# PMP Autumn Newsletter 2018

## Welcome

Welcome to the Autumn Newsletter. Once again we hope you find it an interesting read. We have seen quite a lot of the sun this summer, not quite as much as the summer of '76 but a lot more than normal. On a couple of weekends whilst in Cornwall we retired to the cliffs of St Agnes, despite there being too little wind to fly, for the cooling see breeze as it was too hot inland to do anything.

Interest in flying model aircraft still seems to be in the doldrums at the moment although we have recently had a number of enquiries from the 'newly retired' wanting to return to the hobby of their youth. The situation is not helped by the steady stream of model shops closing on the high street. They are the shop window of the hobby, a point I sometimes think is overlooked by the distributors! A problem we have is keeping all listed items on the shelves. Our issues are meeting carriage paid limits and quantity discount break points. Also, for similar reasons, items can be out of stock at suppliers, sometimes for several months.

Since the last newsletter we have launched our 20 <sup>th</sup> kit, a character scale Tucano, visited the Joe Nall Fly-in at the Triple Trees model airfield South in Carolina, the bi-annual air show at Farnborough and the 100<sup>th</sup> Anniversary display of the history of the RAF at the RAF Museum Hendon.

## Update on Horizon

This is a good news story. Logic RC have been appointed sole distributors / service agents for the UK and Ireland. Naturally we are delighted to have Horizon products back on our shelves, particularly Spektrum RC equipment. Re Spektrum servicing a friend on mine sent his DX9 to Logic for servicing on the Wednesday and got it back on the following Monday. He was well impressed! Horizon also bought a number of Hobbyco agencies after it went into receivership. So brands like Top Flite, Great Planes and Monokote are once again available in the UK.

## Tucano CS

Over the early months of the year we were hard at work designing our next kit the Tucano CS (character scale). It posed a number of challenges during its development the first being making a wire bender. I had lent mine to someone and as you have guessed it did not get returned. Another challenge was 'standing off' the brushless motor from the front bulkhead. Initially I tried to design a ply box similar to that used on the flat pack kits but gave it up after a couple of hours thinking there must be simpler way of doing it. After a few minutes thinking I came up the idea of using hardwood dowels. This has worked very well and it ticks all the boxes i.e. cheap, simple, flexible and fit for purpose. The other main challenge was thermo forming the canopy and cowl. The canopy only just fitted in the thermo former and I had difficulty eliminating 'webbing' when thermo forming the cowl. Thermo forming can be a bit of a 'black art' especially on a deep draw. Anyway the model is being flown, the kits are on the shelf and the model is attracting favourable comments from those who see it in the flesh and doing what it is supposed to do, fly. As to the performance it is what you would expect from an aerobatic sports model, spritely, agile, very aerobatic, viceless and a lot of fun to fly. I particularly enjoy touch and goes.





The PMP Tucano is a robust model. I have unfortunately tested the structural integrity of the design when trying to stretch the landing to reach the runway. It stalled, bounced several feet in the air and finally landed a few yards away. Damage was minimal, motor mount dislodged, cowl dented, prop broken, undercarriage a little sloppy but intact. Not a bad result considering there are three tyre marks under the wing and fuselage! I do not think a foamie or a built up ARTF model would have come off so lightly.

## Tip – Rattle Cans

When spraying the Tucano cowl I could not quite match the colour of Oracover Ferrara Red. The red I had was a little dark so before the final spray coat I sprayed the cowl with a coat of yellow then gave if a final coat of red. It matched.

## Farnborough

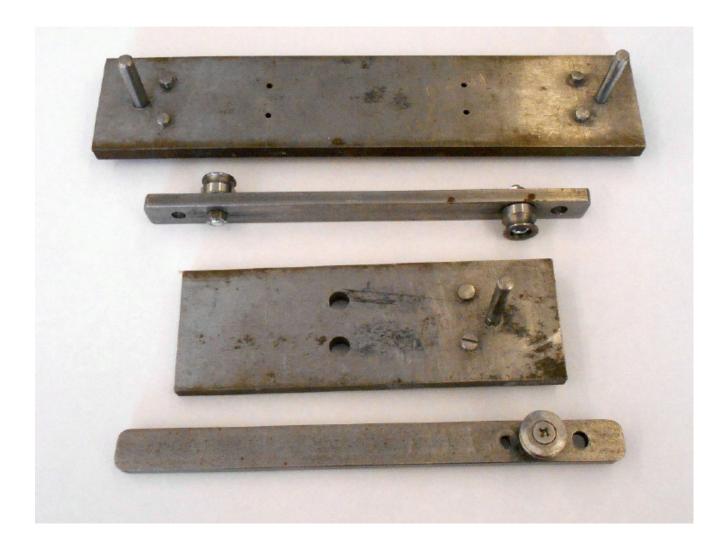
We visited Farnborough again this year. We always go on a trade day as we like to visit the trade stands and catch up on the latest technology. There are no trade stands at the weekend. This was our third consecutive visit in recent years. It saddens me to say that each show has not been as good as the previous one. The flying display this year was a disgrace with a significant number of non appearances. The only memorable feature of the flying display was the looping of a Hercules transport aircraft although the displays by the Airbus 350 and Boeing 787 Dreamliner were also very impressive. Some of the trade stands were disappointing in that the staff lacked the technical knowledge to support what they were promoting. Having said that, we all thoroughly enjoyed ourselves.

## RAF Museum Hendon

We recently spent a very enjoyable day at the RAF Museum Hendon to visit the 100 year anniversary exhibition of the RAF. It was very interesting particularly the personal profiles. There was however one big disappointment. As an ex RAF Halton apprentice I would have expected to see some reference to the training schools, after all it was one of the cornerstones of Lord Trenchard's philosophy for the future of the Royal Air Force. There was a mention about Princess Marys Royal Air Force Nursing Corp but no mention of the training schools such as RAFs Cranwell, Hendon, Halton Locking or Cosford.

## Wire Bender

As mentioned above, before I could start building the Tucano I had to make a wire bender. In fact I made two. After making the first one I thought it would be a good idea to make it double ended with the choice of two radii one for right angled bends and a larger one for the spring on the nose leg. I was lucky enough to find the material for the handles and base plates. The dimensions of which are not critical except for the thickness which I suggest should be a minimum of 6mm. I also strongly recommend the use of high tensile steel screws / bolts with a cut thread The plain shank on a rolled thread bolt is less than the diameter of the thread and it is unlike to be made from high tensile steel. Tools required to make the wire bender are hacksaw, drill and drill bits plus M5,M6,M8 taps. The 'wheels' can be made from 15mm diameter bar. If you have not got access to a lathe then a round file to cut the recess for the wire. The only mod you may want to do is to add a clamping bolt for



the wire being bent as a small amount of wire is dragged around the pivot spindle during bending. I did not bother, I just made an allowance for how much it moved. The PDF drawing is attached.

# AO Plan Copier

Our wide format Xerox copier decided it wanted to retire a few months ago (sorry I have not taken the hint). Finding a replacement was a bit of a nightmare. A number of manufacturers have stopped making them and the second hand ones available were out of production with no spares backup so once the guarantee had run out I would be up the preverbal creek without a paddle. So I was forced to buy an expensive new one. It can scale up and down, mirror print and scans in both black and white colour. It is also easier to use so if you need a reverse plan copying or scaling up providing it is for personal use or you own the copyright we can help you.

# Flapperon / V Tail / Delta Wing Mixing

I recently had a conversation with a modeller who was having difficulty setting up his model with one of the above mixing options. I have had a number of similar conversations over the years but in trying to explain it I realised there are eight possible options so if you want to avoid the frustration it generates then adopt the systematic approach and write down all the options and tick them off as they are tried. First of all though if you are programming a new model then I suggest you do a memory reset on the model memory you are going to use to clear any 'junk' that may be there. Secondly select the mixing function required and plug the servos into the appropriate channels on the Rx. Work through the first 4 options. If that does not work reverse the channels the servos are plugged into and try the second set of options. I must admit the first time I did it I got confused and did not readily accept the advice I was being given!

Servo A	Servo B Channel	Servo A Channel	Servo B Channel
Channel X	Y	Y	X
Normal	Normal	Normal	Normal
Normal	Reverse	Normal	Reverse
Reverse	Normal	Reverse	Normal
Reverse	Reverse	Reverse	Reverse

## Kit Building

With the Tucano CS there are now twenty models in our kit range to build. If you have not built a balsa kit before it can seem a daunting task. But it is not. The apprehension you feel thinking about it quickly disappears with every piece you glue in place and the pride and satisfaction you enjoy after its successful first flight is far greater than you would get from any ARTF kit that can be put together in a couple of hours. To help you get started Ripmax have re-introduced some of the Keil Kraft kits I used to build 60 years ago. There is even an assembly sequence on YouTube showing how easy they are to build. On YouTube, just type in Keil Kraft Invader and hit return. They are not expensive. Prices start at £22.50 for the Nomad glider. If you do get stuck help is just a telephone call away.

## Puffy LiPos

One of our customers has been doing some research on LiPos after reading the

item on LiPos in the RCME recently. In the past puffing of LiPos has been attributed to overheating either through excessive discharge currents or high current fast charging. I have been in the habit of charging my LiPos at the end of a flying session. I only ever charge at 1C (battery capacity in mAs) and keep the max discharge current well below its capabilities and not allow the battery to get hot so I was a little perplexed when they puffed up. This was irrespective of brand. I suspected it may be due to storing them fully charged. I discussed this with a couple of customers and one decided to help shed some light on the problem. He started storage charging them before putting them away. At the same time he measured the internal resistance. Over a number of cycles he has noticed that the internal resistance has improved significantly and as a consequence noticed an improvement in performance in the air. So far, no more puffy LiPos. Thankyou Geoff for all the work you have done. The 'C' rating on a LiPo is generally a reflection on its internal resistance and hence quality so the lower it is the more capable the battery is delivering the required current.

# 12v Gel Cells

During a recent chat with a customer he mentioned an engine starting problem he had. He was trying start his motor using a 12v starter via a power panel without success. He was using the glow plug outlet on the panel. The motor was turning over as expected but not firing. After a bit of investigation he concluded that the starter was taking all the juice from the battery and starving the glow plug output. He changed the battery, problem solved.

## Radio Care

When using Superglue take care. Try and keep it away from R/C equipment. We recently had to send a Tx away for servicing for a faulty on/off switch. Superglue had somehow glued it together. It has super capillary capabilities!

## Non-Modelling Item

We recently had to book tickets with a major airline to fly to Boston for our son's wedding. We were lucky as we got two for the price of what I was expecting to pay for one! Anyway I decided to check on future prices. I checked all the weeks up to the third week in December. The return price was the same every day except on Wednesdays when it was £300 dearer. Oddly enough Wednesday is the day we normally fly on when visiting to the US. Suspicions aroused I carried out a similar exercise at work on a different computer. Tickets were available for the same flights at nearly half the price. I also tried booking the same flights but in reverse. i.e. as our son would book them in Boston. They were approximately half what he would pay. The odd thing is that when I did the exercise I never entered any personal details so the only conclusion I can draw is that they are harvesting IP addresses or using cookies via an algorithm to set your ticket price. In future I will research ticket prices on a different computer, clear all cookies and buy on the one with the best price!

## Signing Off

I hope you have enjoyed reading this newsletter. Sorry about the whingeing but some things need to be said. Please take a good look at out website. There lot of new items. We have added a number of KST servos to the range. The DS315MG is a lovely dual voltage mini size servo that is proving popular. We have managed to

hold the price of KST servos at the moment but have been hit with two whammies an ex factory price increase and a currency devaluation. We have also added a selection of Bluebird servos to our inventory. The BMS-101 is proving popular with DLG flyers whilst the BMS-307 is an excellent budget servo in the sub-micro size. We are doing our best to cater for all pockets in the various servo classes by buying direct from manufacturers.

Happy Landings

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