

President **Bob Werner**
Vice President **Bob Demola**
Secretary **Neil Stokes**
Treasurer **Brian Beer**



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AMA Charter # 729

Web site - www.wjrc.org

Boodys Mill Road GPS: 39.77425 -75.204722

Minutes of the West Jersey R/C Club May 12, 2015

The meeting was called to order by President Bob Werner at 8:15 pm with 21 members and a prospective member in attendance. The minutes from the April meeting were read by the Secretary and accepted by all present. Treasurer Brian Beer gave all the transactions on the checking account with an ending balance as of April 30th. Secretary Neil Stokes reviewed the membership with Herb Shallcross attending his second meeting; as of this meeting, the club is at 88 members. The field is ok and the grass is being cut. The report from the Field Marshal is that so far all is ok. Frank Winkler stopped at the Mantua Twp. Garage and spoke to them regarding Boody Mill Road to see if they can help with the condition and do any repairs. He said they have plans on doing some work in the next month or so. THANK YOU to Frank for his efforts.

Old Business

The President said that he is working on the instructors check list; he just needs to make a few refinements, then he will pass it on. Bob Werner said he had plans on being at the field this Sunday and would have the ID badges with him to pass along. Bob also said that he would get with Neil Stokes and split up the ID badges to help make distributing them a little easier. Bill Froeder had some information on getting a roller for the field. He said it would cost about \$800.00 for a 9-1/2 ton vibrating roller for approximately 7 hours with same day delivery and pick up.

New Business

The President said that the club will be putting together an S&W fuel order and that more information will be sent out when the details are known about pricing and minimum quantity. The President asked the membership regarding their feelings and if they had any input on FPV'S. Bob Werner read some of the AMA Guidelines regarding the use of these aircraft and said that we need to come up with some guidelines for our club. John Lysaght said that he is taking some courses on aeronautics and found it interesting that, early in the twentieth century, full scale pilots learning to fly also had to do 3 take-offs and 3 landings before being released to fly, just like our club. Spring Ducted Fan Sunday is rescheduled for May 17th, Multi-Engine Sunday is May 24th and Warbird Sunday is set for June 7th weather permitting and food will be available to purchase. The next Bull Meeting is May 26th and the next Regular Meeting is June 9th. Brian Beer ran the 50/50 with Julian Albanese winning \$35.00. With no further business, the meeting was adjourned at 9:00 pm.

Respectfully Submitted,

Neil Stokes WJRC Secretary



(photo from Sheldon Parker)

The President's Corner

June 2015

This month, I'd like to address one of the ongoing problems that we have at the field, and that is the problem of noise. We need to do everything that we can to make our aircraft as quiet as possible and especially strive to keep the sound level under 96 db. (Additional noise info under "Important AMA Guidelines" next page. Editor.) What can be done to quiet a noisy engine? Well, there are at least 3 things that I can think of right off.

The first is to try a different prop with a narrow swept tip, and maybe try a smaller diameter and higher pitch. The shape of the prop tip makes a big difference in controlling the vortex turbulence coming off of the tip, and turbulence= noise, so trying a blade with a narrow tip can help. If you think that you're still getting a lot of noise from the prop, you can check to see if the tip speed is getting too close to the speed of sound. At about 0.92 Mach, shockwaves begin to form and the air begins to separate from the surface of the tip causing a dramatic loss in efficiency and lots of noise. By reducing the diameter, you also reduce the tip speed at any given RPM, because the prop tip has less distance to travel (circumference) for each revolution, and is therefore moving slower. You can check the tip speed with the calculator you can find here:

<http://www.hoverhawk.com/propspd.html> (remember that the rpm increases as the engine unloads in the air, and increases even more in a full power dive), a Mach speed of 0.82 is considered most efficient, but I've found that most all of my planes run a tip Mach speed between 0.65 and 0.72 Mach which is very conservative, and fairly quiet.

Second: fit the engine with a larger volume muffler or a Canister system to help quiet the exhaust noise. Some engines also benefit by a slight increase in back pressure which can be done with special exhaust plugs in the outlet tubes as with the DLE 20 and DLE 30cc engines; expect a slight loss of power (about 200 rpm) at full throttle.

Third: try a 3 blade narrow tip propeller. This is a combination of the previous ideas of reducing the diameter, and therefore the speed at the tip, and controlling the tip vortices with a narrow swept shape. The general rule for a three blade prop when converting from a two blade is to deduct 1 in. from the diameter and increase the pitch by 1in. For example if you were using an 18x6 two blade then a 17x8 three blade would get about the same performance. This will vary a little with the airframe that it's on and the amount of propeller blade that is clear of the cowling. If a 17x8 3 blade isn't available, try the next closest prop in pitch.

The stiffness of the prop is also a factor in determining its noise footprint; the stiffer prop flexes less, and is more efficient. Flexing loads and unloads the propeller blades which also produces noise. In some cases every little bit helps!

I hope that this gives you some ideas about how to combat excessive engine noise, and will help to keep our neighbors happy. If another member says something to you about your noisy airplane, please don't take offense. Ask what else he thinks you can do to quiet your plane, or thank him for bringing it to your attention, and try applying some of the solutions above. Keeping the neighbors happy by making an effort to reduce our noise footprint is in everyone best interest. We wouldn't want to be in danger of losing the field because of one noisy airplane.

That's all until next month.

Happy Flying!

Bob Werner

WJRC President

Ed Mortimer's biplane:



(photo from Sheldon Parker)

Flying Field Condition: Great.

On Wednesday, May 13 Neil Stokes and his wife Kim cut all the grass.

THANK YOU to Dennis Buttocola, Mark Schools, Neil and Kim Stokes for their work.

JUNE SAFETY MESSAGE

Hot weather has already paid us a short visit and more to come. Dress according to your needs and be aware of the sun and the heat. Wear a hat and light clothing. Drink plenty of fluids. If you have a sunbrella or canopy take the time to set it up. If you have a cooler, put some ice or ice packs in it. Heat exhaustion can sneak up on you when you least expect it. Watch each other's back.

Be Safe and Remember:
SAFETY IS EVERYONES RESPONSIBILITY

Mark

IMPORTANT AMA GUIDELINES:

AMA 2015 Member Guidelines state for Noise Levels: **96 dB** measured from a **20-foot** distance over soft field. The dB meter is to be held **2 ft above ground level**.

Additionally, AMA guidelines say to **stay below 400 feet**.

If you'd like to read more on the above, you can use the below link to go to the AMA documents site; then, on that page click on the "Membership" link; then select "Membership Manual".

<http://www.modelaircraft.org/documents.aspx>

Page 4, item A.2.(c) mentions the 400 ft. altitude. (This altitude limit applies to us because our field is within 3 miles of an airport.)

Page 6 has the "Sound & Noise Abatement Recommendations".

Ours is one fantastic hobby. For the good of the entire club, it's important that we each do our part to minimize any possible threats to our flying field.

Don Romano donated a sound level meter to the club. Any member can use it for checking their own plane or heli.

WJRC Flying Field Videos are on Gregg Clement's YouTube channel "Gregg660" (no spaces); link below: <http://www.youtube.com/user/gregg660/videos>

Don Romano checking the noise level of his 88" DeHaviland Tiger Moth powered with an Evolution 33.



Andre Askew assisting Manny Martin with a "new arrival"



A family event: Paul Gross assisting Joe Albanese accompanied by his children Joe, Julian and Sofia.



A Couple of Flying Field Recaps:

Friday, May 8: I got some great training and a smooth running engine when Mark Schools' adjusted the OS .81 4-stroke carb in my 63" Super Chipmunk. (I'm usually able to keep my carbs in some kind of reasonable tune; but, this one had become pretty stubborn.) Mark said that, if you're at the field and you'd like some carb help, just let him know, he'd be glad to help.

Sunday, May 17: Spring Ducted Fan

Mostly cloudy, 83 for the high, humid, but the calm wind conditions helped bring out some interesting ducted fan planes; below are just a few.

Andre Askew accomplished a nice 2nd flight (since last year) on his 12-s lipo-powered Mirage (85" long, 64" wingspan).

Barry Prather flew his F-16 and his big A-7.

Jay Honigman flew his .60-powered Keecat.

Paul Gross made some high speed taxies up and down the runway with his turbine powered Falcon. (Just the sound of a turbine is a guaranteed crowd-pleaser.) Although we had gotten a little rain the night before, Paul was concerned with the foliage still being too dry. So, he chose not to fly the turbine due to the potential for starting a brushfire. After working on the Falcon for a couple of hours to get it into perfect flying shape, it was a tough call for him to make; he did it in the interest of fire safety and for the club.

The 2-stroke engine of Scott Cole's plane had been refusing to start; but, thanks to very determined efforts by Paul Gross and by Jay Honigman, the engine was eventually purring as it should. Scott then got to fly his first glow powered flight in about 25 years.

Remember: All members must wear their club i.d. badge at the flying field.

NEWSLETTER PHOTOS: If you should ever want a copy of a newsletter photo, please email me.

Happy Flying,
JJ

Did battleships move sideways when they fired?
(The below link is to a detailed answer that may surprise you like it did me.)

http://www.navweaps.com/index_tech/tech-022.htm

Neil Stokes and Ed Mortimer assisting Jay Honigman with his Keecat. (photo from Sheldon Parker)



Barry Prather's F-16 ready to go.



The turbine-powered Falcon of Paul Gross. (photo from Sheldon Parker)



WJRC SCHEDULED EVENTS:

- Sunday, June 7: **Warbirds** (Food will be sold.)
- Tuesday, June 9: **Business meeting** @ 8 pm
- Sunday, June 21: **Cub Sunday**
- Tuesday, June 23: **Bull meeting** @ 8 pm (coffee & donuts)