



Short Finals

JePe EDF F16 Falcon review
EDF Fantrainer review
Are your nicads older than you?
Get in trim for the season
Bumper foto issue!

Of course, to get into low earth orbit takes a few seconds longer and I'd need to okay it with NASA...

Jings, a vapour trail...



EDIFICATION

Hey, what's this you're asking? Ladies and gentlemen, let me introduce you to a publishing breakthrough, in the form of a compact, new look ADS Newsletter. Instead of the 5 or so A4 sheets printed on one side only, the equivalent number of articles and photos can now be accommodated on only 2 sheets of paper. Bad news for those of you who still burn fossil fuels at home, but good news for squirrels, woodpeckers etc. Everyone member will receive their copy through the post er ... so I guess it's good news for the Post Office too! I think it's a marked improvement on the previous format, and is certainly more user friendly.

Unfortunately, the editor remains the same, but the layout and production is now in the capable hands of country gent and fellow modeller, John Barnes. For those members unfamiliar with the name, John is a member of ADS who lives out in the Fyvie direction, drives one of those large 4 wheel drive buggies that is only marginally more economical than a double-decker bus, and consequently only makes the occasional appearance at Calder Park.

By way of an introduction, he's featured on the front cover. Check out the good looking young chap on the right the one with the tube of "Smarties" in his pocket!

I sincerely hope that the recent outbreak of Foot & Mouth disease will be history by the time you read this, and that normal flying will have resumed. The last couple of months have seen a fair mix of sunshine and snow accompanied by very little in the wind stakes. As far as I'm aware, there's not been much happening on the "slopes" so far this year, however a few of us have managed to dust down the gliders for a couple of flying sessions across at Calder Park. No lift to speak of, so short flights were the order of the day. On the other hand, the bitterly cold, calm conditions were ideal for the electric models, as you will see from the selection of photos in this issue. A number of new battery powered "toys" were successfully flown and a couple of them are featured in the following pages.

Our thanks to Norrie Kerr for entertaining

us with a "wing glassing" demonstration at the February meeting in the Cove Bay Hotel. The cold snap had caused problems with the panels he'd been preparing prior to the meeting, but this didn't detract from the overall demo., which was much appreciated by those present (myself included), who have never dabbled with the "epoxy and cloth" side of modelling. The evening was rounded off in dramatic fashion most of us were taken aback when Norrie demonstrated just how tough a glassed wing can be, by taking a completed panel and physically demolishing it. The two pints he'd consumed during the evening were exuded during this activity! honest, just two pints!

After the sad loss of Davie Davidson in the summer of '99, the consensus among members was that the club should have a memorial trophy which could be competed for on an annual basis. The committee at the time felt that this should take the form of a simple thermal duration flight that could be attempted at any of our regular flying sessions at Calder Park. Unbeknown to the committee, the club already had the NOWSCO trophy for just this purpose, although it hasn't been competed for since 1996.

We're keen to get the Davie Davidson Memorial Trophy off the ground, but feel that it should be competed for throughout the year rather than a one day event, which you can bet your boots would suffer from the vagaries of our weather.

So what to do, guys? One suggestion is for the NOWSCO trophy to be retained by the next winner until such time as someone records a longer flight. The DDMT would be awarded for the longest duration flight each year. How about a little feed-back on this one, chaps? Any good ideas or suggestions to the committee, please! **DR**

COVER PIC: *Electric ace Bruce Flockhart flying well in Nats Electroslot despite ADS assistance! Small, highly aerobatic model manages c. 3 minute glides from an 8 second motor run on 7 cells. Geared Aveox 1409/1Y, Kontronics esc, Team Orion cells and a prop which wouldn't look out of place on a windmill. Outstanding!*

Right then lads 'n' lasses, now that you've passed the waffle bit, here's a tasty bit of Electric Ducted Fan for you to mull over.

F16 FALCON by *Graham Donaldson*

The model is a 1:13.5 scale F-16C by JePe of Holland. Its span is 780mm length 1090mm and weight approximately 1 ½ kg. Details of this and his other models are detailed on his web page – <http://www.fly.to/jepeschlosser>. His e-mail address is - jepeschlosser@yahoo.com.

By the way, he speaks very good English.

So to the model itself. The fuselage is a superb epoxy glass moulding with all panel detail incorporated. Carbon fibre reinforcement is included in highly stressed areas. Very little work remains to be done with some formers already fitted as are the catches for the large hatch. The wings are foam cores veneered in balsa. The carbon fibre spar has to be fitted and the

wings epoxyed to the fuselage. I decided to install tailerons rather than have two additional servos (extra weight) to control ailerons. In fact on retrospect, lateral control would have been

quicker with ailerons. The roll is very slow!

I tissue covered the wings and elevator and built up the surface in the old fashioned way with banana oil and a few coats of sanding sealer before priming the whole model with cellulose undercoat and finished everything off by spraying three shades of grey Humbrol enamel.



The motor is a brushless Hacker B50 19S with a Kontronic 3SL 40-6-18 speed controller. The fan is by JePe. It all fitted in as instructed, leaving room for a 500ma receiver pack, the receiver and 12 Sanyo 2400 cells.

The first flight took place at Calder Park on Tuesday 13th February – a beautiful springlike afternoon with very little wind and therefore no excuses not to fly. A bungee launch took it into the

air with a smooth transition to powered flight. Fast with large manoeuvres is how to describe its performance. It is quite a small model so it should be kept within comfortable vision. The landing was quite effortless after about 3 ½ minutes flight – duration will increase to almost 5 minutes as familiarity

increases and the throttle can be reduced.

A first class model. If JePe's other kits are as good, he's onto a winner. **GD**

(I was present at Calder Park for the F16's maiden flight, and was duly impressed by the look and sound of Graham's EDF fighter, but if you can't afford a second mortgage, read on... Ed.)

CHEAP*N*CHEERFUL by *Derek Robertson*

At the opposite end of the spectrum from the F16, but also inspired by Graham Donaldson, who flew his version of this little cracker at last year's Hazlehead event, my recently completed electric Fantrainer finished in the Lufthansa livery.

(Continued over)

It's small, the 32" wing span makes this my wife's favourite model. (We have a very small house we don't have a remote controller for the TV, but can change channels from the toilet!) Construction is very straightforward, simple and quick, but what makes it different from other balsa models, is that all the separate components (wings, fuz, tailplane, booms and fan shroud) have to be a snug fit and covered before final assembly. Most of the balsa came from the scrap box! Instead of moulding a clear canopy, I used a hollowed out block of blue foam sanded to shape and given a coat of white glue to seal the foam, before finishing with black paint.



The only fiddly bit involved rolling the 1/32" ply fan shroud around the card board jig. Graham suggested beefing up the wings a little by replacing the balsa spars with spruce. Apart from that, it's as per plan. Incidentally, I used Solarfilm to cover the whole model.

Flying? Absolutely spiffing straight off the board! Eleven minutes of very stable flight, and capable of mild aerobatics too (loops & rolls no problem). With around 20 or so successful flights to look back on, the two crashes I've had with this model have been down to pilot error! The first prang was the result of "being confused" whilst flying inverted, and the second involved a spectacular spiral dive into the industrial after adjusting the aileron trim in the wrong direction ooops! Even more surprising was how little damage the plane actually sustained. **DR**



In the nude and fully covered!

The AUV of the Fantrainer is 20 ozs, carrying micro Rx and 2 micro servos. Powertrain comprises of a 9.6v 8 cell 1100 Nimh pack, Kontronik speed controller, 480 race motor and pruned 4.7 x 4.7 prop.

A question of balance

In view of the "electric" bias of this issue, does anyone have a new or recycled glider that we could feature in the next newsletter?

AGEING NICADS by Keith Donaldson

The Nicad batteries that we use in our Transmitters and Aircraft wear out with time. If you have a battery pack that is more than 3 years old you should be keeping a close check on it by cycling every month. If it is 5 years old or older you should replace it and be sure to properly dispose of the old cells.

So - how do we tell the age of our batteries? Most Futaba battery packs and individual Sanyo battery cells (which most OEM radio manufactures use) have a 2 letter date code stamped somewhere on the pack or cell. The first letter of the code is the year of manufacture and the second letter is the month of manufacture. 1996 = "A", 1997 = "B", 1998 = "C", 1999 = "D", 2000 = "E", etc..... January = "A", February = "B", March = "C", etc.....

So - if you have a battery or pack with a date code of "CB" it was manufactured in February of 1998 - probably still OK but keep a close check on it. The pack in my 8UAF transmitter was "ZF" or June of 1995 so I replaced it. I found one pack with a date code of "WC" which translates to 1992 - replace that one without question. **KD**
(Hopefully Keith can do a follow up article Ageing (club) members and how to dispose of them? Ed)

Ever wondered why Brian Ord's models all seem to fly so well? Read on ...

DELVING IN THE DARK SIDE

by *Brian Ord.*

Hi all fellow model flyers. Having been badgered by Derek to write a small article for the club newsletter, I have come up with this little piece on trimming your model for it's best flight performance. I must add at this point that all the following suggestions are entirely of my own ideas and theories.

Having just finished building your model and ready for that first testing flight, check out a few things first. Are all the flying surfaces true to one another? Get the measuring stick out and check. Are there any warps? Sort it out with the aid of a heat gun. Next check the centre of gravity, now what about the lateral balance i.e. is one wing heavier than the other? How do we measure this. Quite easy, suspend the model above the CofG and check, add weight to the light tip until the model balances. Good, we are now ready for that first important chuck.

I always test my models from a hand launch as this gives a good indication of how the model behaves in the glide. Next hook it up to the winch and give it a good easy tow without interfering too much with the sticks. How did the model behave on the line, did it point it's nose skyward and go screaming up to the top of the line, or did it just ping off at about fifty feet altitude? If it pinged off then your tow hook is positioned too far forward, move it back and try again. How did the model respond to the controls? Was the rudder ok and the elevator a

bit soggy? This could be caused by the CofG being too far forward. We now need to try a dive test. Relaunch the model and once clear of the tow line induce a dive, not too much down just enough for a twenty to thirty degree dive. Neutralise the elevator and watch the model. Did it lift it's nose abruptly and climb up into a stall? Or did it continue in the dive and need an input of elevator to bring the model back to level flight? If the model performs a climb, then it is nose heavy, if it continues to dive, then it is tail heavy. What we are looking for is the model to pull out of the dive gently and recover all on it's own. This now shows us the optimum CofG point. Any further back and you are definitely on your own!

To move the CofG back, remove some lead and screw in some down trim yes down trim! As the CofG is moved back, the elevator and the model become more responsive. Remember we will need to move the tow hook back as well (this is one of the reasons I hate those bolt on plastic tow hooks). A better system is to have a hardwood bearer built into the fuselage with small holes bored at about quarter inch spacing and use a modified cup hook as the tow hook. Tow hook position is also a very important part of the model's trim. The hook needs to be just in front of the CofG. What we are looking for here is for the model to take on a nose up attitude just after launch on the tow line and climb up unassisted by any elevator input, hence the reason for the holes bored into the hardwood block so that we can adjust the tow hook position easily at the flying field. Keep experimenting with the CofG position in very small increments until you are happy with the way your model behaves for you. Everyone has their own tastes.

If you think that all the aforementioned applies only to Thermal Soarers, then you would be wrong. Slope Soarers need the optimal CofG position as well if you want them to respond as much as possible to elevator input, but don't go too far back or you will enter a situation where you could get into the unretrievable situation of Tuck Under. I know of this as I have the T-shirt! **BO**

FREQUENCY TABLE

If you're thinking of buying an additional Rx, splashing out on new equipment, or just plain fed up finding that someone else at the flying field is using the same crystal, have a quick look at the table below before parting with your money!

Take note that some of the members on the list have only one frequency indicated a sure sign that all of their models / Rx, will be operating with this particular crystal, so these should be avoided where possible. (remembering that we glider chappies are flying on "even" frequencies only)

We personally are in favour of each member having their own frequency allocation, thereby avoiding any clashes. Food for thought, perhaps?

We thought it would be useful to include a copy of the frequencies currently in use. **DER KOMMITTEE**

NAME	FREQUENCY													
	60	62	64	66	68	70	72	74	76	78	80	82	84	
James Ruxton		●												
George Whelan												●		
Brian Ord					●									
Derek Robertson										●				
Graham Irvine	●													
Graham Donaldson			●											
Bill Stark												●		
Dave Curry				●										
George Thomson										●	●			
Gerry Mitchell							●							
Neil Davidson								●						
Neil Masson											●			
Norrie Kerr		●					●						●	
Mike Pirie	●			●					●		●			
Gary Connel					●		●			●				
Andrea Connel					●		●			●				
Kaill Clark												●		
John Barnes			●		●		●	●						
Alan Stewart			●					●						
David Stock										●				
Keith Donaldson				●								●		



Keith Donaldson fires his trusty "Rookie up the line during a break from talking (!)



Mike Pirie poses with his "Magician", a highly aerobatic electric model



Calder Park in early February. Chairman Keith slides into PR mode when a French family turn up with an ARTF electric glider, meanwhile Jim Ruxton and Dave Curry ready themselves for a spot of winter flying, while a well-known garden gnome launches a PSS machine off Brimmond on one of this years rare visits



My thanks to both Mike Pirie and George Whelan for providing practically all the photos featured in this issue of the newsletter. So look out those old pics which are buried in the drawer doing nowt and chuck a camera in your field box. You'll get to achieve immortality in the newsletter! And John tells me he's working on a centrefold idea... **DR**



PROVISIONAL SCOTTISH EVENTS CALENDAR 2001

Month	Date	Event				Venue
APR	8	Open				Mossmorran
	15					
	22					
	29					
MAY	6	ADS Slope Fly-in				Venue TBA
	13					
	20	ADS Thermal "Fun" Competition				Calder Park
	20	Open				Warrix
	25-28	Open	100S	HLG	Electroslot	Oxford (RadioGlide)
JUN	2-3	ADS Fly-in and 100S/Open comp				Hazlehead Park
	10					
	17	Electric Fly-in				Cumbernauld
	24	ADS Slope "Fun" Competition				Venue TBA
	31					
JUL	8			HLG	ScotSlot	Mossmorran
	15	Open				Mossmorran
	22					
	29					
AUG	4-5	Open	100S	HLG	ScotSlot	Mossmorran (Scot Nats)
	12	ADS BBQ & Fly-in				Calder Park
	19		100S			Mossmorran
	26			HLG	ScotSlot	Mossmorran
SEP	2					
	9					
	16	ADS Slope Fly-in				Venue TBA
	16		100S			Mossmorran
	23	Open				Mossmorran
	30			HLG	ScotSlot	Mossmorran
OCT	7	Standby Date				

*NOTE: Information on non-ADS events published by Dave Bradbury.
SAA support for any Scottish event sites unknown at this time

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The committee welcomes any material of modelling interest for publication, so a few words (& photos please) about ones latest aeronautical creation/experiences/hints'n'tips will be warmly welcomed. The Ed has fitted an extra large letter box in anticipation of being overwhelmed with information!