Radio Control Flyers Unlimited

Flight Plan

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Sec/Treasurer: Steven Howie - 209-847-0567
Membership Chairman: Dave Koester - 209-529-7509

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www.rcflyersunlimited.com

Current News

I would like to extend the club's welcome to our new members.

Jack Gregory
Bill Churchill
Joe Reichlin

Please make these new members welcome and give them any help and advice they wish to have.

We had our 4th annual IMAC scale aerobatic competition at the field. This was held on June 2nd and 3rd. These guys were really great and made an effort to leave the field at least as clean as when they got there. But there was one thing they did for us that was completely unplanned. If you go out to the field you will find that part of the field (grassy area) will not need to be disked for fire control. After the contest was completed on Saturday, the field was opened for sport flying. Well, an electric motorized plane was flying and had a signal failure and crashed in the grass just north east of the field. The LI-PO battery pack shorted out and the plane burst into flames. Because of the high winds, the fire could not be controlled and a field fire got started. Thanks to the quick action of the California Forest Service and Oakdale Rural Fire Department, the fire was contained within 20 acres. The Sheriff and the CDF captain said that this was clearly an accident and no other action is required.

Seeing the batteries first hand, shows the importance of LI-PO battery safety. Even though, this incidence was completely unavoidable, it should give us a wake up call about damage LI-PO batteries in your car or home.

Our field was host to a precision pattern contest on May 19th and 20th. This contest featured some very odd but very precise aerobatic airplanes. The winds that day did not seem to matter to these airplanes. The pilots were also very conscientious about keeping the field neat.

Part of the pilots fence was replaced with nylon netting used on golf course to contain arrant golf balls. This will hold up better that the plastic fencing we currently have and it provides a tougher barrier for preventing runaway planes from passing through the fence. The color is a dark green, but it doesn't pose a nuisance as far as being hard to see nor being unsightly. I hope shortly, the complete fence can be replace with this material.

Please be aware that the deadline is the pilots fence and the line extends on both ends along the fence from horizon to horizon. At no time shall a plane fly to the south (pits) side of the fence. All normal flying (barring landings, or emergencies), shall stay to the north of the runway centerline. During the aerobatic contest, aircraft were not allowed to fly over the runway except for landings and takeoffs. Any violations, caused one warning than forced to land immediately upon the second infraction. Even though, both CDs of the competitions were granted an variance for angling the flying line for morning competition, nether used the variance. Since there was less than 30 pilots, the CDs were able to start the contests later in the morning and still complete the competition at a reasonable hour during the afternoon.

Dev Grieves is getting three signs stating that the pilots fence is the deadline so that pilots are aware of where they should not fly.

Please note: If a person is flying at the field, then a current club card and an AMA card must be posted on the frequency board. The exception is for people who are sponsored by an club member to fly but can only fly at the field three times until they must join (but they must fly with a valid AMA card). If you see a person flying with no current club card, challenge that person, or get his name and ask to talk to his sponsor. If the sponsor is abusing the privilege then please contact a club officer or bring it up at the next club meeting. There have been reports that unsponsored nonmembers have been flying at the field (either past members or flyers that have flown at the field more that three times). Please be aware of this.

PILOTS CORNER

Li-Poly Battery Basics
by Paul Gentile
From the Monmouth Model Airplane Club, Inc. Keansburg, New Jersey

The popularity of electric-powered aircraft has soared (pun intended) over the past few years. Part of the reason behind the recent popularity has been the advent of Lithium Polymer or Li-Poly batteries.

Li-Poly batteries pack a high energy-to-weight ratio when compared to their Ni-Cad and NiMH battery cousins. This stored energy has good and bad potential, and we will touch on both here.

Li-Poly battery cells are 3.7 volts, as compared to Ni-Cad and NiMH batteries which are 1.5 volts per cell.

When Li-Poly batteries are wired in parallel, they do not discharge like other batteries. In addition, when you wire cells in parallel, each cell only sees half the total current, or amp draw.

Total current is very important for Li-Poly batteries and is identified with a C rating. You may see Li-Poly batteries advertised as 3C, 6C, 8C, 10C.
This means that a 3C 1500 mAh (1.5 amp) Li-Poly battery pack should never be discharged at a rate higher than 3 x1500 mAh or 4500 mAh (4.5 amps).
Discharging a Li-Poly beyond this rating could cause damage to the cells or even fire. A very serious concern.

Changing a propeller on your airplane can change the current draw and cause higher than expected discharge rates. So it is beneficial to have a current meter on hand. The manufacturer's specifications for the motor, speed control, and propeller combination you are running also come in very handy.
The other letters on Li-Poly packs refer to S for serial wiring of cells and P for parallel wiring of cells.

A 3S pack would be 3.7 volts x 3 cells = 11.1 volts. A 3P pack would mean three parallel cells, or 3.7 volts and a higher C rating. A 3S 3P pack would have 3 cells in serial (11.1 volts) and 3 cells in parallel.

Li-Poly batteries also do not require cycling, or discharging like other batteries. In fact, you never want to cycle down Li-Poly batteries. You should always leave a partial charge, to avoid damage.

Chargers and speed controls should always be rated for Li-Poly use. Do not attempt to use your Ni-Cad or NiMH equipment. An improper charge rate could cause a Li-Poly pack to explode and burn at over 2000 degrees. A non Li-Poly rated speed control could cause over discharge and cell damage. Here is a list of dos and dont's for your Li-Poly packs:

• Never put your Li-Poly packs in water and never put water on the packs.
• Don't leave your Li-Poly batteries unattended while charging. See www.modelaircraft.org for this year's list of people whose cars and houses have burned down while leaving packs unattended during charging.
• Don't puncture or short out Li-Poly batteries.

• Don't fully discharge your Li-Poly packs, this will damage the cells.
• Don't put the Li-Poly battery in your car, or leave it in your airplane after a crash. If the battery is damaged internally, you may not notice. According to the AMA, several members' cars have already burned up this year due to this scenario.
• Do use common sense and respect the energy that is stored in that little package.
• Do follow all manufacturer ratings and specifications for use and storage.
• Do store your Li-Poly packs in a fire-proof container.

Li-Poly batteries are used everyday safely in cell phones, laptops, consumer electronics, and iPods. In our hobby, we are pushing these batteries to their limits, charging and discharging them at high rates and sometimes smashing them into the ground at high speeds. We need to respect their potential and keep it safe.

Enjoy the power and convenience of electric flight with Li-Poly batteries; I do. Just respect the energy stored in that little Li-Poly package and it will reward you with some of the fastest, 3-Dest (if that is a word), most fun flying you will have.

Li-Poly Quick Reference

C = Current
S = Serial
P = Parallel

Li-Poly Cell Voltage
Cells x 3.7 = voltage

1 cell = 3.7 volts
2 cells in series = 7.4 volts
3 cells in series = 11.1 volts

mAh = milliamp hour rating of a battery's capacity under load. 1000mAh = 1 Amp

Cash Flow Report

Income		Expenses	
Club Dues (including initiation fees, field assessment fees, and Donations)	$636.33	Port-o-potty service	$75.00
Raffel intake	$76.00	Raffel Expense	$179.03
.		Web Site	$29.85
		Field Weed Control	$1,301.00
Totals	$712.33		$1,584.88

Last Month's Total ……..	$15,269.73
Income ……..	$712.33
Expenses ……..	($1,584.88)
Balance …….	$14,397.18

The June Club meeting is scheduled for:
Wednesday, May 13, 2007 at 6:30 pm
at the Police Station at 10th and G sts