

# Hanger Talk

Issue 8 – August 2010

**NEXT MEETING**  
**Aug. 16<sup>th</sup>, 7:30**

*From the Prez'*  
*Club President Bob Kleis*



“Hi Guys”

Well,

It has been a good flying season so far although we have had to fight a lot of hot weather. Strangely, the grass is still growing pretty well, despite the heat.

I talked to the construction workers at the North end of the field and they are working on installing a new pump station for the septic tank trucks to empty their sewerage. The trucks have to pay Prince's Lakes sewer district for treating the sewerage. I did not get to see the plans but the foreman was telling me there would be a small building there when they were finished. I can't see that being a problem. A pilot shouldn't be that low on final approach. He would end up landing in the weeds. In the past, there has been septic tank trucks parked up there when we were flying and they never seemed to be a problem.

George Fetterman, a past club president, stopped by at the field Friday. He said he was in office when we purchased our last lawn mower. It must have been about 1995 because he said it lasted 15 years. The club paid about \$600 for the mower and it was purchased at Tractor Supply in Greenwood.

Your President  
**Bob Kleis, Jr**

***The VP's Perspective***  
***Club Vice President Mike Bryant***



Hey all,

Hope to see you at the next meeting.

See You Out There

***Mike***

A Congressman was seated next to a little girl on the airplane when he turned to her and said, 'Let's talk. I've heard that flights go quicker if you strike up a conversation with your fellow passenger.'

The little girl, who had just opened her book, closed it slowly and said to the total stranger, 'What would you like to talk about?'

'Oh, I don't know,' said the congressman. 'How about global warming or universal health care', and he smiles smugly.

OK, ' she said. 'Those could be interesting topics. But let me ask you a question first. A horse, a cow, and a deer all eat the same stuff - grass. Yet a deer excretes little pellets, while a cow turns out a flat patty, and a horse produces clumps of dried grass. Why do you suppose that is?'

The legislator, visibly surprised by the little girl's intelligence, thinks about it and says, 'Hmmm, I have no idea.'

To which the little girl replies, 'Do you really feel qualified to discuss global warming or universal health care when you don't know shit?'

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### ***Fred Rasener – Recording Sec.***



### ***Meeting Minutes***

July 19, 2010

Meeting called to order at 7:30 with 8 members and 0 guests.  
With Fred Rasener presiding (Bob Kleis was vacationing)

Pledge of allegiance was given.

Minutes from last meeting are in the last newsletter

Treasurer's report – no report (Denny had to work)

### **OLD BUSINESS**

- 1) John Gaither was present to discuss the upcoming Boy/Cub Scouting event that he would like to use the JCRCF facilities for. He began by apologizing for the previous bad experience at JCRCF with a different Boy Scout event they were not a part of that event but apologized on behalf of the Boy Scouts.
- 2) The new event was discussed and they expect about 100 scouts to participate in this event. The event will consist of buddy box flying and simulator flying. They will also be doing make and take airplanes and stomp rockets. The stomp rockets are powered by air pressure. The date was set for October 2<sup>nd</sup> from 11am to 4pm.
- 3) The Warbird fly in was well attended with about 20 registered pilots and a good variety of aircraft including some giant scale birds. The club did make some profit but details were not known at the time.
- 4) The Men's restroom faucet is loose in the sink and needs repair. It was suggested to just tighten the nut underneath, but several members disagreed that the nut was to corroded to just tighten. Someone suggested contacting the park to get this fixed.

### **NEW BUSINESS**

- 1) After the Warbird event Wilson and Steve who worked the kitchen suggested that the club needs new ice coolers to replace the old Styrofoam ones we

have now. Wilson donated a suitable replacement cooler, which was a 48-quart basic box cooler that he bought for \$18.00. The hope is to get 3 more similar sized coolers to keep in the frequency shelter for our concessions at future events.

- 2) Since Steve Maxwell resigned as safety officer the club has been without one. It is an AMA requirement that we have a safety officer. Tim Dearth volunteered for this position and after discussion with the officers it was decided to appoint him for the remainder of the current term.
- 3) Steve Wright suggested we send a meeting notice via Email to possibly increase attendance.

SHOW & TELL – none at this meeting

MEETING ADJOURNED AT 8:00 pm



**From the Editor**  
**Dennis Runge**

Hi Everybody,

The turn-out for the Franklin Library demo was good. There seemed to be a fairly good amount of people that came through, asked questions, and enjoyed some flying demos, both inside and outside on south lawn. There were also two flight simulators set up that got a lot of use.

There are still some open dates for mowing. Check out the list and sign up.

Our next big club function is the Heartnut, Sept. 11<sup>th</sup> & 12<sup>th</sup>. Keep this date open on your calendars.

Let's not forget: the last member to leave the field has to make sure the restrooms and frequency shed are locked and secure.

Enough said. See you at field. HAPPY FLYING.

***Denny***

# Determine a Model's Power Requirements

1. Power can be measured in watts. For example: 1 horsepower = 746 watts

2. You determine watts by multiplying 'volts' times 'amps'. Example: 10 volts x 10 amps = 100 watts

## **Volts x Amps = Watts**

3. You can determine the power requirements of a model based on the 'Input Watts Per Pound' guidelines found below, using the flying weight of the model (with battery):

- 50-70 watts per pound; Minimum level of power for decent performance, good for lightly loaded slow flyer and park flyer models
- 70-90 watts per pound; Trainer and slow flying scale models
- 90-110 watts per pound; Sport aerobatic and fast flying scale models
- 110-130 watts per pound; Advanced aerobatic and high-speed models
- 130-150 watts per pound; Lightly loaded 3D models and ducted fans
- 150-200+ watts per pound; Unlimited performance 3D models

NOTE: These guidelines were developed based upon the typical parameters of our E-flite motors. These guidelines may vary depending on other motors and factors such as efficiency and prop size.

4. Determine the Input Watts per Pound required to achieve the desired level of performance:

Model: Hangar 9 P-51 Miss America

Estimated Flying Weight w/Battery: 9.0 lbs

Desired Level of Performance: 90-110 (100 average) watts per pound; Fast flying scale model

**9.0 lbs x 100 watts = 900 Input Watts per Pound of power (minimum) required to achieve the desired performance**

5. Determine a suitable motor based on the model's power requirements. The tips below can help you determine the power capabilities of a particular motor and if it can provide the power your model requires for the desired level of performance:

- Most manufacturers will rate their motors for a range of cell counts, continuous current and maximum burst current.
- In most cases, the input power a motor is capable of handling can be determined by:

**Average Voltage (depending on cell count) x Continuous Current = Continuous Input Watts**

**Average Voltage (depending on cell count) x Max Burst Current = Burst Input Watts**

HINT: The typical average voltage under load of a Ni-Cd/Ni-MH cell is 1.0 volt. The typical average voltage under load of a Li-Po cell is 3.3 volts. This means the typical average voltage under load of a 10 cell Ni-MH pack is approximately 10 volts and a 3 cell Li-Po pack is approximately 9.9 volts. Due to variations in the performance of a given battery, the average voltage under load may be higher or lower. These however are good starting points for initial calculations.

Model: Hangar 9 Miss America

Estimated Flying Weight w/Battery: 9.0 lbs

Input Watts Per Pound Required for Desired Performance: 900 (minimum)

Motor: Power 60

Max Continuous Current: 40A\*

Max Burst Current: 60A\*

Max Cells (Li-Po): 5-7

**6 Cells, Continuous Power Capability: 19.8 Volts (6 x 3.3) x 40 Amps = 792 Watts**

**6 Cells, Max Burst Power Capability: 19.8 Volts (6 x 3.3) x 60 Amps = 1188 Watts**

Per this example, the Power 60 motor (when using a 6S Li-Po pack) can handle up to 1188 watts of input power, readily capable of powering the P-51 Miss America with the desired level of performance (requiring 900 watts minimum). You must however be sure that the battery chosen for power can adequately supply the current requirements of the system for the required performance. You must also use proper throttle management and provide adequate cooling for the motor, ESC and battery.

**Next Meeting:**

**Aug. 16<sup>th</sup>, 2010**

**7:30 PM**

**at field, weather permitting  
or at Parks Office**



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