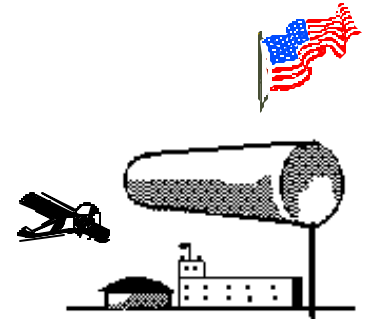


THE WINDSOCK

PUBLICATION OF THE TRI-LAKES R/C FLYING CLUB
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VOLUME 11 ISSUE 2

FEBRUARY 2004

FEBRUARY MEETING

FEBRUARY 10, 7:00 PM
Meet at the Branson Community Center.

Program

Bring your new projects for Show and Tell.

THE PRESIDENT'S CORNER

We had talked about fertilizing the field, but we didn't expect to do it this way. On the 21st of January Roscoe called and said that the horses were running all over our landing strip. When I went out the next morning there were about fifteen horses standing on the runway. I notified Woody and he came over and got the horses off the field. What was left were piles of horse manure all over our field.

Since the weather was not favorable for flying

we decided to wait until Saturday to clean up the mess. Kind of thought there might be some fliers to help with the work. To make a long story short we removed two lawn carts of manure off the field. Many thanks to Roscoe and Henry for the help cleaning up the mess.

If for any reason you should have to go look for a plane out where the horses are fenced, make sure that the gate is closed while you are in there and when you leave. I don't think this is what happened but we don't want another episode like this.

Hope to see you at the field.

Howard

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TRI-LAKES FINANCIAL STATEMENT

	1 / 1 / 2004	JAN	Y T D
BALANCE	\$ 1,645.95	\$ 1,645.95	\$ 1,645.95
INCOME-DUES	\$ 282.52	\$ 282.52	\$ 282.52
INCOME-SHIRTS&CAPS	\$ 5.00	\$ 5.00	\$ 5.00
INCOME-FOOD	\$ -	\$ -	\$ -
INCOME-50/50	\$ 8.00	\$ 8.00	\$ 8.00
INCOME-MISC	\$ -	\$ -	\$ -
EXPENSE-FIELD	\$ -	\$ -	\$ -
EXPENSE-NEWSLETTER	\$ 7.40	\$ 7.40	\$ 7.40
EXPENSE-SHIRTS&CAPS	\$ -	\$ -	\$ -
EXPENSE-FOOD	\$ -	\$ -	\$ -
EXPENSE-AMA	\$ 15.00	\$ 15.00	\$ 15.00
EXPENSE-Web	\$ -	\$ -	\$ -
EXPENSE-meeting room	\$ 20.00	\$ 20.00	\$ 20.00
EXPENSE-MISC	\$ -	\$ -	\$ -
BALANCE	2 / 1 / 2004	\$ 1,899.07	\$ 1,899.07

MEETING MINUTES

TRI-LAKES R/C FLYING CLUB

January 13, 2004

President Howard Shire opened the meeting at 7:03 P.M. at the Branson Community Center. All officers were present. There were 19 members present. The minutes from the December meeting were approved as published in the January newsletter. Treasurer Erv Rohde reported that the balance as of January 1st was \$1,645.95. The 50/50 raffle was won by Curt Krause who received ½ of \$16.00.

Committee Reports: No committee reports.

Announcements and Old Business:

The January New Years Day fun fly certificates were handed out by Don Johnson.

Everyone was reminded that the 2004 dues of \$40.00 are now due and payable and that there is no flying at the field unless you hold a current AMA card.

New Business:

The upcoming expenses for the club were discussed which include the lease of \$400.00; the AMA Charter of \$30.00; Intro Pilot program of \$15.00; AMA Insurance of \$60.00; the Web Page of \$167.00 and the .Org and .Com of \$16.00. These were the amounts for the 2003 year and are approximate for the 2004 year.

Mike Anderson asked to be dropped from the Intro Pilot program this year and Roscoe Fudge volunteered as his replacement. Ray Dixson and John Woods again volunteered bringing us to the maximum of three allowed by AMA.

The fun fly rules were discussed at length. Several suggestions from the floor were brought up as to what can be done to keep the interest among members and spectators while maintaining fairness and competition at the same time. Do we actually want to continue a points system and the Top Gun award or drop it entirely and just have ribbons for that day's particular event, etc. What can be put in place to "equalize" fixed wing vs. heli's, also how to encourage less experienced pilots into joining in the events. Everyone was asked to give this some thought and bring their suggestions to the February meeting.

Howard Shire announced that we need someone to step up as the Fun Fly Coordinator as Mike Anderson is just too busy to handle this duty at the present time. Roscoe Fudge volunteered for this job which will in-

clude making sure that all food & supplies needed for any cookout is available, including a "chef".

Mike Anderson asked that the instructors and officers have Don Johnson update their web page pictures, preferably at the field and that they be forwarded to him.

The annual K.C. swap meet will be held January 17th. The 43rd Wichita auction will be held February 7th and 8th. More info available at: www.flywrcc.org or wrccauction@cox.net. Also upcoming Joplin RC 4 State Eagles Swap meet 2/7.

John Woods said that since there seems to be an increased interest in electrics and indoor flying he will contact College of the Ozarks to see if their gym may be available and let us know next month. There were quite a few of our club members at that recent fly-in at Springfield earlier this month. Their program is Tues. & Thurs. at the Springfield Soccer field.

Program:

Jim Halbert brought his newest project, an "instant airplane" which is a foam Biplane that he has changed from the original pattern to include a stretched tail, airfoils, etc. He brought the original pattern for it and also a Yak and offered to let anyone attending copy them. He is using Lego plates to make a board to serve as a jig.

Don Johnson brought several items that his son is selling that are new or like new including a field box with battery, power panel, etc. for \$70.00; a Sturdy Birdie with OS 20 & radio for \$100.00 and an F-14 Tom Cat kit including 3 retracts and special spinner for \$60.00.

Curt Krause showed his new Magic Fun-fly ARF by Model Tec with a 51 Super Tiger 2SK.

Gary Metzger brought his EPP foam indoor flyer that he's currently working on. Said he's having trouble getting glue to stick to the hinges and asked for suggestions.

John Woods showed his latest project, a rubber biplane converted to electric. Says will do rolls, loops, etc. and is very aerobatic. He also brought the FMS free download flight simulator for anyone interested in seeing a demo after the meeting. It holds about 20 planes and you can select landscapes. Additional planes are available from other sites. You will need an interface cable for your transmitter. Contact John for full info.

The meeting adjourned at 8:16 P.M.

THE EDITOR'S NOTE PAD

Been working on a model made of very flexible EPP foam sheets. The plane is about 35 inches long and has a wingspan of 31.5 inches. Not a small plane but should only weigh about 11 or 12 ounces. The interesting thing about this construction is that the plane will not only flex to resist damage but will literally fold up in a hard crash then spring back to original shape and be ready to take off again. Seems like my kind of aircraft! EPP is difficult to glue but Household or Marine Goop or Weldwood contact cement works well. With Goop you have several minutes to correctly position the parts but with contact cement you only get one shot at placing the parts in the correct position. Also if you are going to use tape for hinges, reinforcing, etc. spray the area to be taped with something like 3M Super 77 first, allow it to dry then apply the tape. Strapping tape works well. The plane will have a small AXI brushless motor and the energy will be from a 3 cell lithium-polymer battery of about 1300 to 1500 mAH capacity. It will also have a modified prop adapter that lets the prop flex back on a bad landing. If this plane sounds interesting to you, check out the Southern X2 at www.funplanes.com. If you have fast internet access the site even has some great videos.

For all those that haven't paid their dues for 2004, now is the time. After February non paid Club members are reported to AMA as no longer Club members, no longer have flying privileges at the Club field and will be dropped from the Newsletter notification list and TPA discount list.

Been noticing a build up of cigarette butts mostly at the south end of the pit area. One of the main Club rules is **IF YOU BROUGHT IT TO THE FIELD, TAKE IT HOME WITH YOU!!** And this includes cigarette butts! Most Club members make an effort to keep the flying field neat and tidy but having a bunch of cigarette filters laying around negates much of this effort. Let's all do our part

2004 DUES ARE DUE

If you haven't paid your 2004 dues yet you can pay them at the February 10th meeting or send a check or money order payable to TRI-LAKES R/C FLYING CLUB, to:

ERV ROHDE
928 Jackson Hollow Rd.
Galena, MO 65656

The dues schedule is as follows:

1. **FULL MEMBERSHIP** - \$40 per year.
2. **ADDITIONAL FAMILY MEMBERS** - \$5 each per yr.
3. **ASSOCIATE MEMBERSHIP** (non-voting) - \$10 / yr.*
4. **STUDENTS** - Free Club membership but must be a current AMA member.

*A person can join as an Associate Member if he/she lives outside Taney County or counties adjacent or touching Taney County. A non local person can also join as a Full Voting Member if desired.

To maintain 2004 flying privileges your 2004 Club dues must be paid and your current (2004) AMA membership card must be shown to Erv Rohde.

in maintaining a field that we can all be proud of.

Looks like our next Fun Fly will be April 17th with Roscoe Fudge as the Director. Concerning the helicopter controversy, the best suggestion I have heard so far is to have a helicopter only event (or two) during the Fun Fly plus two or three fixed wing only events. Of course this would really complicate computing Top Gun points. But if we eliminate the Top Gun Award and don't accumulate points this is not a problem. This will be discussed further at the February meeting. Now if someone showed up with an autogiro where would it fit since it has rotating wings like a helicopter but flies more like a fixed wing. Hmmm?

Also don't forget what President Howard Shire said about the gate at the north end of the field. If you use this gate close it behind you both coming and going, and if you notice it is open-close it. We don't want the horses fouling or digging up the runway.

Time to land for this month.



Above is one of a growing number of Gary Metzger's stable of foamy electric aircraft. This one is molded expanded polypropylene foam which Gary says is hard to glue. Have you tried Goop Gary?



Lend Jim Halbert a set of templates for a Ultimate Bipe designed for 1/4" fan fold foam and what happens. It turns out to have wings with airfoil and dihedral. The wing strut in front of the cockpit looks to be a little draggy Jim! How about a fly off between a flat wing and the airfoil wing?



Above is Kurt Krause's new Magic ARF by Model Tec. It sports a Super Tiger .51 FMS and looks like it will be a great fun fly plane.



Above is a shot of the FMS flight simulator that John Woods demonstrated at the January meeting. It doesn't have all the bells and whistles that some simulators have but as a free download and about \$30 for the transmitter to computer cable it is quite impressive. To the left is Don Livermore's Gee Bee hanger queen seen at the last Fun Fly. He is afraid to fly it but always shows it off to impress people.



To the right is a 15" wingspan ACRO-BIPE that was seen giving great flights at the Springfield indoor fun fly. It was a rubber powered ARF converted to electric RC. John Woods and Don Johnson decided to get a couple and see if they could also convert it to electric. Will they be able to find the right motor, gear, prop, battery, radio combination? We will see!



MISCELLANEOUS ITEMS FROM THE JANUARY 2004 AMA NATIONAL NEWSLETTER

DO-IT-YOURSELF:

MAKE YOUR OWN BRUSHLESS MOTOR FROM A CD-ROM

By TERRY SLATTERY

In electric flight, brushless motors are more desirable than brushed motors because they are more efficient and more powerful for their weight. Their undesirable characteristic is that they cost more than brushed motors—sometimes significantly more.

An inexpensive alternative for brushless motors for light airplanes and micro-helicopters is to use the brushless motors from a CD-ROM drive. It takes an evening to extract a motor and rewind it. This sounds daunting, but it is easy.

First, remove the motor from an old 8X to 56X CD-ROM drive. You may have to press the old spindle off the motor shaft (I use a cut-off nail in a drill press). You'll have to remove the motor from its mount. The ones I've used have been brass press-fit onto a metal bracket. File the edges of the brass until the motor can be extracted from its mounting bracket. Now you'll have a bare motor.

Remove the outer rotating shell (the part containing the magnets). Inside, you'll find the stator and windings. The stator will have nine poles. Remove the old wire from the stator. Before rewinding the motor, you must decide how much torque is needed versus the rpm and current draw. More turns per pole will provide more torque and less rpm per volt. Fewer turns provides less torque and higher rpm per volt, but at a higher current draw. Good values for CD-ROM motors are 14 to 19 turns of wire per pole. For my motors, I've done 16 and 19 turns. It isn't hard to change, so pick a value in the middle of the range and experiment.

Number the stator poles (1 through 9). Cut three 40-inch pieces of enamel-insulated, 28-gauge magnet wire. Wind the first wire clockwise (as viewed from the end of the pole) around the first pole. Carefully add turns tight against each other and in layers. When you're finished with the first pole, extend the wire around the stator body to pole 4 and wind it. When pole 4 is finished, extend the wire to pole 7 and wind it. You'll see that you've wound one wire around every third pole. Mark the ends of the wire with a small piece of masking tape. Continue the process with the other two wires, winding them around each of the other sets of three poles: 2, 5, and 8, and 3, 6, and 9.

Now you'll have a stator with six labeled wires. Solder the ends of the wires from poles 1, 2, and 3 together, leaving a short tail. You now have a "Y" configuration with the center of the Y at the end of the soldered wires. The other ends of the wires will go to a sensorless, brushless speed controller (the Castle Creations Phoenix 10 ESC is a good candidate).

Mount the stator to a piece of 1/16-inch plywood that has been drilled so it is a snug fit for the mount that used to be in the metal plate. I epoxied the stator to the plywood, and it has performed well with that mount.

Reattach the rotor and its shaft, and you have an inexpensive brushless motor!

from The Crabag
Chesapeake Bay Radio Control
Carl Wick, editor

HOW-TO:

SOLDERING PUSHRODS, MECHANICAL CONNECTIONS

The following information originally appeared as a Tower Hobbies technical tip.

Silver solder is recommended for soldering pushrods and other mechanical connections where strength is required. Hobby-grade silver solder is available at most hardware stores or hobby shops.

Use denatured alcohol to thoroughly clean the pushrod. Use sandpaper to roughen the end to be soldered. Apply a few drops of the soldering flux that comes with the silver solder to the end of the pushrod. Then use a soldering iron or torch to heat the pushrod. "Tin" the heated area with silver solder by touching the solder to it. The heat of the pushrod—not the flame of the torch or soldering iron—should melt the solder, allowing the solder to flow.

Lightly coat the end of the wire with solder. Place the clevis, threaded coupler, etc., on the end of the pushrod. Add another drop of flux, then heat, and add solder. As before, the heat of the parts being soldered should melt the solder, allowing flow. Let the joint cool slowly without disturbing it. Avoid excess blobs but make certain the joint is thoroughly soldered. The solder should be shiny, not rough. If necessary, reheat and allow it to cool. When cool, wipe off excess flux.

from West Jersey Wind
West Jersey Radio Control Club
Tom Voorhis, editor
Haddonfield NJ

~~IS THAT IRON HOT~~ ENOUGH?

A good way to see if your iron is hot enough, or worse yet, too hot, is to place the iron on a stand (I use a 6-inch scrap 2 x 4) so the foot is facing up. The top of the iron should rest on the 2 x 4. Get a scrap of the material you are using to cover the airplane. Using a Coverite thermometer, heat the iron to the recommended temperature. Then, rest the scrap on the shoe. If it shrivels into a ball right way, the iron is too

hot. Readjust the temperature and try again. If nothing happens, then the iron is too cold. Keep adjusting until the scrap barely shrivels. I wait until it shrivels rather slowly and use that temperature as my hot setting. For my low setting, I watch for the piece to shrivel in a few seconds. Since I use MonoKote almost exclusively, I just mark on the iron where the two settings that work best for me are located. You might have to experiment to see what works best for you.

from Circus Flyer
Camarillo Flying Circus
Ron Boyer, editor
Camarillo CA

SANDBAG WEIGHTS

Fill plastic Ziploc bags of various sizes approximately three-quarters full of fine sand and seal each well. Use these to hold down large parts of your airplane, such as wings, while building. The sand conforms to the shape of the parts. The bags also work well when gluing sheeting.

from the newsletter of
The Orbiting Eagles
via WIRCS Touch & Go
Mike Mosbrooker, editor
Oak Harbor WA

EPOXYING HINGES

from Mark Kallio
An easy way to epoxy hinges in control surfaces and to

be sure to get the glue to fill the hinge slot is to use a plastic drinking straw as a disposable "hypodermic." Flatten the end of the straw between your fingers and test fit it into the hinge slot so you will get the hang of inserting it. Then mix your epoxy, scoop some up in the end of the flattened straw, insert it into the slot, and "milk" the epoxy into the slot. You can wipe the outside of the hinge slots off before inserting the hinges. This assures that each slot is filled with epoxy. I like to take a small drill and drill through the control surface to pin the hinges with a toothpick. The toothpick should be cut off flush and a small piece of covering placed over the pin. These are only noticeable upon close inspection, and the benefit to the control surface is substantial.

MYLAR COVERING

Have you ever had trouble peeling the backing from mylar covering material? I certainly have, especially with the lower temperature coverings. The easiest way to prevent a nervous breakdown when you are trying to peel this stuff is to use two pieces of masking tape. At a corner of the mylar, stick a piece of masking tape on the front and back of the covering, with about half hanging over the edge so that the pieces of tape stick together past the edge of the covering material. Then peel the two pieces of tape apart, and presto! The backing peels right off. Happy covering!

from Tangled Lines

Tampa Bay Line Flyers
Phil Bayly, editor
Tampa Bay FL

Words of wisdom from Club Safety Officer Roscoe Fudge

THIS WOULD BE A GREAT MONTH TO REVIEW THE AMA AND CLUB RULES, SO THERE WILL BE NO MISUNDERSTANDINGS.

Roscoe

TRI-LAKES R/C FLYING CLUB

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