

# HORSEFEATHERS!



Official Newsletter of the Billings Flying Mustangs

MAY 2002 Volume 30 Issue 5

## RC COMBAT MEET

### Billings Spring Open B Combat

Ron Horton, CD May 4, 2002

Our first combat event of the year was held on May 4. This was an Open B event using RCCA Open B rules. We are expecting around 15 pilots and got about 9.

The winners were Ron Horton-1st, Charlie Pflieger from Bozeman-2nd and Earl Seaholm-3rd.

There were 9 pilots total. There were Ben and Reg Billing from Miles City. Charlier Pflieger and Phil Battle from Bozeman, came down and Jim Bodnar came from North Dakota. Jim arrived to

fly in the afternoon. Earl flew with great skill and if he had used fresh fuel from the start so he could keep an engine running would have done better. Ron had his new designs cooking. Virgil flew a couple of rounds and then had to go. Kyle Yourk(Paul's son) got some

good flights.

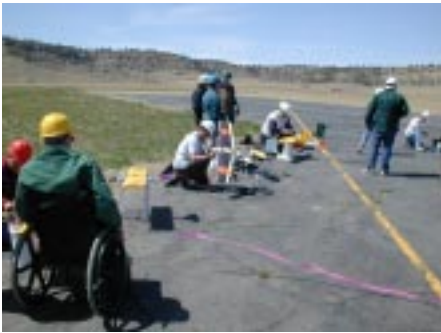
Ron says thanks to all those who flew and those who played the support roles.

Jim Kelly sent some photos. I think it was Jim, sorry if I got it wrong. I saved the photos and deleted the email.

## NOTICE! NOTICE NOTICE! NOTICE

### THIS MONTH'S MEETING WILL BE HELD AT THE FIELD

Our meeting is at the same time but not the same place. We are going to meet at the field. If the weather is warm, we'll meet under the shelter, if cooler, in the concession building.



# President's Letter

I hope you have had some good and safe flying. I think we went from bad weather to summer. We need to keep in mind safety at all times. I see new people out at our field and we need to keep an eye on them. Don't let them stand in front of the prop while the engine is running. It's our job to keep them safe also.

I have been checking on the runway reconstruction project and the next meeting will be one you shouldn't miss. There will be some decisions to be made so please be there.

Our club fly-in is coming up on June 21, 22 & 23 and Linda Hahn is working her tail off. She's taking on the whole thing by herself. Come out and support our club and Linda and just have some good old fun.

Leland and I discussed the installation of the toilets in the outhouses at the field. I have a concrete saw and an air chisel but we need a round hole for the base of the toilets so bring your ideas to the next meeting.

The suggestion has been made to have our club meetings at the field this summer, under the shelter if the weather is nice, or in the concession stand if not. This might be a good change. Please let us know your feelings about this. **{Ed. Note: By coming to the field for this meeting. We're going to give it a try}**

Your President  
Dennis



---

*"Horsefeathers" is the official newsletter of the Billings Flying Mustangs R/C Club. This newsletter is published monthly by the club and mailed to all current members. Newsletter editor: Leland Schliep P.O. Box 22406 phone 406 256-9836 Fax 406 256-9580 email schliep22@attbi.com*



## Last Meeting's Minutes.

Billings Flying Mustangs  
Meeting Minutes  
5-6-2002

The meeting was called to order at 7:28 PM. There were 20 members present including new member Jim Sherman. The minutes from the last meeting were read and approved. Bob Moore gave the Treasurer's report.

Committee Reports:

**Runway Committee:** A work party was originally planned to repair the runway.

Dennis has advised that crack sealing does not work well with all of the moisture present and the new moisture that happened this week. Tim McCullough presented a better solution at the meeting. The Laurel Airport is resurfacing their runway. One of the byproducts of this is the rotomill which we have a great chance at getting. We will have enough product to apply a 4" thick runway made of recycled asphalt. At last, we have an opportunity to have a surface thicker than 1". Dennis can obtain use of the necessary equipment to work the runway after the product is stockpiled on the old control line surface. More oil can be added to the product and mixed with the use of a blade to roll the product back and forth. This can then be laid on the existing runway.

**Fly Inn Committee:** Lynda Hahn reported that 26 invitations have been sent out to area clubs and flyers to promote the annual Fly Inn. Lynda has also been busy sending solicitations to vendors for prizes. This Fly In is shaping up to be one of the club's best events of the year.

**Combat Committee:** Kyle Yourk, who is the clubs newest convert to combat, reported that 9 pilots partici-

---

### 2002 OFFICERS

**President - Dennis Rollins**  
**Vice President - Leland Schliep**  
**Treasurer - Bob Moore**  
**Secretary - Steve Hergett**

pated at the early spring combat primer. Dennis Rollins was line marshal. A hearty thanks goes to those who participated and helped.

Larry Wilkinson made a motion to adjourn the meeting. Don Herington provided a second to the motion. Meeting was adjourned at 8:50 PM.

---

## My Soap box

Anybodies?

Once again the wind gods have gotten tired and given us a few minuets of calm.

The (old) morning crew have started to drift out to the field in hopes of flying and testing the reaction time of winter stiffened joints.

Our hopes are up in expectation of getting enough roto mill to do the run-way.

Some (snow bird ?) down south lost control of his model and took it (the model) in the chest so now he is pushing up dasies. Let this be a warning to all of us as we head for the field !!!!!!!!!!!!!!!

Vergil

---

*THIS SPACE AVAILABLE FOR YOUR  
COMMENTS, OPINIONS AND WHATEVER!  
EMAIL ME AT [schliep22@attbi.com](mailto:schliep22@attbi.com)*

## Leland's Ramblin's Junk You Can Skip If You're busy



What a glorious weekend! This is being written Monday night after the Memorial Day weekend and I am pooped. The weather was great and activity diverse. Very relaxing.

I was out flying this morning and had a ball. I flew my Eagle trainer one flight and wound up flying other people's planes the rest of the time. As I have said before, this is triple fun. You get to fly, you burn someone elses fuel and if the plane crashes you don't have to fix it! Oh well, yeah once in a while you have

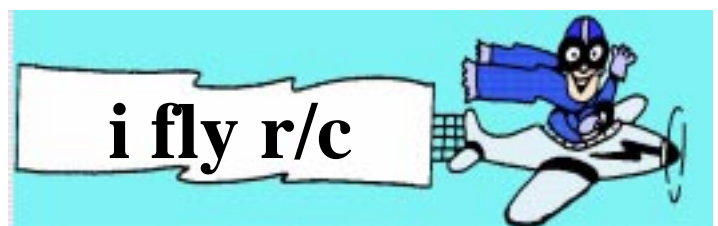
to let the student fly the plane but so what!

I had my Dazzler out to fly but couldn't get the engine to run right. We bought two engines the same day, same engine and one is a dream and the other a nightmare.

This month I have flown the Dazzler, the Eagle, the Tiger 60 and the little electric park flyer Cub. It has been a fun month.

I have been going out to the street in front of my house and flying the Cub. I have found the perfect route to fly. I hand launch just to the left of the street light pole, climb out over the across the street neighbors shrub and the street sign post and then left around the poplar. I have to gain enough altitude to get over the silver maple so I swing around and go up the street while climbing for all that little electric is worth. Then swing around over the second neighbors pine and then back down the street again. If you panic and have to land, any lawn will do but avoid driveways as that concrete is though on little foam planes. You have to watch the thermal off the house next door with the black shingles, it can also create a shear there. I have emergency landed on his garage roof just to avoid a quick gust. Take off must be down roof but avoid the basketball hoop or it's two points.

Did I tell you about the Eagle weight lifting contest I have going. As you know I have used the Eagle to carry my camera for some aerial photos and movies. This additional weight hasn't phased the Eagle and I got to wondering about just how much weight it could carry safely. I wrote this up to get guesses from the folks I work with around the western U.S. I have about 20 guesses from a silly 12 ounces to an equally silly 5.7 pounds My guess is less than 4 pounds but my real hang up now is how to carry the weight. I have lots of lead but am wondering how to fasten it. I want it on top of the wing so that the weight isn't added to the wing/fuse joint. I don't want to just stick the weights on the covering and ruin it. I am thinking of making a small plate that I can rubber band onto the top. I'll keep you posted. Any guesses?



## **GREAT FALLS Big Sky R/C Modelers CALENDAR**

Cross Country (Ft Benton to Chester)	6-8-02
Fly In-Havre	6-15/16-02
Fun Fly-Great Falls	6-29-02
Fly In-Great Falls	8-3/4-02
Cross Country-Great Falls	8-17-02

---

### **3D Tips**

*by Frank Noll Jr.*

In performing 3-D maneuvers, there is not a lot of airflow over the engine in cowled airplanes. The airplane is not moving forward as it would when you are flying it regularly, so it is important to make sure the engine remains cool. To do this you must have proper baffling on the intakes of the cowling to direct the air at the cylinders.

It is important that you get the baffling as close to the cylinders as possible, as the air will find the direction of least resistance. This is usually down in front of the cylinders. The air must be directed over the cylinders and between them and the firewall. Note: The engine shouldn't be mounted too close to the firewall, as this will restrict the air from circulating between the firewall and the cylinders. It is also helpful, if you have a real overheating problem, to put an air dam on the front edge of the opening on the bottom of the cowling. This will create a low pressure area behind it, and will draw the air out of the cowling, which in turn, pulls cool air in the front. A good rule of thumb is to have three times the area of exit area on the bottom of the cowl than intake area in the front.

**Do I have to have my airplane tail heavy to perform 3D maneuvers?** The answer is no! You can have a perfectly balanced airplane and still be able to perform the maneuvers, providing you have ample throw in your control surfaces. I fly my airplanes balanced where I fly them when I compete. I have enough throw and surface area to move the airplane where and when I want it. To be able to do this, you may have to "double-bevel" the surface hinge line. For example, on the rudder, you would bevel the rudder post, as well as the leading edge of the rudder.

Caution! Make sure when you do this, that you don't overextend the linkage and torque of the servo. Do not hook the clevis on the outermost hole on the large servo

arms, and innermost hole on the control surface. This is one of the best ways to induce flutter, and you know how that ends up, right? I can't stress this point enough.

**I have my airplane balanced tail-heavy, but it won't waterfall!** More than likely you do not have enough moving surface on the airplane, or you don't have enough throw in the surface. If you have the ability to remove and reHINGE the control surfaces, a useful tip would be to bevel both surfaces of the hinge line. For example: If the elevator is beveled to its maximum, then you can try beveling the trailing edge of the stabilizer (only if you have enough "meat" on the hinge line to do so). This will allow you to get more angle on the hinge line, and allow the surface to deflect more.

**I have a smaller airplane, but I can't get it to do a harrier.** A lot of smaller airplanes do not have a "forgiving" airfoil. There are a few things you have to have in an airplane to do a decent harrier.

1. An airfoil that will not stall as easily at slower speeds. 2. A decent amount of wing area at the wingtip. 3. A decent wing loading—the less the better. 4. Ample amount of power/thrust to be able to hold the airplane at a steep attitude. 5. An abundance of aileron throw/surface to be able to keep the wing level and pick it up.

from *Flight Lines* Love-Air R/C, Inc. Michael Schauer, editor Loveland CO

## **LOCAL PRODUCT REVIEWS**

**A section for local finds.**

*Send in your reviews*

### **The Slot Machine**

**Hinging made easier.**

I am surely no master builder and not even close to the skill levels of some of you folks who read this. This said you can see why I go for as many "make it easier" gadgets as I can afford. This week I got one of these and just have to tell you about it.

I went out to Central Hobbies and for just under \$30 bought the Slot Machine, Motorized Hinge Slotting Tool. When I read about these earlier in the year in magazines I pretty much put them off as useless gadgets. I have been cutting pretty good slots for CyA hinges with my exacto

knife and didn't feel the need. Today as I am getting ready to hinge all the appendages onto this Falcon III here I thought I would try it out. The least to come out of it, as I figured it would be that I would feel it worthless and put it into the next swap meet.

Boy did I get a surprise. I dug out a small piece of balsa to practice on like the book said (yes, I do read the book) and pulled the trigger. Well the first two weren't aligned with the wood but they sure were neat slots and my good-

ness was that easy. A few more practices and I am ready to saw into the Falcon. I marked a center line and had five hinge slots in about that many seconds and

each was a perfect shot. WOW. I think that as soon as I get done writing this I will go cut some more. I think the problem I am going to have now is getting a powerful enough servo to move the surface with so many Cya hinges stuck in it. :)

The only word to the wise I heard and surely believe is to buy the 110V powered unit vs the cordless. I know that I have enough dead batteries around here already and one review thought the cordless unit was underpowered.

Here are a few links for those of you computer literate to follow: <http://www.greatplanes.com/accys/gpmr4010.html>. and [http://www.modelairplanenews.com/how\\_to/jig.asp](http://www.modelairplanenews.com/how_to/jig.asp) and <http://www.ezonemag.com/articles/1999/feb/wired/wire0299.htm>.

You can hunt down more I am sure. Enjoy.

# Great Planes CG Machine

## Balance made easy.

Now I don't want to sound like an advertisement for Great Planes but this second gadget I found enough cash

to get home is a jewel. I have only used it once but I love it.

Years ago I built my own model airplane balance tool and you can too. A foot long piece of 1X4 and a 2 or 3 feet of 1/4" dowell rod are all that are needed. You just drill a couple of holes in the 1X4 about 4 to 6 inches apart and then glue in a 12 to 14 inch piece of dowell rod. Buy a couple of those slip on pencil erasers and put them over the up end of the dowell rods and you have an airplane balancer.

So why go out and spend money on the CG Machine? Well I wanted to try it out is why. When I got it home and finally figured out how to assemble it, it's first trial was on my Killer Bee

which has about a 85 inch wingspan and weighs more than any other model I own. When I tried my home made unit here the surface area of the erasers was too small for the weight of the plane and I was in danger of puncturing the surfaces.

The CG machine has a flat surface with a ball hinge behind it and it handled the weight just fine. The built in rulers made it easy to set the distance back from the leading edge and get it accurate. In just a few moments I was sticking lead on the nose of the Killer Bee to make it balance right.

This is so much more accurate than the old finger tip under the wingtip method. I suspect that with as tail heavy as this plane was, I could have probably saved having to do the last two crash repairs if I had owned the CG machine before. Ok well even if I had checked the CG with any method before those two crashes. I am happy to have this easy method now

Here is a link for those of you in the Electronics age. <http://www.greatplanes.com/reviews/gpmr2400-man.html>



# MORE MUSTANGS FIELD PHOTOS.

AERIAL TO ANOTHER LEVEL.

Billings Flying Mustangs Field  
Taken from Outer Space.  
courtesy USGS.  
1989



Next Meeting  
**MUSTANGS CLUB FIELD**  
MONDAY JUNE 3



Billings Flying Mustangs  
P.O. Box 22406  
Billings, MT 59104

**FIRST CLASS**

TO:

*The latest scoop from the most active R/C club in the region!*