

HORSEFEATHERS!



Official Newsletter of the Billings Flying Mustangs

February 2002 Volume 30 Issue 2

SPRING AWARDS BANQUET!

FEBRUARY 23 6:00 P.M. DJ's STEAK HOUSE LAUREL

The banquet will be held at DJ's Steakhouse in Laurel on the 23rd of February. Chicken and ribs will be served at a cost of \$11.00 per plate. No host bar at 6:00 PM. The meal will be served at 7:00PM.

We need advance payments and the headcount at the next meeting, February 4. We will hold open the count until Monday February 18th for stragglers but would really like to be able to tell the restaurant our tally as soon as possible.

A presentation of awards for The Chamberlain Trophy for Most Outstanding Member, The TS "trophy" for most unfortunate member, and Best Builder Awards will be presented.

Outstanding Member - This traveling trophy goes to the person who contributed the most to the club in time, effort and achievement during the year. What an honor to have this fine club think you did that well. Who is your guess for this year?

The TS trash can award is being sought this year by quite a few of our members. Everybody needs a goal, but I think this one would be pretty low on the list although I think my name is on this sucker too.

The Best Builder Award goes to those who can make those beautiful models from scratch or kits. It can go with the TS award. It depends on the lifespan of the model built. There have been some beautiful models at the field this year. This award gets more and more difficult to pass out with the advent of the ARF culture. We are fortunate to have some fine builders in the club but the number of ARFs increases every year.

We have quite an enthusiasm going this year on the banquet's prizes. There are kits and parts donated and these by themselves make a prize worth coming out to dinner for. On top of that the club is purchasing major items to raffle off. The raffle money goes to the treasury to continue the efforts of the club.

Come on out for a great evening. Join your fellow club members in honoring our club's award winners. Begin your model year with an event that you can remember for the whole season.



SWAP MEET DATE SET!

March 2nd. Location still to be determined

At our last meeting the club set the date for the Spring Swap Meet. We are going to hold it on March 2nd. The date was picked as the only date we could manage that would, hopefully not detract the Powell Swap meet. Our flying friends to the south have a great meet and we are not trying to compete with them but need an event that more local folks can participate in. An open invitation will be sent to all the clubs in the area as soon as the site for the meet is set. Stay tuned.

President's Letter

Congratulations and welcome to our new club officers. Elections were held at our January meeting. Dennis was voted President again. Steve and Bob also keep the same offices. Leland is now our vice-president and newsletter editor. We also elected 3 new board members.

I have the results of the voting for the TS, Outstanding Member and Best Builder Awards. Come to the banquet on February 23 and help celebrate the presentation of these awards. Please support the club and attend. Let's make this banquet one to remember. It will be held at DJ's Steakhouse in Laurel. This will probably be the best raffle we have ever had. Several items, including planes, wheels and servos have been donated. Doug headed to Central Hobbies to buy even more. We will also have several ladies prizes too. So come join the fun!

At our last meeting we decided to have a Swap Meet on March 2 from 9:00 A.M. to 3:00 P.M. So go through your hobby room and get your stuff ready to trade for somebody else's stuff. Most wives support these meets. I don't know if it's because we're getting rid of old things or getting new things.

Several of our members have hung some of the models at the airport. The plaque that tells about the planes and their owners looks very nice. We will have a few more planes to hang up later. Mark Hungerford contacted me about writing something up about the Billings Flying Mustangs to put on a plaque or poster. I asked Doug Haacke if he would put it together for the club. If you have a little extra time try to get up to the airport to see the airplanes and the rest of the display. It is really very fascinating. The security isn't so bad now. They look over your car at the check-point but are very courteous. The short term parking lot is open now so the airport is somewhat back to normal.

Stay warm and if you do get to fly, please fly safe.
Your Club 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@atbi.com



**MUSTANGS
BUSINESS
SECTION**



Last Meeting's Minutes.

Billings Flying Mustangs Meeting Minutes January 7, 2002

President Dennis Rollins called the meeting to order. There were 24 members present. The minutes from the previous meeting were read and approved. Bob Moore gave the Treasurer's report. The Treasurer's report was approved.

New Business:

Election of club officers was held. Dennis Rollins was elected President; Leland Schliep will serve as vice president, Bob Moore is the Treasurer and Steve Hergett will serve again as Secretary.

The idea of a swap meet was presented to the club. Interest level from the members who attended was promising. A date of March 2 was set. Leland Schliep will locate a site. Powell WY has their meet set for March 16.

Newly elected board members are Bob Abelman, Paul Yourk, and Doug Haacke.

Old Business: The old racing cage trailer, which is no longer of service to the club, will be marketed for \$500.00 or best offer. The first course of action will be placing a for sale sign on it and parking it where it is visible from Grand Av.

Committee Reports:

Banquet Committee: The banquet will be held at DJ's Steakhouse in Laurel on the 23rd of February. Chicken and ribs will be served at a cost of \$11.00 per plate. No host bar at 6:00 PM. Meal will be served at 7:00PM. Dennis Rollins and Leland Schliep will initiate a phone campaign in an effort to increase

2002 OFFICERS
President - Dennis Rollins
Vice President - Leland Schliep
Treasurer - Bob Moore
Secretary - Steve Hergett

attendance at this year's banquet.

Airport Committee: Dennis Rollins reported that the airport provides only liability insurance at this time. This has kept Dennis from displaying his planes. Dennis is in contact with Mark Hungerford to see if additional coverage can be provided.

Cody will have a float fly on the 10th and 11th of August.

Paul Yourk moved to adjourn the meeting. Don Herington seconded the motion. Meeting was adjourned at 8:22 PM.

My Soap box

Happy New Year. I am in my second week of a Bob Moores type of cold. Only two more weeks to go!

My vote for the SUPER DUPER POOPER SCOOPER of the year goes to Fred Ott. He cleaned up the mess in the pits made by huge dogs carrying big loads.

Fred also moved the club trailer to the south side of the consession stand and put a for sale sign on it.

Thanks Fred.

The weather gods have given us some miserable flying weather—THINK POSITIVE—for the new year.

Vergil

Ivan Koeller and the garbage detail.

Leland, Ivan has been doing the garbage bit for quite a spell and he told me he would like to have someone else take over the job.

Would a plea for help in the news letter get results-maybe ?

Vergil

*THIS SPACE AVAILABLE FOR YOUR
COMMENTS, OPINIONS AND WHATEVER!
EMAIL ME AT schliep22@attbi.com*

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



Well it's been a hectic but rewarding month for me. Loads of things going on.

Our last meeting was exciting and on one point, for me contentious. Let me do the negative stuff first and then go on to the fun stuff. This hobby/sport is for fun and relaxation but sometimes there are moments that aren't. The one item that got me up in the air at the meeting was a part of the discussion on the Land Fund. There was a suggestion that the money wasn't making much in the bank in CD form and that we should invest it into land or property. I will oppose this as long as I am a member. That Land Fund is to be spent on land and facilities for a new field when and if we need a new field. It is an investment for our future.

Now on to other things. Much more pleasant thing for me.

How about starting with food, always a good subject. The banquet promises to be the best in recent memory. A new and more usable venue, great donated and purchased prizes. It is shaping up for a great time. Plan on coming.

The swap meet has me excited. I am thinking of all the junk... excuse me, valuable parts and airplanes that I can sell at huge profit. I am hoping that the money I have saved up will be enough to buy all the things I know you are going to be offering at bargain prices. We will be getting posters made up to put out around to other clubs and in the hobby shops of the area. Not much time left.

Progress on my new Eagle trainer is slow. Most people wonder why I would be building a trainer although there are those of the opinion that this might be too advanced for my flying skills. I want a trainer like the Eagle to be able to expose others to the hobby. I want my grand kids to get the chance to come out and fly with me. I want to have it so that if someone drives up at the field and has interest I can buddy cord them right there on the spot. I also think it is a good spring tune up plane to get my thumbs back into gear. It might turn out to be a gift to the grand kids if they show enough interest.

continued on page 6

FOR SALE

**FREE ADS. LIST YOUR TREASURERS FOR
OTHERS TO ADOPT.**

YS120 engine, \$280. Flash 4 Hitech radio, receiver,
and servos \$90. Call 656-2839.

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fuel tank. All MK hardware with carbon fiber
pushrods. fuel dots. YS 120 SC engine low
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Leland Schliep 406 256-9836 406 698-5931
<mailto:schliep22@home.com>*



**VISIT THE BILLINGS FLYING
MUSTANG'S WEB SITE FOR
LOADS OF STUFF FOR SALE
AT BARGAIN PRICES.**

Washout by Bob Mabli

Washout may be confusing to the novice glider builder and flier, but it can make the difference between a gentle, easy-flying and forgiving floater and an untamed one.

Most all polyhedral glider kits like the Wonderer and the Gentle Lady instruct the builder to add "washout" to the wing tips. We may assume that the ARFs provide for washout but it is a good thing to check before the first flight.

Washout is a term that refers to the twisting of the outboard portion of a wing (trailing edge up) to reduce the angle of attack of the outboard wing section relative to the inboard portion. Doing this assures that the outboard section will not stall before the inboard section. At stall speed, the center will stall first and the tips will follow. This prevents the onset of uncontrolled roll during slow speed flight, especially during the landing approach and touch down where you don't have altitude to correct the condition. The roll will occur when one wing tip stalls before the other or before the rest of the wing.

Washout is easy to add and adjust in a built up wing (ribs and spars) with heat shrink covering. All it takes is blocking up the trailing edge of the outboard section and heating the covering to set the twist. This usually requires no more than 3/4 inch at each tip. Be sure that both sides are equal or the result will be a tendency to roll off onto the wing tip having less twist. While you're at it, check for warps in the rest of the wing and correct those by heating and twisting.

Fome-Cor® wings require either that the washout be cut into the foam when made or that different airfoil sections with different stall characteristics are used at the root and tip.

A high performance full house thermal ship will have different airfoil sections blended along the span for optimized lift and drag. The Crow configuration (flaps down and ailerons up) used in landing and high descent rates provides effective washout by virtue of the aileron deflection.

High speed slope airplanes do not usually use any washout because of the drag impact. Powered aerobic airplanes have to have absolutely symmetrical wing sections for precise flying at any attitude-so washout is out. Landing approaches have to be "flown" in. Too often you will see an airplane snap roll turning on final because the pilot allowed the airspeed to drop too low and tip stall resulted on the wing on the inside of the turn.

from The Peninsula Silent Flyer Peninsula Silent Flyers
Torrance CA

An Easy Way to Make a Tail Wheel

Tail wheel assemblies are probably the most neglected part of a model, especially scale models. Many hours go into construction of a model then a plastic tail wheel bracket is used to mount the tail wheel. Often, the attachment method results in loads being placed on the rudder during landing. This can result in damage to the rudder. A scale-like leaf spring tail wheel assembly can be constructed out of readily available materials in a very short time.

The materials and construction shown here are for a .40-size model but can easily be adapted to any size model. The larger the model is, the more important the tail wheel assembly becomes. A little ingenuity goes a long way in adapting this design. The skills required to construct this tail wheel are well within the realm of the average modeler.

Construction begins with selecting materials that suit the size of the model. In the case of the tail wheel for a .40-size model, all the materials can be found in most shops. The leaf springs are made from a tang of a leaf rake. This material is stiff enough to make a good spring, yet soft enough to be drilled. The eyelets and washers came from excess servo parts. The aluminum, brass, and wire are materials left over from other projects. The tiller springs are from old ball point pens.

The tail wheel caster assembly is bent to shape according to the drawing based on the size of the tail wheel being used. In this case, 3/32-inch music wire is used with a 1-inch tail wheel. The wire is bent to clear the tail wheel with a minimum of clearance. The upper stem of the caster is left long and cut off after final soldering. Acid core solder is used for all assembly. A washer is soldered to the axle. An eyelet is placed over the stem and soldered then a washer is soldered to the flange of the eyelet.

The length of the main (longest) leaf spring must be determined first. A cardboard template can be cut 1/4 inch x 6 inches and held in place to determine the location of the tail wheel. The main spring is cut with about 1/2-inch extra which will be removed after final adjustments are made. The curve can be bent into the main spring with the end bent so that it is approximately parallel with the ground when installed. The other springs are cut progres-

sively shorter. The lengths are not critical.

After all of the springs are bent to mating contours, they are clamped together and two 1/16-inch pilot holes are drilled for mounting holes. The springs can be separated and each hole drilled out with a 3/32-inch drill. The holes should be slightly larger than the screws that are to be used for mounting. A 3/32-inch hole is drilled in the main spring for the caster assembly.

The tiller is made of .030-inch brass so that it can be soldered to the tail wheel caster. The rudder horns are made of .030-inch

aluminum. The shape and size of the tiller and rudder horns are dependent on the model. The tiller is cut to shape and 1/16-inch holes are drilled in the ends and a 3/32-inch hole is drilled in the center. The rudder horns are bent to shape and a 1/16-inch hole is drilled in the outer leg and two 3/32-inch holes are drilled in the inner leg.

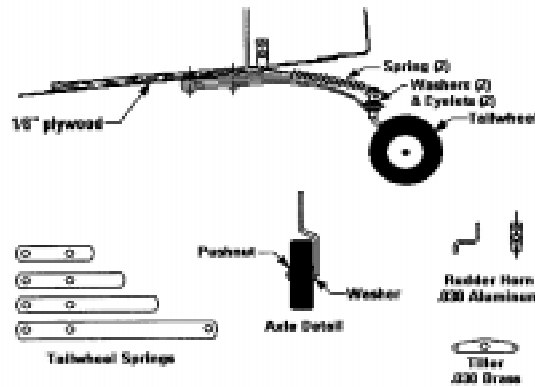
The tail wheel should be assembled to the model and test fitted before the final assembly. The caster assembly is placed through the hole in the main spring. A washer is placed on the stem of the caster onto the top of the main spring, then an eyelet then the tiller. The caster can be turned upside down with the stem in a vise and the tiller on the top of the vise. There should be no slack in the components at this point. Finally, the tiller, the eyelet, and the washer are soldered by allowing the solder to wick between the parts. When this is complete, the assembly should be painted to match the model.

Now the components can be assembled to the model as shown in the diagram. The tiller springs can be stretched to achieve the right amount of tension. The tail wheel is installed on the caster and a pushnut is pressed on.

The excess length of the axle and the stem can be trimmed off. The flat of the main spring should be bent so that it is parallel with the ground and the excess trimmed off.

This tail wheel assembly looks good and it is functional. The weight that is added by this type of tail wheel is surprisingly low. The assembly is functionally far superior to plastic tail wheel assemblies and will outlast almost anything that is commercially available.

from the Shawnee Mission Radio Control Club via Contact First State RC Club Tim Mihalski, editor Hockessin DE



Ieland's ramblin's continued

This gift for those showing the interest is just what Ron Beck has done. A couple of years ago he took a trip to Denver area to visit his kids and grand kids. While there he took them to a local field and they expressed some interest. He promised to build a trainer for them if they wanted to get started. The did and this fall he built them a beautiful Senior Kadet. Last week I had the pleasure of going to Denver with Ron and delivering the airplane. Ron did a beautiful job on it and we test flew it at the Denver Mile Hi RC field. We then buddy corded Ron's son Doug and both of his grandson's Garret and Sam. All three were enthused but I think the hook really sunk into Doug. He left the field with both AMA and Denver Mile Hi RC club applications and a plan for the trip to the hobby shop. I think a new branch of fliers has begun.



While on this note I want to tell you of the courtesy and helpfulness shown by two AMA clubs for this effort. While planning this trip I searched the internet for clubs in the area we were going to and called the president of the Crosswinds Club in Aurora. Larry Falsetta welcomed us to use their field and offered instructors and help. This open arms approach was much appreciated. When we got to Parker, we found that another club's field was closer to Ron's son's house so we drove over there. On a windy and cool Saturday morning the gate was locked and no one was there. I walked to the shelter and found the president's phone number on a sheet on the bulletin board. I called, explained our situation and he gladly gave me the combination to the gate lock and welcomed us to use the field. While we were setting up the plane several club members started to show up to fly and we were made to feel very welcome. While I test flew the Kadet they let us have the air to ourselves and again while we buddy corded they let us go alone. While this may have been out of regard to their own airplanes and safety (I noticed each was near a table or other shelter the whole flight) I

think it was courtesy to us as visitors. I hope our club is this welcoming when folks come here.

Well another newsletter is done. I hope it had something of interest to you. Until next time..

See Ya Out Flyin' Ieland.



Next Meeting
848 MAIN STREET IN
THE HEIGHTS
MONDAY FEBRUARY 4
7:30 P.M.

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

FIRST CLASS

TO: