Newsletter

No.40: October 2024

Welcome to your Newsletter

In this bumper edition: entertaining and informative articles from members, an update from the flying field for August & September (thanks to everyone who contributed) including the recent Fly-In, a surprising number of crashes and a few items for sale.

Please let me know of anything you would like to see included in forthcoming newsletters. All feedback and contributions are welcomed. Remember to play your part and if anything, interesting (or even better, funny) happens whilst you are visiting the flying field then drop me an email (with pictures) for the Activities at the Field section.

Members are particularly interested in how you got into the hobby, what planes you have owned, technical expertise etc...

Send any newsletter related matters and articles to me at: neilgrayson@sky.com

Training

If members want to request any type of training or to work towards their Bronze/A awards then contact the committee so that this can be organised to suit individual needs.

Club's WhatsApp Group

If you want to be added to the club's WhatsApp group please email me your mobile telephone number and I will get the Administrator, Douglas Fulton to add you to the group. It is used for general chat, advice and to coordinate visits to the flying field.

Club Fuel

We still have a large stock of fuel. Contact a committee member if you want to purchase a few litres.

20% Nitro is £38 for 5 Litres

5% Nitro is £30 for 5 Litres

Maiden Flights

It has been suggested that if a member is test flying an unproven model which may be hard to control and could prove to have an unpredictable flight path then an announcement should be made to alert everyone present at the field before an attempt at take-off is attempted.

Such flights should also be made when no other members are flying and only the test pilot should be in the pilot's box.

Club Hut Keys

Member Action required: Mike Hill, the treasurer has a key holder list for the club hut but he feels it is probably out of date. If you hold a key, please email Mike on the club's email address krmfccommittee@gmail.com so that the list can be updated.

Upcoming Event in Scotland

A message from Stuart Houston...

"It is a hobby of mine to collect and restore old engines. If anyone is looking to buy or sell engines or to have engines overhauled (bearings changed etc) then I am happy to discuss the work required. I am also prepared to make them offers for buying or selling old unwanted engines." Stuart's Email Address is: flightsoffancy356@gmail.com

Crash Board for the Club Hut

I am currently collecting photographs of crashed planes, both for the web site and for the club hut. If you have any recent photographs that you wish to submit then please email them to me at the usual email address neilgrayson@sky.com. Please explain what model of plane it was and when it crashed. Below is a taster of my air accident history.

Introduction to Express LRS Part 2 *by Kevin Scott*

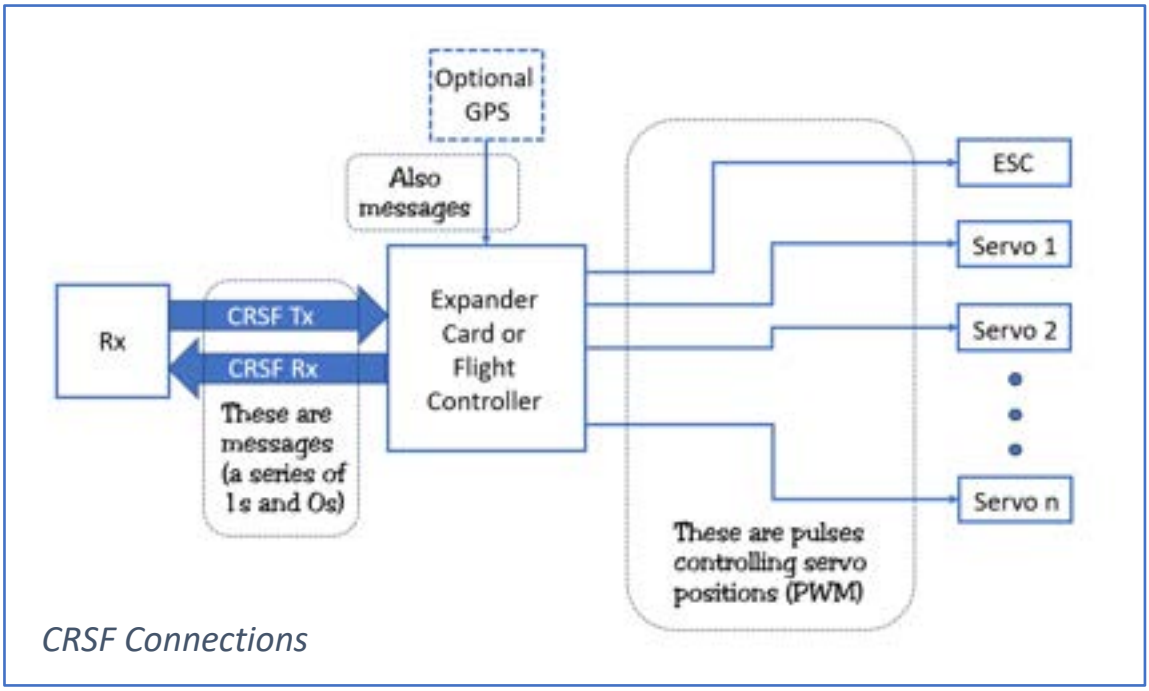
In part 1 of this article, we covered the basic technology behind Express LRS (ELRS) and the very long range that it is capable of operating over. We also covered latency and channels and concluded with the very cost-effective receiver modules that you can buy.

In this part 2 article, we will dive a little deeper into the technology (not too far, don't worry!) and in particular how the modules talk to each other. In the final article, I will cover some of the features that Edge Tx has, and how it is used to control Express LRS.

Crossfire

When buying an ELRS receiver, you get a choice. You can either buy a Rx with PWM outputs so that you can connect your Dupont servo connectors directly to it, or you can buy one with a Crossfire (CRSF) output. Just to make things a little more interesting (I think that is the correct word for it!) some receivers with PWM outputs also allow themselves to be reprogrammed to talk Crossfire. We all know and love the PWM outputs, so I won't talk about that any more in this article, instead we will cover what CRSF has to offer in this brave new world.

CRSF uses a serial interface, it uses one wire to send information and another wire to receive it. You might see a term called UART if you are looking at documentation on this – without going into the details, this just means that the transmitting end and the receiving end don't need to be accurately locked in frequency, which is a Very Good Thing. This means that a CRSF Rx only has four wires (+5V, Ground, Tx and Rx), irrespective of the number of channels it is controlling. The block diagram below shows this arrangement (I haven't shown the power connections just to keep the diagram cleaner).

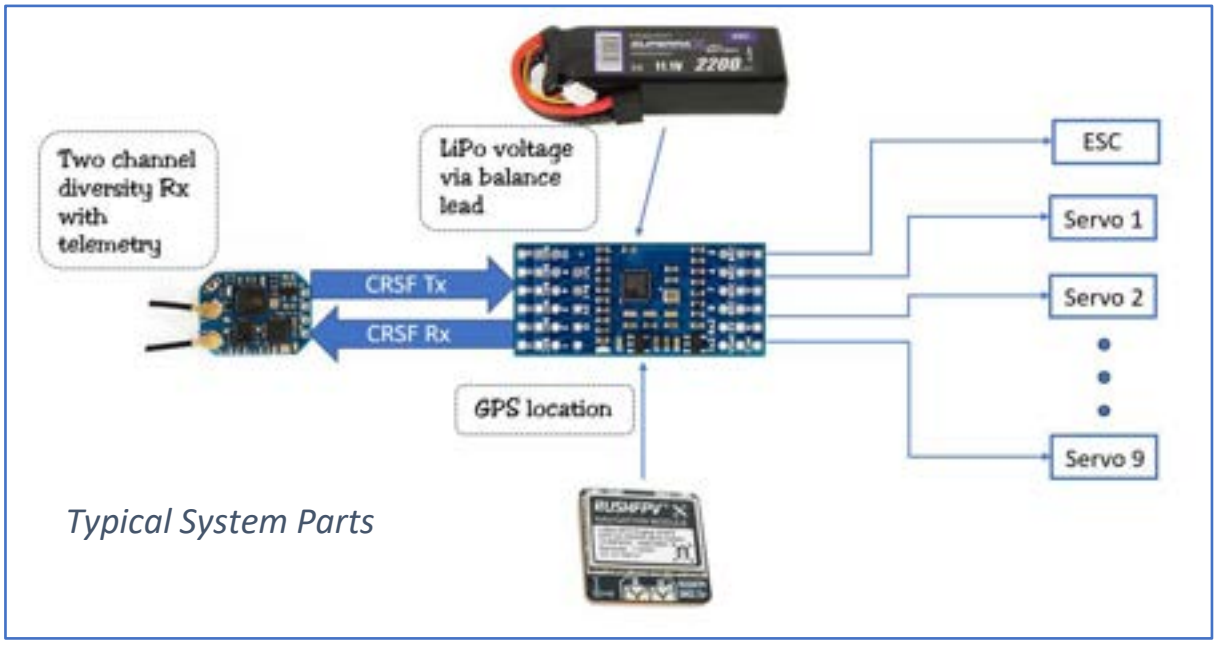


CRSF Connections

With the CRSF interface, you have more flexibility as to what you connect to the Rx. You can connect an expander card that converts the serial lines back to the PWM outputs or you could connect a flight controller board. The expander cards typically have additional I/O for connecting your LiPo to measure its voltage (and potentially current) and for connecting a GPS module. This also gives you some future

expandability, you can for example change from a six channel PWM output board to a ten channel one, or upgrade to one with a variometer on it.

Below I show a diagram of the typical arrangement I use. The Rx is standalone, I tend to put it towards the rear of the aircraft just so it is as far away as possible from the ESC motor output wires (but this is more me obsessively worrying about RF performance that is quite possibly necessary!) It then connects to an expander board which gives me ten servo outputs and a connection for a GPS module. The expander board also has a variometer on it but I don't use it (if you have seen my flying my powered models you will know why!). I also measure the LiPo voltage. All of these are reported back to the Tx using telemetry. I wouldn't be a frugal Scotsman if I didn't remind you how little all of this costs (Rx - £15.05, Expander board - £8.45, GPS module - £11.65 all from HobbyRC, total cost = £35.15), you do need to get the soldering iron out though and make up some cables yourself!



Typical System Parts

With the connection of a flight controller (FC) you can take things a bit further, you can have the equivalent of the SAFE mode that is supplied on the Turbo Timber Evolution or Apprentice (both by E-Flite). For example, you can program a panic button that automatically puts the plane back into level flight. The same FC can be used to take out turbulence effects on a windy day. The flight controller is also capable of adding information to an on-screen display (OSD) so if you are using an FPV headset it will give you pertinent information (and no you can't get Match of the Day on it!).

If you have a GPS module on your aircraft as well, you can take things a bit further - you can program in waypoints for example or could set up a no-fly zone so that the Tx gives you a warning if you get close to one of these areas (Woof Woof!).

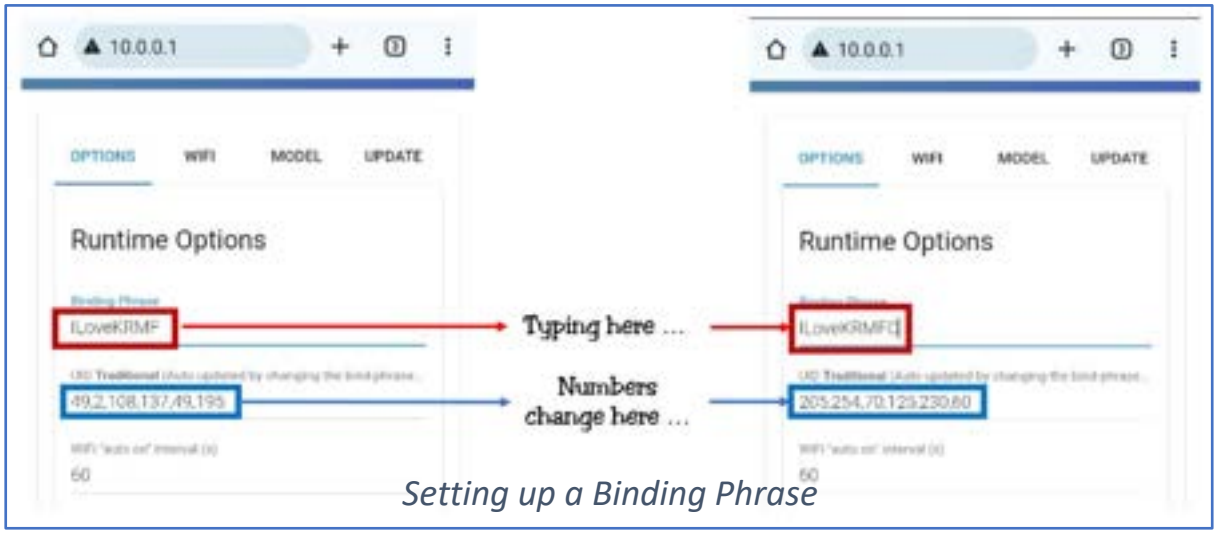

Matek F405-Wing V2

Binding your Tx and Rx

The way that a Tx and Rx is bound together is different from the way you may be used to. There are no bind buttons or bind plugs to put into one of the servo ports.

What will happen with a receiver is if it hasn't connected to a Tx after 60 seconds is it will then create its own Wi-Fi spot (and no, you can't get Match of the Day on that either!). You can then log into this using your mobile phone, which is handy if you have a problem at the field.

The screen grabs below show that happening. As I type in "ILoveKRMFC" (which is a very personal and heart felt statement) the UID (Unique Identifier) numbers change. These numbers are the ones that are used to create the binding code. You then separately type the same phrase into your Tx and the next time the devices are powered on they will find each other and bind.



Setting up a Binding Phrase

This has some advantages over the traditional binding approach. For example,

- If you sell your Tx and buy a new one, you don't need to rebind to all of the receivers. You just type your binding phrase into the Tx and you are good to go!
- If you are using the traditional ELRS PWM output Rx you can increase the number of channels by adding a 2nd Rx into your plane as they will both run at the same time. For example, if you had a 6 channel Rx (allocated to channels 1 to 6), you could add a second 6 channel Rx (allocated to channels 7 to 12) and get 12 channels in total. The webpages shown above have the option to reallocate the channel numbers in each individual Rx. Remember that ELRS is always capable of sending 16 channels from the Tx.

Open Source and GitHub

ELRS is open source, which means the software source code is available for anyone to look at (you can see it at https://github.com/ExpressLRS but it is not for the faint hearted!). More than that, it also means anyone is able to suggest changes to the code as well. There is a team of administrators who will check and test the changes before a new release is provided. GitHub is a platform used by developers and is owned by Microsoft, it has over 28 million users. It is available for anyone to use; I have my own GitHub page at https://github.com/KevScott for example. The main reason for using it is to allow different versions of your software to be maintained, this is important when you are trying to fix bugs.

The ELRS team don't stop at software however, they also give designs and PCB layouts for their receivers as well, the picture alongside shows an example of one. This has been hand-soldered, hence the slightly sweaty look to it!

Firmware Updates

Most of the time you don't need to think about updating the firmware on either your Tx or Rx, as long as they have the same major version number. So, if your Tx is 3.1.4 and you have a selection of Receivers, some of which are at 3.0.3 and some are at 3.2.6, you don't need to do anything, because they all start with a 3. If some time in the future, you buy a Rx that is 4.1.3 for example, you have two choices – you can either upgrade your Tx and other receivers to the latest 4.x.x version, or you can usually set an earlier firmware version on the new Rx, i.e. set it back to start with 3.x.x. In general, there are a lot more firmware changes happening that you would find on Spektrum, partly because new hardware is being designed by different companies all of the time and partly because new features are also being introduced often. Do remember though, if you are happy with the features you have, you generally don't need to worry about updating.

When you do need to update the firmware on either the Tx or Rx, there are a number of ways of doing it, from letting your Rx have access to your home network information and letting it do it all on its own through to loading new files onto the receiver from your PC.

Next Newsletter

In the next and final part of this series, we will discuss Edge Tx. This is the control system that runs on Radiomaster, Fly Sky and Jumper radios. It is extremely powerful and adaptable, but with great power comes great responsibility, as you will see! We will then finish up with a look at the pros and cons of ELRS and Edge Tx, as compared to more traditional systems like Spektrum.

On Board Glow *by Ian McLuckie*

Our August 2024 Loch Leven seaplane event is already becoming a distant memory. The Saturday was a rough old day and the Sunday was abandoned. Only four or five planes flew and my light weight foam Kingfisher got blown off the Loch like a piece of paper whilst crabbing a landing with an almost 70-degree crosswind component. I expected that to happen, there was never enough power to fight the wind, but I had to have a go.

There was one other crash. A heavy purpose-built monoplane which was very well flown defeating the wind until it lost its engine and hit the water at speed. The rescue / salvage boat was called out and the skipper (Bill), who is, by chance, a Chartered Marine Engineer, quickly got his engine going and brought the aeroplane ashore in a jiffy. The aeroplane was largely intact.

I managed to get a few words with the pilot of the seaplane and he said that he had an 'engine cut' due to the glow plug connecting cap coming off. After a few minutes he had the engine up and running and flew again. The plane had a large powerful engine fully enclosed, so handling the wind and waves was well within its capabilities.

Anyway, I pondered as to how the disconnection of a glow plug cap could stop an engine when it was at top speed on a 'crosswind' leg. I asked Chas and Bill and they thought that it was quite probable. But, just precisely how that worked was a bit of a mystery.

It raised a lot of questions, this was new to me, but I am a relative newcomer to the hobby so here we go again, another mystery to solve, another can of worms.

If the glow plug is an integral part of the engine handling system, the questions are a) is it being switched on/off, and if so, when and how, and b) is the glow plug element being continuously modulated. If it is, what feedback loop system is in place to control the modulation?

Bearing in mind that we are dealing with 1.2 to 1.4 volts at say up to 5 amps, modulation would need some very accurate circuitry probably involving the inevitable microprocessor or chip and some FETs to provide ubiquitous pulse width modulation. With 1.2 volts the glow plug only starts to really glow at 2 amps or so. The margins are tight so I think we can discount any true modulation of the hot wire in the glow plug. In any case, conditions in the engine cylinder are vicious and highly variable.

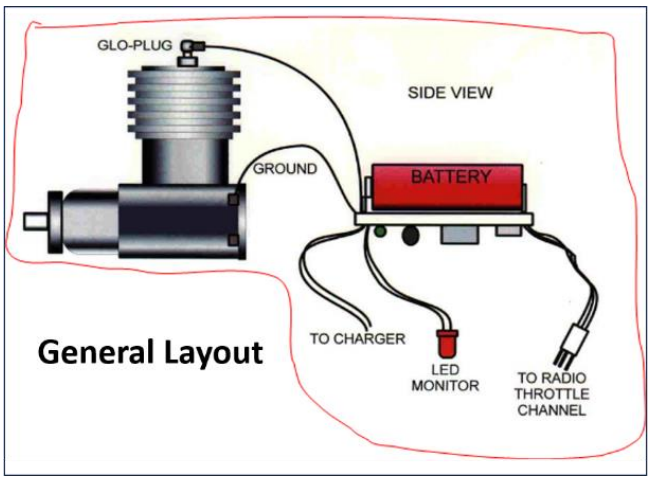
So, we seem to be switching the glow plug on and off…or half on and half off?… somehow!

To cut a long story short I have found that there are at least two major propriety glow plug controllers (GCs) on the market. Their GCs come in a small box of course, with a bunch of wires needing a battery. There is no sensing of the engine cylinder temperature or measurement of the glow wire resistance feeding back to the GC. There is no microswitch fixed to the servo throttle push rod (although there could be). However, I see that Hall Effect or magnetic sensors reading the engine rpm can be involved.

The most **basic** GC seems to switch the glow plug on & off by a switch or push button conveniently situated on the side of the aeroplane, sometimes with a tell-tale LED. Very helpful when the engine is concealed or difficult to access - in terms of safety. These GCs can have timers for say 20 secs to let you start the engine, then you can press the button again if needed. Alternatively, you can use a spare channel on your radio system to kick off the timer and activate the glow for a set period. Of course, this all needs a battery on board for the glow coil, possibly a permanently on-board rechargeable battery with a fuselage plug and socket. All great stuff for safety and convenience.

Moving **a step up** there seems to be GCs which are not only used to help start the engine but to be active whilst the engine is running providing, say, 0.8 volts after start up to keep the engine happy at slow speeds or landing. These GCs are functionally programmable… you don't need to get into the software.

Moving up again there is more sophistication. One manufacturer has equipped their GC with quite complex facilities. They can change the glow time and level, they have an anti-hot start feature and an anti-chicken dance program with the ability to burn out the glow plug if the circuitry considers it necessary. See Ref (4). It's a really bad day if that is required!



With a fully enclosed large RC engine, possibly mounted 'upside down', this glow controller business might be a good idea. However, I don't think my engines need this refinement, I am happy if they just start and keep going for a few minutes to get me round the circuit. But for the large aeroplane enthusiast, it's a must.

Now, just by chance Kevin Scott has been working with Stuart Houston researching GCs and may be looking to design and construct a GC for a three-cylinder engine. In terms of how GCs actually work, and from his professional background, **Kevin writes:-**

1. The GC has a small microcontroller (MCU) on board. It will be something like https://uk.rs-online.com/web/p/microcontrollers/1637339, but not necessarily that specific one.

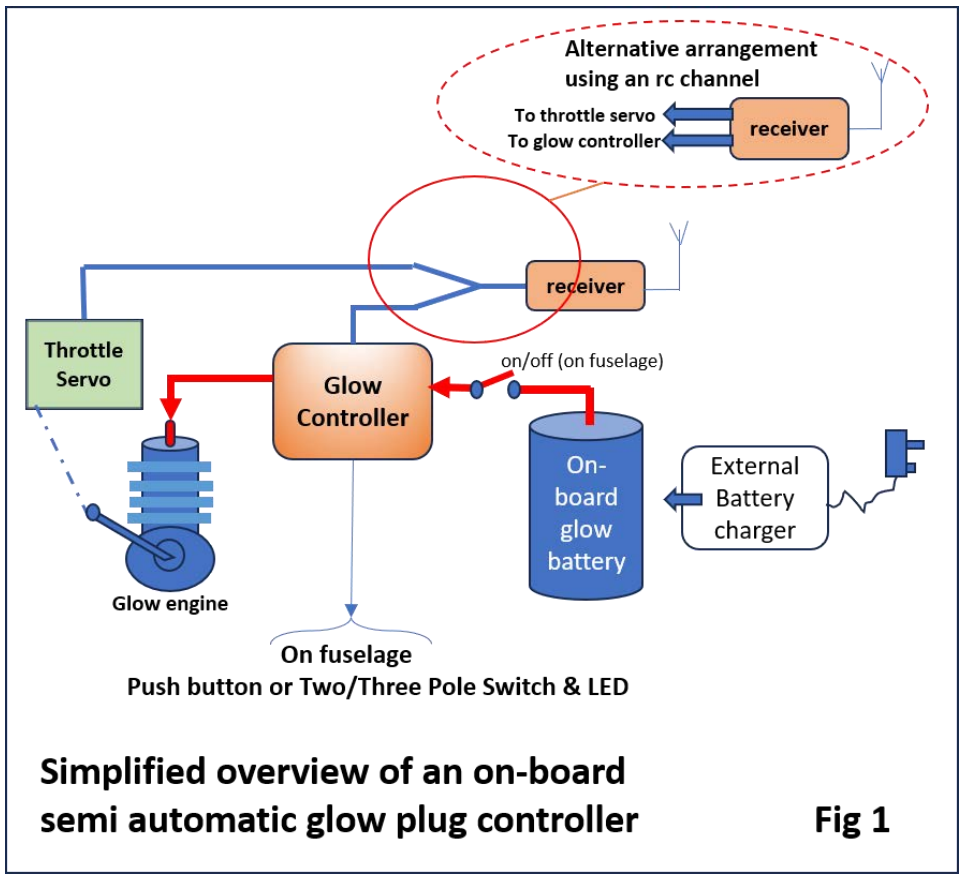
2. The MCU monitors the servo input and the switch input when it is pressed and from that determines the relationship between servo PWM value and the amount of glow power to apply, and controls the glow current accordingly.

3. The MCU switches a FET on and off many times a second. The switch is either fully on or fully off. It does that to be power efficient, it doesn't use the linear part of its operation at all. So, the glow plug will be getting either 1.2V or 0V and the mark space ratio between those two will determine how hot it gets. There isn't any feedback mechanism as far as I can tell; because a glow plug will quite happily run on 1.2V all day long, one isn't needed. Looking at the FET switching output on an oscilloscope, the mark to space seems to go from 100% to 0% in a linear fashion over the range of the PWM pulses that is of interest.

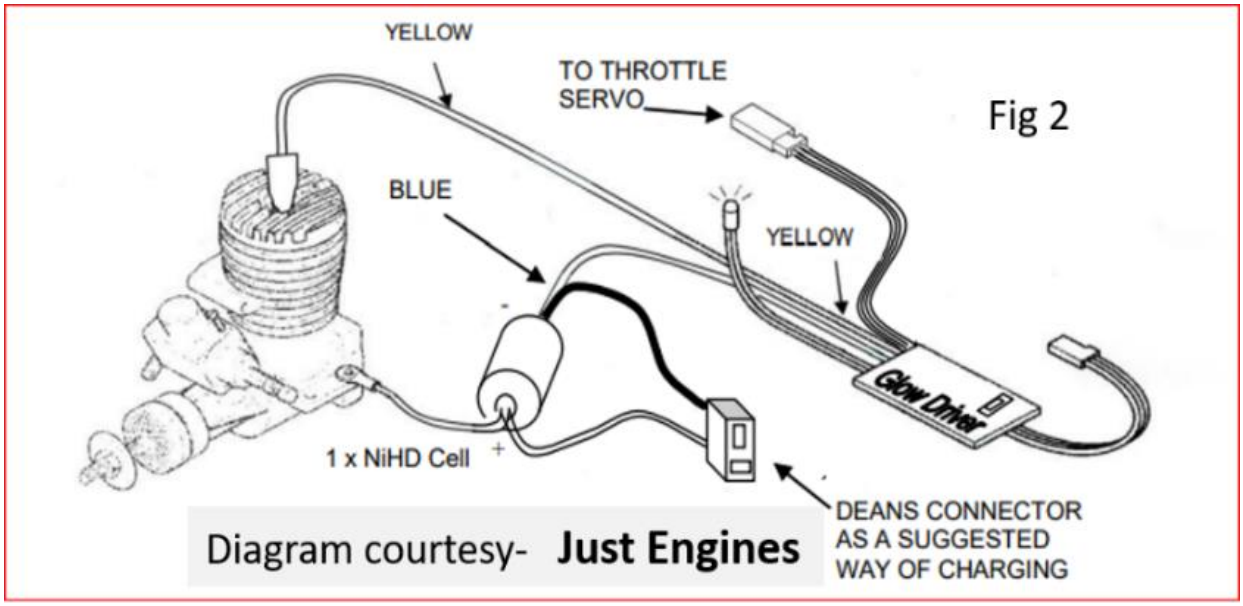
Finally, here are some references and diagrams to whet your appetite and get involved with Glow Controllers:-

YouTube references:-

(1) RC Model Onboard Glow… by David
(2) Rcexel Glow plug system /2s Smart Spectrum 7.4v….by Come Fly with Me RC!
(3) Hooking up SwitchGlo to engine…by Drone proz.
(4) Using XGlow Pro's Anti Chicken Dance Features…by Auggie Copter



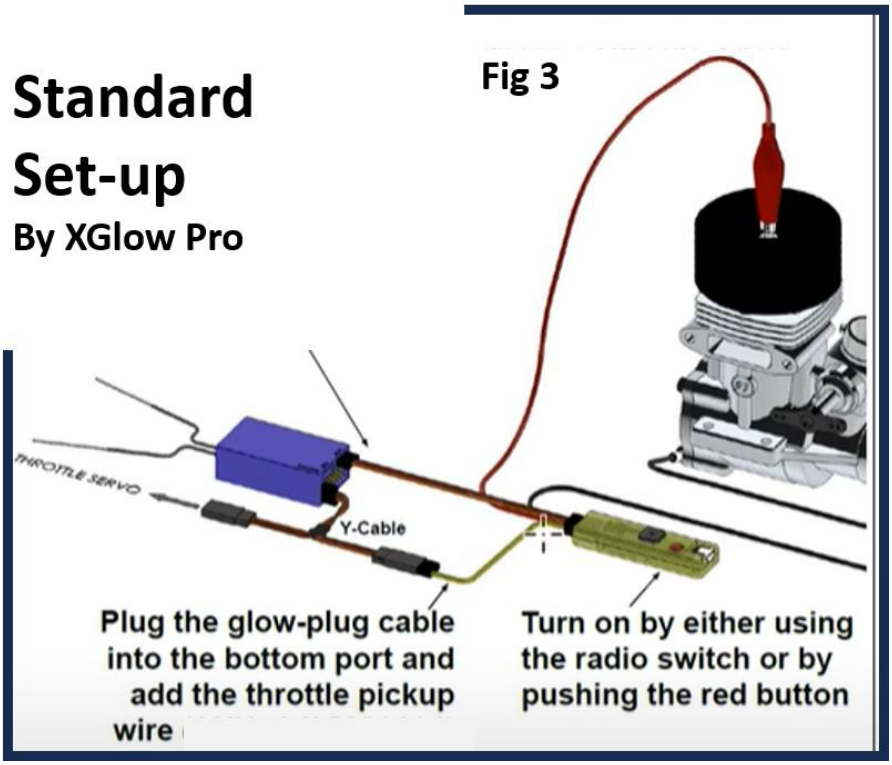
Simplified overview of an on-board semi automatic glow plug controller **Fig 1**



Standard Set-up

By XGlow Pro

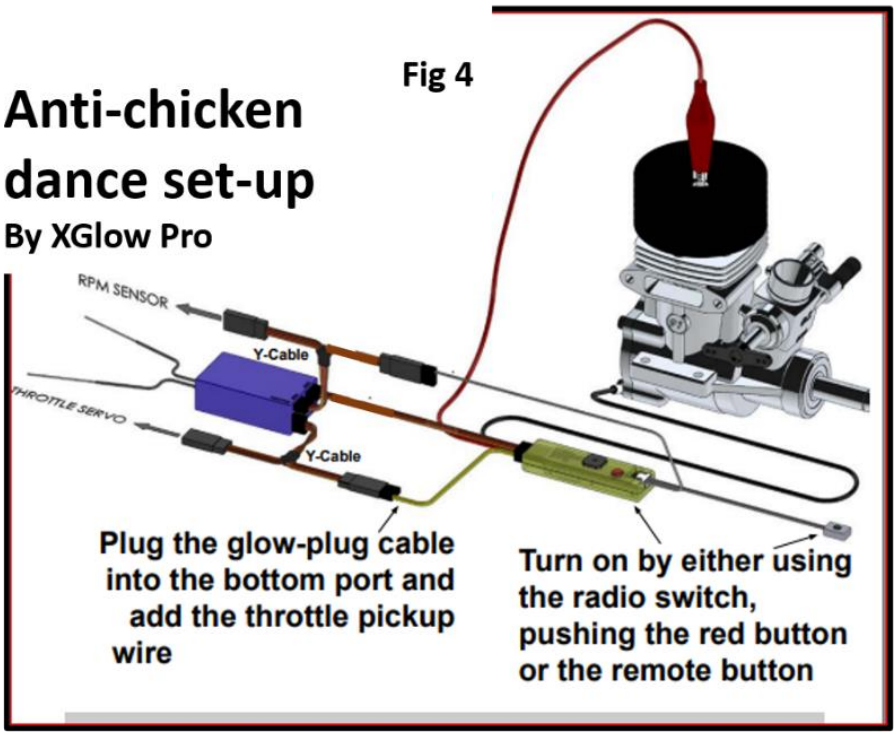
Fig 3



Anti-chicken dance set-up

By XGlow Pro

Fig 4



Issues with a Stuck Clunk *by Kevin Scott (careful!)*

I was finding after a few flights and not that heavy landings, the engine wouldn't restart. It was clear that the fuel pipe had bent back on itself and was stopping fuel flowing. Hitting the plane vigorously to get it to move back wasn't always successful either. Douglas Fulton suggested that I add a bit of brass pipe into the tank and he drew a sketch to illustrate what he meant. I took the tank out and sure enough the clunk was stuck at the front of the tank. As I fill and drain the tank through the main fuel hose and the clunk had blocked the hose, the tank is still full of fuel.

Tank Showing Trapped Clunk

The brass tube was added and this should work now as the length of the rigid part of the pipe is longer than the width of the tank.

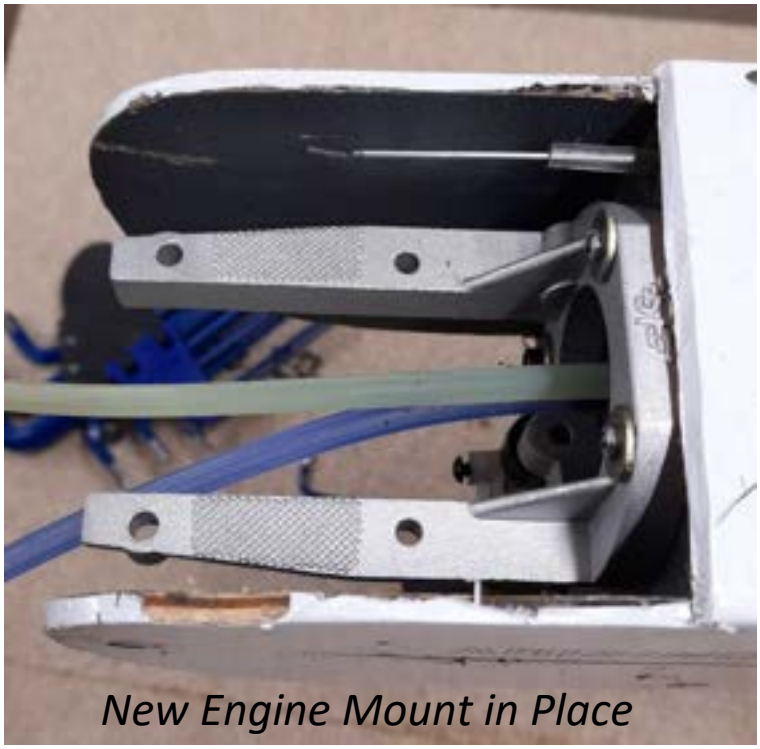
Tube After Modification

The tank was reinstalled into the Arising Star but on its next flight the engine seemed to be running rich so it was leaned out slightly but even then it appeared to be underpowered.

Engine Mount Snapped Off

On the take-off run it started running out of runway so I pulled back on the elevator too early and it stalled. On inspection it was obvious that the engine mount had snapped off at its weakest point around the bolt holes.

A new engine mount was installed on Wednesday 18th September and the Arising Star was flown successfully again that evening.



New Engine Mount in Place

Ornithopter *by Marc Connell*

There was a lot of interest in Marc Connell's ornithopter at the Fly-In on Sunday even though he didn't fly it due to the wind being a little strong. Here, in his own words is a little more information:

"The ornithopter was purchased from Ornihobby which is based in Singapore and specialises in carbon fibre RC modelling. I had been looking at this for a while but I was worried in case something broke. I emailed the website and they replied saying that they would happily share the 3d printed files if they broke, so I could print my own parts. After buying it, it was as simple as attaching the wings, speed controller and receiver.

It was difficult to fly at first, as it is not as simple as finding the CG. You have to fly it and see how it feels but this caused a few of the printed parts to break. After printing new parts, I eventually figured out where the battery should go. I also needed to put 10g of weight right on the tail even though this wasn't part of the instructions I found it was needed. After a few flights I started noticing that the central spur gear was starting to wear down so I started to grease the gear before every flight. I suspected this may turn out to be an issue.

I was hoping to have it converted to servo before coming down to Kinross however, my first version had the wrong wing tension, this is because I tried directly connecting the wings to the servo. This requires a bit more work but I will get there eventually.

Now I have the bird stripped down again I am going to mount the servos in a different location even though I wanted to avoid drilling holes in the frame but I think this time I will have to.
I am currently speaking to Nathan from ornithopter.org who has plans there for anyone who wants to build their own. He is helping me with the servo drive and kindly sent me code that controls the servos via a small Arduino computer. My end goal is to make my own kit so that people can buy all the individual parts from inside the UK. I think ornithopters are great and would love to be able to let other people experience them. It's a shame there isn't much information out there about them and the only kit is from Singapore"

Below are links to the ornithopter flying:

List of Videos of Ornithopter

Foamies *by Hamza Abbas*

Foamies or RC model planes made of foam boards. I find building and repairing RC model planes from foam boards is both fun and relatively easy, making it a popular hobby for enthusiasts of all skill levels. Foam boards are lightweight, affordable, and simple to cut, which allows for a lot of creativity and customisation. You can design planes from scratch or follow detailed plans from various online communities. With just basic tools like a hobby knife, hot glue gun, and a ruler, you can quickly assemble your aircraft.

Repairs are straightforward as well. Foam board is forgiving, so even if your plane crashes, you can easily patch it up using spare foam, glue, and tape, getting your plane back in the air in no time. Plus, modifying or upgrading components—like motors, servos, and batteries—is simple due to the material's flexibility.

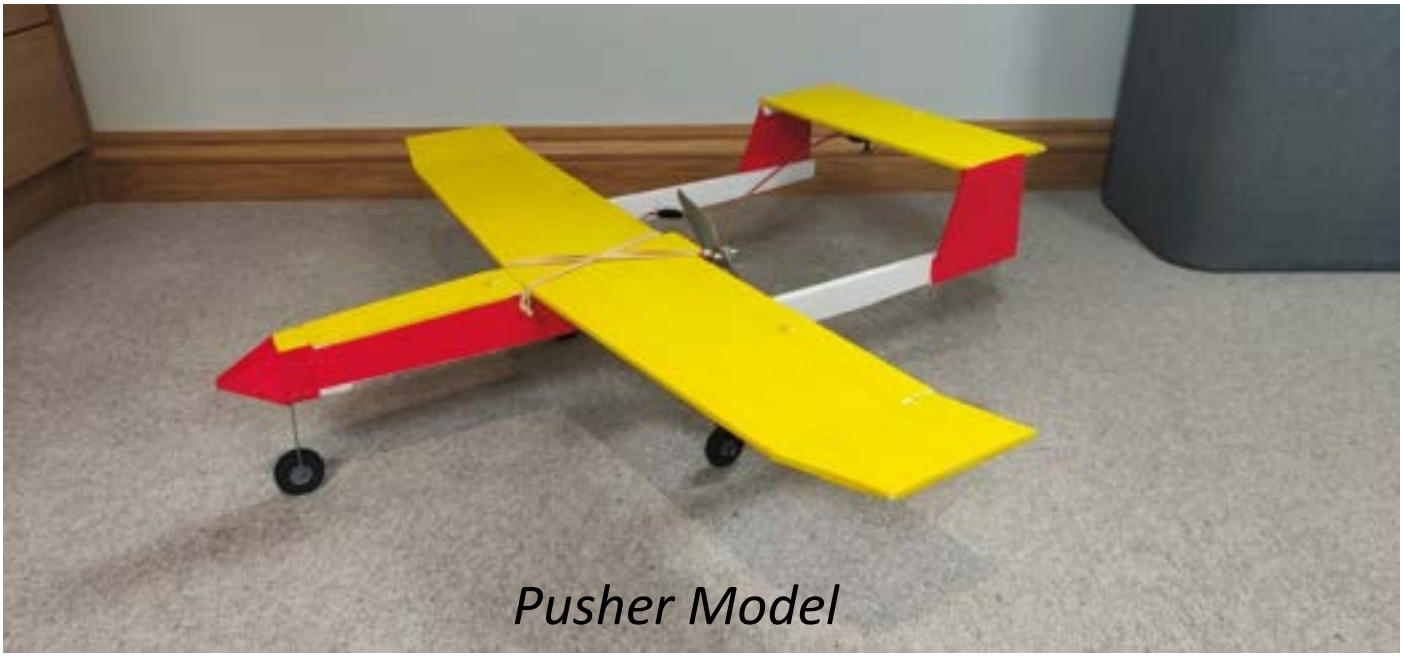
The fun lies in the hands-on experience and the satisfaction of watching something you've built fly! Testing different designs and improving your plane's performance adds an extra level of excitement. Overall, foam board planes offer a rewarding, low-cost entry into the world of RC aviation.

Recently, I built the following two models from readily available designs.

1. Pusher Model based on the famous OV-10 Bronco design:

Technical Specifications:

- *Length: 78cm*
- *Wing Span: 88cm*
- *Flight Weight: about 420 grams*



Pusher Model

2. Basic Trainer Model:

Technical Specifications:

- *Length: 73cm*
- *Wing Span: 109cm*
- *Flight Weight: about 680 grams*

Trainer Model

Items for Sale

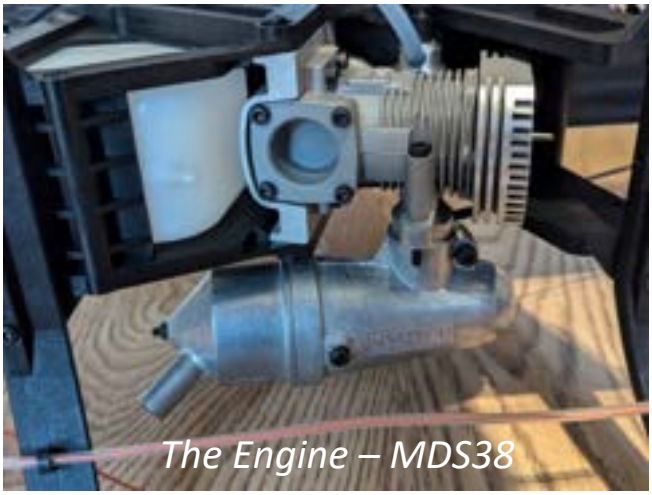
Nexus 30 Helicopter

Marc Connell was given a brand new Nexus 30 helicopter. He has no interest in helicopters and doesn't have the space so it is now for sale. eBay shows that this model goes for between £100 - £150. The helicopter is fitted with a MDS 38 2 stroke engine which looks brand new, it has plenty of compression but could do with some lubrication.

He was also given a brand new transmitter and receiver set. The box was unopened and it includes receiver, servos, battery, charger, servo horns etc. The helicopter comes with the exact same kit but it has been installed in the helicopter. The whole set is advertised on eBay for around £30.

Marc is asking for £200 for everything described, but make him an offer.

35Mhz Transmitter/Receiver Set



The Engine – MDS38

Nexus 30

[Video Link Showing Helicopter Operating]

Top flight P-47 Thunderbolt

1600mm (63”)span ARF - unflown laser 80 was installed, removed for another model. Fit your Laser 80 and receiver to fly £235.


Front View Showing Cowl

P-47 Thunderbolt

Century UK Max Thrust Ruckus RTF - Red

1350 mm (53”) span. Aircraft grade alloy undercarriage. Tough Epoflexy construction with Microzone MC6A, 6 channel 2.4 GHZ transmitter and receiver. Overlander 2200 mAh 3s LiPo, GT power SD4 balance charger. Bright wing tip LEDs and 2 propellors and it has only had 4 flights. Just charge and fly! A big saving on the new price - £215.

Max Thrust Ruckus

Contact Robert Boyd: margaret461@btinternet.com Mob: 01506822066

Large Collection of Models and Equipment

Kerry Davidson who lives in Sauchie still has a lot of models and equipment for sale. They belonged to Duncan Mortimer a potential member of KRMFC who sadly passed away recently. Since I sent out an email listing all the equipment on 16th September she has sold the BAE Hawk, the T33 the Viper and 5 small Cox engines to various members of our club.

If you are interested in any of the remaining items contact Kerry directly on the following email: racyrocket1964@hotmail.com she lives in, FK10 3JY. If you have any questions about the kits or items then contact Bob Lemm on the following email: Boblemm@outlook.com

Click on the link below for the remaining items. There are some excellent EDF and Foamies available for discount prices.

Spreadsheet of Items for Sale

Instructions for using the Spreadsheet

Click on the 'Detailed Information' on the 'Models' tab and it will open up a sheet stored on Google Drive with further information. Under the 'Sundry Items' tab it will take you to photographs of the items, again stored on Google Drive. If you have any issues with accessing the spreadsheet, photographs or more detailed information then contact me at my usual email address.

Activity at the Field – August

Saturday/Sunday 24th/25th August – Waterplanes at Loch Leven

Unfortunately, after a lot of hard work by Bill McDiarmid and his willing helpers, the weather on the Saturday for the water planes was challenging with strong wind and choppy water. However, Ian McLuckie bravely flew his Kingfisher which got blown inland and landed close to the castle, luckily with little damage to his plane. Colin Currie from Ayrshire flew two large planes include a Stampe biplane which is over 20 years old (and is pictured on the side of his van!).

Flying on Sunday was abandoned before it started as the wind was stronger and rain was forecast to start by midday. Luckily everything was put away by volunteers before the rain started coming down.

Fingers crossed for better weather next year.

Saturday 31st August

Douglas Fulton had a spectacular crash in the East field, for some reason it just came down. It is hard to believe that this wreckage is just one plane!

Here is another Wot 4 he built earlier, even though he claims it is the same one!

Activity at the Field – September

Thursday 5th September

Ewen MacKenzie who recently applied to join KRMFC took this interesting drone picture of the flying site. As you can see it takes in the chicken farm, dog park and surrounding fields. Ewen is a commercial drone pilot. Please make him feel welcome when you meet him down the flying field.

Thursday 12th September

Kevin Scott arrived at the field early today as he has been trying to get some landing practice in whilst no one else is there as he thinks he tends to hog the facilities 😉. He was practicing taking off, doing one circuit then landing. The wind was about 10mph according to the BBC.

Hamza arrived after Kevin had been practicing for a while and he flew a variety of his planes with no problems. He then flew his Riot (dihedral now restored) and when he turned from the downwind leg to the upwind leg the Riot started misbehaving and was climbing almost vertically at times and then doing a sort of half loop and all this time the wind was carrying it further to the East. After many heroic attempts to recover it, it eventually came down in the oat field to the east, a good distance away.

Because Hamza has a Radiomaster transmitter he and Kevin were able to use the same technique that Kevin uses to find his Arising Star which is by looking at the receiver signal strength on the transmitter (as reported by telemetry). By walking up the barley field and triangulating they were able to find the plane quite quickly. It had minor damage with just a slightly damaged motor mount.

The photo below 'A Long Way From Home' shows how far away the Riot had crashed. The location was marked using What3Words.

When Kevin got back to the field and tried to fly the Arising Star again, he couldn't get the engine to start. The problem seems to be that the clunk in the tank is folding forward very easily and crimping the pipe. It didn't prove possible to get the clunk moving again so it would need the tank taking out. Douglas Fulton has suggested putting a brass pipe in the centre part of the hose. This would still allow freedom of movement at the neck end and the clunk end, but prevents the pipe folding problem. See 'Issues with a Stuck Clunk' above.

Tuesday 17th September

Ian McLuckie has been renovating and upgrading a glider which was donated to the club recently and he has been trying to get it to fly. On a previous occasion, it had been uncontrollable, but thankfully Ian managed to get it down safely with no damage. (Hence the advice on Maiden flights earlier in this Newsletter). On the second occasion it flew to about 3 metres high, then came back to earth with smoke pouring out of the motor. Now a new motor has been fitted, more ventilation holes made around the motor mount and it flies successfully. Well done, Ian!

Ian and Glider After a Successful Maiden Flight

Thursday 19th September

Paul Wasik visited the field today; it was sunny and warm with light winds and coming from the east. Mike Hill cut the grass and had a flight with his new foamie jet. Bill McDiarmid had a few flights with a couple of his planes and Charles Malcolm flew his gyrocopters. Douglas Fulton was flying his Acrowot.

Paul had brought along his Magnatila and Moonglow. He had no problem with the first flight of the Magnatila but, when he placed the model on the runway for a second flight the engine cut and the revs were a bit low. He took it back to the bench to restart the engine. On putting the model back on the runway facing west the wind had dropped to nothing. On opening up the throttle, things happened very quickly but he remembers that it was drifting to the left so he gave it right rudder to compensate but over

compensated and the next thing, it ran into the wire net on the pilot box, with the wheels never leaving the grass. There was not a lot of damage but the leading edge at one of the wing tips and other wing tip was cracked, part of the trailing edge was broken. The fuselage framework was broken away from the rear of the cockpit. It is all repairable and there was not a scratch on the aluminium cowl and no damage between the cowl and rear of the cockpit and landing gear. He put it all down to pilot error.

Next he flew the Moonglow. No problems on take-off but, when it came to a stop on landing the nose wheel was missing, not just the wheel but the axle as well, the whole assembly. It had broken off at the bend and looks like the 8 gauge piano wire suffered metal fatigue. He didn't see it fall off and there was no damage to the model on landing. It will be quick to repair as he already has a spare made up nose leg and 2 new spare wheels.

Paul reports that he saw Douglas's model go straight in, and is not sure if something had stuck but it wouldn't seem to come out of the turn. No further information apart from Douglas saying he has ordered a new fuselage!

Sunday 22nd September - *2nd Fly-In of the year*

At short notice it was decided to have the second Fly-In at KRMFC the first being held on 13th July. By coincidence the weather was very similar on both days; very overcast, damp air, cool and with a light breeze which lessened as the day went on. Similarly, the days preceding both days were warm and sunny with light winds. Why is it that weekend weather is never as good as the weather during the week?

Busy Benches and Full Car Park

Luckily Sunday rather than Saturday was chosen for the Fly-In as Scott the farmer decided to plough and lay manure in the South field on the Saturday which would have put a stop to any flying as there were three tractors and a dumper truck in operation all day. On Sunday, Scott did the same in the North field but apart from the strong smell of manure it did not hinder operations. In fact, it turned into a very popular event. Many thanks to everyone who came along and helped to make it a success.

There was a good turnout with different members appearing throughout the day with perhaps a maximum of 20 members there at any one time. All the benches were in use so the helicopter bench had to be utilised as well. (What! Fixed winged planes on the helicopter bench? – sacrilege 😊).

Busy view of the Helicopter Bench (No Helicopters!)

Tea, coffee and biscuits were provided using a Camping Gaz stove which worked well. The table between the containers cleaned up nicely with a bit of detergent and water.

Hamza Wondering if it is Going to Rain

There was a good mix of foamies, balsa, IC and EDF jets on display with Marc Connell flying his FMS Red Arrows BAE Hawk which was the first plane to take to the air from the large collection being sold by Kerry Davidson. I am sure more will follow in the days to come.

Red Arrows BAE Hawk

Marc Connell also had his Ornithopter at the field but unfortunately it was a little too windy to fly. Let us hope he gets to fly it at the field soon. See article earlier in this newsletter.


The Ornithopter

Monday 23rd September

Just Kevin Scott at the field this evening. He tried to do his final approach a bit further out, but it didn't go well as the West field got a visit from his Arising Star. Fresh manure too!

An update from Kevin

"After further review I have pretty well decided the Arising Star is not easily repairable so I have bought a 2nd hand Jumper 25 on RC Classified Scotland. I picked it up at the weekend. It comes with an SC 46 on it, which is seriously overpowered but I will run it with reduced throttle rather than change the CofG" I got it from Colin Thomson - he says he used to be a member at Kinross, and says he flew a lot with (Chairman) Tom Wilson"

Wednesday 25th September

Seven flyers at the field today. Perfect weather conditions with warm sunshine and light winds but later once the clouds blocked the sun it was time to put on a jacket. The wind also increased by late afternoon. Paul Wasik was flying his Funfly which handled the late afternoon wind well. His Moonglow stayed in the car and his Magnattila is currently out of action for some minor repairs.

Mike Hill had a bad day with three of his models. Here is his report in his own words:

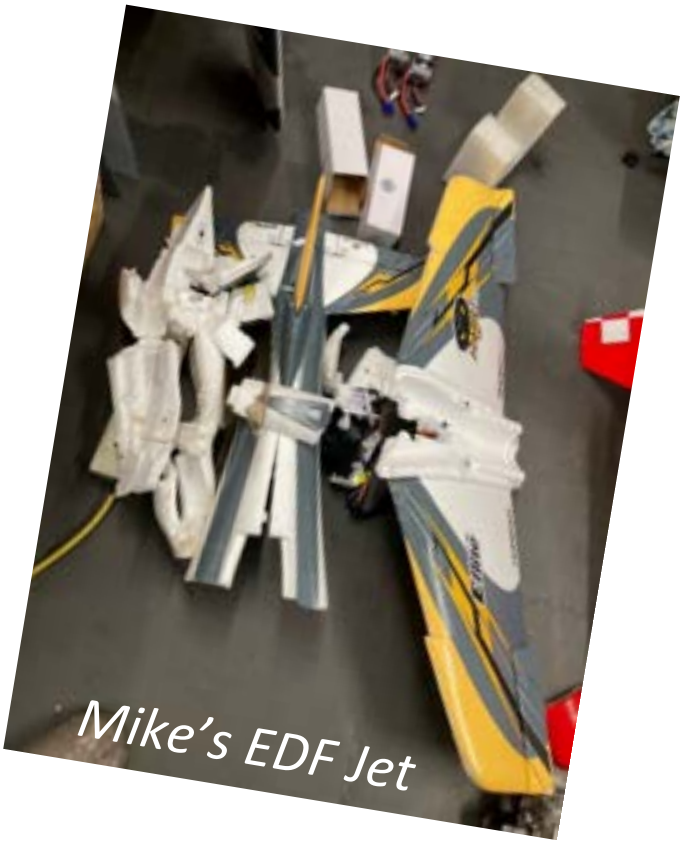
> *"Bad day at the office, I flew the EDF jet through the sun, but when it came out it was inverted and I didn't realise, it started to drop and I pulled up and it went straight into the ground! Next up I flew the Sundancer which badly needed trimming as it kept banking to the left. Not being able to trim while in the air, I tried to land but was a bit high so went around again but after the first left turn, it appeared to have no control and ditched in the field. It can probably be repaired. My third flight was with the Ruckus, which flew great, when coming in for a landing from the east end, the plane started to drift to its right and wouldn't correct with no response from the sticks, then there was a sudden response and it went straight into the ground. Not one of my best days and not sure if I have an issue with my transmitter or if it was external interference"*

Jim Walsh maidened his new Spacewalker which looked very nice in the air (this can be seen in the video link below). Bill McDiarmid was flying a couple of foamies and as he points out he hasn't crashed for over a month. Charles Malcolm was flying his 3 Autogyros.

George Robertson and Derek Grater were also there being part of the "Wednesday Club". Derek flew his Riot and even completed some aerobatics but had an accident on his last flight when he was doing a flypast and noticed the rudder coming off. It came off completely and was trailing behind the Riot when it became uncontrollable and crashed. On checking the model afterwards, it was apparent that the broken hinge was only compressed foam.

Video Compilation of Activity at the Field by Hamza

Derek Grater reports that there were 5 chickens at the field today and 'cracked' a joke about them maybe wanting to join the club as non-flying members. Presumably they are escapees from the chicken farm. Perhaps the farmer should be looking for a tunnel. 😉


Mike’s EDF Jet


Mike’s Sundancer


Mike’s Ruckus

Web Links and Shops

Some useful links below. If you can suggest any other shops or websites, please send me the details.

Al's Hobbies - https://alshobbies.co.uk/ Located in Milton Keynes. Often appears at model shows

Elite Models - www.elitemodelsonline.co.uk Located in Sittingbourne, Kent. 30 years' experience.

TJD Models - www.tjdmodels.com – Located in Dartford, Kent. Largest model shop in the South East.

Model Shop Leeds - www.modelshopleeds.co.uk/

Wheelspin Models - wheelspinmodels.co.uk. Free postage for orders over £100

Sussex Model Centre - www.sussex-model-centre.co.uk

The Vintage Model Company - www.vintagemodelcompany.com

Kings Lynn Model Shop - www.kingslynnmodelshop.co.uk

Scoonies - www.scoonie-hobbies.co.uk. Don't bother with the website. Visit the shop in Kirkcaldy.
87 St Clair St, Kirkcaldy KY1 2NW. Tel No: 01592 651792

Dens Model Supplies - www.densmodelsupplies.co.uk. Excellent for spares for vintage Cox engines.

WestonUK – www.westonuk.co.uk Good value fuel in large quantities. Over 20 Litres (4 Gallons) gives you free postage.

ACCU – www.accu.co.uk. Excellent for bolts, screws and washers. Will take requests for bespoke items.

RCM&E - RCM&E Home Page. The website of the best aeromodelling magazine. If you have a question the forum is bound to have an answer.

RC Thoughts - https://www.rc-thoughts.com/ Finnish website of Tero Salminen. Phoenix Simulator Downloads and updates.

RC World - www.rcworld.co.uk. Located in South Wales between Cardiff and Newport. Stock values on each product are displayed which reflect what are physically in stock, not held at a supplier's warehouse. Derek Grater has used and recommends.

Carbon Copy - Carbon Copy (carboncopyuk.com). Located in Stevenage. A wide selection of Carbon and Fibreglass parts. Ideal for undercarriages, cowlings and canopies.

Just Engines - https://www.justengines.co.uk/. Located in Shaftesbury, Dorset. A wide range of engines and spares. If you can't find what you want on the website send them an email or call.

SLEC Manufacturing (Sun Lane Engineer Company) - SLEC UK Ltd. A good range of accessories but also a large range of balsa and hardwoods. Also available is a laser cutting and CNC milling service.

Component Shop - Home page (componentshop.co.uk). Based in North Wales. A great range of batteries, leads and electronics.

Flight Plan Models - Flight Plan Models Online UK. Based in Tamworth. Bespoke RC Plane Accessories. I find them a little overpriced but they have interesting stuff.

4-Max – 4-Max Home. The Fixed Wing Electric Flight Specialists. They will advise you what electric motor to use when converting from IC to electric.

Here's a link to the glider field weather station data at Portmoak gliding club which is just a few miles east of our field. It gives a lot of information. ***Portmoak Weather Station***

Who's Who

KRMFC current committee members are:

Tom Wilson – Chairman

Neil Gourlay – Deputy Chairman

Neil Grayson – Secretary

Mike Hill – Treasurer

Bill McDiarmid – Committee Member

Jim Walsh – Committee Member

Bob Gadd – Honorary Committee Member

Membership

Club membership currently stands at around 50 with new members joining all the time.

A membership application form can be found here.

Contacting the Committee

An email address has been created for members to contact the Committee about Club matters. If you have any questions, suggestions or general comments, then please send them to the following email address:

KRMFCcommittee@gmail.com