CLIVE GAMBLE'S REVOLUTIONARY CAMEL

by Mike Nassise

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No rotary-engine pun is intended in the title of this article, it's just that clubster Clive Gamble's new 22" WS model of the famous Sopwith fighter has design features that might just revolutionize the way we scale modelers deal with short-nosed, round-engine airplanes that have a reputation for being poor choices as rubber-powered subjects. This "bad rep" stems from the fact that over the years many have tried their hand at building Camels, but almost all have been very disappointed at the less than eye-opening flight performance of their creations. Yes, the Camel looks great sitting there on the judges' table, but its a "dog" (sorry, Snoopy) in the air.

Well, my bad-mouthing of the Camel may have been accurate in the past, but since Clive showed up at this year's Nats in Geneseo with his nifty model, all that may be a thing of the past. How come? Because Clive blew everyone's socks off with a beautiful minute and a half flight that had them cheering all over the field. Wow, what a performance. The really surprising thing is that Clive didn't develop any new modeling techniques that hadn't been used before by other builders; he just applied well tested procedures known to most everyone in an extremely innovative fashion. In short, by using a very well thought out series of building steps he turned a notoriously difficult to trim biplane into something that behaved like a high-wing monoplane.

(Photo courtesy of Gene Smith)

Here's how Clive performed his magic. First off, he spared no effort in producing a very lightly built airplane. He's a great believer in the old adage, "build them light; watch them fly out of sight!" By strictly adhering to this old saying, Clive made sure that his Camel turned out to be a "floater" that danced in the air for an excellent flight time rather than a "lead sled" that came to earth quickly after being launched. (PFFT Ed. Note: According to Gene Smith's column in the July 09 issue of Model Aviation, the thing weighs an incredible 34gms!)There is no other rule more important to follow for success in Rubber Scale competition. For that matter, there is no more important rule to follow for success in any free flight event. The advantage always lies with the light builder. Don't let anyone ever tell you otherwise.

Secondly, Clive moved the rear motor peg forward quite a bit so that it was much closer to the model's CG. In fact, the peg ended up just aft of the cockpit. Naturally, this reduced the amount of nose weight needed up front to keep the Camel in balance. However, Clive did not reduce the length of the model's rubber motor but, rather, he made it longer! How did he get away with that? He installed a rotating motor peg - sometimes called a "wobbly peg" - so that the motor was able to unwind smoothly within the fuselage even though it was confined in a much smaller space. This type of peg was first developed by founding father

Dave Stott for use in his multi-engined models with short nacelles. Again, nothing new. It's been around quite awhile and it has been used successfully by other FAC master modelers such as Vance Gilbert, Richard Zapf, etc. for the same purpose. Clive, however, is the first (as far as I know - Ed.) to use the "wobbly peg" in a Short-nosed, single-engine model with lousy moments such as the Sopwith Camel.

For those who have no clue to what a "wobbly peg" is, it's simply a device that's made from two pieces of tubing of different diameters. The piece of tubing with the smaller diameter is slid through the one with the larger diameter, and acts as a regular motor peg, extending out on each side. The large diameter piece of tubing is shorter in length and remains entirely within the fuselage of the model where it is free to rotate around the other one. You no doubt, by this time, see where the problems arise with this arrangement. It's not easy loading a motor into the model but, with practice, it can be done without too much profanity escaping through your lips.

"Wobbly pegs" allow you to use a rubber motor that's 4 to 5 times the distance from the prop hook to the motor peg, and that's exactly what Clive did. In his Camel, the distance between the hook and peg was about 4.5". His motor was over 20" long and it functioned perfectly, unwinding without any bunching up and providing a spectacular official flight. Clive finished in 6th place in FAC Scale at the Nats with a score of 149.5. That was 1 point behind Vance Gilbert, the 5th place contestant, who scored 150.5 flying his twin-engined DeHaviliand Flamingo. The Nov/Dec 2006 issue of Tailspin contained an article by your editor on a simple to build and relatively problem free rotating motor peg that was designed by larry Peavey. It's worth reading for more info on the device. (PFFT Ed Note:Check out his article on that subject on our website www.pensacolafreeflight.org, under Articles Index, and it’s listed as “Motor, Rotating Rear Peg”)

Finally, Clive used the classic reverse "S" prop hook to keep his rubber motor from climbing up the propeller shaft and jamming things up in the font end of his model. I'm always amazed at the number of modelers who will not take the time to bend this type of prop hook because it really makes a difference in your flight times. Again, bending a reverse "S" hook isn't all that hard with practice, and you'll never go back to diamond hooks once you've used it. While you're at it, get yourself some rubber "O" rings to hook your motor onto the prop shaft. They are safe and reliable to use; just ask anyone who uses them.

Well, that's how Clive tamed his ornery Camel. I think he hit upon an excellent strategy for dealing with models like the Camel that have a reputation for not flying very well. Will we be seeing good flying Spads, Fokker triplanes, Brewster Buffalos and Zeros in droves now that Clive has shown us the way? I don't know: that remains to be seen. If any of you out there attempt to duplicate Clive's feat, drop me a line and I'll pass your comments on to rest of the gang. Passing on the results of experiments is the only way that progress is made in any field of endeavor.