

Light Flight

Some fun new mini helis and Sumo hooliganism!



This B-17 was seconds from crashing at Much Marcle

Well it's the end of year issue again and although I've had plenty of good flying the fickle weather has been a real issue as far as displays are concerned. Single day displays are particularly vulnerable and expose organisers, flyers and traders, not to mention the spectators, to the risk of a 'non-event'. I attended the LMA Much Marcle show in September on the Saturday and we enjoyed good

weather and flying conditions while the Sunday was a different story. It was good to see this show back again although, following several significant crashes, it was decided not to fly on 35 MHz until the situation had been resolved. A large number of models were on 2.4 GHz so the bulk of the display was unaffected.

The star performer(s) for me were the Breitling Stearman (featured RCMW August issue) complete with functional wing walker. Two models were present but only one flew. I had already marvelled at them flying together at the Woodspring Wings show. With Richard Rawle and Steve Holland as the pilots and Sharon Stiles operating the wing walker, this is a superb and unique spectacle. Rainy and unsettled conditions were around during the Bristol Model Engineers Exhibition in August where our club runs a stand, the only model aircraft input at the show. Luckily we are indoors and although we had the same ground area we had rearranged the flying zone to give more room. This involved having fewer display tables but gave us an increased 14 x 11 ft flying area. We usually only fly helicopters but I found that I could actually ROG the Vapor and even do tight 'figure of eights' in this space.

I've tested some more models from Silverlit kindly supplied by Flying Toys Ltd so am starting off this issue with a look at these.

Three Times Fun

The latest three helicopters from Silverlit are interesting and fly well. Since their first IR helicopters Silverlit have annually come up with new and more advanced helicopters and they are becoming increasingly sophisticated.

I thought a new scale model of the Black Hawk very attractive. It has a new style 27 MHz Tx and as usual the Tx doubles as the charger and charges the 300 mAh LiPo cell via a new style lead with a micro size jack connector. A separate USB lead is supplied so that the helicopter can be charged from a PC or laptop. The Black Hawk is a fully functional 3-channel helicopter and this gives throttle, pitch and yaw, a trim is provided for the yaw control. A helicopter headlight switch is also incorporated. The pitch control



The Beaufort MFC 14 x 11 ft flying space at the Bristol MEE show is no problem for the Vapor



The Silverlit Black Hawk Coastguard helicopter is really attractive



The rotor head uses the proven magnetic actuator system on the swashplate



The Air Racer is an interesting 'dual' model with air and ground control



He is great fun to fly and very controllable

is operated by the tried and tested magnetic actuator system. A separate and very useful 'Hints & Tips' sheet is provided in addition to the usual instruction booklet. FP helicopters are always slightly more demanding on the pilot than a co-axial but the Black Hawk is easy and rewarding to fly. It is a particularly attractive looking helicopter both on the ground and in the air.

The Flying Iron Man really is an extraordinary little model and he flies extremely well. The red Iron Man comes with a matching red IR Tx, which also charges the 90 mAh LiPo cell flight pack and the 2-channel system operates the throttle and yaw. He is set for a slow forward flight and can be taken off easily, aided by the large boots and cross bar, but landings need practise. The yaw trim is very effective and the modified rotor system now has two 'line up' markings on the blades, if the Iron Man is handled carefully then the rotor blades should not move out of alignment. However if they get misaligned they can be more easily returned to the correct position. The Iron Man is extremely stable and fun to fly, the turning circle is tight enough to operate him in a very small area, he can of course be hand launched and easily caught. This model is a really great little flying machine that will be fun to fly for any age group.

Last of the models is the Air Racer and this combines a sporty looking road racer with the helicopter function. This model also uses an IR Tx with yaw trim and headlight switch, it also doubles as the charger for the 90 mAh LiPo flight battery. The Tx has two press buttons on the top that switch the model from racer to helicopter. Basically without the buttons being pressed the throttle only gives a limited amount of power, enough to drive the model around on a smooth surface. Steering is achieved using the yaw control. When either the left or right buttons are pressed the

throttle now can operate to full power. In this state the Air Racer can be flown as a helicopter. Once flying, pressing and releasing the left upper button makes the helicopter move forward at a normal speed for a while and the right button makes it move forward at a faster speed for a while. If both buttons are pressed simultaneously the helicopter flies forward continuously. These buttons combined, with the yaw and throttle, give a good level of control and make it an interestingly different model to fly.

Be Kind To Your LiPos

We all know how important it is to keep LiPo cells in good condition and keeping the packs balanced is always a good idea. In theory a balancer/charger should do this but even though I always use one I was surprised by the readings when I tested

The Iron Man is a really eye-catching model





The LiPoMate from AI's Hobbies is easily transportable



This shot shows a pack with one low cell



Ouch! My Sumo has been bitten!

some packs with the LiPoMate from AI's Hobbies. The connector matches the most common balancer leads and when the pack is connected a very clear LCD screen shows the individual cell voltages. If there is a difference the LiPoMate starts to reduce the voltage on the higher pack/packs until they all have a common voltage. The circuit automatically cuts out after balancing. I used it with several of my packs that showed voltage differences and when balanced charged them. The readings then showed that the cells had all charged up to the same voltage. Obviously the readings from the LiPoMate can show when there may be a failing cell in a pack if an individual cell is constantly registering a different voltage. If there is a considerable voltage difference between the cells it can take some time for the LiPoMate to reduce the higher ones to the level of the lowest.

This is a very useful item to help keep your LiPos happy and can be used back at base or to check packs at the flying field.

A must for all electric enthusiasts and considering that it could improve the performance and life of your LiPo, it's a bargain at around £16.

How Does It Happen?

The Sumo combat slots are very popular at our indoor flying session and there is often a certain reluctance to return to normal, sensible flying! Although one really tries hard to slightly nudge (or better still smack forcibly!) the other Sumos they are such nippy and manoeuvrable little beasts that this rarely happens. Probably



It's only a TechOne profile EDF model but the lack of body is made up for by an excellent performance



A bit of tail chasing here, sometimes we have seven in the air in our small hall



The FMS F-18 really looks the part

one in ten of the impacts are intentional and the rest, sadly, mere mid-air. Perhaps we need a sacrificial Sumo to potter around in slow circuits so the rest of use can have some target practice. I'll have to think about that idea, as volunteers are unlikely, perhaps every new Sumo could have to do this as an initiation ceremony!

Anyway, when Sumos get damaged it is often really difficult to see how the damage occurred. Yes another Sumo hit mine; witness the large chunk missing from the wing, but with the guilty Sumo's prop in a ring how did it happen? Leading edge tears can occur without a prop being involved and prop slot damage is also easily explained. This happens if the Sumo impacts and the prop flexes on the prop saver but how can the leading edge have a chunk bitten out of it? Perhaps it's just collision damage and the prop is innocent but damage like this is not infrequent. The Sumo is so tough that the one in question flew quite happily for the rest of the evening with the piece missing, fitting CF strip to the leading edges would make them less chewable and that might be the next modification. The Sumos tend to be rather noisy due to the position of the prop but this does add a certain 'Top Gear' effect to the flying! Perhaps I should contact them, as I'm sure they would appreciate these models, perhaps not!

Tail End

In terms of the number on the market and the number I have tested this has been 'the year of EDF'. Some interesting performers have included the J-Power Eurofighter Typhoon and the FMS F-18. From TechOne the profile F-22 has proved a great fun model with an exciting performance.

I'm always interested in your small indoor and outdoor electric projects. Information and photos are always welcome either directly to john@stennard.orangehome.co.uk or via the editor at Traplet. I am available for talks/demos on indoor R/C within my 50-mile range of Bristol and as the Western Area Education Coordinator I am also happy to talk to school pupils and youth groups. **RCMW**



The J-Power twin engine Eurofighter is an impressive model