

Light Flight

RCMW looks at some of the latest indoor offerings



EPP EDF models can land safely on rough grass patches

At the time of writing, in early April, the evenings are getting lighter and it will soon be possible, other climatic factors willing, to get outside again later in the day. The evenings are a great time to give the indoor and 'parkfly' size electric models an airing. Although I belong to a club with excellent flying facilities, I also make use of a nearby farmer's field, with permission of course. This is a useful facility for quick test flights. The disadvantage is of course that it is rough pasture so flimsy undercarriages are a bit hazardous, as are belly landings if not done with care. It is possible to fly the new light-weight breed of EDF models in this field quite safely, my latest, the larger version of the FreeAir L-159 from Robotbirds was test flown there. However most of the models I fly at this location are the sort that can be brought in at a high alpha angle and eased down onto the ground gently. Club camaraderie is great but sometimes a spell of sole flying is also pleasant. Although Easter has come and gone we are still indoor flying at two venues although my club sessions are now over. The members have enjoyed this season's indoor flying so much that the enthusiasm was there to continue but the use of the school hall gets more problematic as mock and 'real' exams etc. appear on the horizon so we have reluctantly finished until September.

The many new Silverlit helicopters continue to delight and this month I'm looking at the amazing Tandem and the new BladeRunner Nano. These helicopters are getting more demanding to fly as some of the Tx's are quite complex and include up to 4 functions, not including the on/off light control switch! Many of these models are well beyond any 'toy' image and have an excellent performance, believe me the twin rotor Tandem is very addictive!

Try Two Rotors

I'll begin with the Tandem model, as this is an amazing design that includes a lot of aerodynamic 'tweaks' to help it to fly. Take a look out of the window next time you are jetting somewhere and the full size models have 'bits' sticking up all over the place on the wings. In the case of the 21 g Tandem helicopter the two separate rotors are angled either side of the vertical and there are clear plastic 'stabilising fins' at the nose and tail, these are also angled. The Tandem has an internal red flashing light that indicates when the R/C system is active and a blue LED nose light. This can be switched on via a button on the Tx. I understand that several years of development have gone into produc-



The Silverlit Tandem and its special controller



The fore and aft stabilisers are clear in this photo

ing this model and there is scope for further development. Initially my first flights were on the wild side and this is not a model to test fly in a small space. However once trimmed, it performs extremely well and is a really fascinating model to fly. As with all tandem helicopters it is sensitive to the pitch control and for a beginner a 'Control Cap' restricts the movement of the pitch and yaw controls. The 'T' slot in the cap provides for either forward pitch or both directions of yaw. Once you feel confident enough the Control Cap can be removed. This then allows you to combine both the yaw and pitch plus use backwards pitch. When more flight experience has been gained the forward stabiliser fin can be removed but the rear fin must be retained. It is possible using the pitch trim to hold the Tandem to hover and then only tiny movements of the forward pitch control are required to move the model forward or it can also be set in a gentle forward motion using the trim. The trim controls are very effective. Combining pitch and yaw enables the Tandem to fly in quite fast circuits and the reverse action on the pitch stick is very marked. With small models like this the secret of smooth flying is in the sensitive handling of all the controls.



The Tandem understandably needs sensitive handling but flies extremely well

The Tandem is clearly a very advanced design and although more demanding to fly than the average micro helicopter it is hugely satisfying to pilot. The performance is quite amazing.

BladeRunner Nano

The BladeRunner range of helicopters produced by Interactive Toy Concepts has been around for a while and a new addition is the Nano helicopter.

The Black Ghost set the pattern for small co-axial helicopters and the new design is called the Nano. It is similar in size to the Black Ghost but has new body styling and now a forward flight capability. The biggest difference is that this helicopter is a 3-channel version. The original Tx shape and size has been retained but there is now a combined pitch and yaw control stick in addition to the throttle stick.

The Nano looks very different, as in addition to the new body styling there are two tail rotors. These rotors combine to give the pitch and yaw functions and the motors are set in the fuselage at



The BladeRunner Nano has some very interesting features



Twin tail rotors provide the yaw and pitch control

an angle. Yaw control is provided by one, or other, of the motors rotating. The forward and backward pitch is controlled by, both motors rotating.

The system works well and if a further increase in forward speed is required weight can be added to the nose. This will of course affect the hover but with



The Nano is easy to fly and very stable

the backwards control it can be balanced out.

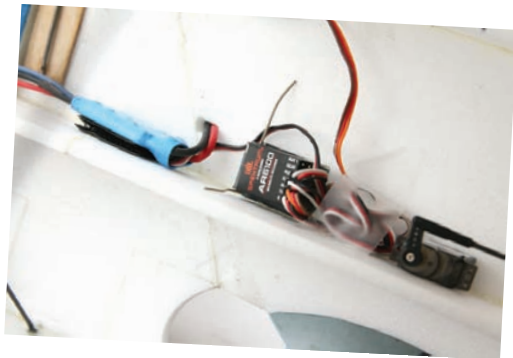
The Nano is an interesting development and successfully introduces the extra channel to micro helicopter flying. The ability to control the pitch enables more interesting and precise flying to be done.

Small Space Biplane with a BIG Performance

I have a certain fondness for biplanes and my latest is an outdoor 'small field capable' model called the Pitts Viper from Mark at HobbyKo (www.hobbyko.co.uk) My slight objection in the past to biplanes was that I was not over keen on building one wing for a model let alone two! However now



The Viper needed a different mounting to suit the Axi motor



Loads of room for the R/C gear



U/C fixing is optional and is a very secure mounting

'very friendly foam' is with us such tasks are no problem.

I already have three models from Mark's range and they all fly extremely well. The kits are very reasonably priced and comprise of accurately cut foam parts with a separate fitting pack available if required. Easy to follow, downloadable instructions make for a fast assembly. The VTO Com.Bat, Sonic Boom, which I converted to EDF power, and Yak 54 are all great flyers. The 790 mm (31") wing-span Viper is slightly dearer at £16.50 as it is a biplane more foam cutting is involved. Models like these can be assembled very quickly using

a combination of CA, UHU Por and a glue gun. I usually use UHU Por for the joints and the glue gun for strengthening fillets in the corners of the joints.

A motor mount designed for either a stub shaft or rear plate mounting was included but the only motor I had available for this model was an Axi and I did not have the rear-mounting adapter. It was no problem to alter the nose to take a front mounting plate and mount the Axi. An undercarriage is optional and if flown without one the aileron servo is fitted in the fuselage. With an undercarriage this servo can be fitted in under the lower wing and this makes for easier installation. A 3s LiPo is used for power and the Over-tec 850 was ideal size. I used my favourite ZIG Posterman pens to turn the 'all white' Pitts into something more attractive. These pens are readily available online if not stocked in your local hobby or art shop. In the instructions Mark has included a modern pilot or, as a humorous alternative Bart Simpson, I wonder how he would fly a plane! Ready to fly with a 3s 850 LiPo the Viper weighed in at 368 g (12.9 oz).

Test flights showed that Mark has got the design just right and the Viper is extremely aerobatic with that special biplane appeal. It will do just anything you want and the slow rolling capability is particularly good. It does a super stable knife-edge and flies beautifully inverted. It can also be flown as mildly as you like so this model could be an intermediate trainer with reduced throws.

Everyone deserves to have a biplane in their hangar. This one in particular can be built at a minimum cost and is a delight to fly.



Reaching for the sky; going vertical is no problem



The Viper is a very attractive model in the air

Tailend

That's all this month, next month I hope to look at some more of the fabulous new 2008 models from Flying Toys plus the Jump Jet from Snelflight. Of course I'm always interested to hear about your light flight electric projects via john.Stennard@tesco.net or the editor at Traplet. **RCMW**



Above: The Snelflight Jump Jet, an amazing little flyer, you will love it



Left: The Silverlit i-BIRD is quite amazing to fly and can cope with really small spaces



I opted for the 'real' pilot rather than Bart!