

WHAM

NEWS, VIEWS and REVIEWS

Official Publication of the
Wichita Historical Aircraft Modelers, SAM 56, and
the Kansas Sunflower Squadron, FAC Squadron #23



Issue JE -111
Sept 7, 2014

More Construction Ideas

RUBBER PROP TIP: This came across SAM Talk from Karl Gies:

"Someone gave me this tip on gluing a length of an appropriate diameter of nylon monofilament on the edges of the prop blades. It keeps your prop from getting nicked up, particularly on a freewheeling prop. Scuff up the nylon with sandpaper and glue it on the edges - I used Ambroid. On my latest prop I then took 1/4" strips of Esaki superfine white tissue, overlapping onto the blades to firmly secure the nylon. After sanding everything again with fine sandpaper I then covered the blades with fiberglass cloth. Be sure to size fiberglass cloth with hairspray or lacquer before doing this. The fiberglass cloth is unmanageable if not sized. You can use dope or glue to adhere the fiberglass cloth but the Z-Poxy works best in my estimation and makes for a really tough blade. Z-Poxy has great instructions on the box it comes in on how to do this. Thanks again to whomever gave me the tip in edging with nylon. None of this adds much weight to the prop and besides most of my models end up needing a little nose weight. Cheers, Karl"

CG Control While building a model using "Weight and Balance"

There are many ways of establishing the required balance of a model airplane prior to first flight. With a very simple

model it is quite often built and then weight is added either fore or aft as necessary to move the center-of-gravity (CG) to the desired location.

In designing and building a more complex model, such as a radio controlled 1/2 A Scale Duration model, location of the required equipment can be used to mitigate the need for adding weight to adjust the CG. One approach is to design and build the model to the covering stage and then temporarily position the equipment (motor, radio, battery, servos, etc.) on the model, moving pieces about until the CG is where you want it. This can be a problem when you have the CG in the desired position, but you haven't provided mounting provisions or access needed at the proper equipment locations.

I have used a variation of the full scale airplane "Weight and Balance" approach for many years to simplify the process. I am currently building an electric SAM "Speed 400 Scale Duration" event model and am using the method to keep the CG location in the proper place.

Once I completed the drawings of the model it was necessary to establish a dimensioning system for locating the equipment in the model side view. I like to establish a base line out in front of the model so all the location dimensions are positive to simplify the arith-

July 19, 2014 Meeting Minutes

ATTENDEES:

David Aronstein and son Zevi, George Avila and wife Kay, Larry Bishop and wife Betty, Marty Kline and wife Regina, Bill Lindsay and wife Danese and Daniel Walton.

President Avila called the meeting to order. (Thanks to George we have mtg notes!)

The minutes of the Jul meeting were approved, and as the Treasurer was at the Sam Champs, no report was made.

OLD BUSINESS:

Members were reminded that the Marion contest is 4/5 Oct, and the Perry contest is 8/9 Nov.

A reminder for club members, all request use of the Marion Airport is to be coordinated thru Chuck Powell

The input of Bill Schmidt for the Sep Newsletter was well received

NEW BUSINESS:

Hutch Bunch Swap Meet/Fly In Sep 20

Election of Officers for 2015 at the Nov Meeting

SHOW AND TELL:

David Aronstein had a rare bird for indoor rubber, a "dime" scale B-46



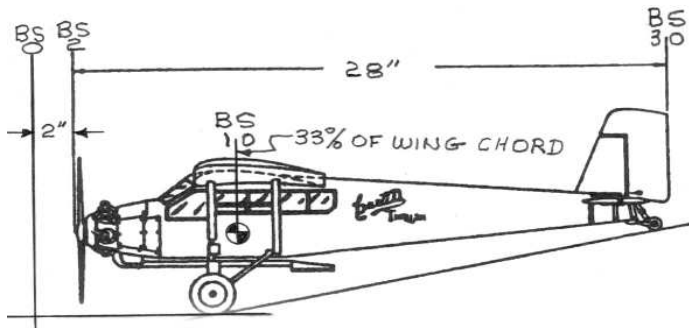
Larry Bishop had a nicely done .049 u-control model with a golf ball pilot aboard

Zevi Aronstein had an immaculately done framed up Graff Zeppelin, 'bout 19 or 20 ins in length

Dan Walton had an electric Gee Bee.

NEWS, VIEWS, and REVIEWS

metic. In the following sketch note that I established the dimension base line 10 inches (use any number you like) in front of the desired CG (at 33% wing chord) and called it body-station (BS) zero. As I located all the model equipment I measured how far aft each was from BS 0 in inches (centimeters are fine, but don't mix with inches).



At this point it is necessary to make a "Weight and Balance" chart to log where things are and their weights. The following chart is for my model. I initially weighed each of the pieces (I use grams, but ounces are fine, but don't mix) of equipment to be used and estimated the weight of the unknowns (model structure, covering, etc.) and located all the various items of the model on the plan so that the CG was in the proper location (BS 10). Note that the battery is aft of the CG and the elevator/rudder servos are farther aft. If the chart shows a BS CG larger than you want, move something forward and conversely if it is smaller move something aft.

As the model was being built I weighed the parts and updated the chart. To simplify the arithmetic multiplication and addition I use a computer spread sheet (Excel). As the actual weights came in, I had to adjust some equipment locations a little to keep the CG in the proper position. At this time the model is going into final assembly and the CG is remaining in an acceptable place.

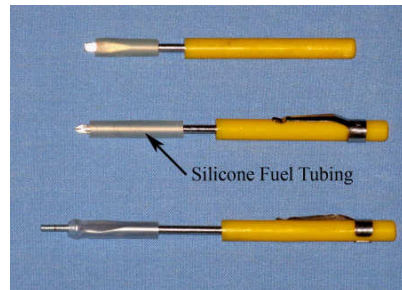
The above method of keeping the CG slightly in front of the center-of-lift (on my model at about 35% MAC) is keeping the CG location almost equal at BS 10 where I want it. If you are working from a plan that has the CG shown use it to establish BS 0, but again somewhere in front of the model so you don't have a bunch of negative numbers in your chart.

Ed Salguero

Robin		BS (body station) 0 is two inches forward of prop 33% of wing chord from L.E. = BS 10 (target) Moment = arm times weight	
Item	BS = arm (in.)	Weight (grams)	Moment
Basic Structure	8.75	174	1522.5
Motor	4.75	80.7	383.325
Battery	14.5	55.3	801.85
Radio & S/C	10	21	210
Elv. & Rud. Servos	21.5	15.6	335.4
Wheels	8.75	32.8	287
Covering	13	42	546
Tail Wheel	27.25	2.3	62.675
Misc (struts,,etc.)	12.5	50	625
		0	0
Totals		473.7	4773.75
BS CG Location (total moment/total weight) = 10.08			

Tool Box Tip

At the flying field one day I watched a fellow modeler trying to install a motor in a model that was inside a cowling. I was surprised that he didn't know the old trick of slipping silicone fuel tubing over the blade of a screwdriver as an assistant as shown in the picture below. The tubing should be just snug on the blade, but not so snug it can't be moved on the blade.



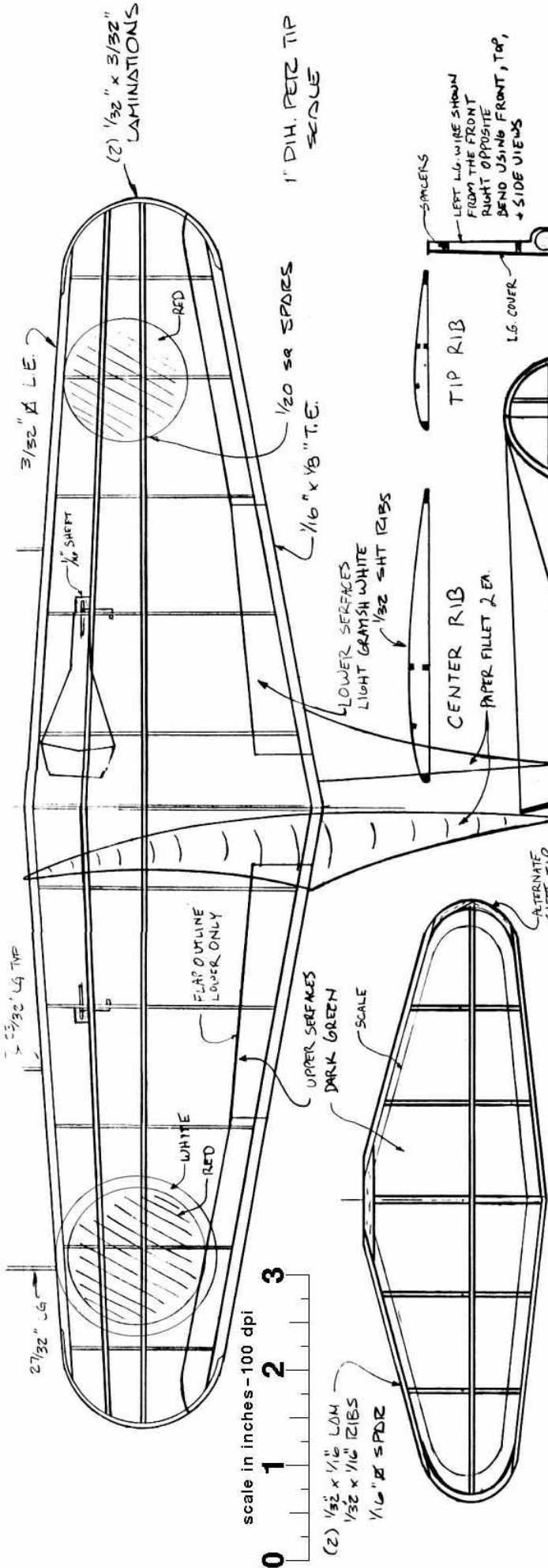
The addition of the silicone tubing provides several advantages when dealing with small screws as follows:

The tubing makes the blade diameter larger and easier to turn when starting a screw and allows you to spin the screw in prior to tightening.

By sliding the tubing down the blade a screw can be inserted into the tubing as shown, allowing easy insert into tight spaces.

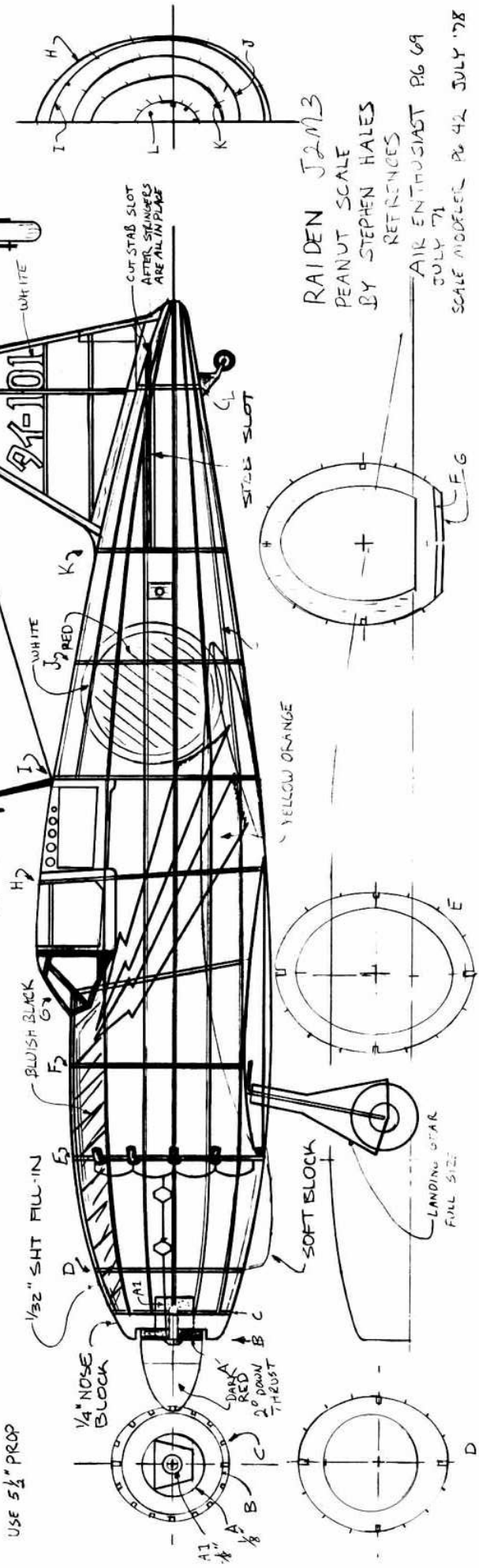
Sliding the tubing down slightly past the end of the blade allows turning in screws without the blade slipping off the screw head, particularly on slotted head screws.

Ed Salguero

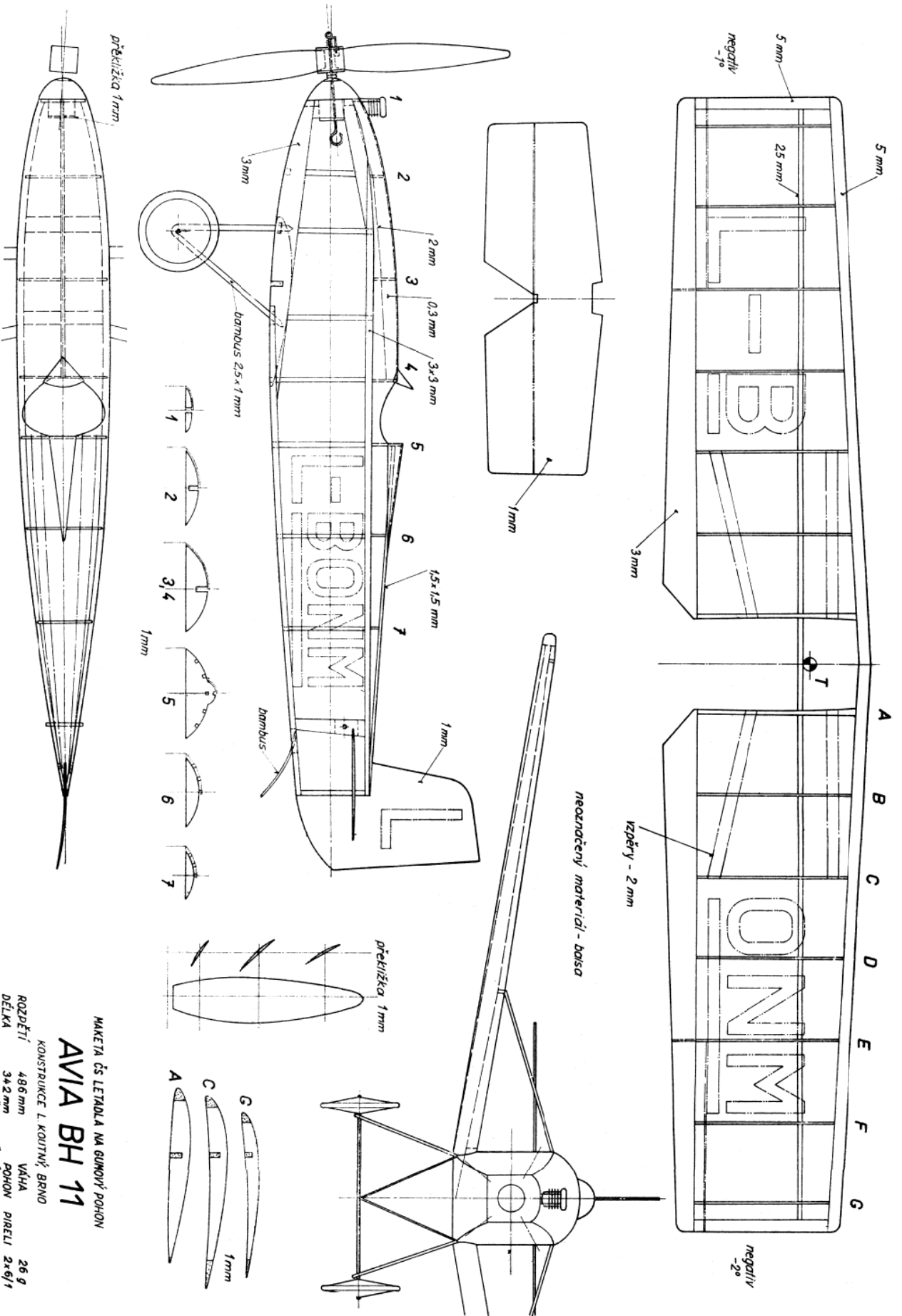


scale in inches - 100 dpi

- (2) $\frac{1}{32}$ " x $\frac{1}{16}$ " LAM
- $\frac{1}{32}$ " x $\frac{1}{16}$ " RIBS
- $\frac{1}{16}$ " x SPDR



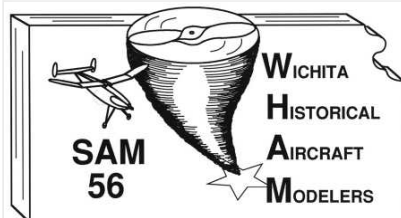
RAIDEN J2M3



MAKETY ČS LETADLA NA GUMOVÝ POHON
AVIA BH 11
 KONSTRUKCE L. KOUTNÝ, BRNO
 ROZPĚTÍ 486 mm VÁHA 26 g
 DÉLKA 342 mm POHON PÍRELI 2x6/1
 POMĚR ZMENŠENÍ 1:20

WHAM - News, Views and Reviews

Jeff Englert
10118 Sterling Court
Wichita, KS 67205



The next SAM 56 Dinner Meeting will be at:

Mediterranean Grill

335 S Towne East Mall Dr., Wichita, KS 67207

(316) 651-5599

Saturday, November 13, 2014

Social Hour @ 6:00 PM, Dinner @ 6:30 PM..

Upcoming events:

Nov 22 / 23 Meeting & Fun Fly

Club Events: 1/2A Texaco, Jimmy Allen, C/HLG, or as arranged.....

Membership Information:

Open to all interested AMA members, founded to encourage and promote the model airplane building hobby.
Member dues \$20 annually, Subscription only; \$12 annually, \$18 foreign.

Send checks to Jim O'Reilly, 4760 Battin, Wichita, KS 67220.

All memberships and subscription renewals are due January 1st of the new year.

Club Officers:

President: George Avila, 683-1474

Treasurer: Jim O'Reilly, 744-0856

Vice-President: Bill Schmidt, 744-0378,

Secretary: Jeff Englert, 722-7491