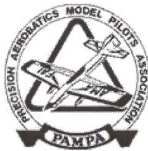
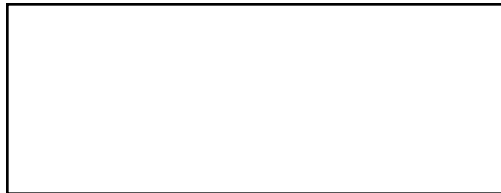


Circulator  
Howard Olson, Editor  
W14441 State Hwy 29  
Bowler, WI 54416

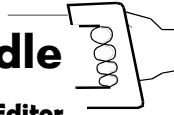


Newsletter of the Circle Masters Flying Club  
Milwaukee Wisconsin  
Academy of Model Aeronautics Chartered Club # 662

June 2016 Volume 13 issue 6

# At The Handle

Ramblings from your Editor



If you would like to contribute material, please submit to the address on the cover or contact me at (715) 697-8458 I may be reached via e-mail at [clmodman@wctc.net](mailto:clmodman@wctc.net)

Hello Circle Masters, the Circulator is here again to amuse and inform. This month we have plenty of info for your reading pleasure, or maybe not so much when you take it all in. There's some ominous news in here with all of the fun. That aside Let's see what's going on.

Remember when I did the first do it yourself article in these pages a few months ago, you know the one with fitting a quality R/C carb to your engine? Remember how I promised there would be more info coming down the pike regarding how it all panned out in real world testing? Well, it's here. I have been able to wrap up some test run sessions on the project engine and the results are in the following pages. There were some interesting things that I discovered while running up the FP 40 on the test stand. It's all in the follow up article, so no point in getting too far into it here in the intro. Do you guys like these articles? They sure are time consuming if nobody wants to read them. What's your opinion?

What else do we have? There is an article in here generated by an e-mail conversation I was having with a fellow control liner out on the east coast. Plenty of food for thought in this baby, maybe more than you bargained for. It's not real thrilling for me to bring it up either, but ignoring the topic certainly won't make it go away. Does the AMA need to start printing up bumper stickers saying *I will give up my model airplane when they pry my cold, dead hands from around it?* You know, like the NRA did with such slogans dealing with gun rights going back to the 1970's? I hope not too, but the information presented here kind of makes you wonder.

Now on to pressing club business: The contest is in a few weeks. Ready or not fellas, it's here again. Hopefully, we will get some tolerable weather to hold the Wisconsin Control Line Championships this time. The last couple years have seen some monster wind speeds stir the place up. Last year, it was raining pretty heavy in the early morning, but stopped soon enough to complete the event. We are due for a nice, warm day this year. The other biggie that makes the contest a success besides the weather is, your participation. We really need the whole club out there to pull this show off smoothly. At the meeting, everyone in attendance indicated they would be there to help, so don't let your fellow members down. More importantly, we don't want to disappoint the folks who drive for hours to compete. If nobody shows up because we run a dud of a meet, I will have made all of those fancy laser cut awards in vain. Then, I will get all torqued off and not want to make them anymore, next thing you know, I start wrecking stuff and it all snowballs out of control, I end up in the slammer and somebody else has to write the newsletter. Don't be the guy who causes all this mayhem, show up to do your part, rain or shine. It could be lousy in the morning again, then clear right up, who knows? Besides, do you want to have to come up with this stuff every month?

Report on our treasurer: I was in Milwaukee on my day off last week, so Sonja and I stopped by to see Ralph in the physical rehab home where he is recovering from surgery. Ralph was in great spirits and very positive about his recovery. And as a bonus, if scars give a man character, the old boy is golden. The stitched up lines on Ralph's chest look like the doctor completely dis-assembled our treasurer and put him back together! Ralph was very appreciative of the cards and well wishing from club members and can't wait to get back to the unbridled excitement of balancing our check book. Wayne should have the info if you wish to contact Ralph.

The May meeting was a bit of a drag. The club was supposed to be out at the park, frolicking around merrily with our little airplanes and the whole works turned into some kind of mess with us huddled back in the library instead. Therefore, no pictures of Wayne's smashed up planes like we normally start off the flying season with this time. June has to be better. It never snows in June, right? I can't go to the meeting, unless I get fired or something before then. We will be there for the contest.

Sincerely,

Howard

# **BIG BROTHER'S WATCHING YOU    IGNORE THIS TOPIC AT YOUR OWN PERIL**

By: Howard Olson

So, you think that the government doesn't have it in for YOUR model airplanes? After all, a control line model is harmless, flying essentially captured, at the ends of your wires. Guess again. You see, the FAA doesn't put a lot of time and effort into differentiating between types of "models", and I use that term very loosely. Quadcopter, R/C machine, U/C or free flighter, apparently they are all the same as far as the man is concerned, and all have one thing in common, they are dangerous and must be put under government control. You are familiar with my take on this situation. Drones, be they \$49.99 jobs from your local Wal-Mart or complex outfits costing thousands, have made the news as a hazard and/or security risk around airports and other sensitive areas. The hobby industry is right in there too. Have you seen the number of quads offered for sale at some hobby stores? The big online retailers are even worse. You could get one anywhere in a matter of minutes. I'm certain these establishments would all claim that they have to sell these contraptions if they wish to stay in business. I would argue that just the opposite may be true in the long run for hobby sellers, not so, for the discount big box retailers. When big brother finally lowers the boom and all forms of flying hobby devices are either banned or restricted to a degree that makes them nearly unusable, how many drones, ARFs, radios or electric motor set-ups will they be selling at a hobby shop or Tower Hobbies? Not many is the safe bet. I don't know that there is a good solution for this. Do what you can to put this issue in front of your representatives in Washington. It may not help, but it sure can't hurt. If you think it can't happen to your club, below is the text from a recent e-mail conversation I had with notable control line carrier innovator, John V. who lives in the Washington D. C. area. See what John has experienced, and decide if the government is in fact, not a threat to our pastime. I began this conversation when I caught wind of there being problems in the D. C. area and asked him about it. The following information is used with John's permission, he writes:

The ban is related to the FAA registration effort, but goes way beyond that. In Dec when the FAA announced the registration of all model aircraft (yes I know the AMA says it doesn't include CL, but read the FAA words), they closed all model flying activities within a 30 mile radius of DC. The FAA doesn't understand the difference in types of models and is really after Drones i.e. quadcopters. But rather than figure it out they just closed down everyone. In I think March, they reduced it to 15 miles. It is simple, you can't fly within the 15 mile circle and as a result our field remains closed. We fly on NASA Goddard property so although efforts are in the mill for a waiver I don't have a good feeling that we will ever reopen. The Virginia club is outside the 15 mile zone so they can fly. We are trying to set up a deal with a RC club outside the zone. They have agreed to let us set up a circle for a year and see if it works. If it does, we can join their club and develop a permanent circle. This is similar to the Goddard agreement, except the Goddard club already had a CL facility. We were non-voting members of the Goddard club, but had full use of the facility.

The other foot will drop probably this year. I believe the FAA intends to put no fly zones around every airport. How big remains to be seen. There is some legislation in congress to make that 5 miles, but I think the FAA will want more.

We modelers now seem to be considered outlaws by the government because of a few idiots that buy RTF quads and fly them carelessly. So what is new, if you own a gun its your fault people rob and kill, etc. etc. So take you shoes off at the airport, shut up and let the Government fix all our problems. Am I bitter? You bet.

John

# ***CIRCLE MASTERS FLYING CLUB***

## ***Meeting Minutes for MAY 2016***

The May meeting of the Circle Masters Flying Club was held at the Pauline Haas Public Library on Saturday May 14<sup>th</sup>. Normally this meeting would be held at the flying field but a combination of cold and wind forced us inside to the friendly and warm confines of the library.

The meeting was brought to order by Pres. Greg at 1:00 PM. All members (11) had received the April newsletter and had reviewed and approved the minutes from that months meeting; errors were detected.

\*\*\*

The treasurer's report was presented by Wayne as Ralph was in the hospital recovering from surgery. There was no cash flow this month. The treasurer's report was approved.

**REPORTS & ANNOUNCEMENTS:** Wayne reported on the status of the club treasurer Ralph and his recovery from surgery. Wayne also passed out officer pins received from the AMA. Don reported that there will be an Armed Forced Weekend at the Air Guard facility in 2017.

**OLD BUSINESS:** Pete opened a discussion on the 2016 club contest. He indicated that all paperwork has been filed and the site has been secured at Mukwonago High School for the June 5<sup>th</sup> event. Pete also encouraged the members to either visit or participate in the upcoming Illinois contests.

Greg reported on a meeting we had with the Pebble Creek R/C club regarding participating as a fun fly during their July 23<sup>rd</sup> scale contest.

They have a fine area for us to fly and will have food available. A five dollar landing fee will be charged if you wish to fly.

**NEW BUSINESS:**

**WEB BUSINESS:** The web master was not in attendance.

All business having been discussed, Greg asked for a motion to adjourn. It was moved and seconded to adjourn the meeting at 2:10 PM.

**SHOW AND TELL:** The recently completed Bat Plane was passed around.

Submitted by: Wayne M. Schmidt, Secretary

05/23/2016

# *Upcoming Events*

LIVE ON THE EDGE... GET OUT AND FLY A MODEL AIRPLANE

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June Meeting: Saturday June 4th, Sussex Village Park flying field. Meeting at 1:00 PM with flying before and after the meeting.

Wisconsin Control Line Championships: Sunday June 5th, Mukwonago High School. Stunt, Scale and Combat events. See contest flyer.

July Meeting: Saturday July 2nd, Sussex Village Park flying field. Meeting at 1:00 PM with flying before and after the meeting.

Pebble Creek R/C club Scale Fly-In Circle Masters flying demo: July 23, Control Line models are not required to be scale models.

EAA Kidventure– Airventure Oshkosh July 23—31

August Meeting: Saturday August 6th, Sussex Village Park flying field. Meeting at 1:00 PM with flying before and after.

Lisbon Heritage Days Fun Fly: Sunday August 14th, Lisbon Park.

Sussex Antique Power Show: Saturday and Sunday August 27th and 28th. Note: The Antique Power club's Facebook page says they are starting at 7:00 AM this year!

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# THE GREAT THROTTLING

...Did It Work?

Written by: Howard Olson

I know you have been waiting anxiously these last few months. You have been asking yourself, when will the sequel to BigHow's carburetor swap article finally arrive? Well, the wait is over, here are the results from the Do -It -Yourself project that appeared in these pages. Let's lay some ground rules. First, this is a real world test done to prove real world points, not some theoretical investigation by a long haired grad student in a tax payer funded lab. Next, there will be no nice, neat, nerdy spread sheets to display results. That's not my style. You will have to read the whole works to get the info. Finally, your results may not be as awesome if you try this at home, but you just don't know until you give it a shot.

Ok try to keep up. The engine: As you well know the engine of choice for this project is an O. S. FP.40. That's about as common of a power plant as you can get. This particular specimen was New In Box at the start of this deal. The FP was mounted on a test rig and broken in thoroughly, making runs starting out slightly rich and running for one minute then cooling completely back to ambient temp. This process was repeated with longer runs and periods of leaner mixtures until full tanks were consumed and over a half gallon of Sig Champion 10% was turned into smoke. The runs on the stock engine were next, followed by test blasts on the post mod mill. I will break down the results by logical steps from here on.

The first flight condition we will deal with here is Wide Open! Running was done equipped with a 10-5 APC prop bolted up. Why this prop? Simple, a 10-6 is the most common prop used on .40 engines for general sport flying and some scale work. With its reduced pitch, the 10-5 is more free to unload and replicate real flying conditions. How did we do? Equipped with the stock fuel mixer up front and open exhaust, the most I could coax out of the FP was 12,330 RPM. Mind you, this was maxed way on out and the engine was not happy at all. The poor O. S. soon showed signs of heating up and sagging. I pulled the plug on this test fairly soon to avoid unnecessary wear on our test victim. 11,800 was a more sane max speed. A note to mention here. The factory specs for this engine claim it has a maximum practical RPM of 16,000! Just a bit optimistic I'm afraid. You might coax that kind of number out of it, but O.S. recommends props ranging from 10.5 - 6 to 10 - 7. Looks to me like a bunch of bull. You wouldn't get 16 grand out of this motor without a smaller prop and a big load of nitro, both of which are unsuited to the FP. Let's see how we did with the Webra TN II carburetor installed. Start her up. The tach reads an impressive 14,030 RPM! No foolin'. As a bonus, the engine does not seem to be overtaxed, to the contrary, I think it would run all day like this. Why you ask? More air in equals more fuel to boot. Fuel gets you cooling and, more oil working through the engine. I was not expecting results that dramatic, but I'll take it. 1,700 RPM just by changing carbs. Alright, you aren't going to run it at the field without a muffler, so on goes the stock dust bin silencer. The factory carb was good for 11,300 RPM. The muffler cost us approximately 1000 Revs from our 12,330 max, even if that was not a realistic running speed. The Webra carb? RPM drop was substantially less. With the factory muffler bolted on, the post mod engines was still pulling an astounding 13,590 RPM! That's a loss of only 470 RPM. Wide open? The newly fitted carb blows the original away.

Okay, so the FP will run like a champ at full throttle, how about idle performance? Well, with open exhaust, the lowest idle I could achieve with the O. S. carburetor was around 3000 RPM. I say around because it jumped around a bit. Adding the muffler smoothed out the idle and held it down to 2500 or so. I'm certain the use of muffler pressure was a major factor here. The fuel flow was more consistent, but backpressure also aids in a well behaved idle. Switching to the new carb, open exhaust netted us an idle speed around 2500 RPM. Again the idle wasn't super smooth, but better. Running with the muffler and the new carb took us to a whole nother level in idle characteristics. The idle speed dropped to a paltry 2130 RPM. That alone is great, but the real shocker was how smooth the engine ran at this speed. With the stock carb, the engine would vary noticeably in RPM, it also wouldn't reliably run all that long without loading up with fuel and quitting. (the muffler helped) The transition from idle to high speed was a bit balky, with some sputtering and catching up if you tried to idle too long. The new carb? She would idle forever, or at least until the fuel ran out. I even ran a little side test and went in the house for a couple minutes, leaving the idling engine to purr away on the stand (don't tell the club safety officer). There it was, spinning like a top. Ten more minutes, still going. Then I whacked the throttle open and away it went, back to max revs with no sweat. Granted, I had plenty of opportunity to fine tune the low speed needle over the course of this process, but that isn't even an option with the old air bleeder.

In conclusion, The results from this test were even more dramatic than I hoped for, Higher top end RPM, lower, smoother idle, super. Was it worth it? If you like to monkey with engines, as I do, it was all kinds of worth while. I think this is a good example of a relatively simple change that nearly anyone can manage, that gives real results in increased performance, not to mention the satisfaction gained from a successful project.





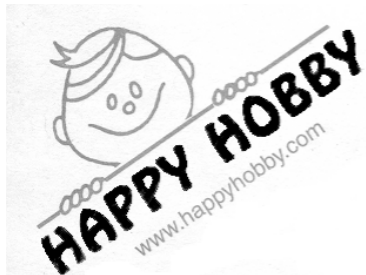
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