Product Review

The Butterfly

by

Damien Mould

Well as with my last review breaking new ground in that it was my first war bird, this review also sees me building the lightest powered model I have ever owned. The "Butterfly" is strictly speaking an indoor model, but as with all indoor models they can be flown outdoors on the calmest of days and that means nil wind! It is quite hard to write a review on a model that is so simple to build and fly but here goes, it was built and flown in less than ninety minutes. The main wing, tail plane and rudder all come pre assembled. They are all constructed by the same method of flexing a solid carbon rod to form the shape of each surface and then covered with an extremely light film and which according to the web site is available in four different colors. The fuselage is a straight carbon rod and the rear wing stay is already glued in place, make sure you glue the shorter carbon rod to this.

The instructions were a little confusing in that the photos didn't seem to correspond to the instruction next to them; photo's 1 - 4 need to be reversed to relate to that instruction in the booklet. A quick look at photo 11 in the instructions will reveal where all the respective bits should be.

Take a close look at the picture before you go putting CA on anything, when glueing to carbon you rarely get a second chance.

The model comes with a small pencil motor gearbox combo, which looks like the same unit as used on the GWS park flyers and I flew one of these power plants indoors for a couple of years. The next step is to attach two clips to the motor gearbox which allow it to be installed on the main CF rod. This looked a bit dodgy to me but has proved itself since being installed by having had no problems. The horizontal stab is next to be attached and all you have to do is orientate it the right way up and glue it to the rear end, again check twice glue once! The motor gearbox was then glued to the front end and a small servo tray made up for the two servos used.

The battery supplied was a 6 cell 300 mah nimh pack. I had a very small 5amp speed controller with a BEC that needed a home so this was installed, (a 10amp controller is recommended). And as usual I used my trusty Futaba S3108 servo/ R114 Rx combo making for a very light installation.

I needed to keep as much weight forward on the model to allow the C of G to be placed at the recommended 90mm behind the leading edge. The balance point has proved perfect but the battery needed to be placed just behind the motor to achieve this. The weight of the model came out at a very light 165 grams.

Flying

Not much point in doing a range check indoors (some will disagree) but I did a full power control check just to make sure that there was no interference coming from the speed control and all was fine. This has to be the easiest and slowest model I have ever flown, it lifted off in only 3 or 4 metres and climbed steadily up to about 15 feet where I reduced the power and settled into a nice steady orbit. While in level flight only around one third throttle is used and I would guess that 10-15 minute flights are achievable on the 300 pack if good throttle management is utilized. The model behaves nicely and turns flat and will start to porpoise if it is flown to slow. It is very stable and if trimmed correctly would fly hands off! The motor seems up to the job but a little more power would be nice, I believe that a more powerful motor is on the way. I had my doubts about the tail wheel arrangement but it has proved satisfactory.

After 5 or 6 flights the motors performance degraded to the point where the model would not even lift off. I replaced the gearbox and motor with another unit that I had and it has given the model much better performance. The replacement unit was the "C size" 86 tooth main / 10 tooth pinion set with the original propeller used on the butterfly which appears to be a 9:4.7 size.

It does fly very well, is quite robust and would make an excellent first indoor model, especially where space is limited. Until next time. Damien Mould

The butterfly is available from:
Precision Aerobatics
Tel (612) 95580443
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www.precisionaerobatics.com

The equipment installed. Note the forward battery position, needed to get the CG location correct. Precision Aerobatics advise they now ship the Butterfly with an improved power unit.

The Butterfly in action in the garage. A tiny Damien or big Butterfly?.