F2D News - January 2012

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Happy New Year! For those who read the December 2011 installment of the F2D News, you had a chance to read about my brief exposure to electric combat in Germany this Fall. To summarize, Lothar and the Germans have been working hard to develop electric combat. For them, it's a matter of necessity as viable flying sites are growing nearly impossible to find due to noise problems. I was pretty skeptical before seeing it for myself, but was actually rather pleasantly surprised with what I found. Although the performance of the models I saw wasn't there yet to compete with a modern F2D ship, it was actually comparable to what one might find in 80 mph or GX. However, the range of electric equipment (motors, batteries, speed controllers) available on websites like www.hobbyking.com is so vast and evergrowing that there is almost unimaginable room for experimentation and improvement/optimization.

I'm sure there will be some resistance, but I think the time may be ripe to start playing with electric as a viable alternative to internal combustion based propulsion for combat. Many top stunt pilots have already switched to electric, so why not allow it to be tried in combat? We all know and love our methanol and nitro burning engines, but if it turns out that there may be something with even better performance out there, it would be a shame to miss it.

On my way back into the states, I stopped by Alex Prokofiev's house over Christmas weekend. Recently he's been busy building electric multicopters, and had a random selection of electric components laying around. To get the ball rolling, we decided to put together and test an electric setup on an F2D model (see photos). Of course the combination of motor, battery, prop and speed controller that we happened to have on hand was way out of spec for what we need, but as a proof of concept the experiment was quite successful. After drawing up and cutting out a radial mount which would allow a wide variety of electric motors to be fit onto a standard F2D mount block, it took under an hour to get the battery installed into the bladder compartment, and speed controller and receiver (temporarily used for throttle) embedded in a slot in the leading edge. Amazingly, the center of gravity came out right on. From here, it will be easy to pick out a list of promising motors, props, and batteries to get into a good power/economy regime. At 20 bucks or so per motor, it's not a huge investment to try a handful of powerplants. If one could be happy with a short flight of say 1 minute or 1 minute and 30 seconds, I'm pretty confident that the performance of a good F2D ship could be matched already.

While we were preparing the model, Alex made an interesting suggestion. Why not run some contests where we allow electric to be flown against normal models? No restrictions. Any battery, motor, speed controller you want. Combat pilots are an amazingly creative bunch, and with the potential for gaining a performance advantage hung out there I think that this kind of unlimited freedom could really spur development. Maybe those F2D-Fast events which are being held around the country would be a perfect testing ground for this. Or in 80 mph/GX. We could try it in local F2D contests as well. Eventually, if the performance of electric models gets ahead, we can start thinking about some suitable specifications on the motors and batteries, and consider whether to merge electric in like in stunt or split it off as its own event, but until then we can let anything fly. Personally, I think it's a great idea. Of course we can't do it in big official contests like the Team Trials, but I see no reason not to try it in local contests to promote the development of the technology. If anyone decides to do some tests I'll be quite interested to hear the results!