

Wing Tips

March 2015

The Newsletter of the Mid-Hudson Modelmasters

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2015 Club Officers

President: Bob Santoro

Secretary: John Knight

Sgt. at Arms: Flavio Ambrosini

Vice President: Ron Irvin

Treasurer: Tom Eng

Junior VP: George Amenta

Club Calendar

Coming Up:

- **Thursday March 19: - CLUB MEETING**, Highland Middle School Gym, 71 Main St., Highland, NY 12528, 6:30pm to 9:30pm. Indoor flying, and a short meeting will begin at 7:30pm. *Note: Please limit flying to indoor types -- fly the larger, more aggressive models outdoors or at larger indoor sites. Sneakers or other gym floor type footwear should be worn.*
- **Thursday, April 2: - April Wing Tips Article submissions due**, Send your submissions to wingtips@modelmasters.us Due date is first Thursday of each month.
- **Sunday, March 29: - INDOOR Flying**, Ulster Community College Gym, 1-5pm *Note: Please limit flying to indoor types -- fly the larger, more aggressive models outdoors or at larger indoor sites. Sneakers or other gym floor type footwear should be worn.* No indoor flying in February.

Regular Events:

- **MONTHLY MEETINGS AT HIGHLAND MIDDLE SCHOOL:** Oct. through May club meetings and flying sessions at will be held at Highland Middle School, dates are: Thursday; March 19th- Thursday; April 16th- Thursday; May 15th- Friday
- **INDOOR FLYING SESSIONS AT SENATE GYM, SUNY Ulster:** 1-5pm (time revised), All dates are Sunday. March 29, April 12 (new April date), May 10, September 13, 2015, October, 11, 2015, November 8, 2015. No indoor flying in February.
- **INDOOR FLYING AT SCHENECTADY ARMORY:** Saturdays, March 7, 14, 21; April 4, 11, 18, 25. For more info, contact Jesse Aronstein, 845-462-6452, protune@aol.com. If you plan to attend check with Jesse be-

fore departing for the Armory, since weather and other factors can cause cancellations. Info also available here - <https://sites.google.com/site/epamodelers/home/schenectady-armory-flying>

- **OUTDOOR FLYING SESSIONS AT WEST ROAD FIELD** – Every Saturday Morning, weather permitting.

From the President's Cockpit

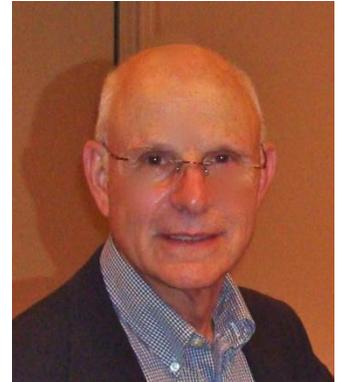
Although February was the coldest month on record for this area, curtailing much of our outdoor flying, many members have hunkered down and turned their attention to repairing old aircraft and building new ones. However, I was informed that a few of our members have been flying at Stringham Park over the soccer fields. A number of our members attended the WRAM show and purchased kits that they are anxious to build and have ready to fly at the first sign of warmer weather.

Scheduling conflicts at the Highland Middle School prevented us from having our meetings there in January and February. Thanks to Brad Quick we were able to have our meetings at his manufacturing facility and also hone our flying skills as flying took place under 12' ceilings. The meetings for the rest of the season will be held at the Highland Middle School. Our March meeting is on Thursday, March 19th. I also want to remind everyone that there will be an indoor flying session at Ulster County Community College on Sunday, March 29th from 1:00 PM to 5:00 PM.

A piece of good news for the R/C community was the FAA release of the proposed rule making (NPRM) for sUAS on February 15th, 2015. For the most part there will not be a new rule or regulation for model aircraft. This process has been underway since 2008. The AMA and FAA were able to address a number of concerns and came together to find reasonable solutions. The concerns were resolved because FAA looked favorably on AMA and the strong safety program that has stood the test of time for 80 years.

In spite of the negative press of the recent landing of a quadcopter on the White House lawn we all know that this type of aircraft has tremendous potential to be used commercially in so many ways. I recently came across a YouTube video of an ambulance drone that I wanted to share with you. Check out this video: <http://youtu.be/y-rEI4bezWc>

Fly Safely, have fun and remember our Club is as much about People as Planes Bob



MEETING MINUTES – Feb. 13, 2015 - Taylor Manufacturing

1. Meeting was called to order by President Santoro at 7:30 PM
2. Thanks to Brad for allowing the club to hold our monthly meeting at his business.
3. Minutes of the January 2015 meeting were approved.
4. Treasurer Tom reported that the club is in good shape financially. There is \$1450.19 in the account. In addition there is \$500.00 for (Highland School Usage) in the treasury. \$400.00 for field improvements was dispersed to the Maskers. Field Maintenance voluntary contribution = \$278.57. Current membership renewals are low.
5. Treasures report was approved
6. There were 36 in attendance at the Holiday Party. Special thanks to Bill for taking care of the model master dollars, Lloyd, for the gift exchange and Dom for the auction. Some felt that the food was not as good as in past years.
7. Congrats to Scott Owitz for the fine job running the Wright Stuff event at the Science Olympiad.
8. Some members have been flying rubber powered planes on selected Fridays at Red Hook HS through the courtesy of Matt King, a teacher at the school.
9. Due to the sub freezing temperatures and the amount of snow received this year, the field has not been cleared. Once the temperatures increase and the threat of snow has subsided, the field will be cleared.



George & John Amenta - buddy box

10. SHOW AND TELL

- a. Barry presented a kit built plane from Hobby Lobby. Low wing plane that will use a size 400 motor. It is covered with a self adhesive iron on covering. This material tends to stick to itself. All Up Weight is 10 oz (with battery)
- b. Bob DiGiacomio presented a glider, the Whisper. It is no longer being made. Bob also has some old Model Master decals that can be put on planes.
- c. Brad did a 2nd installment of reporting on the new FlySky Transmitter. It is truly a radio for those who like to tinker. Brad would be interested in purchasing an old Spektrum 4e or 5e so that he can use to add more functionality to the transmitter.

11. Next meeting is Thurs March 19 at Highland Middle School 6:30 pm

12. Meeting adjourned at 7:54 pm

Respectfully submitted, Secretary J. Knight



Barry Knickerbocker



Bob DiGiacomio

MEET YOUR FELLOW MODELMASTER MEMBER – David Cerasaro

1. How did you get into the hobby/sport?

My cousin Damian got me into flying control line when we were kids and when I came home from Viet Nam I went with him to the flying field and really became interested in RC.

2. How long have you been in the hobby/sport?

Since 1972 to 1978 was out of touch with rc until 2014.

3. What aspect of the hobby/sport are you most interested?

The building and I like knowing how things work, the science behind it.

4. What was your 1st plane?

Joe Bridi RCM trainer with a 60 size goldhead engine and a single stick Kraft system.

5. Do you have a favorite Plane? If so which one and why?

No particular favorite....at this point I want to get my feet wet again. You can ask me again next year.

6. What is the most challenging part of the hobby/sport for you?

Learning the new technology and the new building materials.

7. Do you have goals regarding what you want to accomplish in the hobby/sport? What are they?

My goal is to go to the flying field and bring my aircraft home in one piece (that is after flying it).

8. Do you have other hobbies or areas of interest and if so what are they?

N and G scale model trains, shooting rifles, skeet shooting, trap shooting, archery, fishing, restoring cars and boats, cooking and gardening.

9. What advise do you have for new people getting into the hobby/sport?

My best advice would be to hit the internet read as much as you can then call Lloyd to learn the rest.....and last but not least join Model Masters.



Open Source Transmitters Part 2 Software by Brad Quick

Last month, I discussed the Turnigy 9XR Pro and FrSky Taranis Pro transmitters that are designed to run open source software and in fact come with open source software installed. This month, I'll discuss the software itself. First, a little history. The software er9X was what the hobbyists originally designed for the Turnigy 9X. When other hobbyists came up with a more powerful replacement board for the 9X and 9XR (called the Sky board), the software to run

on them became erSky9X. ErSky9X is what currently ships on the Turnigy 9XR Pro. As frequently happens with open source software, a group of programmers split off from the ErSky9X group and started a new software called Open9x. Since Open9x ran on more hardware than just the 9XR, it eventually was renamed OpenTx. OpenTx is what currently ships on the FrSky Taranis transmitter. Although ErSky9X and OpenTx ship on the 9XR Pro and the Taranis Pro transmitters respectively, either of them will run on the other transmitter.

The two versions of software are still very similar, so I won't discuss them individually. This software is capable of doing just about anything you can expect from a transmitter. It can handle up to 24 receiver channels (using two receivers in some cases).

The software is generally broken up into two groups of settings, those that are system wide and those that are model specific. System wide functions include things like monitoring battery voltage, adjusting the screen, calibrating the sticks, trainer mode settings, diagnostic tests, and choosing models.

One difference between this software and what most of us are used to is that the transmitter doesn't have switches dedicated to expo, dual rates, gear, etc. They just have lots of switches. Its up to you to dedicate a particular switch to a particular function in the software.

For each model (up to sixty on the Taranis), there are tons of settings available. These include naming the model, setting up timers (multiple), safety settings, flight modes, expo, servo settings, and mixes. The general concept if inputs and outputs is simple and effective. Each switch, knob, or stick axis is an input. Each receiver channel is an output. Each output (receiver channel) requires a mixer. By default, channel 1 output is set to be 100% of the throttle stick input (assuming channel order of Throttle, Elevator, Aileron, Rudder, which is of course programmable). The same is true of the elevator, aileron, and rudder channels. If you want to add a 2nd aileron servo, you just choose an output channel and set another mixer to be 100% of the Aileron Stick. These mixes, of course can be combinations of inputs. They can be combined in various fashions (addition, multiplication, replace, etc) and can be activated according to flight modes and other switch inputs. They can be set to happen immediately, or with a delay or slowly. Picture flaps that deploy slowly. If you don't want to be bothered programming your own mixes, there are templates to choose from for most types of airplanes.

If you can't find the right input to control your mixes, you can create virtual switches based on other criterion. For example, you could create a virtual switch that turns on when your flight timer gets below a particular value and your throttle is above a particular position. That virtual switch can then be used to control a mix or to make the transmitter speak to the pilot. For example, I wanted to set a "Throttle Cut" switch that would disable my throttle stick until switched on, but I didn't want it to be able to be switched on when the throttle was up, so with a couple of virtual switches, I was able to make it so that my throttle would only be enabled when the throttle cut switch was on and the throttle was at a low value.

Both versions of software have the ability to speak to the pilot. Each phrase that the transmitter can speak is simply a .wav file stored on the transmitter's SD card, so these sounds can be added to, modified, or replaced fairly easily.

Telemetry functions are built into the software, assuming you have the hardware to support it (the Taranis has telemetry built in). Telemetry data can be displayed on the screen and logged to the SD card. Since you usually don't want to look at your screen while you are flying, you can also have the transmitter speak telemetry values to you.

Each version of software comes with companion software that runs on Linux, Windows, or Mac, although I don't think the erSky9X companion software currently runs on Mac. This software can be used to backup transmitter settings, look at telemetry data, upload new firmware, etc. Models can also be setup using the companion software and then uploaded to the transmitter if you don't want to do it on the transmitter itself. The companion software also includes a transmitter simulator, so as you edit transmitter settings offline, you can also test them off line.

For those who like to hack, OpenTX (which ships on the Taranis) comes with a scripting language called Lua. Scripting completely opens up the software to those who want to add special features. When you add a new model, OpenTX runs a script that walks you through the setup of the model. It asks if you are setting up a plane, heli or multi rotor. It then asks if you have ailerons, then asks how many aileron servos you have. Then it asks how your tail is configured. This helps give you a starting point for mixes, etc. People have written their own scripts to display telemetry data in various formats.

Most people will probably just run whatever software is shipped on their transmitter, but I'm personally leaning toward standardizing on the OpenTx software because it seems to have a little better support (more people actively working on it), but either software is a good choice.

Interesting Stuff

Dillon Losee –

It is really cool that we have a member of our club who can make gliders with a 3D printer like this. It is cool what modern technology can do.



1. New ruling for "drones" (multi-rotors), President Obama –
<http://www.foxnews.com/politics/2015/02/15/obama-administration-proposes-regulations-for-commercial-drone-use/>
2. E-flite FPV Vapor Ultra-Micro RTF RC Airplane with Fat Shark FPV Headset | Horizon Hobby - <http://www.horizonhobby.com/fpv-vapor-rtf-with-headset-eflu6600>
3. Wedge Tailed Eagles ATTACK Parkzone Radian Glider!! Aerobatics
Filmed with...: <http://youtu.be/dxDxcrusAew>
4. The Mighty J58 - The SR-71's Secret Powerhouse:
<http://youtu.be/F3ao5SCedIk>
5. SR-71's Sisters: The Blackbird Family Tree:
<http://youtu.be/S2xgI3wQbWQ>
6. Scale FPV cockpit P-51 Mustang - RCExplorer.se:
http://youtu.be/yqjepaX_j_4
7. HD FPV - Hunting Hydrogen Balloons with Fireworks:
http://youtu.be/ozHoP_YThRI
8. Flite Test- FAA Ban On FPV: <http://youtu.be/AYs815t4knQ>
9. F 117 Night Hawk Micro Paper Airplane That Can Actually Fly: <http://youtu.be/y98z0V2utik>
10. Air Swimmers Review_ \$19.99_ Easy To Fly Swimming Airship: <http://youtu.be/fnK5EHK3bR0>
11. Vivitar DVR 785HD V.S. 808 #16 HD Key Chain cam and testing AVS free vid...:
<http://youtu.be/5JAeUfwBx04>
12. Rear Facing 808 HD Key chain cam Flies of the Airplane: <http://youtu.be/HUJIVQTzhfM>
13. pv over Morgan Lake, take 2, Filmed with Vivitar 785 HD DVR: <http://youtu.be/lxnQvHtjdY8>



A rc, piece of aviation history I



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Wing Tips

«First_Name» «Last_Name»

«Street»

«Town», «State» «Zip»