

Aircrew

Facts, opinions, pictures and fun



<https://northreppsmfc.com/>

May 2020

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Chairman's chat

I think we would all agree with one fact - the World is in big trouble, but we are all doing our bit by staying at home as requested for as long as requested. I am sure we all see this is a must. The powers that be seem to be running around in circles with one day you can do this the next you cannot. This is because it is an unprecedented situation that defies all the planning and guess work games that can be done until it actually happens and decisions are needed on the fly. As we always preach, let common sense prevail.

From our Club perspective we have had several enquiries for membership when all this is over. Let us hope that they materialise to full memberships. So far I have managed to keep our field area neat and tidy with the occasional cut. This is most important now we are entering the main growing season and growing it certainly is. If we let it go now it will be a bitch to recover. I drive two miles to the field without speaking to anyone, cut the grass, I may see Kevin at the field but a wave is sufficient as we pass keeping well apart, then a two miles drive back home. It is necessary work and cannot be done from home ;) Otherwise, please remember the Airfield is in lock-down and will remain so until we advise otherwise.

To keep you updated we have some other major work planned for later this year, when we can get back to the field. We hope to have a replacement caravan lined up if suitable and once installed we will need a work party to paint the caravan green which is a requirement of the Airfield. We also have plans to fit mains to the plot. This may mean we do away with the Solar charging system. This is still to be decided but as we have it and it is working it is worth keeping I feel.

You are probably all aware by now that the CAA has decided in its infinite wisdom that it will be delaying the introduction of the EASA regulations until further notice and the relaxing of the pandemic lock down. With the World in total and utter turmoil and thousands losing the battle for life I personally think it is the time where the Governments of the World should turn around and drop all of the unnecessary legislation they are trying to inflict on the populace. It will take a long time for everyone to recover from this pandemic without worrying further about lining the pockets of the fat cat business boys who all seem to be showing their true colours by being front of the queue clamoring for handouts of our money from the Government, claiming hardship FFS. So CAA/DfT time to get your heads from up the place where the Sun don't shine and concentrate on the work that really needs doing. We all know you will be losing money trying to organise and enforce this hair-brained scheme so get out now, save face and save valuable funding which can be spent on better things.

Keep safe all and I hope to see you all online for our next Zoom based meeting on the 1st May.

Dave

From the editor

Information is power. Guys Hospital and Kings College London have produced an app that allows real people like us to input data about covid and to get information back. Their site is at <https://covid.joinzoe.com> You can download the app by the usual routes for all phones. Words like zoe and covid should find it. This one looks like being the front runner (2.5 million on April 19th).

Model of the month: Peter Trewick's DLG

This model is ten years old and has been flown a lot, as you can see from the repairs. However it is the club's first Discus Launch Glider so deserves a place here. Peter gave a demonstration of this remarkable model to Keith and me. It weighs just over 300g and uses the latest materials and construction techniques. I have got to have one when the skies are clear for flying again. Only for calm days as we can't have them drifting down over the main runway.



And here is Peter about to launch it on our last flying session before the field closed. What was really galling is that Peter immediately found lift. The model just floated around beautifully.



Online air display

With shows being cancelled some air show fans decided to stage one in their back garden. I hope this link will still work when you read this: <https://www.bbc.co.uk/news/uk-england-lincolnshire-52282344> Make sure your sound is on.

Covid news

Pillock of the Month: bread

I thought I'd make some bread. The queues at the supermarkets put me off. I hate queuing. So I bought a book, dug some dried yeast out of the cupboard and gave it a go. I used to make a lot of wine and beer. For this I always made a starter out of the dried yeast to get the fermentation off to a flying start. I decided to do it this way with the bread rather than the way the recipe said. The starter roared away and I kept pouring off the surplus and feeding it with sugar. Next day I mixed up the dough, kneaded it and left it to rise. Except it didn't. The flabby lump of dough went into the bin after a couple of hours. So what's the conclusion? Stick to the recipe, dope! Goes for kits too, usually. I have since made a very successful loaf, yes, by following the recipe.

Club mardles

One of the reasons for going to the field is to have a good Norfolk mardle. Not at the moment however. So a few of us decided to try out zoom and create virtual club meetings. The service is free for non-commercial use. The first meeting worked very well on April 17th. Why not give it a try? Dave is acting as host at present and the next meeting is at 20:00 on May 1st. You will have already had an email about it from Dave. More information about how you do it is at the end of this newsletter.

Haircut of the month

When the lockdown started I wondered how I would get my hair cut. As you know I usually only do this when I can't see forwards and I look akin to a yak. I heard someone on the radio say that the mullet might come back into fashion. The appalling image that conjured up prompted me to find ways of doing the job at home. I can always break the habit of a lifetime and wear a hat if it goes badly wrong.



For those too young to have seen the abomination in real life this is a mullet. Have you finished shuddering? You could pin this picture to your dart board. Come to think of it I might just do that.

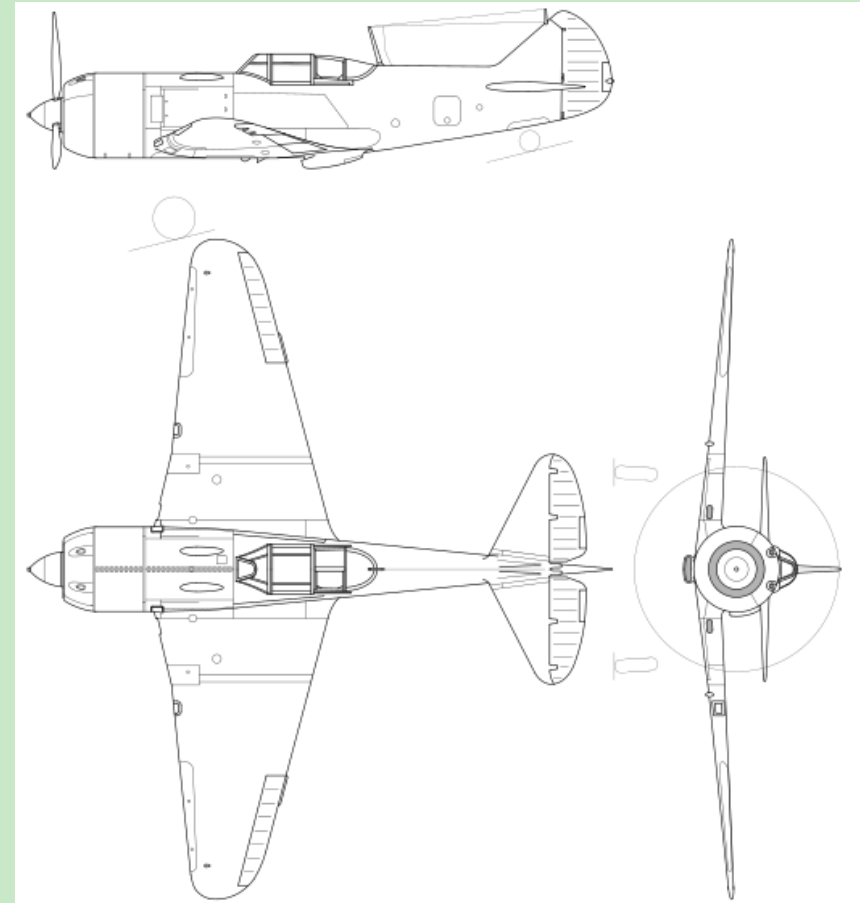
So here is what I settled on:

This the trimmer (no not strimmer) and some of the depth gauges (sizes 1 to 10 in all). It cost £20 on eBay. The father of one of my grand-daughters also got one but failed to realise that he had it set to number one cut. As she said later , 'It's OK. It will grow back'.



People's Mosquito (PM) update

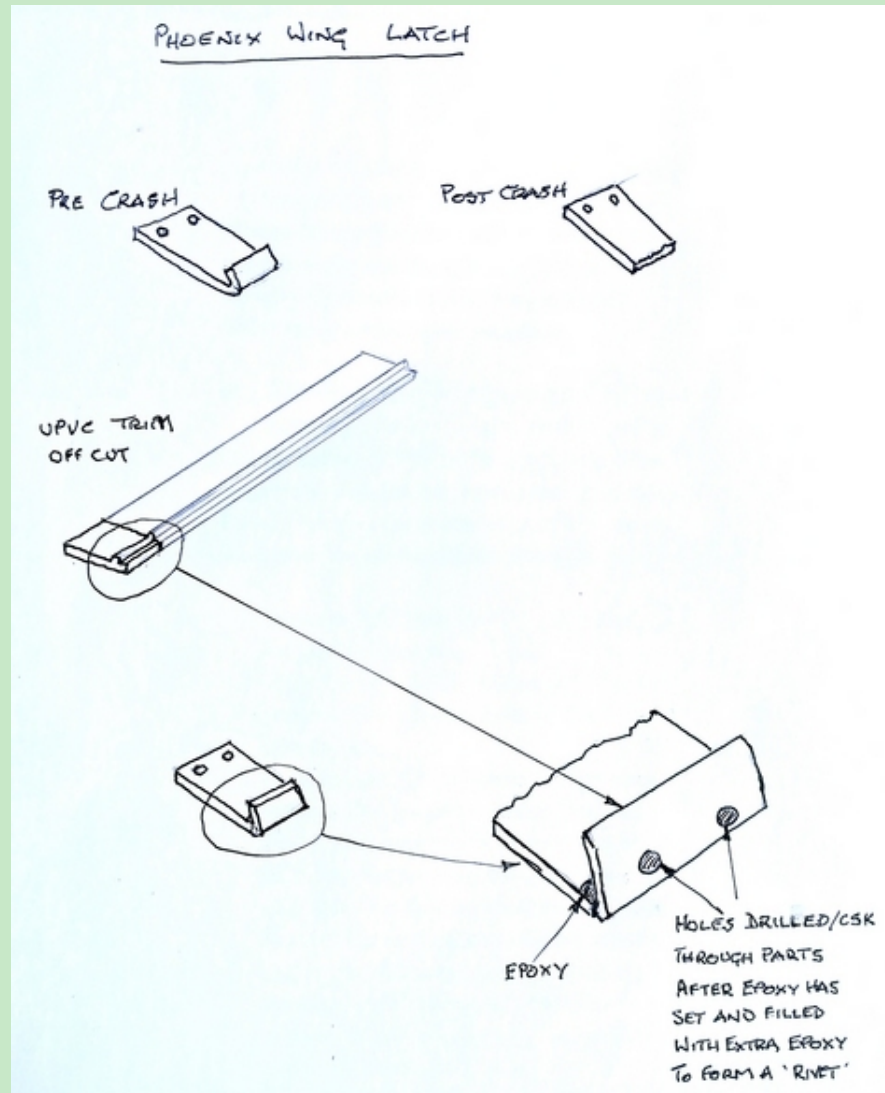
In the People's Mosquito item in the February newsletter we were given a challenge. "The wing behind under storage is also made from wood, and is a Russian WW2 fighter type, can you name it?" Bob May lent me a book by Eric 'Winkle' Brown describing his life in flying. On page 115 there is a picture of the Lavochkin La-7, which like the Mosquito, was made of wood. I reckon that is the answer to PM's question time. Brown found it a delight to fly but poorly equipped. I just noticed that there are no flaps.



Picture from wikipedia
https://en.wikipedia.org/wiki/Lavochkin_La-7#/media/File:La-7.svg

Genius number nine: Phoenix wing catch repairs and the epoxy rivet

From Keith



Talking of repairs – The Repair Shop

Hope you all got to see Mark Stuckey fixing the juke box on BBC TV on the 25th of March. In case you missed it here are some stills from the programme.



It takes a real expert to work on a rat's nest of an amplifier like this.



Harrall memories: Sherishitti

There was never any SAS involvement in the wars and skirmishes in The Oman which went on from the late 1950s until victory for Sultan Qaboos and his forces in 1976. However if you bothered to check the travel documents of the members of The British Army Training Team (BATT) arriving by RAF VC10 in Masirah you would most likely find that they started their journey from Hereford.

The Sultan and his father before him had been grappling with insurgents backed by the Russians, Chinese and the Yemen. Calling itself The Popular Front for the Liberation of the Occupied Arabian Gulf (PFLOAG) it was fighting for ultimate control of the mineral rich sultanate and to obtain a stranglehold over trade using the Persian Gulf by controlling the Mussandam which jutted out into the narrowest part of the Straits of Hormuz. Hostilities were

mainly centred in the south of the country, Dhofar, mostly to the west of that area which borders the Yemen.

With the enemy all but beaten there was still a hard core of the enemy, (adoo), in a difficult to access area, the main feature of which was a horseshoe shaped escarpment called Sherishitti! Into the face of this escarpment there were many deep caves. It was from here that the remaining PFLOAG fighters harried the Sultan's soldiers. The Hawker Hunters, donated by the king of Jordan, had hurled 500lb bombs at it, the Sultan's Strikemasters had attacked it with rockets. All to no avail.

PSYOPS came up with the idea of dropping leaflets over the area. The gist of these was to tell the enemy that their war was lost, they were the only remaining unit and if they gave themselves up, handed in their weapons, they would be welcomed back into their tribal lands and given money.

I was flying the Britten Norman Defender, a slightly modified Islander. This was used as a general communications and passenger carrying aircraft. Delivery of these leaflets was to be made from the air and I was to be the postman. One lunchtime a couple of BATT chaps turned up with boxes of leaflets. We took the rear side door off and set off for Sherishitti. As usual there were clear blue skies with no cloud anywhere for miles. I signalled to the rear occupants that we were approaching the designated drop zone and they began distributing the good news.

Some weeks later the second in the series of leaflets was to be dropped. The same two soldiers arrived at the aircraft. The door had already been removed and as they boarded one said to me that he hoped that we would receive a better reception this time. Puzzled I asked him what he meant. He was surprised at my question and went on to explain that during the last drop, with their

legs dangling out of the fuselage they could see and hear small arms fire following us. That day, the message was delivered but from somewhere much closer to the stratosphere.

Bob's Tales

2: The gold Miner and the Mosquito.

Another medical flight that I can recall was to a small town called Marble Bar about one hour flying time inland from the coast. Marble Bar had been a gold mining town of some size in the past but the gold ran out and the town was almost abandoned except for a few prospectors who scratched a living sorting through the mounds of earth piled up from the old mines. This old guy had broken his leg and was in a tent lying on a dirty old mattress.

The easiest thing to do was to put him in the aircraft still on his mattress with his head along side my seat and the Flight Nurse behind me to keep an eye on him. He was a cheerful soul and wanted to talk to me as we flew back to Port Hedland Hospital. He told me that his last flight had been in a RAAF Mosquito during WW2 from Corunna Downs, which was now abandoned, located south of Port Hedland

The Japanese tried to find it by following Aussie bombers returning from bombing missions in Timor and New Guinea. This flight of his had been from there to Port Hedland to get the Christmas beer supply. He was slung in a hammock inside the bomb bay surrounded by bottles of Fosters or what ever they were drinking in those days. I think he may well have reduced the the load somewhat by the time they landed at Corunna Downs.

Aircraft that Bob has flown up to now.



**Bristol 'Frightener'
Freighter**



Beechcraft Baron



Cessna 205

Hedy Lamarr

On my transmitter I have put a printed strip saying 'Thanks to Hedy Lamarr'. For those who don't know the reason I thought it would be good to describe this remarkable woman.

Born Hedwig Keisler in Vienna in 1914, she made a name as a beautiful and talented film and stage actor. In the late 1930s, she fled an oppressive husband and, having a Jewish background, the Nazis, ending in the US.

But that isn't why her name is on my transmitter. She was also an inventor. She worked with Howard Hughes and suggested he change the shape of his aircraft from square to a more rounded streamline shape. However it isn't aviation that put her on my transmitter either.

Hughes was so impressed by her talent that he gave her a team of scientist and engineers and free rein to do what she wanted. During World War Two a new generation of radio controlled torpedoes was being developed, but the Germans found that they could jam the signals. Lamarr devised a system for changing transmitter frequencies using a device, based on a piano roll player, that she patented in 1942 (US Patent 2,292,387). The system became known as frequency-hopping.

As is so often the case, establishments, in this case the US navy, are resistant to ideas from outside and did not take up the idea until the early 1960's. Her achievement was eventually recognised in 2014 when she was inducted after her death to the US National Inventors Hall of Fame.

Frequency hopping allows transmitter and receiver to switch frequencies when connection is lost due to interference or a block. This is why we never worry about switching our transmitters on when others are flying. Ours will simply not connect using frequencies currently in use.

For those who have never used older 35 and 27 MHz equipment, the large yellow board in the caravan will be a mystery. Switching on without checking whether someone else was already flying on your frequency was the greatest crime. Transmitters were often kept in a pound. Each frequency had a colour. You put a coloured ribbon on your transmitter aerial (not antenna – yuk!) and had to register that you were using that frequency on the board. You could change frequency by changing crystals in the transmitter and the receiver.

Frequency hopping goes by a number of names depending on the manufacturer, most centring on FHSS (Frequency Hopping Spread Spectrum). FrSky calls its version ACCST (Advanced Continuous Channel Shifting Technology). Hitec is AFHSS (Advanced FHSS). Futaba has FFAST (Futaba Advanced Spread Spectrum Technology). Multiplex has M-LINK which is FHSS. In the EU all systems must also check for a clear frequency before transmitting using LBT (Listen Before Talk/Transmit). The technology is also found in Bluetooth connections and many other radio-based wireless networks.

And all **'THANKS TO HEDY LAMARR'**.

Joke of the month

In the light of present national woes here's one.

Which newspapers ran the best stories on the terrors of the French Revolution?

It was the Bicester Times. It was the Worcester Times.

Top tip: Finishing sheeted surfaces using Eze-Kote

In case you don't know, Eze-Kote (EK) is a water-based resin made by de Luxe Materials, <https://deluxematerials.co.uk/>. Unlike epoxy or polyester, it is single part so does not need to be mixed before use. A 500 ml bottle costs about £15 but it goes a long way and there is no wastage because of not needing to mix batches. The maker suggests that 75 ml covers about 1m² so the whole bottle covers just over 6m².

I use it for balsa sheeted models. After applying the sheet and sanding it smooth, a couple of coats of EK harden the sheet, which helps to stop workshop rash. I coat and sand till happy with the smoothness, then apply 24g glass fibre cloth again using EK, and further coats until the surface is sufficiently smooth to be painted.

One benefit of EK is its lightness, especially when compared with epoxy, though it probably isn't as strong. It does continue to harden over a few days. I have experimented before, which was reported in the November 2016 newsletter. However I felt further experiment was needed. One thing I didn't know was how much the weight of the EK dropped as it dried. I did some preliminary measurements that suggested the dry weight of a coat was about one third of the wet. I found that surprising, so decided to do a proper test.

I cut a 10 x 10 cm piece of balsa and sanded both sides to the usual level of smoothness. I applied three coats as evenly as I could. I weighed the piece when each new coat was wet. I allowed each coat to dry then weighed again. I then sanded smooth and weighed again. I completed the tests on side 1 before doing side 2. Coats were left to dry 30 to 40 minutes in a warm room.

Conclusions

EK loses half its weight as the first coat dries.

EK loses two-thirds of its weight on subsequent coats.

The first coat on bare wood takes about double the amount of EK than later ones.

The drop in weight on sanding is very small.

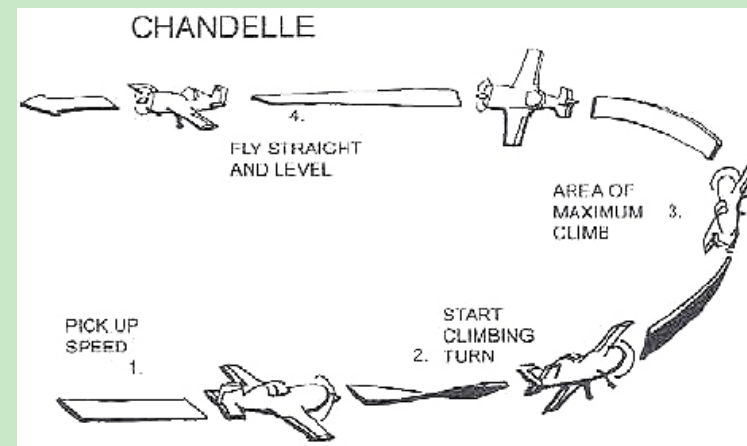
It is best to use the thin wide brushes made for varnishing. These have very fine points on the bristles so brush marks are much reduced. Avoid going back over the coat, as after a minute or two this will show brush marks anyway. Brushes are washed in water. I found it fine to leave the brush in water between coats. All that is needed is to wipe the brush dryish on a cloth or paper towel before using it again. I bought a set of three (25, 32 and 40 mm) on eBay for £3.85.

Averages of two sides

	g/dm ²	g/m ²
First wet coat	0.98	97.5
Second wet coat	0.47	47
Third wet coat	0.36	36
First drop %	49	
Second drop %	68	
Third drop %	64	
First dry coat	0.50	50
Second dry coat	0.17	17
Third dry coat	0.13	13
Total of three	0.8	80



According to the AMA, 'The Chandelle is an exaggerated climbing turn in which the airplane changes direction through 180°. The model begins a climbing turn proceeding away from the flight line. The maximum climb and bank occur at approximately the midpoint during the change in direction. The maximum bank angle may only be 45 to 60° for non-aerobatic aircraft and up to 90 degrees for fully aerobatic aircraft. The entry speed should be sufficient to prevent visible slipping or skidding and maintain the same turn rate throughout the maneuver. As the 180-degree point is reached in the turn where the aircraft is traveling in the opposite direction from which it entered, the wings are brought level for the maneuver completion.



Errors: The same turn rate is not maintained. The model slips or skids. The model does not provide a notable climb rate. The model does not finish with wings level on a heading opposite to that entered."

The Chandelle is a very gentle maneuver, and well within the reach of most sailplanes, its only difficulty is flying the symmetrical 180° climbing turn.

Manoeuvre of the month: Chandelle

Cartoon



Caption competition



My first try: Don't let Mike see this idea for the Climb and Glide. He's got some competition now.

You can do better

Flying for dummies

1. Every take-off is optional, every landing is mandatory.
2. If you push the stick forward, the houses will get bigger. If you pull it back they will get smaller, unless you keep pulling it back, then they will get bigger again.
3. Flying isn't dangerous, crashing is.
4. It's always better to be down here, wishing you were up there, than up there wishing you were down here.
5. The only time you have too much fuel is when you're on fire.
6. The propeller is a fan to keep the pilot cool. If it stops watch the pilot sweat.
7. When in doubt increase your altitude. No-one has ever collided with the sky.
8. A 'good' landing is one from which you can walk away. A 'great' landing is one after which they can use the 'plane again.
9. You know you've landed with the wheels up if it takes full power to taxi to the parking area.
10. The probability of survival is inversely proportional to the angle of arrival.
11. Never let an aircraft take you somewhere your brain didn't get to five minutes earlier.
12. Stay out of clouds. The silver lining may be another aircraft. Reliable sources also report that mountains have been known to hide in clouds.
13. Always try to keep the number of your landings equal to the number of your take-offs.
14. You start with a bag full of luck and an empty bag of experience. The trick is to fill the bag of experience before you empty the bag of luck.

15. Good judgement comes from experience. Unfortunately, experience usually comes from bad judgement.
16. In the battle between objects made of aluminium going hundreds of miles per hour and the ground going zero miles per hour, the ground has yet to lose.
17. Helicopters can't fly, they're just so ugly the earth repels them.
18. It's always a good idea to keep the pointy end going forward.
19. Keep looking around, there's always something you have missed.
20. Gravity is not just a good idea, it's a law. And it's not subject to appeal.
21. The three most useless things to a pilot:
 - The altitude above you.
 - The runway behind you.
 - A tenth of a second ago

From instagram <https://www.instagram.com/p/B3C7UqOoWTe/?igshid=1ks84cp1zr1ku>

Found by Keith Eldred

Bob May has given me some more for a future issue

The People's Mosquito April 2020

In recent newsletters, we have been keeping you updated with the work on the Mosquito fuselage moulds from our supplier Retrotec.

We are in production on the first fuselage moulds in over 70 years, and as many are aware without the moulds you cannot build a Mosquito fuselage. To date, TPM has invested over £85,000 into these moulds.



In this photograph, you can see the 'box' structure technique to the infill. From this stage Retrotec then uses the Jelutong hardwood to fill the sections, then machine cut to the shape of the mould.

We have been teasing you also for several months about how you can add your name to history and now is your chance with the launch of Operation Jericho 2020! There are options to suit every pocket, from £25 through to £5000.

Please click here to visit the campaign website:

www.peoplesmosquito.org.uk/campaigns/

The funds raised in our Operation Jericho 2020 campaign will go to completing these in-fill's, in return for your donation you can add

your name to these historic moulds and proudly say 'I did that!' We are delighted to announce that the project received a tremendous vote of confidence when Airbus generously donated a significant sum in support recently.

Jeremy Greaves, Vice President Corporate Affairs and Strategy, Airbus UK said: *Airbus is a strong believer in preserving wider aviation heritage and we are proud to be supporting The People's Mosquito in this endeavour. The Mosquito is more than a beautiful and iconic aircraft, Airbus has a direct relationship to it as more than 90 were built at our Broughton factory in Flintshire. That passion and dedication is seen today in our skilled workforce whose talents are focused on building wings for the Airbus commercial aircraft fleet.'*

Sources

Here is another Chinese source (not hoi sin) for things you can't buy here. It's the eBay-type offshoot of AliBaba. It's called AliExpress and you can find it at <https://www.aliexpress.com/> . There is also an eye-popping range of the most bizarre objects as well. I leave you to discover them for yourselves.

Using zoom for club meetings

As he said above, Dave arranged an online meeting for the club on April 17th. It worked extremely well (and not in the Trumpian

sense). Apart from the fresh air and the skylarks it was like a muddle on the field. I noted down a few points that can help to provide better pictures and sound for next time. So do give it a go. Don't forget you can hold up your latest models for us to see, or confess, as I did, to possessing a gyro stabiliser with intent to commit an aeromodelling crime by using it as a 'whats this' quiz.

Hints

- It is probably best to buy a headset with earphones and a microphone (mike) that can be moved to your mouth. The sound is clearest if the microphone is close to your mouth. A USB one should install automatically when you plug it in and will only cost about £10.
- You might have a camera built in to your computer or screen. If not buy a simple, adjustable USB camera that clips onto the top of your screen. This will cost about £12 to £15 though they are in short supply. Check the estimated delivery time.
- Lighting is important. Try to get your face fully lit from behind the computer screen, perhaps with a desk lamp. Ideally it should be fitted with a 'daylight' LED bulb to avoid colouration of the picture.
- Meetings work best when one person speaks at a time. The edges of the speaking person's screen light up. More than two people speaking at once can become very confusing.

There are helpful hints within zoom to solve problems if you get any. On the website try **Support** then **Audio, Video, Sharing** to start with and anyway we'll be around to help.

How you join a meeting

- The person organising the meeting is called the 'Host'.
- The host sends each person an address in an email and a date and time when the meeting starts.

- A few minutes before the start time you click the address and zoom opens.
- Zoom suggests that you download software, called a **Client**, if it realises that you haven't already done so.
- The screen will tell you that the meeting won't start until the host starts it.
- When the host starts the meeting the face of each person appears in a small box probably at the top of the screen. Once the horror fades, you can open larger boxes. Click the menu button at top right and select **Gallery view**.
- If you can't see yourself click the **Start video** button at bottom left. If you don't want to be on the screen click **Stop video** at bottom left.

direct. Unless the rules change you won't be able to travel to collect purchases.

To leave click **Exit meeting** at bottom right.

Well, here's a skylark and next to it a picture of the fresh air though of course you can't see that. However breathe deeply and you will be able to tell it's there.



Sales

Don't forget to check the General Sales page on the website as there are some items for sale there. Please contact the owners