BASS NEWS

The Baltimore Area Soaring Society Newsletter

Year XXIV, Vol.IV, No. 5 "Information Provider to the Glider Guider" June 2004

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The next meeting will be held on June 3rd, 7:30 PM, at Villa Maria.

REMINDER

If you have not yet paid your 2004 Membership Dues, please send a check and application/ renewal form to Treasurer Russ Bennett. *Thank you*

BASS May 2004 Meeting Minutes.
Chris Kuhn Secretary

CONVENED: The May meeting was called to order at 19:40, on May 6 2004 at Ridgley Middle School. Seventeen members were in attendance.

ANNOUNCEMENTS: The Minutes of the April Meeting were accepted as printed in the newsletter.

TREASURER'S REPORT: Russ Bennett reported the there was $109.50 in cash and $1020.00 in LTRC. This dose not include income from the HLC.

OLD BUSINESS: The club, with much thanks to the volunteers, had a successful HLC contest. Don Vetter mentioned that he had some HS81MG servos left for sale. It was noted that there was a miscommunication on the last club contest site. (See Discussion & Comments). The pre-registration forms for the "BASS Woodie Contest" to be held on Saturday, August 14, 2004, were passed around. Bill Cavanaugh, Al DeRenzis and Joe Allulis are still working on possible formats that would emphasize "soaring fun" – not landing. This should be out soon so sign up early. Members were asked to check the roster to make sure that their info was up to date. Also, please keep the ideas coming in for the newsletter. Al DeRenzis noted that Walt Good's trophy would become a club "Outstanding Service Award". This would be a perpetual trophy that would rotate annually to the recipients with a medal as the keeper.

NEW BUSINESS:

The club needs more medals for its contests and annual banquet awards programs. A

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BASS April 2004 Meeting Minutes.-*Continued*

vote was taken and passed, Bill Cavanaugh will order them. We have enough to get the club through this year. Art Gompf has purchased space for a club advertisement in the Polo Club newsletter. It will include the BASS president's name, the club's web address and a note of appreciation for the use of their field. The club has some outstanding invoices and this was brought to Russ's attention. Pete Schlitzkus proposed that the summer meetings be held at the Polo Field. Traditionally the summer meetings have been at Villa Maria with members coming out to the field early for some flying and then have the meeting on the hillside, if there is a weather problem then under the walkway to the school. The consensus was to stay at Villa.

DISCUSSION & COMMENTS: Kevin Sharbonda apologized for the confusion over the location of the first contest. It was recognized that it is difficult for some people to get the word. It was agreed that the Yahoo Board is OK for getting information changes. It was also suggested that if there is a change someone should be posted at the field to notify contestants. Several points were raised on the subject of club contests. Villa Maria might not be flyable on the day of the contest. SAFETY is the first concern and the AMA rules state that the field must be clear of people, pets, etc. To deal with "overcrowding" Kevin will try to get exclusive use of the field for club contests. AL DeRenzis made the point that if this becomes an issue the club must face this problem. Don Vetter also made it clear that LTRC has treated the club very well indeed!

ADJOURNED: 20:30

SHOW & TELL: Nothing for Show and Tell this month.

Teflon Tube Installation
Robert Samuels, St. Louis

Special thanks to "Prez" Kevin Sharbonda who passed along this note which he picked up on the yahoo RCSE board:

Installing etched Teflon with music wire control linkage in a Magic fuse!

Thanks again for all the suggestions. As you may recall I inserted music wire into the Teflon tube as a support mandrel. The magnet trick worked great. I used the small 1/8 in. rare earth magnets from Radio Shack. I
used 7 of them. They allowed me to precisely position the tube inside the fuse simply by moving the magnets that were on the outside of the fuse. They held the Teflon tube firmly in place while I dripped CA down the fuse.
By using the magnets I had unobstructed access to the inside of the fuse and the tube. Really a superior method. My thanks to the poster who suggested it. Definitely someone who is a clear thinker.

LEARNING TO FLY

by Jim Martin

This article is taken from the Hobby Lobby website, written by the Owner, Jim Martin. While it's purpose is to help people learn to fly without an instructor, it provides valuable information to all new flyers, even if they are getting help (as we hope is the case for our new BASS members). - Ed.

YOU will learn how to fly INSTANTLY if you choose the right airplane and follow a few suggestions!
Choose the right airplane to start with. There are plenty of true "beginner" airplanes. They are usually electric powered gliders, slowflyers, and parkflyers.

1. Understand how an airplane flies. When the wing moves forward the air lifts it. Too slow, no lift and it falls out of the air -- it stalls. So, it needs flying SPEED either from a motor and propeller, or by descending and gliding. The wing is lifting all the time it's moving forward -- whether it's upside down, in a turn, inverted, or doing acrobatics -- there is always lift from the wing even though the lift might not be straight UP as it is in level flight. The airplane makes right or left turns by tilting in the direction of the turn so that some of the wing°s lift is angled partly to the left or right. To turn an airplane you tilt the wings with the ailerons or with the rudder in the direction you want to turn. To make the airplane go UP you give an UP command to the elevator. The elevator surface angles UP and the air that's hitting it blows the tail DOWN and the nose UP. When the airplane goes UP it slows down. If it goes too slow the lift stops and the airplane falls -- stalls.

You turn an airplane differently than a car or a boat: when you tilt the airplane's wing in the direction that you want it to turn, the airplane will continue to turn as long as the wing is tilted in that direction. But you will NOT be holding the control stick in the direction of the turn (as you would on the steering wheel of a car) -- you will have the control stick near NEUTRAL during the turn. To STOP the airplane from turning you move the control stick in the opposite direction from the turn so that the wings level out. "Beginner's" airplanes have a built-in tendency to automatically come back to level flight if you let go of the control stick.

2. Pick out an airplane that can fly all by itself without you controlling it. Don't pick a low-wing, aerobatic airplane. The best choices are slowflyers, parkflyers, or gliders that use electric motors for power. Gliders can glide straight ahead all by themselves (if they do not have a warped wing -- see below) without you doing any controlling from the radio transmitter. If you want to fly without an instructor these glider type airplanes will fly themselves while you are trying to figure out how to make them go some other direction. You need this stability while you learn how to fly. The second best choice is a non-glider (powered airplane) that has the wing on the top of the fuselage and which is advertised to be a good training airplane.

3. Make SURE that these following things are correct BEFORE each flight:

A. The balance point MUST be where the airplane's designer intended. Don't be afraid to add lead weights to either the nose or the tail to MAKE the airplane balance where it is supposed to. If you think that the required weight to achieve the correct balance point (sometimes called "CG" -- Center of Gravity) is too much, you're wrong -- USE WHATEVER WEIGHTS ARE NECESSARY TO MAKE THE AIRPLANE BALANCE WHERE IT'S SUPPOSED TO!

B. The wing must not be warped (except for "washout", a stabilizing trim where each wing tip trailing edge is twisted 1 to 2 degrees higher than the leading edge). To check for warps, fasten the wing onto the airplane. Set the airplane on a table and walk off to the rear of it. Look back at the airplane from an eye position where you can see just a bit of the BOTTOM of the entire wing. If you see MORE bottom wing surface on, let°s say, the left wing, then your airplane will tend to turn left even when you have the aileron or rudder control in neutral. Remove that warp before you try to fly the airplane.

(Continued on page 7)

Polo Field Reminder

BASS is very fortunate to have access to the Maryland Polo Field for contest and sport flying. BASS members are reminded that the posts should not be moved. Also, be sure to keep the entrance gate locked.

This article is courtesy of Pete Young, via the Construction Articles section of the Charles River RC Website

Errorless Wing Construction

I originally developed this technique when building A, B, and C gas free flight wings. As one might suspect, you have to build gas free flight wings very accurately as any undesired warps or misalignments can really reduce weeks of effort to matchsticks in a jiffy.

George Voss wrote up his technique, very similar, in FM about a year ago *(1999-2000 -ed)*. I don't have a better reference for that particular article, so you'll have to bear with lots of prose here. I've built about 3 dozen poly wings using this technique and the results have always been very satisfactory. As a matter of fact, you can use the same general technique for building almost any model wing, not just polyhedral glider wings. Read through this and you'll see what I mean.

As we all know, 99% of model kits say, in effect, "build individual wing panels over the plans", "join at the proper dihedral angles", "sand everything to fit". Well, this is just plain impossible to do accurately and repeatedly.

For one thing, normal alignment tolerances make exact linear alignments impossible at the LE, TE, and spar junctions. And for dihedral braces at the poly breaks, it's very very important to have everything align with zero gaps. And once you start fine-sanding a spar, LE, or TE, it won't take much before you've oversanded in one plane or another and the joint may be almost right, but not perfect at all the intersecting joints. Agree?

Let's assume for the sake of argument that we're building a four panel wing in one piece - a Gentle Lady for example. Let's call the panels Left Tip, Left Main, Right Main, and Right Tip.

First, build LM over the plans. Put down LE, TE, spars, ribs - except as will be clear, you may want to not add the ribs at the poly breaks right now. And also, don't put in dihedral braces. Anyway, this step should take only a few minutes but be sure to cut the spars, LE, and TE to EXACTLY the right length.

Now, prop up LM at the center joint to the right height - use some trig here starting from the poly dimensions conventionally given - so that you can build LT flat on the plans, and joined directly to LM which has its right hand edge propped up in the air. By the way, measure LM's rise height at both LE and TE so that you don't accidentally build in any washout or washin. Due to some idiosyncrasy I haven't figured out, you can put a perfectly square block of wood under the panel but usually have to skew it to get both the LE and TE at the same height - I've given up trying to figure out why, so just double check both LE and TE dimensions

As LT's spars, LE and TE are a little overlength at this point, fine sand these joints so that the fit to its matching LM partners is PERFECT. Don't forget to perforate the endgrain of the wood with a pin to allow glue to go up into the joint by capillary action. So, glue LE, TE, and spars together and get those pesky alignments exactly right. There's no excuse for not getting perfect alignments since you're joining these panels directly together.

The rest follows by extension: build RM directly to LM; and build RT directly to RM. Or do this in any sequence you want but keep the same philosophy: splice spars, LE, and TE to each other directly, achieve perfect fits before gluing.

Once you build a wing this way, you'll never want to do it the old fashioned way, i.e. independent panels and hope for a good fit.

Here's another tip for building wings like the Majestic's or a BOT; or for any wing planforms with Phillips entry or a semi-symmetrical airfoil. The problem here is that the ribs should be aligned just perfectly with respect to each other, or else the LE sheeting will have a hard time aligning across the wing.

Let's go back to the previous series of instructions and let's build LM. But this time, start by first gluing down two

Errorless Wing Construction - *Continued*

ribs which are as far apart on LM as possible. These are usually the rib next to the poly break; and a rib near the center of the wing. Glue these in, then draw an index line down the back of the LE between the ribs. Use this index line to sight in and install the remaining ribs. This procedure should insure that, within close tolerance limits, the ribs are aligned properly with respect to each other.

If it's necessary to adjust the fit of a particular wing rib, this is usually done by trimming the fit of the rib to the spar. Do this carefully, removing only enough material to get the desired alignment. This series of steps will almost guarantee a straight and true D-box sheeted wing section.

On building the Majestic, these two procedures are IMHO essential to getting a true wing where everything fits closely and perfectly as the designer intended.

Let me know what you think of these. These two procedures are common sense and tested across many many completed projects. Do as I suggest and building a multi-panel glider wing will become almost boring - everything will fit and be aligned the first time without any strain!

Light Weight Tail Surfaces
Courtesy of Bill Grenoble, via the Charles River RC Site, September 1998

Here is an article from our Pennsylvania neighbor and Woodie visitor, Bill Grenoble. I believe this was part of the information on building the very successful Terminator Handlaunch Glider. The technique can be used to make fuselage bulkheads for electric ships as well. Also, laminations can be kevlar or carbon fiber for a stronger, although heavier component. - Ed

Here is a simple, strong way to make very light v-tails - or any other item that needs strong, light, flat surfaces.

Materials
1/16" 4-6 lb / cu ft contest grade balsa.
One or two 3" foam rollers
Some waxed paper
A couple of pieces of glass for rolling and weighting

How-To
Pour a puddle of thin epoxy onto wax paper (putting the wax paper on a glass sheet makes the next step easier)
Run a 3" foam roller through the epoxy puddle, then roll the balsa
Apply 0.5 or 0.75 oz fiberglass cloth evenly over the surface
Roll the cloth onto the balsa, on both sides
Sandwich the fiberglass/balsa between two pieces of waxed glass, and weight down flat (you don't need to vac-bag this...)
Don't be too anxious to pull it out quick - leave the sandwich weighted for at least 24 hours
Note: We do whole sheets of balsa at a time - then cut out your surfaces with sharp scissors and sand the edges

This produces tail surfaces that are only slightly heavier than 3/32" balsa with lightening holes (covered with transparent Ultracote), but these glassed tails are very durable and good looking to boot!

The Times of Sand

With apologies to KISMET, your editor has found another great construction article on the Charles River RC Website. This one was contributed by Scobie Puchtler of Seattle, Washington.

I don't know that I qualify as a 'real builder' but I do have a pretty complete shop and a couple ideas about sanding:

If you have some spray adhesive around, which you should if you're running a responsible workshop, then sanding blocks are wildly easy to make, and can be customized for a very wide range of applications. This also assumes an actual shop stock of sandpaper in various grits, but I can't imagine running a workshop without that. Invest in a stock of sandpaper somewhere where the prices are actually good. You won't regret it. Some wet-or-dry in your stock will give you good options for sanding metal parts too. You might be surprised at the 'machining' operations you can get away with using wet-or-dry mounted on a hard surface.

I keep a little rack of sanding blocks that I have made for specific jobs around and if I can't find a block to do the job, I make a new one in a few seconds from scraps of hardwood, hard plywood, whatever, sometimes customizing the block shape on my tablesaw first.

If I'm sanding something where the 'hard edges' of the block might catch and score the material adversely, then I'll quickly round just the edges of the block... with a sanding block, of course... and then stick on the sandpaper of choice.

for some jobs, it's particularly important to have a flat, hard 'reference' surface for your sandpaper, and for those I make a point of using MDF or melamine covered particle board.

For other jobs, it can actually be bad to have the sanding surface too hard, and here,EPS or blue foam. Sandpaper spraymounted to a small scrap of EPP can make a somewhat flexible block for some jobs.

Basically if you keep around the technology to stick sandpaper to stuff, then your imagination is the only limit for what kind of sanding tools you can create.

Aluminum extrusion, flat or T or L in section can be a great sanding tool.

The other 'trick' in my book is more of a 'concept' than a trick and that is to stay open minded about what moves and what doesn't. Some small parts are MUCH easier to sand holding the part and dragging it against a fixed sanding surface. I use melamine covered particle board for all my workbench surfaces (for SO many reasons, don't get me started), and that lets me lightly spraymount down a piece of sandpaper (whole sheet, half sheet, or just a tiny strip, depending on the job) to a very flat hard surface that is truly heavy and unmoving when ever and where ever I want. This is incredibly handy. Usually, if I've used the right amount of spraymount, the paper comes back up just fine from this surface. If not, the surface is so hard that I can scrape any residue off with a few quick swipes of a cabinet scraper.

You can achieve this 'fixed block' idea by clamping down a sanding block, but that's fussy by comparison, the clamp is usually in the way, and once you try the deal where a small part of your worksurface magically becomes abrasive, you'll likely be hooked.

I also keep scraps of aluminum and plastic tubing around for making round sanding tools. Cutting a narrow strip of sandpaper and spiralling it up the tube can often be easier than trying to wrap a rectangular piece around the tube.

Ever get frustrated trying to make small roundbottomed grooves in balsa or foam? Threaded rod is just the ticket... comes in lots of sizes and acts as a very effective rasp in these soft materials. Look for types that have the sharpest 'thread edges'.

LEARNING TO FLY
Continued

4. Choose a BIG flying field for your first flights. Don't try to fly in your street even if the airplane is capable of flying in such a restricted area. You will need lots of open and unobstructed space for your first flights.

5. If you hand launch your airplane throw it hard and throw it straight ahead, not up.

6. If you take off from a ground roll let the airplane build up so much speed on the ground before you signal "UP" elevator, that you KNOW that the airplane has enough speed to fly. When it leaves the ground try to climb at a very small angle, not abruptly upwards which could cause loss of airspeed and a stall.

7. Don't try any turns until the airplane is very high. Mostly climb straight ahead with only gentle turns.

8. Practice gentle turns high in the air before you try to land. Practice "landings" while high in the air so you get a good idea of the airplane's stalling (fall-out-of-the-sky) speed. If the airplane stalls just give a bit of DOWN elevator and the airplane will be flying again.

9. When the airplane flies TOWARD you, turn your body a bit so you can imagine "right" and "left" from the airplane's point of view. This will prevent you getting confused about which way to turn your airplane.

10. Don't try to land in a specific spot, avoid turns when the airplane is low. Just let your airplane glide into the ground straight ahead. The bigger the field for your first flight, the greater will be your chances for success.

Club Flying Opportunities

Wednesdays, 1:00 PM, Villa Maria, weather permitting, The BASS "Bald Eagles" gather at Villa Maria to fly gliders and electrics. Contact Bill Cavanaugh for details: BillCavan@aol.com (443)535-0220.

Thursdays, around 4:30 PM., there is flying at the Polo Field.

Anytime the spirit moves us. Check http://groups.yahoo.com/group/BASSrc to see if anyone has posted a message about flying.

Buy and Sell

Gil Smith, new BASS member is interested in an electric trainer, preferably with radio gear. Contact him at : wgilmoresmith@msn.com

Bob Turner is looking for a Sovereign kit. Contact Bob at (310) 879-6185

Craft Air Step Two kit. 77" span, $25.00 call Ken Hands (410) 795-2060

The Baltimore Area Soaring Society

A.M.A. Charter Club #493

Sponsor

The BASS "WOODIE" CONTEST

Saturday, August 14, 2004 at Villa Maria, Timonium, Maryland
Pilots meeting 9:45 a.m. First round starts at 10:00 a.m

Pre-registration required. Registration fee - $10.00
BASS Medals will be awarded First through Fifth Place, Expert and Sportsman.

This is a one-day contest, AMA sanctioned (not ESL)
Class A Unlimited Thermal Soaring Rules Apply
----except---
Wings must be built-up open bay construction, and stab/elevator may be built-up or wood.

Contest Director - Bill Cavanaugh 443-535-0220
Assistant CDs – Al DeRenzis 410-876-8030 & Joe Allulis 410-465-4853

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For directions to site, go to BASS's web site, SOARMD.ORG

Name _____ AMA No. _____

Address _____

Tel No _____ E-mail Address_____Frequency _____

Sailplane_____ ☐ Expert ☐ Sportsman

Enclosed ☐ Check for $10.00

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Send to: **Al DeRenzis**
5003 Wetheredsville Rd
Baltimore, MD 21207

MEMBERSHIP

Baltimore Area Soaring Society

2004 Membership Application

Full memberships are $30.00. Junior memberships are $12.00, and associate memberships are $18.00. If you would like to join BASS, or have not renewed, please take a moment today to write out a check and send it in along with a copy of this application. Please complete all information.
2004 promises to be another award-winning year for BASS. Be part of it!

Personal Information

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE (WORK): _____ PHONE (HOME): _____

AMA NUMBER : _____ (Valid 2004 AMA Membership is required)

LEAGUE OF SILENT FLIGHT & LEVEL (if _____

PRIMARY RADIO FREQUENCIES USED: _____ _____ _____ _____

PRIMARY PLANES FLOWN: _____

_____

NAME OF SPOUSE OR SIGNIFICANT OTHER: _____

E-MAIL ADDRESS (IF AVAILABLE): _____

Signature: _____

In what areas of the club would you be interested in becoming involved? _____

_____

How can BASS help you? _____

_____

Please return this application with a check or money order payable to BASS.

SEND TO:

Mr. Russell Bennett
30 Maple Avenue
Baltimore, MD 21228

BASS EVENTS

Jun 3	7:30 PM	BASS Meeting, Villa Maria
Jun 12		Polo Field, Woody Contest
Jun 26		Polo Field, Fun Fly and Picnic
Jul 1	7:30 PM	BASS Meeting, Villa Maria
Jul 17		Polo Field, Open Contest
Aug 5	7:30 PM	BASS Meeting, Villa Maria
Aug 28		Villa Maria, Woody Contest
Sep 2	7:30 PM	BASS Meeting, Villa Maria
Sep 18		Polo Field, Open Contest

BASS Meetings during the summer are held at Villa Maria with flying before the meeting, weather permitting.

BASS Contests start at 10:00 AM unless otherwise noted. All skill levels are encouraged to attend. Be at the field 1 hour early to help set up contest. Fun flying after events. Spectators and

SOARING SCENE

Jun 5 -06	LASS - Lancaster, PA
Jun 12 -13	*The Polecat Challenge Hand Launch, Carlisle, PA
Jun 19 -20	LISF 1 - Syossett, Long Island, NY
Jul 10 -11	DBSF - Reading, PA
Jul 25 - 31	AMA/LSF NATS (not ESL)
Aug 7 - 8	CRRC Soar-In - Sudbury, MA
Aug 14	BASS "Woodie Contest", Villa Maria
Aug 21 - 22	SKSS 1 - Newark, DE
Aug 28 - 29	CASA Hand Launch, Rockville, MD
Sep 11 - 12	CASA Open - Warrenton, VA
Sep 25 - 26	LISF 2 - Syossett, Long Island, NY
Oct 2 - 3	ESL End of Season, Reading, PA

***Formerly the BARC HLG.**

NOTE: ESL schedule is tentative and subject to

BASS NEWS

The Baltimore Area Soaring Society Newsletter

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Baltimore, MD 21236

June 2004

First Class Mail