



December 2003 Edition

2004 Officers:

President:	August Bruno	(303) 828-0910	Secretary:	Russ Larsen	(303) 828-2872
Vice Presidents:	Terry Edwards	(303) 499-6463	Treasurer:	Ken Jochim	(303) 444-3206
	Rich Anderson	(303) 652-2224	Newsletter Editor:	Boris Sergeev	(303) 530-2063
					BSergeev@excite.com

CLUB MEETING: December 10, 2003 at 7pm
Boulder TEC Center
6600 Arapahoe Ave.
opposite Valmont power plant

RAFFLE will be held!

REMINDER

The last person to leave the flying field needs to ensure that the gate to the field is locked. The gate must be locked with the club's padlock locked through the city's lock in order to allow the city to have access to the field.

Any maintenance work at the field must be coordinated and approved by club officers and Boulder City staff. All maintenance work to be done at the field must first be coordinated with club vice president Rich Anderson (303) 652-2224. Rich will coordinate requested projects with club officers and Matt Claussen with the Boulder City Parks and Recreation Department, and if the project is approved dates will be established for the work to be done.

REMINDER

It is time to renew club membership. The membership fee for 2004 is due by February and will remain at the same price as last year in that open membership is \$40.00, Junior/College membership is \$15.00, and Family membership is \$50.00. There is also a "New Member" fee of \$30.00 for an open membership and \$10.00 for Junior/College membership.

If you let your membership expire and then wish to rejoin BAS at a latter time the new membership fee will apply.

MESSAGE FROM VICE PRESIDENT

The agreement that BAS has with the City of Boulder for use of the flying field stipulates that we need to post a list

of operating rules that have the approval of the city. The club officers have sent a list of proposed rules to the city for their review and approval and those rules will be reviewed and shared at the December meeting for club member discussion.

Rich Anderson, Vice President

BAS MEETING MINUTES

November 12, 2003

President Terry Edwards started the meeting at 7:10 pm. The meeting was held at the Vo Tech.

Meeting

President Terry announced that there would not be a program.

Minutes

The minutes were approved as written in the Newsletter.

Treasurers Report

Ken Jochim was not at the meeting and no Treasurers report was available.

Old Business

The Porta-Potti has been serviced recently.

New Business

Election of the Officers:

The following slate of officers was approved by unanimous ballot:

- August Bruno *President*
- Terry Edwards *Vice President and Program Chairman*
- Richard Anderson *Vice President*
- Ken Jochim *Treasurer*
- Russ Larsen *Secretary*
- Boris Sergeev *Newsletter Editor*

Wendell Wickstrom requested that the instructor list be updated. He mentioned that Steve Croft should be taken off the list.

Some of the instructor names mentioned were as follows: Charlie Miller, Tony Kilwein, Wendell Wickstrom, James Mack, Dale Rooney, and Wayne Hollenbeck. Tony Kilwein agreed to serve as head instructor.

It was suggested to get a list of the instructors, type of radio that they have, hours that they are available, and phone numbers. This then could be placed in the newsletter and posted at the field.

President Terry Edwards volunteered to get stencils for painting "NO Taxiing" signs in the pit areas.

Other Information

It was announced that the Jeffco Auction will be held the first week of February.

There will be a regular meeting in December. It will be December 10th, at 7:00 pm, at the Vo Tech. The program will be a video.

The meeting was adjourned at 7:41 p.m.

Respectfully submitted,
Russell Larsen, Secretary

FLYING FIELD HOURS

9:00am to dusk on weekdays
10:00am to dusk on weekends

INSTRUCTORS LISTING

This a new list of instructors proposed at November meeting. We will get additional information from them and update the following contact info:

Tony Kilwein, <i>head instructor</i>	(303) 438-8500
Wayne Hollenbeck	tailheavy@access-4-free.com
James Mack	jmack@jmack.net
Charlie Miller	asw20@infionline.net
Dale Rooney	(303) 776-0722
Wendell Wickstrom	(303) 494-9324

ON THE HORIZON

December Club Meeting: *December 10, 2003* at 7pm at
Boulder TEC Center

Jeffco Auction: *First week of February* (info will be added)

CLASSIFIEDS

There were no new ads submitted this month. Previous classified ads can be found at the Club Classifieds page: www.milehighwings.com/club/classifieds

THE YELLOW PAGES

A listing of area merchants whose products are of interest to R/C enthusiasts; provided as a service to our members. Some will give you a discount with your current club card.

Boulder Hobbies, 2125 32nd Street, Boulder (303-442-8669), Phil Battany

Mile High Wings sales@milehighwings.com
The source of R/C Simulator interfaces and a new **RC Plane Master** simulator: www.milehighwings.com
BAS members get 10% discount

Action Hobbies, 1477 Carr, Lakewood, (303-233-6275),
Glen A. Magree

Hobby Town, 800 South Hover Rd. Longmont, (303-774-1557) Jim Koln

Don's Hobbies, 815 10th Street, Greeley (970-353-3115)
Tony Farro

Things with Wings, 6268 W. 10th #2 Greeley (970-352-1067) Jim Richardson

Hobby Town, 6815 W. 88th Ave., Westminster, (303-431-0482), James Miley

Hobby Giant, 5545-A, Olde Wadsworth, Arvada, 303-940-9238, Larry Cencich.

Heliport Hobbies, 1400 W. 70th Street, Denver 303-430-8828, also Magnum Fuels

ARTICLE OF THE MONTH

Fiberglass and foam construction pattern kits

by EARL HAURY

Probably the one thing that often keeps folks from building a Pattern kit is that most are of fiberglass and foam construction. Both strike fear into the hearts of most builders who are familiar with balsa framing. They shouldn't! Glass and foam construction is for the lazy (it's easy), for the clumsy (it's durable), and for the competitor (it's precise).

Ed Izzo invented the balsa-sheeted foam wing for pattern aircraft, and they became an instant success in pattern building.

Let's assume you have a set of foam wing cores in hand. Let's also assume the wing is one piece and no landing gear will be mounted to the wing. The cores generally are enclosed in the foam blocks from which they were cut and are marked to indicate the top of each "shuck"/core set. Make some witness marks across the edge of each set to keep from mixing them up. Draw a centerline on both the roots and tips. Always work on a core while it's sitting in one of the shucks to avoid damage.

Lay out the location of the aileron servos on the cores, making sure you're working on the bottom of the cores. (A ballpoint pen works well for marking foam.) Also, draw a line from the servo location to the root for the servo lead passage. Cut the servo cavity in the cores, using either a long knife or a long, narrow loop of 1/16-inch wire attached to a soldering gun.

Place a straight edge on the core along the servo marks. Use tape or several 1-inch wire brads to hold it in place. Make a 1/2-inch diameter loop from 1/32-inch wire and install the legs into your soldering gun. Using the straight edge as a guide and "pulsing" the gun to control the wire's heat just enough to melt the foam, cut the passage for the servo lead. Box the servo cavities with 1/16 balsa and fill the gap left from cutting the lead passages with soft 1/8-inch balsa. Glue a medium 1/16-inch balsa strip to the front of the cores (leading edge). Carefully sand the balsa parts flush with the foam. (Surrounding the sanding areas with 2-inch wide masking tape will prevent damage to the cores.) Draw a centerline the length of the leading edges. Lightly sand the cores with a long block and 220-grit paper to remove any irregularities.

The next item is to prepare the skins. For glassed and painted wings, I like to use 4-pound balsa. For wings that will be film-covered, use 5- to 6-pound balsa. Be very careful when selecting wood! An extra half ounce per 4-inch wide sheet could equate to an extra half pound on a completed Pattern wing. Match the edges of sufficient balsa sheets to build four skins. Tape the edges together on one side with 1-inch masking tape. Working with one skin at a time, allow the skin to overhang your workbench so the first seam is open (sheets 90 degrees to one another). Apply

a very thin bead of Pica Glue to one edge, slide the skin back on the bench to close the glue joint, weight the joint on each side, and wipe off any excess glue. Repeat until the other three seams are glued. Mark this side as the one to face the foam core. Mark and cut the skins to fit the cores, allowing 1/4-inch excess. (I align the first sheet to the leading edge to ensure an even bending force over the most curved part of the airfoil.) Make sure to make right and left tops and bottoms and to mark the skins clearly. Remove the seam tape and sand both sides sufficiently to remove any gross irregularities.

Some reinforcement of the wing is appropriate. I have tested a variety of methods and have observed what works. Adding a 2- to 3-inch wide strip of fiberglass screening (from a home supply store) between the skin and core is adequate and inexpensive. This can be tacked in place with a couple of small spots of 5-minute epoxy.

Now we're ready to attach the skins. Don't even think about contact cement! My testing shows that the adhesion is inadequate, and there's no room for error. There are two choices: very slow cure epoxy and ProBond, a polyurethane. The latter is my choice. Both are applied to only the skin in a similar fashion.

If using ProBond, lightly mist the core with water and shake off any excess. Mix 3/4 liquid ounces of glue and pour two-thirds of it onto a skin. Spread it around until the skin is covered with a very thin coat. Most will soak into the skin. Lay the skin onto the core (don't forget the reinforcement material) and place it in the shuck. Without delay, do the same with the remaining skins. Stack both assemblies onto a sturdy, flat bench and place a board (3/4-inch ply or particleboard) on the stack. Align the shucks and cores. Weight the stack evenly to at least 300 pounds, using barbell plates, bricks, water bottles, etc. Check the centerlines to make sure the root and tip are parallel and that there are no bows in the leading and trailing edges. Shim the stack, if necessary, to ensure that the wings are straight. Let everything cure for 24 hours.

With a little practice, this can be done in one evening.

from *Notam*
Bayou City Flyers
Joe Chauffe, editor
Katy, TX

Note to members receiving newsletter by snail mail:

If you send the editor your email address, we can send you the newsletter by e-mail. This saves the club 37 cents each newsletter PLUS you get all the links clickable and all the pictures in color rather than black and white. And you get it a couple of days sooner.

The Inverted Flyer is published monthly by the Boulder Aeromodeling Society as a service to its members. Submissions for publication are encouraged and can be but are not limited to: articles pertaining to Aeromodeling, letters to the editor, short news items of general interest to BAS members, and announcements. Space permitting, all submissions will be published except as follows: no anonymous letters or any submission

containing morally objectionable content or language, as judged by the editor. Classified ads will be provided to the members of BAS free of charge. The deadline for all submissions and classified ads will be the first of the month for publication on or about the first Wednesday of the month. Opinions expressed in the Inverted Flyer are not necessarily those of the Boulder Aeromodeling Society general membership.



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