CMP
United Business Media

January 17, 2006

BYTE.com

The UPS Scene

By Jerry Pournelle

SG Series™ On-line UPS (1 - 3kVA)

Every year I issue this warning: If you value your time and your work, make sure your computer is connected to an Uninterruptible Power Supply, otherwise known as an UPS. There is never a time when you are absolutely safe from power failures and power spikes, and gremlins always arrange that the power failure will take place when you have done your best work but have not yet saved it.

You are warned. If you value your work, get an UPS. If need be go on line and order one right now. I'll wait.

Now, as to what kind of UPS, there are dozens of brands, but there are only two you should consider. Yes, I know, there are probably others that might well be good enough. I wouldn't know. What I do know is that there are dozens of other brands that are not good enough, and the two I recommend are enough better than good enough that I have stopped investigating. If anything happens to change my opinion of these UPS systems I will let you know; but for the moment the two brands I recommend are APC and Falcon, and each gets a very large Chaos Manor orchid. Falcon UPS Plus cost more per kilowatt of protection than the APC UPS systems. They are also more convenient, and marginally safer. This is entirely due to design and technology, not quality control or workmanship. Falcon UPS systems use regenerative on-line UPS technology, and in my experience - more than a decade of hard use with each brand - their batteries last longer. One Falcon UPS in use at Chaos Manor survived the Great Power Spike of 1989 and continued to work for another five years before it was replaced.

Three years ago I installed four APC UPS 1400 units and four Falcon UPS Plus units of similar capacity. Note that the APC units are "switching": their batteries aren't in use until there is a power failure. The Falcon units are regenerative on-line. All have worked flawlessly through a number of power failures, some catastrophic. In every case I was able to shut down my systems in an orderly manner before the backup power was exhausted. In no case has one of the units of either brand given me cause to worry.

And in no case did I give either unit proper maintenance including letting them drain power then recharge. Most manuals say you should do this, but I never do, and I know few outside big companies able to afford full time maintenance program management technicians who do. Most of us hook up our UPS and forget it, and as far as I am concerned that's the way it should be.

Two weeks ago, three of the APC UPS 1400 units began periodically screaming at me: their batteries were unhappy. I found it amazing that this happened with three of them simultaneously, but my records show that they were all received and installed at about the same time, and all have had about the same loads, so I suppose it should not be such a surprise.

Meanwhile, the four Falcon UPS Plus units, which actually bear a slightly heavier load--one supplies power to both my main systems including monitors, Belkin KVM switches, D-Link Ethernet switches, speakers, and so on--than the APC units continue to function without complaint. I had not tested any of them in more than a year, but I did let them perform their self-tests after the APC units began to complain; they say they are doing just fine and don't need any new batteries.