

Website of the Month

This month's website is the online edition for our monthly AMA magazine Model Aviation. As you may recall, last month's magazine had a feature on jets. The website expands on the article with additional pictures not found in the magazine. Further, I enjoyed watching a short video that interviewed the owners of SIG. Finally, for the builders in the club, there is an extensive library of aircraft plans dating from 1975 to 2011. I encourage you to take a look. Here is the link:

<http://www.modelaviation.com/articles>

Do you have a favorite website? If so, let me know and I will put it in the newsletter. Favorite online store, how to build, how to fly, etc- send me the link! My email address:

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Training Column

In a recent CVA meeting, John Backes gave an informative discussion on LiPo batteries. He gave the members present at the meeting an information sheet on LiPo batteries. I wanted to put it in a training column and add it to the website training columns page to ensure easy reference for the future. Here is John's information on LiPo batteries:

Lipo Info – John Backes – 10/13/11

Voltage - All Lithium Polymer (Lipo) batteries have a nominal voltage of 3.7 volts per cell. The cutoff voltage is 3.0 volts per cell and the maximum charge voltage is 4.2 volts per cell.

Number of Cells	Cutoff	Nominal	Maximum
1	3.0	3.7	4.2
2	6.0	7.4	8.4
3	9.0	11.1	12.6
4	12.0	14.8	16.8

Capacity – Capacity reflects the amount of energy stored in the battery and is measured in milliamp-hours (mAh). A 2000 mAh battery can provide 2000mA for 1 hours or 1000mA for two hours or any combination of the two numbers that equal 2000 and do not exceed the maximum current of the battery. Capacity can be less than 100 mAh or more than 6000 mAh.

Current – Current is a measure the flow of electricity out of the battery. Most of the time, it is easier to think in terms of amps instead of milliamps. One amp is equalant to 1000 milliamps. Therefore, a 2100 milliamps would be the same as 2.1 amps. The maximum current is determined by the C rating of the battery. Many batteries have two C ratings, one for sustained discharge and one for burst.

mAh	Amps	10C	20C	30C
1300	1.3	13	26	39
2000	2.0	20	40	60
3500	3.5	35	70	105

Long Life – Lipos last longer if they are stored in cool conditions at 40% (Approx. nominal voltage). Using the batteries at the maximum current capability will also shorten their life. Normal life is about 200 cycles but age is also a factor. Higher C batteries have lower internal resistance and will have less heating of the battery for any given flow compared to a lower C battery.

Reference material - <http://tmenet.com/pdf/LithiumBatterySecrets.doc.pdf>

See you at the field.

Alan Fry
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