

THE ANTENNA

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Dues Renewal Information

If you have not renewed your membership by April 1, 2005 you are considered a non-member, and all non-member rules apply. You are also removed from the club roster. You have until the end of 2005 to re-new your membership w/o penalty. After January 1, 2006, you will have to re-new as a new member, and all initiation fees will apply.

Election Information

For 2005, elections are to be held by secret ballot at the November meeting. If you require an absentee ballot, please contact Scott Schultz by e-mail or phone (718) 327-7152. Absentee ballots will be available the day after nominations and will be accepted up to the day of elections. Ballots received after the general election will be considered null and void.

Good & Welfare

We wish Eddie Gershman a speedy recovery from a nasty prop cut on his hand.

IMPORTANT DATES

9/13	General Meeting – By-Law Submissions Due
10/11	General Meeting – Nominations Of Officers – By-Law Review and clarification
11/8	General Meeting – General Elections
12/16	Annual Holiday Party – 6:30 P.M.

From the Thorn Creek RC Club, Lansing IL

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-Cads 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).

From the Sierra Flyers, Marysville CA

Tools for Beginners

Jim Kitchen; editor

a beginner does not need a lot of fancy tools to do a good job. However, there are a few inexpensive tools that make life easier.

- X-acto blade and holder, usually a number 11 for most jobs.

- Coping saw.

- Razor saw to cut across grain and hardwood.

- T-pins. They come in three sizes, but generally the small and medium sizes are the most useful.

- 18-inch steel rule is very handy. If the rule tends to slip when using, try spraying with 3M-77 on the down side. Once dry, it acts as an antiskid.

- 90° plastic triangles: For squaring assemblies. (Video cassette boxes are square, will stand alone, and are very useful for holding two parts such as a horizontal and vertical stabilizer when assembling).

- Sandpaper: Aluminum oxide sandpaper is best. This is sold at auto paint stores, has a long life, and is often less expensive than what is found at hardware and model stores.

- Sanding blocks: Always use a sanding pad or block. Various lengths of suspended ceiling tile grid make good, light weight sanding blocks. (Use 3M-77 spray or rubber cement to attach sandpaper strips to a sanding block. Use a heat gun to loosen the adhesive when it must be replaced).

WINGS OVER BROOKLYN - AUGUST 14, 2005



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