



December 2003

The Fox Valley Aero

# Flypaper



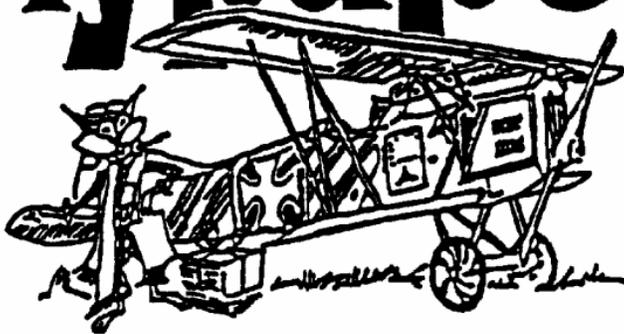
December 2003

Club President  
**Mel Ziska**

Club Secretary  
**Kevin Hersey**  
(630) 513-7987

Club Vice President  
**Greg Bohler**

Club Treasurer  
**Bill Simmons**



AMA Charter 252

Newsletter Editor: **Bob Mosinski**



AMA Charter 252

## *Message from the President*

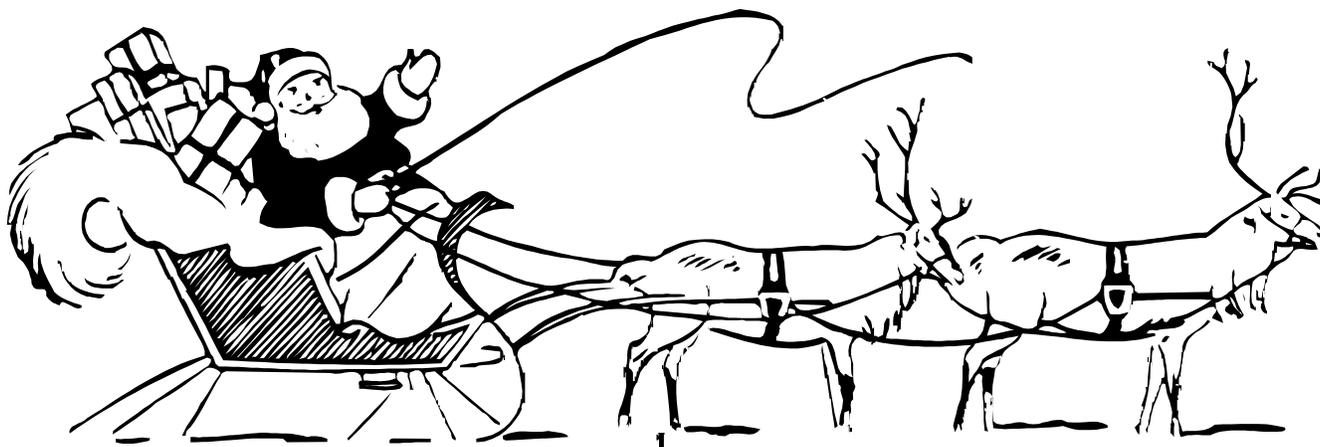
I have just written my letter to Santa detailing the items I can't do without. The latest airframe, newest charger, bigger motor, whiz bang radio and as always some extra Zap are on the list. Keeping the list just between Santa and I will insure some of the budget busting items can be kept under the table!

The December party looks to be great. Dave and Mike are putting together a truckload of prizes for the raffles. Bob Walker and Eric of Robart are collecting items for the table goodie bags. This is always a fun evening, don't miss it! The election of officers is also held at the December get-together. See Kevin's meeting minutes for those standing for election.

The new field is progressing. The field committee hopes to have the best news we have had for some time at the Christmas party.

Al Zable has mailed out membership renewals for 2004. Please get it back to him before his letter gets put in the seasons card pile and is forgotten.

*MelZ*



# *November '03 Club Meeting Minutes*

by Kevin Hersey

## **Fox Valley Aero Club General Business Meeting Minutes November 13, 2003**

President Mel Ziska called the meeting to order at 7:35 P.M. at the St. Charles Township facility

### **Secretary's Report**

After a brief review of the October meeting minutes a motion was made and accepted to approve the October meeting minutes as read.

### **Treasurer's Report**

Treasurer Bill Simmons presented an accounting of the FVAC assets. The Treasurer's report was approved.

### **COMMITTEE REPORTS**

**FIELD REPORT** – Lee Patterson had nothing to report. This is a first!

Snow management was discussed. The runway is NOT plowed. Many members use skis or floats to fly so the snow is welcome. Plowing creates mounds of snow that have an affinity for collecting aircraft.

**INSTRUCTION** – Instructor Dan Compton reports that Karl Griesbaum soloed and may also be nominated for Outstanding Landing. It is always unsettling to have an Outstanding Landing. The only way to avoid such landings is not to take off! An unacceptable option.

**SAFETY** - Lithium Polymer batteries were briefly mentioned. The emphasis was to purchase a charger specifically for the purpose of charging this type of batteries. Using the wrong charger may damage the battery or cause it to explode.

**MEMBERSHIP** – Membership Chairman, Al Zabel had an easy month. Al reported that there were no new members for November.

### **EVENTS AND GENERAL BUSINESS**

**FIRST TO FLY** – President Ziska reminds of an annual tradition. On January 1, 2004, at precisely 10:00, a mass launch will be held to determine who will be first in flight in the New Year. Regardless of weather conditions or your physical status, this event will occur. Historically this event has been very popular. There has been an occasional mishap or two due to the cold weather. Come on out and fly a couple circuits!

**FUN FLY** – The last Fun Fly of the season has been held. Immediately following the November General Business Meeting, the Fun Fly raffle will be held.

**NEW FIELD** – Paul Douds reports that the new field committee continues to meet with local governmental bodies. On November 18, 2003 a meeting is being held by local law enforcement agencies to discuss the fate

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of the firing range. Cost estimates on the firing range are an order of magnitude greater than originally estimated. This could possibly result in the project being cancelled. The firing range is planned for the area north of the new field location. If the firing range is not pursued, the possibility exists to utilize this property.

It was mentioned that the current Co-Sponsorship agreement with the St. Charles Park District ends on March 31, 2004.

Future meetings with the governmental bodies will be critical.

**CHRISTMAS PARTY** – The Christmas party will be held on December 12, 2003 at Fisherman’s Inn, Route 47 Elburn. The Christmas party is held in lieu of the December general business meeting. Please note that the party is NOT on Thursday but on Friday. This is a family affair and family members are welcome. Drinks will be served at 6:00 P.M. with dinner at 7:00 P.M.

**Swap Shop** – Swap shop Chairman Steve Baker reports that the date for the Swap Shop has been changed to February 14, 2004. Volunteers will be needed at 7:00 A.M. for set-up and 1:00 P.M. to help tear-down. Remember when Santa brings you all new R/C equipment save the old stuff for the Club table. All proceeds go into the Club coffers and this has been a big money maker in the past.

**Election Committee** – Nominations were solicited for 2004 officers. Absent any willing new nominees, the current slate of officers will seek election (reelection) during the December meeting.

**Outstanding Landing** - There were two nominations for outstanding landing. Art Wascher pulled up from inverted flight. With all the practice, Art will be flying inverted in next years limbo contests!

Paul Douds completed a new maneuver referred to as a “Figure 9”. This maneuver works best with an old timer aircraft, one that flies nice and slow with little or no vertical performance. Line up along the runway center line, just about 0.9 mistakes high. Bring the plane in nice and level at about half throttle, when the plane is perpendicular to your position pull up and keep full elevator through the remainder of the maneuver. Performed properly the plane will just complete the top of the “9” and begin the downward vertical leg. If you’re properly lined up with the runway center line and the plane does not fall off at the top of the “9”, the maneuver will be much like a Figure 8. The only exception being that since the maneuver was entered less than one mistake high; the “9” terminates on the runway centerline! Paul has pictures.

With little fanfare, a voice vote was held. It was almost unanimous that Paul received top honors.

**SHOW AND TELL** – Bill Simmons brought in his swap shop acquisition, a Kaos 40. Bill reports that he paid \$65.00 for plane and intends to power it up as a high speed jet trainer.

The meeting adjourned at 8:56 P.M.

Kevin Hersey



*From the Editor...*

Sorry for missing the last few meetings guys, but I wanted to let you know I am still here. Just wanted to keep you up to date and make a few requests. Time is at a premium, but if you have anything you would like to see in future issues just contact me. The deadline for newsletter submissions is the 24th of each month. Web page submissions can be sent at anytime. Those of you that are serving on committees please send me important dates, times, and flyers a.s.a.p. so they can be posted on the web. I still need to work on the current pictures, however I need current activity pictures i.e. meetings, fun-fly's and even normal "day at the field shots." I will have some time over the holiday and want to get our website in order for the new year. My mailing address : 2016 Grayhawk Dr. Aurora, IL 60504



The best way to contact me is by e-mail: [bmosinski@rjkconsulting.com](mailto:bmosinski@rjkconsulting.com)

*Happy Holiday's To You All!*

## **"I don't know what it weighs?"**

### **BUILDING LIGHT**

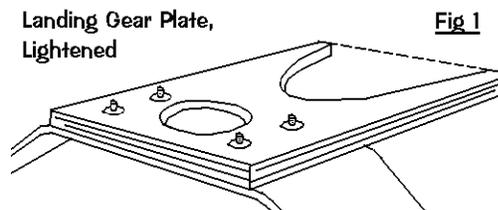
*by Clay Ramskill*

Okay, so we all know that we want our planes to be as light as possible. How do we do that, especially with a kit already in hand?

**WOOD:** The first and primary rule is -- do NOT use heavy wood!!! Select your wood at the hobby shop. Get good, straight grained balsa pieces and compare them -- then buy the lightest. If you buy mail order, get contest balsa (4-6#) or "light" (6-8#) wood and hope for the best. With a kit, you may have to throw out some wood and replace the heaviest stuff with lighter stock.

**GLUE:** Use light glue -- CA is the best for the weight, aliphatic come next, and epoxies are the worst. Where you feel you must use epoxy, such as on your firewall or landing gear blocks, use as little as possible.

**PLY:** Plywood is heavy, but necessary in some spots -- firewalls, landing gear plates, and some formers need to be ply. But use it sparingly, substituting light ply or even balsa ply if you can. But where bolts are involved, you should use aircraft ply. Even using the heavier ply, we can shave some weight. For instance, 3/16" ply is enough for most 40-size firewalls and landing gear plates. Throw out the 1/4" stuff. Further, use the strength of the engine mount. If it's a one-piece mount, you don't need the wood inside the bolt pattern. Cut it out, stuff the hole with balsa. The same goes for a plate for mounting landing gear. [See Fig. 1] Wing mounting blocks can be cut down -- moving the bolts back an inch may allow you to cut an inch off the front of the blocks. Ply formers can usually be trimmed from the inside, ply fuselage sides can usually stand larger lightening holes.



**CUT AND CHOP:** Lightening holes can be cut in balsa fuselage sides and on the top. (You may want to keep the fuselage bottom solid.) Thinner balsa may often be used for top and bottom cross-grain planking. Hollow or eliminate large blocks, such as are often supplied for wingtips.

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# Christmas Party

Your personal invitation to "The Greatest Time on Earth"

**Fox Valley Aero Club's Annual Dinner  
Friday December 12, 2003**

*Fisherman's Inn*

RT 47 and Main St. – 2 miles South of Elburn  
Cocktails at 6:00 p.m. Dinner at 7:00 p.m.

Buffet Dinner \$20 per person

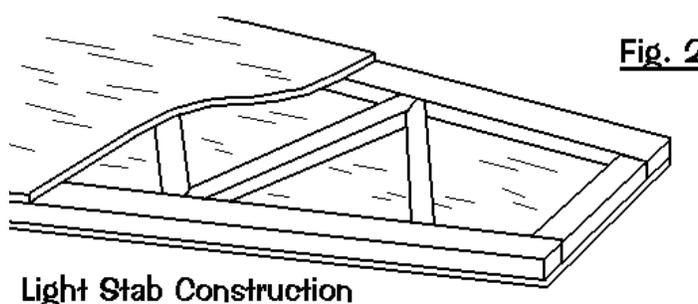
Door prize drawing-----Surprise gifts for pilots!  
Big buy-in raffle with great items  
Special drawing for the Ladies...



Send your check to:  
Bill Simmons  
2225 Big Woods Drive  
Batavia, Illinois 60510

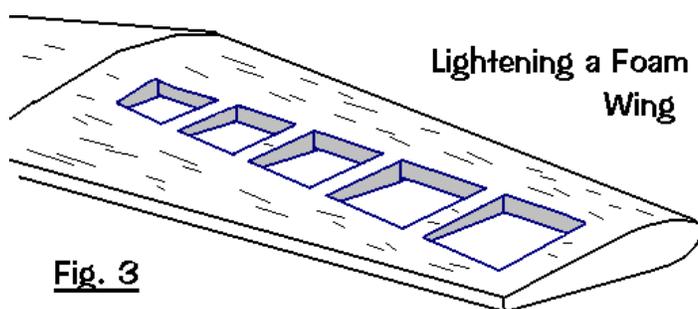
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**BUILD UP:** Ailerons, rudders, and fins/stabs may be heavy 1/4" - 5/16" solid balsa. Building these up from 1/16" balsa skins with truss work interiors gives you a light, stiff structure, perhaps even stronger than the originals. Building up these surfaces may also be preferable to using the original solid wood with lightening holes. Skinned "built ups" are considerably stiffer than open frame construction, but not as light. [See diagram 2]



**Light Stab Construction**

**FOAM WINGS:** Foam wings can also be improved upon. Note that using light wood for wing skins and minimal glue applies here, too. Consider that the actual bending loads on the wing are greatest at the center, ranging down to near zero at the tips. So strength can be tapered off as we go out to the tips. Skin and foam may be cut away increasingly progressing outboard toward the wingtips; this is best done behind the thick point on the wing. [See diagram 3]



**Fig. 3**

**BUILT-UP WINGS:** The same principles apply; strength (and weight) can be cut out near the tips. Spars can be of thinner stock. Gradually cut the thickness of the webbing to 1/32" out at the wingtip. Note: The above is fine for flight conditions -- but if you "catch a wingtip" on landing, that's another story!

**COVERING:** Not all coverings weigh the same! The low-temperature Mylar are lighter -- fabric is heavier. Even among the "standard" coverings, the weight varies. (Monokote is lighter than Ultracote, for instance.) Color also makes a difference -- lighter colors are heavier! It takes less pigment to color something black than white! And don't have any large overlapping areas on your covering, that's just wasted weight!

**SANDING:** Can anything be simpler? The more you sand, the less your plane will weigh! Obviously, this could be overdone -- but at least sand in curved corners when they are shown on the plans. That sawdust may not seem like much weight, but it all adds up.

**FUEL PROOFING:** Using thick coats of epoxy for fuel proofing adds unnecessary weight to your plane. Try dope, glass-coat, brushed on Rustoleum, or equivalent. But don't skip out on fuel proofing. Besides being harmful to your wood and glue joints, soaked-in fuel is heavy!

**FITTINGS:** By all means, use quality, strong fittings (pushrods, clevises, control rods, etc.). But be weight conscious, too, and don't overdo strength to where you add unnecessary weight.

**BALANCE:** DO NOT ACCEPT adding any lead to a plane! The exception is an ounce or two in the wingtip to balance laterally. Move servos, battery, and even the engine to avoid adding lead to your plane. Bolted or glued in lead is unnecessary weight -and adds extra loads to your airframe. Scale builders may be stuck with

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this -- quite often scale planes tend to be heavy anyway; adding lead becomes the "last straw" leading to the stall, snap, and crash tendencies of some of those planes.

**EXOTICA:** There are more exotic measures taken to save weight -- usually in larger, more complex aircraft. Modelers use aluminum, carbon and boron fiber, expensive honeycombs, and Kevlar to increase the strength-to-weight ratio. All this stuff is expensive, but worth it when performance is the prime consideration.

**SAFETY:** You must keep in mind that whenever you make changes to a design specification, YOU are now responsible for the aircraft's integrity. Most model designs are heavily overbuilt -- but it's always going to be up to you to decide what is overbuilt and what isn't. We're not rocket scientists (and neither are the designers!), so don't be afraid to ask an experienced modeler (preferably several!) about modifications that you're not sure of. Don't be reluctant to experiment! If a ply former seems heavy, try making a duplicate of balsa ply, and compare. Try doing a built-up stab (they're easy, really!) and compare weight and stiffness with the solid version.

**FINAL THOUGHT:** Keep weight in mind constantly as you build. Would EZ hinges be lighter than the conventional hinge-pin type? Can I use shorter (lighter) bolts than the ones the kit supplied? Can I trim the ends off the engine mount? Is this piece of balsa too heavy? An ounce here, a half-ounce there -- it all adds up!

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## **THE FORGOTTEN RUDDER** *By Marvin Hinton*

Seems like a strange title, right? Well, it's not so strange when you consider the fact that the only time most of us use the rudder is when we are on the ground. The rudder is there for us, offering its services from the moment we start our take-off roll to the final taxi back to the pits, yet most of us totally ignore it while in the air.

Our former safety officer once stated, "On takeoff, the rudder is the first control surface to gain control on acceleration and the last to lose control on landing." Well, most of us have learned that the hard way, during takeoff, landing, and taxiing, but the rudder is capable of a lot more than just keeping our airplanes going in the right direction on the ground, which brings me to the personal side of this article.

I crashed a beautiful biplane recently. I had just brought it out of retirement and it was ready for its initial flight. Knowing that it had a history of bad ground handling, I was very careful on takeoff to apply sufficient rudder to keep it going down the white line of the runway. The takeoff was accomplished without incident despite low power input from the four-stroke engine. Then, much to my surprise, once airborne, the airplane took a sharp turn to the left, struggling unsuccessfully to gain altitude. Despite full right aileron input, the airplane hadn't enough airspeed to get proper aileron and elevator response and it continued its wayward journey to an ignoble crash.

What was my rudder doing during this short flight? Nothing! As usual, I had allowed the rudder to return to neutral immediately after takeoff. Had I applied some right rudder when the airplane veered to the left, I probably could have brought the airplane back to a safer heading and avoided a serious crash. Why do most of us ignore the rudder once our airplanes are in the air? It is one of the most important and least used of our three control surfaces. I have learned a good lesson and have my name on the crash trophy to prove it. We were once encouraged to learn how to make "coordinated turns." This requires the slight application of rudder plus some compensating aileron adjustment and can result in a much smoother and more professional looking turn. Try it out.

In other words, stop ignoring that forgotten rudder and let it help you expand your flying skills.

from *The CAM Journal*  
 Central Arizona Modelers Inc.  
 Marvin Hinton, editor  
 Sedona AZ

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In This Issue... The Latest Club News, and More!

# The Fox Valley Aero Club Flypaper

*Rush to:*

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