



## 2020 Newsletter Issue 2 (June)

The front page will always feature a photo of a club model or models so make sure you help by sending your photo's (and articles) to anthclif@tiscali.co.uk if you want to be in line for a front page feature.



Paul (Limey) Rice refurbished this Westland Lysander to its present amazing condition. More details later in the newsletter.

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Club Web Site:- [www.wrcfs.bmfa.org](http://www.wrcfs.bmfa.org)

BMFA Web Site:- [www.bmfa.org](http://www.bmfa.org)

The comments contained within this newsletter do not necessarily reflect the opinion or judgement of the committee or club members unless specifically stated. Neither the editor, nor the club shall take responsibility for the content of articles submitted or published in this newsletter.

## Editorial

Wow, what a few months that was. In the March newsletter the breaking news just before it went out was that COVID was coming. We hadn't been locked down, but restrictions were starting to be put in place. Since then we have had full lockdown, with no escape from home and weekly claps for carers, followed by a slow release which is still underway. The council (our landlord) intervened and delayed our return to flying, but at the end of the day we are in a pandemic in the grounds of a hospital. As I write this we have had the first day back at the strip today. Unfortunately work commitments meant I couldn't partake, but I have seen the photos and heard the reports back of the hottest day of the year so far. Sounds like I missed out.

*Ant*

## The Business End

As a club our one and only issue over the last three months has been the dealings with the council. When it looked like we may be prevented from using Arrowe Park indefinitely, it did mean some quick research to see if we could be "rehomed", but that rapidly became a fruitless search. Fortunately the council eventually had a rethink and have let us back, albeit with some additional rules.

## Lever's

Obviously with nobody being allowed to do anything there have been no club meetings either at the Lever club or at the field.

## Out In The Park

Today (24<sup>th</sup> June) was the first day back flying in the park, and the photos are from today. The new rules including social distancing didn't stop people enjoying themselves, but in a way that shouldn't put anyone at risk.

The new council rules in place to keep everyone safe during this COVID pandemic are:



Because of our proximity to Arrowe Park hospital we cannot take any chances and therefore we cannot have any more than Six people present at the flying field at any one time. No guests are allowed either, only WRCFS members are permitted to fly and be on the field.

To ensure that there are only six people present at any one time you should inform people that you are intending to fly on WhatsApp. At the moment this seems entirely possible as not all club members are intending to fly. This will only change if numbers wanting to fly go up and it becomes impractical. If you do go down to the field "on spec" and there are already six people there, then unfortunately you will have to leave.



You can fly the same as we have done from Dawn till dusk on any day, weather permitting of course.

Whilst at the field you must remain 2 metres apart or one metre when it changes on 4<sup>th</sup> July.

All members must bring their own hand sanitizer.

Lines and boxes will be drawn on the grass the boxes are pilot boxes you must use any box open, up to four planes at a time flying if you all agree in your slot group.

Two start up boxes will be marked these also need to be the only place you start your IC motor or install your battery for safety reasons and BMFA guidelines.

Only electric or IC models not requiring a B certificate can be flown, helicopters and small drones also may fly. Unfortunately no Jets are permitted to fly until further notice.



## Undercover

There was doubt thrown over indoor flying being able to start up again in the autumn. However we have been in contact with Hilbre School and they are hopeful that it will still be able to go ahead. The committee will keep you informed when we know more.

## Out And About

Weston Park, Cosford, the Nats, and pretty much everything else has been cancelled this year. Actually, Weston Park are stating that it is a postponement, and are hoping to run their event in October. Something to look forward to.

## Lockdown Projects

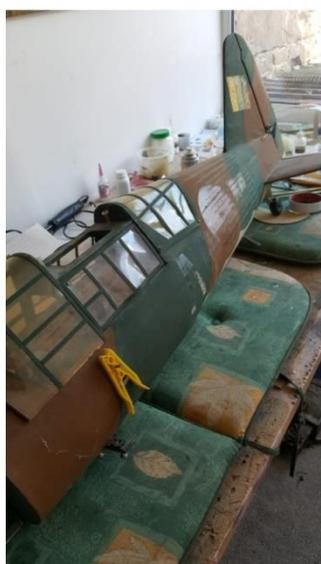
### Limey Lockdown

Paul, as I am sure many of you know, makes models for other people as a business. He sent me some amazing pictures of models he is making for others, but some intriguing ones of two he has worked on for himself during lockdown.

The first is a 45 inch wingspan F4J Phantom. Originally designed to have an IC nitro engine up front, Paul has been altering it as he goes to take an EDF. It is also being modified to have a retractable undercarriage, although he is worried that it will need to have its first flight from tarmac to ensure it overcomes the drag of grass. One thing you will notice, is that it seems to be largely carved not built. In his words “sculpting at its best, take 4 trees and whittle a plane”.



The second is a refurb project. A very old Dennis Bryant Westland Lysander that he inherited and went to town on getting to look right. Lots of sanding and painting, but it looks pretty good now.

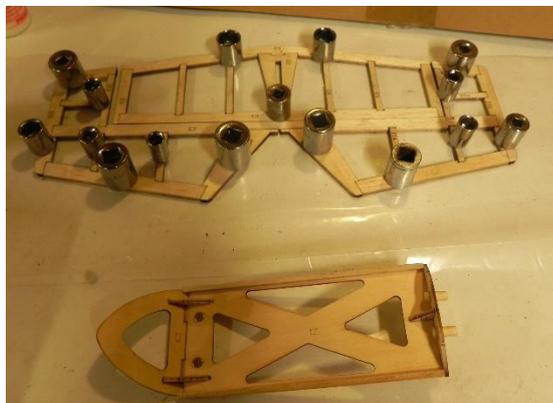


## DW Cheapie

As lockdown started the nation went into panic mode. Fear of being trapped in the house made the nation suddenly go panic buying: Toilet rolls, tinned soup, flour, sanitiser, and stuff to do. I fell into the latter category, as for some reason I was convinced that I would suddenly have endless free time that I needed to fill, something I couldn't have been more wrong about. Anyway, remembering a conversation with Limey about being impressed with his triplane kit from Hobbyking I did some very fast research.



Turns out that the full build kits are actually made by Dancing Wings Hobby (DW Hobby), and although Hobbyking had sold out, lots of their kits were available elsewhere including Amazon. I wanted something relatively small and straightforward so I settled on the T10. £45 delivered, 800mm (32 inch) span, and would use bits I had lying around.



When it arrived it was well packaged, and everything seemed to be as good as Limey had said it would be. As I started to assemble it, the fit of the parts quite surprised me. It would actually be quite difficult to build the model out of true. Everything also seems quite strong, although I did beef up the landing gear mount just in case. Other than that the only change I have made is to the canopy; running a ring of balsa round the edge so that the tinted plastic flexes less when removing the canopy to change batteries. As a build it has

been remarkably straightforward and enjoyable, and I really can't fault the kit.

As I said, my free time evaporated very rapidly (it turns out teaching remotely is very time consuming), so unfortunately it isn't finished yet. I have started covering it, and I am hopeful that it won't be too long now. I told Andrew L about it and how impressed I was, and he is now mid build of one as well. With a bit of luck there will be a pair of them on the strip at some point this summer. Assuming they fly well there is literally nothing to not recommend about them, and I will let you know on that front.



Ant

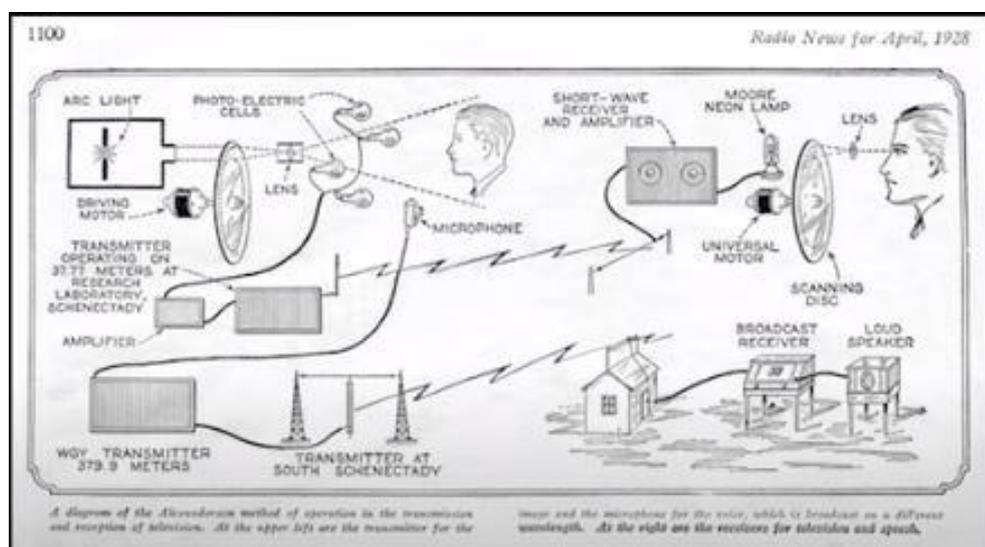
## Seeing at a Distance – A Mechanical Television

You have to thank Ant Cliffe for this article. It was his request to members for contributions to the newsletter which prompted me, in a very much weakened moment, to contact him. The newsletter had already featured a story by Andrew Lowthian around the building of his new shed (or man cave as he prefers it). Since his shed is unlikely ever to fly it was outside the usual scope of writing, and this encouraged me to submit the non-aviation themed article you now find gracing these pages.

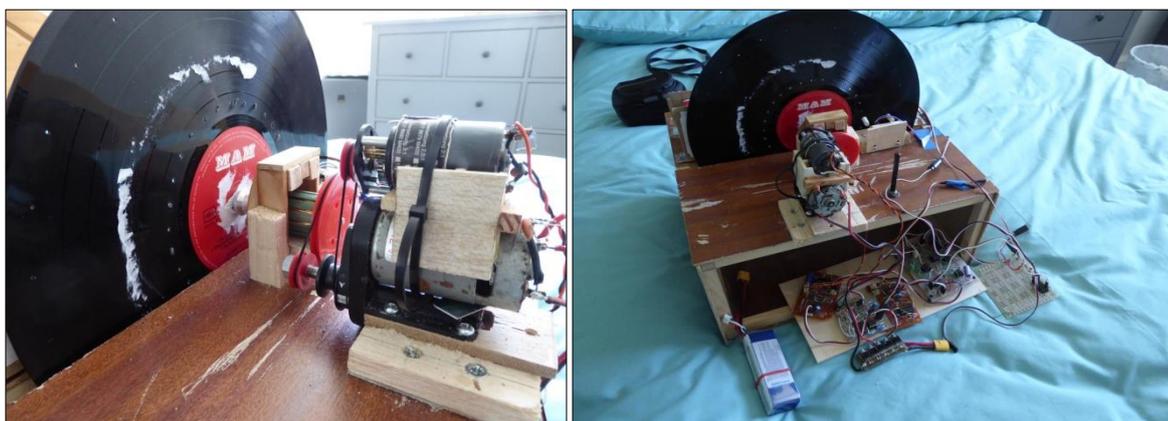
So this is a short history of my attempt to model, emulate, copy, whatever, the mechanical scanning television system produced by John Logie Baird in the 1920s. The system didn't come out of the blue, Baird put together various components which had been developed in Europe and America. The key part of his system used a rotating Nipkow scanning disk which contained a series of holes arranged in a spiral. This sequentially broke down the scene by

scanning it line by line. As each part of the scene was scanned, a light detector recorded the changes of light and dark, and produced an electrical signal varying in sympathy. This was passed to a light source which was viewed through a similar disk at the receiving end. The quality of the picture was ultimately determined by the number of holes in the disk and the rotational speed. Other factors governing the result included the need to get sufficient light to the detector, the speed of response of the detector, and a light source at the receiver which could match that response and give sufficient light. Equally important was the problem of getting the two disks to rotate in exact synchronism.

These limitations led Baird, after much experimentation, to produce a system which used just 30 lines, scanning at about 12 times per second. An article I had come across many years ago in a very old edition of Practical Wireless about this early system had first raised my interest. I had a go (about 50 years ago) to build a system and managed to transmit static images of a sort between two disks rotating on the same shaft. I couldn't find a way to synchronise the disks when driven separately and so the idea was abandoned, and other interests took over.



Recently since retirement and with more time on my hands I tackled it again, this time looking at synchronisation. I figured that if I couldn't get the two disks rotating at exactly the same speed, then I wouldn't be able to carry on to deal with the light detection. Now with the image capture the biggest problem is being able to detect and amplify very low light levels at the sender. So this is where most of the complication is found. Whereas with synchronisation, the hard part is controlling the drive to the receiving wheel. The problem is not only one of exact rotational speed. The two disks must retain the same relative position in each rotation. They must be in phase, (in fact when in phase they must be travelling at the same speed).



The two photos show the construction at the receiver. They also show that I am not the best in the world at woodworking or generally making anything. A fact that anyone seeing one of my models at the field can verify. Logie Baird used hatbox lids for his disks. All of my hat boxes were thrown out years ago, so I bought a few 12inch LPs from the second hand shop and set about drilling holes in them. The drive shaft runs in the bearings of a stripped down brushless motor. The drive motor is a 540 size brushed motor driving through a two stage belt system. The smaller motor sat on top is controlled by a phase discriminator and governs the position of the receiving disk by either assisting or retarding the main motor. This setup seems to work well enough in maintaining the relative phase of the disk. A more elegant solution to controlling the receiving disk motor would involve a complete redesign of the drive electronics and speed control circuit so I'll leave that for when I feel a bit stronger! The fact that the only test equipment I possess is a cheap digital voltmeter does not help with diagnosis. One day I will invest in an oscilloscope.

The transmitting apparatus at present is simply a disk driven by a small motor, supported on a couple of pieces of Meccano and with a simple circuit to generate the synchronising signal. The next step is to design the circuitry around the light detector. The physical construction will be similar to the receiver but will have to be completely light tight around the detector.

So that's all folks. If you are still awake and have found the project interesting and would like to know a bit more detail then contact me via the usual routes,

Dave Buckingham

## Future Events

**The first Sunday in every month from September– Indoor Flying TBC**  
Hilbre High School, 10am until 12pm. £5 to fly. Free parking.

**Thursday 10<sup>th</sup> September– Club meeting and the Builders Cup TBC**  
The Lever Club, Greendale Rd, Port Sunlight. 8pm.