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## THE PRESIDENT'S REPORT

Hello everyone,

We are off to a good start for the New Year, and we are working on lots of great ideas for things to do in 2008. The Events Committee has put together a list of possible events to present at the February meeting. We will be asking for people to head up those events, so if you are interested in helping out, please feel free to contact myself, Derwin Cartmel, or Greg Cowan.

We presented four plaques at the last meeting, one to Eddie for his service as president. We also presented one to Hobbytown, Golden Corral, and the Mayes Brothers for their help and sponsorship of our club. So the next time you are out and see them or their representatives, give them a thank you and show them their support is appreciated.

I would like to remind everyone that February 28 is the deadline for the 2008 dues and that after this date there will be a late fee incurred.

I hope that everyone will be able to attend the February meeting. Come out, have a good meal and talk airplanes with us. Hope to see you there.

Thanks  
Steve.

Next Meeting is:  
Tuesday March 25, 2008 6:45 PM at the  
Johnson City Golden Corral

**The deadline for next month's newsletter will be March 10, 2008.**

## From the Editor

Please send any event information, building tips you wish to share, any info on builds in progress or anything else relevant to our club or our hobby to me to be included in the newsletter.

## Notes from January Meeting

1. Contact Eddie Cline if you wish to help with a building and flying project with the Boy Scouts. The building of either an ARF or kit will be going on between Feb 11 and Feb 18, the project is planned to fly on Feb 23. Please contact Eddie for details.
2. Several people were awarded plaques for services and contributions to the club. Eddie Cline received a plaque and a gift certificate for \$100.00 from Hobbytown for his service as president for the last few years, Randall Southerland of Mayes Bros.Tool Mfg received a plaque for his donation of the sheet aluminum for our tables at the field, plaques were awarded to both Hobbytown and Golden Corral for their support of our club over the last years.
3. There is a call for people to volunteer for several of our committees. Contact Steve Weller if you can help on the Event committee, the Field Maintenance committee, the New Field committee or the Finance committee.
4. We still have no specific information on the materials for the new runway.
5. The New Field committee reports they have staked out the new field. At this time they are waiting to contact the city to go further and fill where necessary.
6. The latest estimate to run power to the upper field site will be in the neighborhood of \$7500.00. This would be to install 7 poles up the north end of the field, with the wiring coming in below the tree line.
7. The need for club/field regulations regarding sound levels was discussed again. Nothing was resolved and it will be discussed further.
8. Our participation in the Fun Fest was discussed, and considering the \$500 required for us to participate, deemed not cost effective.
9. Mention of additional insurance coverage for student pilots was made and further investigation will be made.
- 10.A motion was made and passed to allocate funds to fertilize the grass areas of our present field.
- 11.A motion was made and passed to allocate funds for wood to make more tables for the field. These tables would be topped with aluminum donated by the Mayes Brothers tool company.
- 12.A motion was made to sublet the major maintenance on our mowers. The motion was passed.
- 13.A call for volunteers to check out and maintain the club trainers.
- 14.A question was raised regarding the possibility of absentee ballots for club business normally voted upon in club meetings. At present,other than the quorum regulations provided for within the bylaws, there are no provisions for those members who would like to vote, but are unable to attend the meetings.

15. There was some discussion regarding our tax status, but there is nothing new to report at this time.
16. A question was raised regarding our insurance status with the AMA for the months of Jan and Feb. The matter will be checked into.
17. Don Martin has resigned as head of the new field committee due to other commitments for the coming year.

### Great Planes Cap21 kit w/Asp61.

New, unfinished ( fuse painted, wing covered, ail needs attached )- \$150  
 Goldberg bipe kit,  
 top wing built but has some damage- \$75  
 Mesa dart 60 kit ( nib)- \$50  
 -David Kimble  
 865-804-9620

## Welcome New Members

Tim Briscoe  
 138 Trails End  
 Hiltons, VA 24258  
 423-335-1569  
 AMA 331333

Tower Hobbies Uproar 40 size kit. Box opened and inspected, but kit is complete as packaged. - \$30.00 firm  
 Ken McMahon-257-3942

## Items for Sale...

If you wish to have an item listed in the for sale column, please let me know by the 10<sup>th</sup> of the listing month.

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If you wish the item deleted or carried over to the following month, please notify me. Items will be carried for 2 months and then removed unless otherwise notified.

New and well built **Raptor 50 Titan V2**. It is not broken in and looking for a good buyer. It has an OS 50Hyper with NHP 620 CF blades. Digital JR servos and a 401 gyro. I have 50+\$ in new spare parts and it has metal frame spacers and tail rotor mod. I will keep the battery and receiver unless the buyer would like to buy these also. Will sell for 600\$ Less receiver and Battery  
 Contact:  
 -Greg Cowen- 467-9816

## SELECTING A PROPELLER

The chart below is intended to give the beginner a starting point for best performance. Modelers who have some experience develop a feel for the best size propeller for different model/engine combinations. In general, engines want to operate at a particular RPM where they can reach max power. Using too large a diameter and/or too high a pitch may cause the engine to not rev up to the best power band. With too small a diameter and/or pitch, the engine will over-rev and not deliver the best thrust. Often,

New never flown **Nextstar 46** with complete radio system installed. The engine has been broken in by running on the ground only. New cost is 360.00, selling for 295.00. Call -  
 -Vic Koenig -[282-0572](tel:282-0572)

heavy and slow airplanes use a large diameter and moderate pitch, while a fast plane will have a smaller diameter and a higher pitch. Hovering and lifting applications use an over-sized, low-pitch propeller. Use the chart below to select a propeller. Check the RPM with a tachometer – RPM will increase from 1500 to 3000 in flight, depending on the weight and speed of the plane. **BE SURE TO FOLLOW ALL SAFETY AND WARNING INSTRUCTIONS. . . GOOD FLYING!**

**1. RPM Operating Limits:** One of the differences between wood and glass-filled nylon propellers is that glass-filled nylon props have suggested RPM limits for mechanical considerations. This will vary according to diameter. For Master Airscrew props, we suggest the following formula: RPM Operating Limit = 165,000 divided by Diameter in Inches. For example, a 10” diameter prop has an operating limit of 16,500 RPM, well above the requirement of a .40 engine.

## 2. Propellers for 2-Stroke Engines

**.049 to .051:** 5.5x4, 5.5x4.5, 6x3, 6x3.5, 6x4  
**.09 to .10:** 7x3, 7x4, 7x5, 7x6  
**.15:** 7x6, 8x3, 8x4, 8x5, 8x6, 8x7 **.20 to .25:** 8x6, 8x7, 9x4, 9x5  
**.29 to .35:** 9x6, 9x7, 9x8, 9.5x6, 10x4, **.40:** 9.5x6, 10x4, 10x5, 10x6, 10x7, 10x5, 10x6 10x8, 10x9  
**.45 to .50:** 10x7, 10x8, 10x9, 11x4, 11x5,  
**.60:** 11x4, 11x5, 11x6, 11x7, 11x7.5, 11x6, 11x7, 11x7.5 11x8, 11x9, 11x10  
**.71 to .80:** 12x4, 12x5, 12x6, 12x8, 13x5,  
**1.08:** 14x6, 14x8, 14x10, 15x6, 13x6, 13x8, 13x10, 14x8 15x8, 16x6  
**1.20:** 14x8, 14x10, 15x8, 15x10, 16x6, **1.5:** 16x8, 16x10, 18x6, 18x8, 18x10

16x8, 16x10

**1.8:** 18x8, 18x10, 20x6, 20x8 **2.1:** 20x6, 20x8, 20x10

**2.7 to 3.5:** 22x8, 22x10, 22x12, 24x8, 24x10, 24x12

## 3. Propellers for 4-Stroke Engines

**.20 to .25:** 9x4, 9x5, 9x7, 9x8 **.40:** 11x5, 11x6, 11x7, 11x8, 12x4

12x5, 12x6, 12x8

**.60:** 11x8, 11x9, 11x10, 12x5, 12x6, 12x8

**.90:** 12x8, 13x8, 14x6, 14x8, 14x10

**1.20:** 14x8, 14x10, 15x8, 15x10, 16x6, 16x8

## 4. Converting from a 2-Blade to a 3-Blade Propeller

To convert from 2 blades to 3 blades you want to decrease the total blade area and increase the angle of attack (or pitch) to overcome the increased drag of the third blade.

The general rule is to DECREASE propeller diameter by 1-2”, and INCREASE by 1-2” the propeller pitch. It is all right to keep the same pitch when going from 2 blade to 3, however you will not want to decrease pitch.

## 5. Propellers for Electric Motors Motor Size Prop

400 – Direct Drive 6x3, 6.5x4, 7x4

400 – Geared 7x5.5, 8x4, 8x5, 8.5x6

550/600 Direct Drive 8x4, 8x5, 8.5x6, 9x6

550/600 Geared:

2.5:1 Ratio 10x6, 10x7, 11x6, 11x7, 12x6, 12x7

3.0:1 Ratio 11x6, 11x7, 12x6, 12x7, 12x8

3.5:1 Ratio 12x7, 12x8, 13.8.5

## 6. Propeller Hole Sizes

Most Master Airscrew Propellers have two hole sizes because they are piloted in the back of the propeller to facilitate reaming should you need to enlarge the hole. The

first number is the hole size; second number is the pilot size.

### **2-Blade Propellers (glass-filled nylon)**

5.5" through 6": 1/8" and 3/16" 7" through 8": 3/16" and 1/4"

9" through 13": 1/4" and 5/16" 14" through 20": 5/16" and 3/8"

### **3-Blade Propellers**

6" through 7": 1/8" and 3/16" 8": 3/16 and 1/4"

9" through 13": 1/4" and 5/16" 14" through 16": 5/16 and 3/8"

Wood Series and Wood Scimitar Series propellers all have a uniform 1/4" hole.

All Electric Series propeller have a set of 5 bushing inserts for mounting to various prop adapters.

## **7. Balancing a Propeller**

Because of slight differences in wood grain and density, and due to variances in the molding process, it may be necessary to balance a propeller – either wood or glass-filled nylon – before use. Balancing a prop is a simple operation and requires the following materials:

1. Balance Stand (we recommend the Master Airscrew Balance Stand, part no. MA604222)
2. Masking Tape – 1" or under in width
3. Silver solder, modeling clay, enamel or nail polish
4. Pocket knife
5. Sanding paper, medium to fine grade

Note: If you need to ream the center hole, do this **before** you balance your prop. If you Ream even slightly off center, balance will be changed considerably and you have to balance all over again.

When you place the prop on the balance stand, make sure the cones are placed fairly

snug next to the prop hub. Hold an end of the prop so it hangs vertically, and let go. The heavy blade will fall and the prop may even rotate once until it finds horizontal balance.

As a test, turn the cones 180 degrees and see if the balance changes. If it does, the cones are out of balance.

To Balance: Take a 1" piece of masking tape and place it on the light blade – on the tip is fine. Test for balance and add or subtract tape as needed. The amount of masking tape on the blade will tell you how much material you will need to add or remove for final balance.

In most cases, the weight of the tape is so slight it won't show up on a gram scale – say 1" or less of tape. If this is the case, the prop is within spec and can be flown without adding or removing material.

To Add Material: For g/f nylon props, place modeling clay or silver solder in the holes in the back of the prop hub, on the side of the light blade, until it balances. For wood props, try adding paint or nail polish to the back of the light blade. Industrial enamel or nail polish can also be used on g/f nylon props.

To Remove Material: For g/f nylon props, use a pocket knife to trim the edges of the heavy blade. For both wood and g/f nylon, use sanding paper to remove material from the heavy blade and bring into balance.

Reprinted from the Master Airscrew website

**Vic Koenig**  
**3404 Berkshire Circle**  
**Johnson City, TN 37604**

ADDRESS CORRECTION REQUESTED

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Greeneville, TN 37615  
(423) 639-8641

***Notice to Membership***

Access to the "Members Only" section of the JCRC Website is as follows:

Username= jcrc (lowercase)

Password= 00 + current gate combination

[www.flyjcrc.com](http://www.flyjcrc.com)

**Next Meeting is:**

**Tuesday March 25, 2008 6:45  
PM at Johnson City Golden  
Corral**