

#### May 2023



http://www.pistonpoppers.com

## Meeting :

There were no minutes taken at the April meeting because I didn't get home from work until after 7:30, sorry guys.

### More from Jim Gevay

September 1967, this was the very first issue of MAN that I bought. I used to read them when they were at my middle school library. Back then they had that great artwork on the covers. I don't remember if I bought is this in a local drug store or hobby shop. I read them almost cover to cover, the C/L, free flight and ads, not so much the RC, that was always outside my finances.

I loved this cover, and still do, flying on a nice summer day. There was an article about the Super Satan that was on the cover. I thought that it was so beautiful, with its translucent silk covering. Back then I built a few small FF planes, never had much success with them. And I built and flew a few 1/2A models. I had a Cox Stuka and a Goldberg Lil Wizard, at that time I never flew anything bigger than those. I never knew anyone who built models except for one friend in High School, I was working on a Sterling PT-17 with a McCoy .35 Red Head, but it never flew. I did fly a plane with a Cox .010, I still have that and the McCov. About that time, 1970, I got serious in my flying lessons and pursuing that side of aviation.

I didn't fly any models until I met you guys at a D.A.D. some years ago. I spoke with Bob and he was so nice and encouraging that I joined the club. If it wasn't for Bob, I probably wouldn't be here. Jim Gevay



# **New Center Circle**

Please put a note in the newsletter our center circle is painted and will be placed at the May meeting night. Come early and help with proper placement.

Made by Don Olson and painted by the Cheney's. Bob Cheney



## Fri, May 26 | Oak Grove Minnesota Combat Challenge

First ever Minnesota Combat Challenge. Fast Combat with F2D equipment Speed Limit Combat 80MPH w/ shutoffs F2D Combat with single model Lunch will be provided all three days and dinner will be provided Friday and Saturday at Dave's place. Also, maybe we can squeeze in a little electric balloon bust Saturday

Time & Location May 26, 9:00 AM – May 28, 5:00 PM Oak Grove, 221st Ave NW, Oak Grove, MN, USA From Don Olson



# What The Heck Are All These Numbers?

I thought an article about what all those weird numbers and letters mean with electric CL flying. Almost all the Piston Poppers fly fuel and might not know or even want to know what they mean. But if you are curious, ELECTRIC can be compared to gas engines in a loose way.

There are a few things we need to know when looking at a motor, battery, ESC combination for a CL plane. Most of us have a ballpark idea if a plane would need a 25, 40 or 60cc motor. For electric how do you figure it out? Well, there are numbers for the diameter and length of the motor that relate like CC of the IC engine. You might see numbers like 28- 26 or 35-30. These are the diameter of 28mm and a length of 26mm or Dia of 35mm x length of 30mm. The bigger the number the more powerful the motor. I look at it like a 6-banger vs a small block on up to a big block.

You will also see a Kv number. Something like 1400 Kv or 750 Kv. Kv refers to how many RPM per volt. A 1400 Kv will spin twice as fast as a 700 Ky motor with the same voltage but the Amp draw will be much higher. I look at Kv as torque. A high Kv will make lots of horsepower but at high RPMs. Kind of like a six cylinder with a turbocharger or a F1 car they are just screaming. While a low Kv is like a Big Block with a long stroke. It can pull a very big prop and give lots of thrust at low RPMs. Batteries have some mysterious numbers too. Batteries supply the energy needed to run the motor like fuel does for an IC engine. These numbers are mAh, Cell count (4 cell or 6 cell etc.), C rating. mAh stands for milliamp hours. I don't want to bore you with the math, but simply it is how many milliamps a battery can supply for an hour. 3300 mAh will supply 3300 milliamps for 1 hour or 3.3 amps for an hour. Think of it as the size of your gas tank. A 1500 mAh battery will run half as long as a 3000 mAh battery. Cell count is the number of cells in a

Cell count is the number of cells in a battery. Each cell has a mean charge of 3.7 volts. 4.2 at full charge and will be ruined if discharged below 3.2 volts. So, a 6 cell battery supplies roughly 22

volts. Since the Ky determines the RPM per volt for the motor, the cell count lets you know how many volts can be supplied to the motor. Not sure how this compares to gas engines. Maybe like a 4 cell is a Holley double pumper and a 6 cell adds nitrous. The more you put into the motor the more it will put out. That is until you exceed its amp rating and fry it. The last thing I have for you regarding the battery is the C rating. Again, there is some math here that you really don't need to get too deep into just think of the C rating as how fast the electricity (amount of current) can be pumped into the motor. I think of it as the CFM of a carburetor. A lipo battery can only discharge so fast. The C rating tells you how fast that is. The higher the C rating the faster it can be charged and discharged. So, the higher the better, but also the higher the C rating the more the battery will cost you. I wouldn't use a battery with less than a 30 c. It won't survive long with the demands of control line stunt. I can go into Electronic Speed Controllers (ESC) and timers another time. Just be sure it can supply enough Amps to feed that hungry acrobat you are tracking through the pattern. (Sorry if the Hot Rod analogies don't make sense for everyone. I forget not everyone spent their youth getting into trouble with cars.) Don Olson



#### **MEETING NOTICE: May 25**