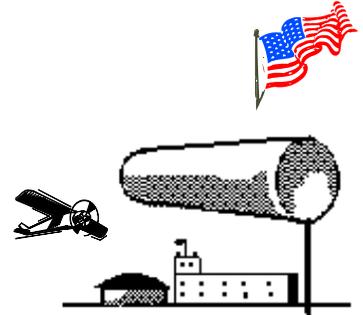


THE WINDSOCK

PUBLICATION OF THE TRI-LAKES R/C FLYING CLUB
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VOLUME 12 ISSUE 8

AUGUST 2005

AUGUST MEETING

AUGUST 9 , 7:00 PM

Meet at **ROCKY TOP FIELD**. In case of severe weather meet at the Branson Community Center.

Program

Bring your new projects for Show and Tell. Fly before the meeting.

THE PRESIDENT'S CORNER

Hello to all!

It is just about too hot to even venture outside lately.

I want to thank all who went July 16th to work on the field. Dick Haan told me that a bunch of guys showed up to fix up the field. Don Johnson even took some pictures of the hard working guys.

Thanks also to Annette making us aware of the signal problem.

Congratulations to all who got flying certi-

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cates in July!

Well, take care and try to keep cool! I look forward to seeing everyone at our next meeting, August 9th at 7:00 p.m.

Gary

TRI-LAKES FINANCIAL STATEMENT 2005

	JUL	Y T D
BALANCE 7/1/2005	\$ 554.00	\$ 960.40
INCOME-DUES -----	\$ 40.00	\$ 1,061.72
INCOME-SHIRTS&CAPS	\$ 5.00	\$ 50.00
INCOME-FOOD -----	\$ 7.50	\$ 139.00
INCOME-50/50 -----	\$ 7.00	\$ 48.50
INCOME-MISC -----	\$ -	\$ 60.00
EXPENSE-FIELD -----	\$ 279.68	\$ 1,417.44
EXPENSE-NEWSLETTER	\$ -	\$ 65.69
EXPENSE-SHIRTS&CAPS	\$ -	\$ -
EXPENSE-FOOD -----	\$ 14.45	\$ 109.18
EXPENSE-AMA -----	\$ -	\$ 130.00
EXPENSE-Web -----	\$ -	\$ 191.40
EXPENSE-meeting room	\$ -	\$ 80.00
EXPENSE-MISC -----	\$ -	\$ 6.54
BALANCE 8/1/2005	\$ 319.37	\$ 319.37

MEETING MINUTES

TRI-LAKES R/C FLYING CLUB

July 12, 2005

President Gary Acton opened the meeting at 7:00 p.m. at Rocky Top Field. All officers were present. There were 19 members present. Also present were members wives Gloria Haan, Cheri Silva and our newest member Dennis Kreiner. The minutes from the June meeting were approved as published in the July newsletter. Erv Rohde reported that the treasury balance as of July 1st was \$554.00. The 50/50 raffle was won by Dick Haan who received one half of \$14.00.

Committee Reports:

Marc Niebrzdroski had all 4 of the pilot stations at the field completed. He said the cost was \$194.68 but that he intends to donate them to the club.

Announcements and Old Business:

Gary Acton asked if anyone had any information regarding the availability & cost of a new port-a-potty as brought up in past meetings. He could only find them at more than \$1,000 in Springfield and asked everyone to be on the lookout for something more reasonable. He also asked about replacing the wind sock and was told that Del D'Alessandro was working on some replacements.

Annette McEvoy brought everyone up to date on John Woods condition after his recent surgery.

New Business:

Dick Haan asked if we could have a workday as the field has some very large rocks that are causing problems and damage to the mowers. It was decided to have it Saturday, July 16th beginning at 9:00 a.m. Mike Anderson will be asked to send out notification to all club members to bring large crow bars and other necessary equipment to help get the field in even better shape. Gary Acton has donated a cart to the club. It will need

replacement tires but will be helpful for keeping the field in shape.

The problem with radio hits occurring, especially on channels 47, 49 & 50 was discussed. Don Johnson and Annette McEvoy will obtain information regarding cell phones and frequency analyzers.

Program:

Bud Anderson handed out certificates for the June fun fly: 1st Place Carrier Trap-Roscoe Fudge; 1st Place Time, Glide & Spot-Bud Austin; 1st Place Inside/Outside Loops-Mike Anderson. 1st Overall - Mike Anderson, 2nd Overall – Tie between Bud Austin & Erv Rohde.

Bud Austin brought his Bipe which he used a Sig Kadet Sr. for the wings along with a Husky 18cc weed eater motor which is really quiet and flew great.

Don Johnson had his latest electric which he's going to have weighing in at under 1 1/4 oz! The receiver weighs a couple of grams. Motor takes 1 amp and he's using magnets to hold the wings & cowl in place along with magnetic actuators, not servos. You can download the plans for this good looking tiny plan from Model Airplane news "but they really aren't worth a hoot" and he says that you need to put some thought into it.

Meeting adjourned at 7:42 p.m.



Rocks, rocks, rocks! Where did all the rocks come from? A crew of about a dozen members must have picked at least a ton of rocks out of the field and filled the holes. Good work guys!

THE EDITOR'S NOTE PAD

Keep in mind that there are a couple of events in August that you may want to attend and/or participate in. The first is the Springfield BlackSheep club's annual Float Fly on Springfield Lake to be held on August 13 th and 14 th. Several of our Club members like to attend this event. For this reason our Club's third Fun Fly of the year will be held a week later than normal. Our Fun Fly will be August 20 th at 1 P.M. Lunch BBQ starts at noon. Our Club Fun Fly Director is currently trying to dream up three interesting events so plan on coming out and being a part of the fun.

After a very short notice (4 days), about a dozen members showed up to dig out the rocks, that were dinging and bending the mower blades, and then fill up the holes. Check the pictures of some of the rocks in the lower right corner of pages 2 and 4. After about two hours work the crew probably had removed at least a ton of rock and had the field looking great. Many thanks guys! This also shows the benefit of having a Club email notification capability that can notify 90% of the Club membership of an event or situation in just a few hours.

AMA has changed the AMA National Newsletter into the AMA INSIDER. The INSIDER is slanted more toward information for club officers as well as still providing material for club newsletter editors. One of the articles from the July INSIDER is on page 5. If you want to check out the AMA INSIDER go to www.modelaircraft.org/insider/index.html.

Finished the little clipped wing Taylorcraft shown at the July meeting. It spans 15.5 inches and weighs 1.23 ounces. Not bad for three channels. With a one cell Li-Ply battery it did R.O.G. for a short trial hop in the driveway. Now if the weather



SAFETY 1st

Thanks to everyone for all the cards, e-mails and phone calls for me to "Get-Well-Soon". I miss being out at the field and hope to start coming out soon.

Safety Message. If you are flying and your engine goes dead, you should shout "dead-stick" loudly enough that the other flyers will give you the right of way and also alerting them of the impending landing that may not go as planned.

I read in Gary Shaw's "Safety Comes First", Rule #45 may apply to some of our members It reads 45) Never play with or pick up poisonous insects or reptiles while at the field.

See you at the field,
John Woods
Safety Officer

NEW MEMBER

Picked up another member albeit not really a new member.

Ian Pietz, of Kimberling City, was a Student member a couple of years ago, now going to college he has rejoined the Club. He has been out to the field flying both glow and electric.

Welcome back Ian!

will cooperate (very light wind) and if my test pilot, John Woods, has mended enough from his surgery, we'll see how well this little plane will fly.



SPRINGFIELD FLOAT FLY

On August 13th and 14th the Springfield BlackSheep are holding their annual Float Fly on Springfield Lake. This is a low key event and any AMA member can enter. There is usually one competitive event and the rest of the time is just for fun flying. Hamburgers, hot dogs and sodas are available at the site. If you aren't doing anything that weekend go up and join them as a participant or spectator.

WHAT HAPPENED?

One of the less fun things about flying R/C airplanes is determining what went wrong when one crashes so that problem can be avoided in the future. The Spectra 2 meter powered sailplane, parts pictured below, was gliding great but was going up and up in a big summer thermal. In order to keep it in sight some loops and dives were tried to bring it back down lower. At several hundred feet the sound of the air rushing over the wing could be heard and then the wing came apart and fluttered toward the north west as the fuselage headed toward the ground like an arrow. When found the plane, spinner, motor, gear-



box, receiver and speed control had been destroyed—over a \$350 loss. Salvageable was the folding prop, two micro servos (had to replace one set of gears) and eight out of the nine NiMH battery cells. Most of the cells were dented but seem serviceable.

What happened? It's obvious that the wing came apart but unless some of the wing is found the exact cause may be hard to come by. The wing was held on by rubber bands, but if they had failed the wing would have probably been in one piece instead of the two we saw floating down. Another possibility is that some of the film came loose and tore up the wing. But the most likely

reason is that the wing, though built per plans and was strong, was over stressed horsing it down out of the thermal.

What to do next time (with a different plane)? Be more patient and work the plane out of the thermal slower. Oh well, the Electra seems ready to get back up into the thermals!

WHAT'S THAT?

Got curious about what was inside a Lithium Polymer battery cell. So since I had a bad 1300 mAH battery, decided to take one of the cells apart. Below is pictured what was found. There are two metal sheets, about .001 inches thick coated with something black (lithium?). One seems to be copper and the other aluminum.

The white sheet is plastic and separated the two metal sheets when they were folded into a flat pack. There was also a strong chemical smell, like alcohol, which seemed to evaporate quickly. Maybe this is what causes the cells to swell up and catch fire when the batteries are over-charged.

Hope your curiosity is now satisfied so you don't have to open a Li-Poly cell to see what's inside!



Fast Charging: Will it Harm My Packs?

by C. Scholefield

First, let's define fast charge. The industry standard is any charge rate that will charge the cells in one hour or less. This fast charge capability thing is very interesting. Almost all Ni-Cds manufactured today for RC systems can accept fast charge (up to C rate, that's the rate at which you can charge the cells in approximately one hour).

Cells that are specifically sold as fast chargeable go through another step in the process. This step involves charging a sample from the production lot, and then measuring the end of charge voltage. Cells with the highest end of charge voltage are then analyzed for internal pressure. If the internal pressure is acceptable—that is not above a preset limit—the whole production lot is blessed as being fast chargeable. Of course this adds a finite amount of cost to the cell as they must be “formed” prior to being shipped in order to be fast chargeable.

Cells not destined for fast charge applications are shipped “unformed” by some manufacturers. The first charge after the assembly is what “forms” the cell. When you charge your RC system packs for the first time you are “forming” them. That is why the instructions tell you to charge the packs for 16 to 24 hours before you first use the system.

So in most instances you are safe fast charging the RC packs (transmitter or receiver) on the market if you first make sure they get a good first cycle formation charge—24 hours at a slow rate.

Where the problems arise is that some of the fast charge systems available are a little sloppy when it comes to terminating the fast charge, or they are pushing the cells too hard (higher than the C rate charge) and then damage occurs.

As a rule of thumb if your packs are not getting hot (slightly warm is okay) you are not damaging them in the fast-charge process. When pushing too much current into cells not designed to accept it there is the risk of driving the cells above 1.6 volts (the hydrogen-over-voltage point) and electrolyzing the water in the electrolyte and generating hydrogen. This is a cumulative event and repeated fast charge at these rates will result in sufficient accumulation of hydrogen to cause the cells to vent. When they do vent, there is a chance that the chemical balance will be disturbed and the cell capacity will fade.

Understand that the pack may not be fully charged when the fast charge terminates. It is a good practice, if you are going to fast charge frequently, to top off the packs using the slow charger. This will bring all cells to the same state of charge and “balance” the pack. Otherwise the cell that is not fully charged will be the limiting cell on the next discharge. This continues until there is a major unbalance in the pack and one cell can be driven into reverse (if you don't crash first).

FUN FLY

When? AUGUST 20TH

BBQ starts at noon—pilot's meeting at 1 PM

Where? Rocky Top Field

There will be three events.

One event will be some loops, some rolls then taxi and pop some balloons. The other two events are undecided now and will be announced later

Pilots can use any fixed wing aircraft they want in any event.

Novice pilots (meaning new or inexperienced) are encouraged to enter and can have an instructor stand by or be on a Buddy Box in case of trouble.

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