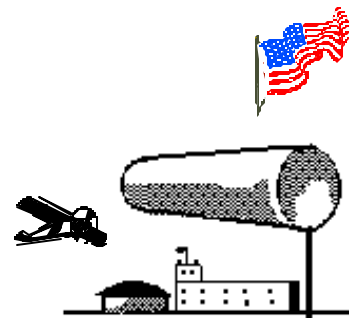


THE WINDSOCK

PUBLICATION OF THE TRI-LAKES R/C FLYING CLUB
EDITOR - DON JOHNSON - 272 SOUTH PORT LN Unit 33, KIMBERLING CITY, MO 65686
(417) 779-5340 e-mail molake@excite.com
CLUB WEB SITE <http://www.bransonrc.org>



VOLUME 11 ISSUE 11

NOVEMBER 2004

NOVEMBER MEETING

NOVEMBER 9 , 7:30 PM

Meet at the Branson Community Center.

Program

Bring your new projects for Show and Tell.

THE PRESIDENT'S CORNER

I hope everyone had a good time at the fun flies this year. These are meant to give everyone a chance to improve their flying skills and do things they wouldn't normally do. I hope that more of the less experienced fliers will start participating and join in the fun next year. If you are thinking that you couldn't win you are wrong. Sure you may not get first place in any of the events but you will win by improving your flying skills. If you think you need a more experienced pilot to help you if you get in trouble, just ask.

I guess now is a good time to thank Roscoe for

his efforts in putting together some good fun flies. Thanks Roscoe!

TRI-LAKES R/C FLYING CLUB

PRESIDENT

HOWARD SHIRE 779-5069

VICE-PRESIDENT

GARY METZGER 334-0851

SECRETARY

ANNETTE McEVOY
417 883-9630

TREASURER

ERV ROHDE 538-2439

SAFETY OFFICER

ROSCOE FUDGE 336-5841

FIELD MARSHALL

HOMER ZOBEL 779-1735

INSTRUCTORS

RAY DIXSON 870 426-4310
ROSCOE FUDGE 336-5841
JOE MAJOR 337-5808
ERV ROHDE 538-2439
JOHN WOODS 338-8419

The November meeting is when we make the nominations for next year's officers. Gary Acton has been working hard and I think he has a slate of candidates lined up for us. If you would like to run for one of the offices or have someone you would like to see in an office the floor will be open for nominations at this meeting.

That's it for this month.

Hope to see you at the meeting.

Howard

TRI-LAKES FINANCIAL STATEMENT

		OCT	Y T D
BALANCE	10/1/2004	\$ 885.97	\$ 1,645.95
INCOME-DUES	-----	\$ 40.00	\$ 1,139.26
INCOME-SHIRTS&CAPS		\$ -	\$ 102.50
INCOME-FOOD	-----	\$ 36.00	\$ 122.82
INCOME-50/50	-----	\$ 5.50	\$ 61.50
INCOME-MISC	-----	\$ -	\$ 75.00
EXPENSE-FIELD	-----	\$ 11.62	\$ 1,628.55
EXPENSE-NEWSLETTER		\$ 7.40	\$ 67.57
EXPENSE-SHIRTS&CAPS		\$ -	\$ -
EXPENSE-FOOD	-----	\$ 24.54	\$ 136.65
EXPENSE-AMA	-----	\$ -	\$ 130.00
EXPENSE-Web	-----	\$ -	\$ 200.35
EXPENSE-meeting room		\$ -	\$ 60.00
EXPENSE-MISC	-----	\$ -	\$ -
BALANCE	11/1/2004	\$ 923.91	\$ 923.91

MEETING MINUTES

TRI-LAKES R/C FLYING CLUB

October 12, 2004

President Howard Shire opened the meeting at 7:15 P.M. at the Branson Community Center. All officers were present. There were 14 members present. New member, Roy Steinestel was present as were three guests, Gloria Haan, Cheri Silva & Cathy Metzger. The minutes from the September meeting were approved as published in the October newsletter. Erv Rohde reported that the treasury balance as of October 1st was \$885.97. The 50/50 raffle was won by Dick Haan who received ½ of \$11.00.

Committee Reports: No committee reports.

Announcements and Old Business:

Howard announced that Don Johnson donated a couple of battery packs for the club plane and that the crystal was replaced. John Woods has flown it and it appears to be in good shape at the present time.

New Business: There appears to be a conflict for the starting time of our meeting with another group also using the center. After discussion, a motion was made, 2nd & passed unanimously to have the official meeting time of 7:30 P.M. when meeting at the Community Center. It will remain at 7:00 P.M. when meeting at the field.

Howard asked for volunteers for the nominating committee – Gary Action stepped up for the job. Annette McEvoy gave a speech on how each of us need to participate in some manner to help make our club strong and not expect the same handful of people to do the jobs year in & year out.

There was considerable discussion regarding the club membership dues and if there should be any change. It was decided to have the dues structure remain as it is now. If a member does not pay their dues by

March they are dropped and not reinstated until the full amount of dues are paid for the year. There will be **no** pro-rated dues for old members, this is only for the first year a person becomes a member.

TPA has announced that they will not be donating the Top Gun trophy this year. Mike Anderson will be in charge of getting information & prices for the trophies.

Howard announced that the spools that we're using for stands at the field are falling apart and plane stands are needed. Do we want to build 3 to 5 stands, cost will be approximately \$35 each? We can have a work day to assemble. Dick Haan volunteered to help.

Mike Anderson contacted the Rib Crib for information and prices for our Christmas dinner. It was decided that the club will purchase the meat from the Rib Crib and the members & spouses will bring side dishes like last year.

Mike also gave information regarding ordering new club hats and the possibility of having patches in lieu of silk screening the club logo. Since there was interest in both he will find out prices and how soon we could expect delivery.

Program: Jim Halbert brought his new 3 Star E and has design notes that he will send to you if you're interested. He patterned it after a 4 Star 40 (due to the long nose) shrinking the prints down to 80% and redrew with modifications. Has a white foam wing covered with balsa, 1/4" carbon fiber spar making it very strong (his last plane built like this went into the trees and had almost no damage). He used Warren trusses with balsa & 1/32 plywood to keep the frame light. The hatch is held on with magnets. He's using an AXI 2820/12 motor with an APC 12-6 prop, which pulls 26 amps from a 5.5 oz., 2450 mAH Li-Poly battery. It has a 1:1 power to weight ratio and can do 3D and fly in 10 mph wind.

Meeting adjourned at 8:26 p.m.

THE EDITOR'S NOTE PAD

The meeting time has changed. Due to a scheduling conflict we will meet at the Branson Community Center at 7:30 pm not 7:00 pm.

Looks like we will have something special for our program at the November meeting. Don Livermore said that he has purchased a model jet turbine engine and will bring it to the November meeting and demonstrate its' operation. Should be interesting.

Many of us are now flying electric and many of us are using the new Li-Poly cells. Actually you may be using Li-Poly cells and don't know it as they are very common in cell phones. These cells when used correctly are probably as safe as any other battery but they do have safety concerns if used improperly. Mike Anderson sent me the web address for Apogee Li-Poly batteries, a brand many of us use. When I checked it out it had a lot of information on the DO's and DONT'S of Li-Poly use, BREAK-IN and DISPOSAL. Since safety is a primary Club objective, this information has been reproduced to the right and continued on page 5. It was copied without change from their web site even though there are some misspellings. Even members that are not electric flyers should study this information so they can become familiar with this new battery technology. Many thanks to Apogee for these guidelines.

With the popularity of small electrics at the field which are new to a lot of our members, your editor will try to develop a series of three or four articles dealing with electric flight. They will be as non technical as possible and deal with "rules of thumb", selecting equipment, helpful tools, performance testing, etc. Electrics really are not any more difficult to make fly than glow powered planes but a basic understanding of what makes electrics tic will prevent a lot of frustration. The first article should start next month. If you have any questions about electrics, let me know and I'll try to include an answer in the articles.

Time to land for this month.

From www.apogeepacks.com

PFM Distribution Inc.'s Usage Guide for Apogee High Performance Lithium Polymer Batteries

Failure to follow the following guidelines could result in: Loss of property, injury, or death due to fire or explosion.

Battery discharging, charging, electric motors, spinning propellers, and flying models all have the potential for serious injury to persons and damage to property. In purchasing these products, the user agrees to accept responsibility for all such risks, and not to hold the manufacturer, distributors, or retailers - (including all owners and employees) - responsible for any accident, injury to persons, or damage to property.

CHARGING DO'S: • **DO** use a charger capable of charging Lithium-Polymer batteries. Some accepted chargers are: o Anything manufactured by Schulze or Orbit with a Lithium-Polymer charge cycle. o Apache 1-2 or 1-4 cell charger o BEL 2-3 cell Lithium-Ion/Polymer charger o AstroFlight Model 109 o Kokam 1-4 cell charger o Great Planes Triton o Plantraco LPD-400 o Qualcom 830 Lithium-Ion 2-Cell charger • **DO** charge in a fire safe box in an area that has non-combustible materials. • **DO** inspect the cells/pack if a boat/car/aircraft crash or collision has occurred. If malforming has occurred see below for proper disposal of Lithium-Polymer cells. Do not attempt to repair damaged cells. • **DO** keep a chemical fire extinguisher in the vicinity that Lithium-Polymer cells are being used. • **DO** check pack polarity and voltage prior to first use. 2-Cell Voltage should be between 7.4 - 7.6, 3-Cell Voltage should be between 11.2 - 11.4. If it's not, please contact us.

CHARGING DO NOT'S: • **DO NOT** charge on carpet, cloth, wood, or anything else flammable. • **DO NOT** charge Lithium-Polymer cells **unattended**. All cells can "vent", no matter the chemistry (Ni-Cad, Ni-Mh, Li-Ion, Li-Poly), however Nickel Cadmium and

Li-Poly continues on page 5

OCTOBER FUN FLY



It was the last Club Fun Fly of the year and from the picture above the day looked great except for the horizontal windsock . Yes it would be a windy day but it was the last chance to earn points for the coveted Top Gun 2004 award. There was a somber note on the day also. Fun Fly Director Roscoe Fudge's stepdaughter had passed away a couple of days before and he had ask Don Johnson to stand in for him. Our heart felt condolences go out to Roscoe and his family on their loss. He would be missed this day for running the show and also as a participant in the events.

At noon (actually before since Gary Metzger was hungry) President Howard Shire burned some dogs for lunch. Believe that Cathy Metzger brought some brownies and Denise Anderson brought a pot of beans. Good fuel for the task at hand.

At one o'clock a short pilots' meeting was held and the Fun Fly was started without regard to the gusting wind. There would be only six brave pilots participating in these events.

The first event was the Box Event. Take off, do a roll, do a touch-and-go inside the box, land in the box, exit the box and do a 360 around the box and re-enter the box. Penalty for touching down and/or taking off outside the box on the touch-and-go and a penalty for touching down outside the box on landing. Shortest time wins. This proved to be a tough event with only two pilots completing the course. Mike Anderson was second off and posted the best time with a 1:16 and no penalties for first place and 100 points. Flying last and posting the only other complete run was Bud Austin with a 1:56 including a 15 sec penalty, for Second Place and 70 points. John Woods, Erv Rohde and Howard Shire had DNF's due

to less than good touch-and-goes but tied for third place, earning 33.3 point each. John did a great roll over into the ground after his t & g but didn't get any additional points for it. Kinda ended his day! Don Johnson passed this event due to the wind.

The next event was the Le Mans Start. Stand in the flight box, time starts, run to the plane, start it, run back to the flight box and take off and do as many loops as possible until the 120 second mark, then land in exactly 30 seconds without timer help. 5 points for each loop minus 1 point for each second above or below 150 seconds. Again Mike Anderson was the class of the field with 33 loops and only 8 seconds penalty for a 157 score and another 100 first place points. Slipping into second place was Don Johnson with 25 loops and a 4 second penalty for a 121 score. Third place went to Bud Austin with 20 loops and 8 second penalty for a 90 score, fourth place Erv Rohde with 18 loops and 16 seconds for a 74 and Howard Shire with 14 loops and 13 seconds for a 56 and fifth place.

The last event was Climb, Glide and Spot Landing. Take off, climb for 20 seconds, shut off engine/motor, glide as long as possible and land on a target on the runway. One point for each second in the air less 1 point for each foot away from the target and minus 50 points if you land off the runway. Erv got back in his winning ways with 124 minus 7 for a score of 117 and first place. Second place went to Mike Anderson with a score of 80 minus 34 or 46 points total. Don Johnson got third place and the dumb luck award. After forgetting to bring the transmitter for his powered glider he substituted his Lazy Bee but forgot to connect the ailerons. Even so posted a score of 58 -72-50 for a -64 score. Howard Shire was forth with an 83-150-50 for a -117 and Bud Austin was fifth with 79-200-50 for a -171. Obviously the wind had something to do with finding the runway.

Overall winners were, First Place, Mike Anderson with 270 Top Gun points, Second Place, Erv Rohde with 163.3 points and Third Place, Bud Austin with 140 points. Fourth Place was Don Johnson with 120 points, Fifth Place, Howard Shire with 83.3 points and John Woods with 33.3 points.

Many thanks to Howard Shire for getting the food and drinks and cooking the hot dogs for the BBQ lunch and everyone else for contributing to and helping with the lunch and running the events.

The next Fun Fly will be January 1, 2005. If you are a real pilot you will brave the weather and be there!

Metal-Hydride cells come in a metal can, with a venting device. If the cell needs to vent, it can safely do so via a mechanism in the end of the cell. Lithium-Ion/Polymer cells have no vents, and in the event they need to vent the cell is ruptured and a fire can start. • **DO NOT** charge at over **1C** current. $C = \text{mAh} / 1000$. Example: $850 \text{ mAh} / 1000 = .85\text{A}$ charge rate • **DO NOT** discharge at over the manufacturers specified rate. Each cell has it's own nominal and maximum discharge ratings clearly marked on the pack, and on the individual product pages. • **DO NOT** discharge lower than 3.0 volts per cell. • **DO NOT** charge to more than 4.2 volts per cell. • **DO NOT** crush, pinch, poke, or in any way deform the cell. Lithium-Polymer cells do not have a hard case. Malformation can cause the cell to internally short out, and burst into flame. If a cell is deformed, dispose the pack as per disposal methods below. • **DO NOT** continue to use any cell that has increased (commonly known as "ballooning") in size. Cells that have a "bloated" appearance have been damaged, and pose a fire hazard. Dispose of the pack as per disposal methods below. • **DO NOT** allow the cells to exceed 160F degrees. Doing so will reduce the life of the cell, and increase the risk of fire. We have proven that with just one discharge cycle where 200F Degrees was obtained cell capacity was reduced by 20%. • **DO NOT** assemble cells of unknown capacity. Doing so will cause cell imbalance, and eventually a cell failure (and possibly a fire) could result. • **DO NOT** store your packs where small children or animals can get to them. Lithium has a sweet smell, which by animals/children could be thought of as candy. Lithium is toxic (death could occur) if ingested.

Battery Break-in Procedure: Contrary to popular beliefs that lithium polymer battery packs need no "break-in" period, before you run new Apogee packs continuously at their

maximum discharge rate, we recommend you cycle the battery packs at **no more** than 7C for a minimum of 15 cycles down to 3.0V per cell or until the PROPERLY SET Low Voltage Cut-Off (LVC) on your ESC kicks in. All Apogee packs are to be charged at a maximum 1C. By following this break-in procedure, your batteries will run much cooler when you run them continuously at the maximum discharge rates. **How do I calculate 7C?** If your battery pack capacity is say 1050 mAh with a charge rate of 1.05 A, 7C is simply $7 \times \text{Charge Rate}$ or: $7 \times 1.05 \text{ A} = 7.35 \text{ A}$ In this case with the 1050 mAh pack, you should discharge no more than 7.35 A. **How do you cycle an Apogee pack?** If you have a lithium polymer charger (e.g. Triton/Orbit/Schulze) that has a lithium battery discharge cycle, discharge your battery at the 7C rating or lower until the 3.0V per cell reached. If you don't have a charger with a lithium discharge cycle, you can discharge through your speed controller. Make sure the speed controller LVC is configured properly for the number of cells. If you have a WattMeter or inductive pickup ampmeter, choose the prop/gearing that gets you closes to 7C, and fly normally for 15+ flights to the properly set LVC. Charge and repeat for 14 or more cycles.

Disposal Procedure: • Discharge the cell/pack to 2.5 volts per cell. That would be 5.0 volts for a 2-cell pack and 7.5 volts for a 3-cell pack. • Find a container that is large enough, once filled with water, to immerse the cell pack under water. Fill the container with water and saturate the water with salt; that is, add enough salt so the salt can no longer dissolve. • After the pack has been discharged to 2.5V per cell, place the cell or pack into the salt water solution. This will deplete the rest of the energy in the cell/pack. Allow cell/pack to soak for 24 hours. • Take the cells out of the solution. Check the voltage is 0 volts. • Discard cell/pack in the trash.

Visit us at www.apogee packs.com



Above is Jim Halbert's 3 Star E based on the 4 Star 40. Reduced to 80 % and customized. It is powered with an AXI 2822/12 motor and someday a 2450 mAh Li-Po battery. Nice looking airplane!

CHRISTMAS PARTY

DECEMBER 14th

BRANSON COMMUNITY CENTER

**POT LUCK DINNER, CLUB WILL FURNISH
BBQ MEATS AND BBQ SAUCES**

**CLUB MEMBERS, SPOUSES AND KIDS ARE
INVITED**

**PLEASE ADVISE ANNETTE McEVOY (417
883-9630) OR CATHY METZGER (417 334-
0851) IF YOU AND GUESTS WILL BE AT-
TENDING AND WHAT SIDE DISH YOU WILL
BE BRINGING.**

Words of wisdom from Club Safety Officer Roscoe Fudge

**Be happy and help others. Some day you may need help and comfort in
time of need.**

Roscoe

The indoor flyers of Springfield will again have an indoor meet at the indoor soccer practice building on the Saturday after Thanksgiving, November 27th. The event is great for spectators and if you have a small electric that will fly indoors, you may just want to join the fun.

TRI-LAKES R/C FLYING CLUB

Don Johnson - Editor
272 South Port Ln. Unit 33
Kimberling City, MO 65686

