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A LETTER FROM THE SKY ROVERS

The following was received by Randy Bittinger and is printed here in its entirety...

Hello Everyone,

The Sky Rovers Flying Club of Phelps, NY is hosting their 5th annual auction and swap meet on October 29th, 2011 at the Phelps Community Center, 8 Banta Street in Phelps, NY. I have attached a poster of the event and the club would appreciate it if you were to pass it along to fellow club members and your newsletter editor.

The price of admission is still just \$5 per person with ladies, and children 12 and under getting in for free. There will be food and refreshments on site. The swap meet part of the event runs from 10 AM until 12 noon. The auction is from noon until all items are sold. There are no commissions or buy back fees and there are plenty of tables.

If anyone has any questions, feel free to call me evenings at 315-548-3779 or drop an e-mail to me at dreid@fltg.net. Our club website also has information on it at www.Skyrovers.com.

We look forward to seeing you all there.

Regards-
Dave Reid
Sky Rovers Flying Club

Editor's Note: the poster will be found on page 2.

FOR YOUR INFORMATION...

I'm always happy to get input from club members on a subject that will be of interest to the rest of the members. It seldom occurs, but when it does- "wunderbar!"

Beginning on page 3, you'll find an article written for the newsletter by none other than Walt Hibbard. Walt wrote me several articles a few years ago, but I'm always grateful for more.

Today's article concerns nickel -based batteries.



Do you think Walt is talking to "Mr. Electric" (Dick Say) about batteries?!?

MODEL AIRPLANE PRINCIPLES 101: If you even think you "might" possibly need it... go for it! Whether it be good advice or actual hands-on help, modelers are great at assisting each other!

SKY ROVERS FLYING CLUB

Model Aircraft Auction and Swap Meet

Join us for our Fifth Annual Auction on **OCTOBER 29** at the Phelps Community Center, 8 Banta St.



Doors open at 10:00 AM and the auction starts at Noon. There will be no commissions or buy back fees.

There will be drawings, raffles and door prizes throughout the day.

We will have the auction in the gymnasium with plenty of tables and chairs. The cafeteria will be open and a variety of food and drinks will be available.

Admission is \$5 per person. Ladies, and children under 12 admitted free. Vendors are welcome but must supply their own tables.

For More Info Contact
Dave Reid
315-548-3779
dreid@fltg.net



Sky Rovers Flying Club
Phelps, NY
A Gold Leader Club
Charter Club 469

Nickel-based Batteries by Walt Hibbard

In today's RC world, Lithium-based batteries are becoming more and more popular. However, the present day nickel battery is still the primary choice of most RCers, for both transmitters and receiver use. The reasons for this are many: they are considerably cheaper, they last far longer, they can handle a lot of abuse- so they are vastly safer than are most Lithium batteries, which can take no abuse at all. Modern Nickel batteries have a much higher energy density than those of just a few years ago so the weight penalty over Lithium batteries has gotten much smaller. All this makes them a great choice for all but those areas where a very high energy density is needed such as for the motors in today's ever more popular electric aircraft.

“Once a Nickel battery is seasoned, it will require far less care and concern than would a Lithium battery.”

Although they can take considerable abuse, Nickel batteries can be made to provide a much higher level of performance and for a much longer time if they are handled properly. I will be the first to admit that, when it comes to handling Lithium batteries I am a neophyte. However, I was lucky enough, while I lived in Florida, to have a flying buddy who was a retired 3M battery expert. He taught me the following. I am sorry to say, I have forgotten his name, but the credit is all his.

First, both Ni-Cd and Ni-MH are like a new engine, they need to be seasoned (broken in) in order to be able to provide maximum service. To do this they need to be fully charged

(BATTERIES Continued on page 4)

UNLESS ITS A BEVY OF BEAUTIFUL GIRLS... there are few things better looking than a bevy of beautiful model airplanes. These were all caught at the field on September 18th, this year.



(BATTERIES Continued from page 3)

at a C/10 rate for 20 to 24 hours and then discharged to between .9 and one volt per cell. This cycling should be done several times till a constant Amp hour reading is obtained at the end of each discharge. Note: C/10 is 1/10th the battery capacity. (ie; for a 700-mAh battery, 700 divided by 10 = a charge rate of 70mAh).

Once a Nickel battery is seasoned, it will require far less care and concern than would a Lithium battery, but it still needs some attention. Although most of today's Nickel batteries can be fast charged, this should never be done if time is not a factor, as frequent fast charging will seriously shorten the battery's life. It is far better to recharge at the C/10 rate or below till the battery reaches full capacity again. To insure that batteries (especially Ni-Cd) do not develop memory problems, they should go through a full cycling at least once a year. More often if they are going through many short cycles.

Voltage is not a good indicator of the remaining useful charge left in a battery. This can only be determined by continuing to discharge it to a minimum safe level to see how many mAh (milliamp hours) remain. Discharging at a C/20 or 25 rate (to simulate an operational load) and noting the time it took to reach the 1.0 or 1.1 volt per cell level will give a fairly accurate estimate of the remain-

ing average flying time the batteries still contain (note: a minimum safety margin of 20 to 30% should always be maintained when calculating how much longer you could have flown).

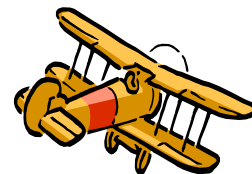
The reason that voltage is not a good indicator is because Nickel batteries do not give up their energy in a linear fashion. When freshly topped off, a 4 cell pack will easily indicate well over 5 volts. Shortly after applying a

load, the voltage will drop to near the 4.8 nominal voltage. The battery will then continue to indicate close to it's nominal voltage throughout most of its useful charge life. However, when nearing the end of that charge life, the voltage will drop very rapidly to a level where it can no

longer operate your servos. Therefore, as one can see, although the battery may indicate a safe voltage, it may be near the point where the voltage will drop rapidly enough to cause a loss of control before another flight can be completed. So, use your watch, not your volt meter, and you will never be sorry.



I wouldn't call this a "bevy of beauties", would you?!? I only see one (she's at the far right of the picture).



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Next Regular Meeting @ JCC
Olean Wednesday, Oct. 12th, 7pm

Next Planning Meeting: @ Clark &
Ramona's Monday, Oct. 31st, 7pm

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