – either a table at the start of a print, or other material previously extruded as the process progresses.

Common to most 3D printers, there is a frame within which is designed a table, which is under the control of computer-driven motors. The table raises and lowers to accommodate the “z” axis (vertical). That accounts for one dimension. The Replicator+ table starts in the highest position and gradually lowers as the fabrication continues. The table lowers at about .200mm each step. The Extruder is controlled in the x & y dimensions, squirting out one layer at a time. Once any single layer is completed, the table descends one “step” to allow the processing of the next layer. Thus, an object is made up of many “slices” or layers of deposited material.

The Replicator+ can accommodate a volume of 6.5” x 7.6” x 11.6” – any design has to fit in those dimensions, or be broken up into several separate prints.

There are many companies and many models of printers. The printer I received is a “Makerbot Replicator+.” The company, Makerbot, banks its business on having a rock-solid product with plenty of user support. Theirs is not the most versatile machine, but probably the best one in educational environments where durability, dependability and repeatability are important.

Here’s a picture of the Makerbot+ (click pic to view video):



There are many companies making alternate products. It seems there is a new printer announced every week.

The day I received the printer, the support team came to the office to install the printer. The biggest

test was how fast could I be printing, which ended up to be very fast. I had to download Makerbot’s software and drivers to my PC, and I think from start to finish it took all of a half hour to have the printer first respond to a design download I initiated. Within an hour of that, I had my first 3D print, off the printer.

So, the MakerBot folks have developed a pretty user-friendly startup process.

That’s all fine and good, but what can you make with the printer? For a good two weeks, I printed items I found interesting on the Makerbot community website, Thingiverse.com. If you go there, you can peruse the thousands of designs the user community has uploaded over several years. Of course, when I first got the printer, the first thing I thought of was “What model aircraft thingies can I print.” There are a few model-aircraft items uploaded to Thingiverse, but not an overabundance. For now, very light, strong wheels are possible. I have printed a few different designs out, and the customization is limitless. Since the printed material essentially melts in contact with glow fuel, most model airplane parts are suitable mainly for electrics.

## **Battery Technology Scuttlebutt**

As a reference to a couple of articles mentioned in the last newsletter:

1. [Graphene Batteries Appear, Results Questionable](#) (Feb 2016)
2. Actual Evaluation: [Turnigy Graphene](#) (RCGroups thread, starting Jan 2016 but running thru May 2017, and still going)

I took the plunge and ordered up my first Graphene LiPo. For a powered electric sailplane conversion I am doing, from brushed to brushless power system, I weighed the differences between nano-tech batteries and graphene. While graphene is more expensive, I went with this



technology because of reports of significantly longer lifespan with a smoother degradation curve – the power output holds steady to up to 900-1000 power cycles.

Here is what showed up from HobbyKing for my 1800mAh battery – cool, huh? Black velvet bag a nice touch. The battery is shown with the caged outrunner from HK I am using in the snout of the sailplane, the Hangar 9 Aspire. The electronics removed from the Aspire are also shown.



I have appreciated the boost you get going from garden-variety 25C Lipos to 40C LiPos, and I will report out how flights go with the converted Aspire 2M sailplane as I get it on the flight line in a few days.

## Upcoming Events

See also [AMA Events Site](#)

### MHRCS Events

1. Thursday evenings at RedWing – let me know if you want to be added to the ad-hoc email distribution list for updates on Thursday eve Wx forecasts and group flying plans.
2. Field Meetings
  - a. Saturday, 5 August, Wallkill  
9a.m. Meeting  
Noon Lunch  
\
3. **Rhinebeck Jamboree**  
**Fri-Sat 8-10 September**  
**Please sign up now as volunteers**

## Regional Aviation Attractions

Rainy-Day Activities (click links, below, to follow)

We always have the opportunity to organize a club caravan to any of these museums – contact newsletter director if interested.

1. [New England Air Museum](#)  
Windsor Locks, CT  
1hr 46 minutes from Rte 9 / US84 intersection, Fishkill  
Feb 18
2. [Glenn H. Curtiss Museum](#)  
Hammondsport, NY  
4 hours from Rte 9 / US84 intersection, Fishkill
3. [Cradle of Aviation Museum, Planetarium and Theatre](#)  
Garden City, Long Island

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1hr 35 minutes from Rte 9 / US84 intersection,  
Fishkill

4. **The Intrepid Sea, Air & Space Museum**  
On the Intrepid aircraft carrier  
New York, NY
5. Mid Atlantic Air Museum  
Reading Regional Airport  
Reading, PA
6. Golden Age Air Museum  
Grimes Airport  
Bethel, PA
7. Harold F. Pitcairn Wings of Freedom Museum  
Horsham, PA
8. Piper Aviation Museum  
William T. Piper Memorial  
Lock Haven, PA
9. MHRCS Members – Let me add Your  
Recommendations Here!

If you are competing or even accidentally win an award, please get in touch with me.

**Airborne Video:** Anyone thinking of connecting video in their planes for this season? Contact me about adding to a future newsletter stories.

### **Battery Technology**

Whether you fly fuel or electric, battery technology has revolutionized model flying

### **Road Trip Reports**

Did you visit one of the regional flight attractions listed in this newsletter or find a new one to add? Let's hear about it!

## **From the newsletter editor...**

### **Request for Articles and News**

Hey everybody, you can't spell newsletter without news! Let me know what's going on.

### **Builds**

Big, medium, small, rebuilds – it's all fair game for articles or just short mentions. We have a club of extraordinarily skilled builders with newsworthy projects. Tips, materials, skills, tools, and gotchas all welcome.

### **New Members**

Welcome to all new members. If all went well with getting you "onboarded" you should be getting these newsletters by email. I look forward to meeting up with you and getting your model aircraft story, to share with the club.

### **Flights**

Anybody logging their flight time, or even just have an interesting flight to share – let's chat.

### **Competition**