Once again its Cloudhopper News time.

Hello again lighter than air fans, and freshly back from LMAB Metz and Bristol international Fiesta, I hope those of you who went to either or both had a good time with enough flying to satisfy. I say that guardedly as there wasn’t the number of flights most people expected at Lorraine Mondial Air Balloons(LMAB), but most would agree that the flights we all flew (up to eight were possible during the ten day event), were all good for varying reasons. It was particularly tough for all those who travelled to the event for only the first part of the week, but as the week progressed, so things eventually improved. Suffice to say that Bristol International was the complete reverse with all seven slots flown.

French Homebuilt Duo Chariot from Metz “22-KD”
There is plenty to talk about within this instalment with reviews from Metz, Bristol and the Streatley Glow, and from Cameron Balloons comes their latest product the third iteration of the collapsible basket which clearly has to compete with the highly successful Ultramagic Tekno range. Hopefully this edition will be out on time, a change in my work status has given me more time to dedicate to the Newsletter. Onwards and upwards as they say.


Let me say first and foremost, running any big event is horrendous and therefore it’s natural to assume that running Lorraine Mondial Air Balloons (LMAB) contains its fair share of problems, coupled to times where we are all counting the pennies, I was unsurprised to see a downsizing in this year’s Metz festival. Gone were the night flying and the gas balloons, but I was contacted by several people about a week before the event who were concerned that there appeared to be no hopper content within the organisers program of events. An exploratory email to the event director suggesting that two dedicated launches (one am, one pm) during the 10 day event would satisfy all hopper pilots and give us a chance to fly together was politely refused. The perception from them was that it was too late to change things around and that in 2013 they had instigated a competition for hoppers which hadn’t been well received, so why bother? I returned the correspondence stating that hopper pilots generally aren’t a competitive lot and merely want to fly together. Further pushing on my part coupled to a secondary request to do a piece on French TV3 channel during the event resulted in Philippe Pilatre suggesting that he would review their decision with flight director Thierry before the event started.

The question you have to ask yourself is this? What exactly where we looking for? In a nut shell, a small area of land where we could all layout and fly together and permission to do so. Not so very hard to agree to id Say, but it seems that the French are fine so long as you adhere to their rules and yet everything is impossible when you want to change any element. I have been in contact with the organisers since 2007 with regard to cloudhoppers aloud at the festival and have seen numbers significantly increase since their acceptance of their inclusion. Suffice to say it didn’t happen in 2015 and a large
number of pilot/owners including myself were disappointed that this simple request failed to achieve the desired response. Despite the negativity towards us, some 26 craft attended and at least 25 flew during the event. This leads us to another point which the French have failed to see. The record number of hoppers in the air at one time (to my knowledge) still remains at 29 at the Annual One Man Meet in Derbyshire a few years ago and if the LMAB committee are serious about hoppers I for one propose that for 2017 they should look to make a Guinness World record attempt to try to beat it. Much was made of the line up record this year, but in an age where you are looking for media attention, a hopper world record would be fairly easy to achieve I say and with decent communication prior to the event and subsequent publicity I think it is easy to achieve. So my question to the organisers is this. Are we still perceived as a novelty side show or are you going to take us seriously next time around?

Steve Roake

2. Essential Extra's / Tech Talk- Bristol Update on Solar balloons

At a very successful Bristol International Balloon Fiesta, Cameron Balloons Limited launched a Solar Balloon proof of concept Z-150 machine. This balloon featured a dissimilar sided envelope with half of the balloon silver fabric and half black. The principle behind the concept I believe is that during flight the balloon is rotated so that the black side is heated by the sun’s rays and the differential rate of heat retention then gives the balloon lift. For certification purposes and for reliability against bad weather conditions the balloon has to fly with a gas supplied burner system, but I’m told initial results indicate a gas saving in the region of 25% over a traditional balloon during the flight. Whether or not this technology can be transferred successfully to our sector of the marketplace or not remains unclear and all that the Cameron Sales Team would indicate to me when quizzed about the technology, was that it is significantly different conceptually compared to the fine achievements that Pierrick Duvoisin and Ultramagic Balloons have found with their double skinned Eco fabric concept program. In a break with my normal rules regarding content within the hopper newsletter I
enclose a photograph of the balloon for you all to see what all the fuss is about.

G-CIRX CameronZ-150 Solar project balloon.

I guess as the project matures, then we will see its viability compared to the savings and environmental benefits and whether or not it is scalable.

3. The Features Section

Lorraine Mondial Air Balloon (LMAB) Metz 2015 –by Steve Roake

When you go to Metz (LMAB) you are always filled with certain optimistic expectations. Driving into the vicinity of the airfield the first thing you check is the amount of cut fields and how good the area appears for flying. Once you have established base camp you then negotiate the process of check in and in my case I lucked in arriving around 1pm on the Friday and completing the process easily and without fuss. Then it’s off to complete the process by filling your gas tanks in preparation for the first flight and the evening briefing. However at this year’s LMAB, patience was the word that everyone
needed to exercise. The weather leading up to the event had been settled, warm and flyable for about a month prior, but as we all converged on the Hanger 5, it was apparent that changeable weather was in the air and we would have to wait for our first flights. Friday evening was scrubbed as was subsequently both Saturday briefings but the good news was that the decision was swift and the new met man seemed to know his stuff.

Steve Burden flew G-GELI the lightweight Colt 31A

Sunday morning arrived and with it typical nice Metz weather. A Mass Launch to the North coincided with a world record line up of 433 balloons with me nicely near the newly purchased Andrew Gregory 2009 built LBL35A G-OBAB. Since its acquisition the “Gregory Flyers” have nearly doubled the meagre 10 hours total flight time in the log book. Once released from record breaking tethering duties, we all headed North at a very gentle 2-3 knots with pockets of nothingness. Other notable hoppers flying this morning included Bart Geeraerts in G-CIMW his lightweight Cameron O-31, and two French
home built hoppers including the French homebuilt Duo ladybird special shape 22-KD. A very easy flight ended for me after 1-30 in Xonville, close to the road and an easy retrieve for my crew. A great first flight but little did we know that we wouldn’t be flying for the next few days as weather curtailed our aerial activity.

Marginal conditions continued through till Wednesday the 29th and the evening briefing where we thought it was marginal for flying. However events overtook any likelihood of flying when we witnessed a Glider crash on the airfield. Whilst completing a roll manoeuvre one wing detached from the glider and spinackered to the ground as the pilot bailed out. The rest of the machine fluttered like a shuttlecock and eventually crashed nose first into the airfield twirling on its way down to the ground. The pilot apparently got away lightly but appeared to be dragged on landing and little remained of the sports glider. Suffice to say the airfield remained closed so that the authorities could investigate the evidence and try to establish probable cause for the in-flight breakup.

Surprisingly the very next morning when we attended the briefing, little was said about the previous night’s crash except that the pilot was okay and following a good weather report we all headed off to the launch field for a flight to the south. Because of the lack of flights so far this week, I once again elected to fly my 90 balloon but clocked a number of hoppers flying, including Tom Hilditch in his Annex 2 Airtour 31G-BKVY. Martin Freeston was sharing G-BZIH the Budweiser Hopper with Lennie Vaughan, and also evident on this flight was a new hopper G-CIOV which later I found out to be an Ultramagic H-31 for new member Haydn Board from Kent. Nice thing about this morning’s flight was that you could cruise slowly off the airfield over the old hanger, descend behind the gas refuelling and then fly up towards the next valley where the railway viaduct is. In my case I ended up on top of the following ridge in a place called Villezey-sur-Mad and we had a delayed retrieve as my “crew” driver decided to remove the retrieve map from the car prior to setting off so telling him how to find us was long winded to say the least! It was faster in the air but not excessive with my 45min flight achieving 4.6nm.

The upside of a short flight was that it didn’t take too long to refuel and once again by evening briefing time we were prepared to fly once again. This was one of those evenings when everyone was released to the field and told to wait and see whether or not the wind would dissipate enough for us to go fly. I had two
criteria in my head and both were exceeded by the time I chose to bin the flight option. I had set a cut off time of 8-30pm as my curfew and with winds being at best described as “brisk” and with passengers who had never previously flown it was an easy decision to take. Some interesting sights followed with balloons of all sorts of distorted shapes taking flight. I understand quite a few sustained panel damage in the spirited takeoffs and climb out. Some had stand up landings, but once again with the direction southerly unless you got some shelter in one of the valleys, you needed some space for your drag landing. You just didn’t know what you would end up with. Always good to know that for yourself, you have made the right decision.

Mid pack! G-CIMW Cameron O-31, Bart Geeraerts on the first flight

Friday morning brought about one of the highlight flights of the week for me. Firstly for anyone who knows the region, the direction was towards St Benoit en Woevre, secondly it was
doing nearly 10 knots and thirdly as the sun shone, there was a blanket layer of mist/fog on the surface that had clearly come from Lac de la Chaussee. Looking worse from the ground, when you actually flew it you could still see the ground as it wasn’t blanket fog. The other nice phenomenon in the flight was that once you reached St Benoit, the mist/fog stopped just as though someone had come along with a pair of scissors and cut it in half. On one side of you it was clear as a bell, and on the other was this surreal view where the only thing peeking out at you was the church at Dampvitoux making for some great photos.

Andrew Gregory in G-OBAB Lbl 35A

Then just as you cleared the mist the prevailing wind changed and we headed 75 degrees more southerly towards lac de la medine. It was very tempting to fly on and over the lake but having had a
joyful hour and 10 mins already and with beautiful cut fields around La Marche en Woëvre in front of me I decided to land completing my 7.4nm flight.

Each flight had an element to it that made it unique and this was so true of the Saturday morning experience. Staying at the half empty campsite in Jaulny and knowing that the direction was roughly that way my judge declared goal for the am flight was to get as close as possible to where we were staying. Taking off but staying low over the airfield gave me as much left as possible with lots of balloons more on track for Xammes and Thiacourt. Upon reaching Xammes, I found time for an intermediate and did a tank change. Nice air to air shots were taken of GOBAB before I ventured into the valley just prior to Jaulny and the campsite. It is the combination of two valleys and so Judgement was required to decide when to commit to the track towards the campsite and almost instantly I knew id missed by a meagre amount. The low level left just wasn’t there and as ever the electrified railway seemed to draw me slightly right as I crossed it. I missed my goal by less than 100 feet but will strive to attempt again next time. Having missed my target I climbed to see which way the prevailing wind would take us. Tracking over the American graveyard my track was now back towards Lac de le madine and with a nice 12.3knots it seemed rude not to fly onwards eventually arriving at Pannes, just before the lake after nearly 2 hours of flying. Once again it could have been possible with my fuel status to continue but as the crew was there it seemed the right thing to do to alight where we did.

Determined to get one day where we actually flew both slots the evening flight was my last chance to go before we returned to the UK. Initially having hauled the hopper all the way there I was determined to fly this slot as a hopper flight, but given the winds and the lack of shelter on the field I elected to fly the larger one once again. Some hoppers flew in particular not far from me was Phil Dunnington in his newish Cameron O-31 G-CIPD. The Story of his unique trip to Metz is detailed elsewhere in this issue, but it was a spirited launch which tested the pilot and I think you need to fly some faster flights, just to know you can still handle the conditions. Upon take off towards the south once again, 10-12 knots meant that swiftly we cleared the first valley, then the second one passing over the TGV line, and then following the pack into a small valley in the area of Vilcey-Sur-Trey. With the backlog of traffic I had decided to land after about an
hour and try to keep it inflated to assist in the retrieval. We skirted over a Forrest into a culvert which wandered down towards a couple of landing fields with over 60 balloons in them. As the speed bled off as we went lower into the valley it was just a case of finding my spot for a lovely upright landing. Visually there were good views from the road but it took the crew 50mins to find me and when they did arrive I was the last man standing. Lots of other crews had used me as their VRP but it was a nice way to wrap up my Metz experience. We had decided to not fly Sunday am as packing ensued, but another two slots were possible meaning we had completed five from a possible eight.

Clearly not the best Metz ever, and disappointing from the hopper perspective and the organisers position regarding our requests. But over eight hours of flying in five flights left me satisfied. The event is definitely changing, and in some ways not for the better, but the committee needs to recognise the hopper contribution in 2017 and give us what we seek or I can see people giving up on the event and going elsewhere. Some say the heady days of the old hanger on the south side were the heyday of Metz, probably true and yet I don’t hanker for the old refuelling ways lol. Love it or hate it Metz is unique, and you have two years to get your appetite back for it again.

Steve Roake

**Phil Dunnington arrives in Metz in style**

Now there are many ways of arriving at Balloon festival where your entrance made a statement, but by far the grandest entrance to LMAB was caused by Phil Dunnington in his vintage Beech 18. Accompanied by Peter Bish the intrepid aviators set off from Dunkeswell in Devon routing via Goodwood, Lydd, le Touquet and Metz with Phil’s relatively new Cameron O-31 on board G-CIPD. Speaking To Allie, it seemed the “boys” were on a mission to add countries where Phil hadn’t flown before and the Beech Expeditor is the ideal platform to transport your lightweight balloon to events with. Peter Bish intimated that it had been around 18 years since he had attended Metz too, so clearly much had changed. Apparently cruising at 160 knots is a very stress free way of arriving and upon arrival the very nice people at the event arranged hanger space for the plane for the duration.
Now this is a way to arrive with your hopper, 52 vintage Beech 18 G-BKGM

Naturally having taken the time to arrive, Phil took no time at all to get airborne in the hopper.

Phil Dunnington’s other form of transport at Metz.
Bristol International Fiesta 2015 by Steve Roake

Bristol Int.Fiesta is always a useful place to go to catch up with what is going on in the world of ballooning. This year they lucked in with seven out of seven slots flown. Two great balloon glows in front of massive crowds which included an alleged 270,000 on the Saturday night and of course some hopper activity. Hopper activity was reduced to three with Alan Turner and Andrew Gregory flying theirs straight after Metz and also Darwin Peltan with G-BLVA.

The hopper activity started on the Thursday night at the Shapes Rodeo where Andrew Gregory convinced the organisers to let himself and Alan Turner fly. Further activity came on the Saturday evening when Phil Dunnington snuck a cheeky hop down the launch field after every one had flown out and was surrounded by model balloons.
Finally Cameron Balloons flew G-CIJJ their Demo O-31.

As featured elsewhere, and having been displayed in Metz, the item of interest on the Cameron Stand is their latest version of the Collapsible basket named the Nano. Considerable interest
surrounds this product with five already sold and some interest in bigger versions. This fairs well compared to the Um product being newer but as Um are doing a 105 basket version of the Tekno bottom end I guess the Bristol manufacturer will follow soon.

**Streatley Glow**

The Monday after Bristol is always the Streatley Nightglow which is held in the village of that name near Reading in Berkshire. This year due to weather it was rolled over to the Tuesday. I decided to attend with G-UHOP, my UM H-31B which Ken Lowry had a turn playing with, but star of the event was Chris Dobson’s Colt 17A G-DIPZ.

Nice to see the 1988 vintage Colt out for a change, and in remarkably good flying condition having only 25 hours TT since new on it. Shame the artwork was removed.
4. Homebuilding - Tim Wilkinson’s own views on Building G-CISD.


A guide to making your own balloon and the rest of the story building the Sackville AH-31.

Sewing – A simple skill, bit like flying a Tiger Moth, it was used as a trainer in world war two. Very easy to start and get going, but a sod to master completely and as your expertise increased, so did your flying improved. That is exactly what sewing is like. It has shown me I can achieve and do something if I put my mind to it. Even at my age 63, you can build your own balloon. Financially you are squids in. It is a great escape from this overheated modern world we live in. Flying the Envelope you have built is a reward in itself, there is nothing complicated, just a lot of repetition work. There is also a lot of expertise out there and all the balloon manuals from the manufacturers hold a lot of information within them. Maybe that’s where I have scored – by asking lots of questions. More often than not I have got an answer or at least a lead. There are many hurdles which I could have stopped at or failed in, but HAVE A GO. I did!

The reason behind building this Airtour 31 was to complete the Airtour set of three, 31, 56, and a 77. I believe there were only fourteen Airtour balloons ever built and only three 31’s. The big problem was locating the templates for the balloon. Many of you will know from the Aerostat magazine that Mark Stelling got the lead and found they were in the loft of Pooley’s shop at Cranfield Bedfordshire. It took a while to obtain permission to use them, it turned out they were worried about litigation issues, but a simple letter absolving anyone else resolved that. I took me three days to sort out all the templates until I had a complete set for the 31. I had enough material to make this balloon the same as the previous two, the only problem was that the load tapes were too heavy, so I ordered a 1000 metres of 14mm wide at a cost of £650. The bulk of the cost was setting up the looms; it would have only cost £1400 for 10,000 metres of this material, but that’s life. I had some parachute line but needed to purchase the Kevlar centre lines. The Ripline, Crown Line and Pulleys all came from Peter Bish at Zebedee as did the crown ring which was old stock from Thunder and Colt days. The wire became a problem as there were no drawings, but
there was for the first time a template for the scoop and from that we had a good idea and ordered the wires.

Load tape feeding straight into the foot of the sewing machine, While you sew a fell seam underneath with both gores, tape is sewn in at the same time – a big time saver.
The Logistics of the 31.

404 metres of Orange Ripstock. Now this is 1500mm wide but the drawings were made for fabric at 1300 wide, so naturally there was a lot of waste. Plenty of 8 inch off-cuts to practise on should anyone want a go. 140 metres of blue, that is a ratio of three parts orange to one part blue and that was the reason we chose the pattern determined by the fabric I purchased at the time. In total, 544 metre run of fabric, or another way, 816 square metres less waste of approximately 200 metres. AAH, Nomex! Ran out of it, went to purchase some more, but it’s very expensive as Dupont have the patent on this material and you can’t but it cheaply anywhere.

First free flight and first ever hop for Tim
Time cutting the fabric

All 14 panels were 12 layers deep with three blue and nine orange. First, the cutting table is 24 feet long, and the larger middle panels are done only one template at a time. The top and bottom panels can be reversed so that the two together will have the same angle reducing waste. Then you can cut them with a circular cutting blade in one go, saving a lot of time. Each needs to be marked with seam number and left or right and folded individually, with the seam number telling you the correct way up. It is very simple to sew them in upside down near the middle. Now cut out the parachute and the rest of the securing attachments made from load tape. Total time spent cutting was 16 hours.

Each clip has a panel, there are three orange to one blue. At the bottom move the blue panel up one on each gore to get a spiral pattern. All photos in this article by Tim Wilkinson.
Sewing

Before you get too enthusiastic, take two equator panels and sew on the registration letters. Then take one panel at a time and sew all 16 panels together to make one gore. Do this twelve times and you have all the gores sewn. This normally takes two hours a gore, times twelve gores i.e. 24 hours to sew the gores. Next task is to sew the gores together with the load tape at the same time (this sounds difficult but with the load tape feeder it makes the task simple).

Only two gores sewn together, top end in the distance, bottom end in the foreground. Keep the system going – it will make life a lot easier when all twelve gores are sewn together.
Before you sew the whole lot together, leave the last vertical load tape till later. This takes around 14 hours. Next on the outside sew on all the horizontal load tapes. By this time the amount of fabric around your feet is colossal, and is a nightmare if you don’t have a logical system to follow. If you have then it’s simple and takes around 8 hours. Next turn the whole thing inside out and sew on the Pulley and the fixing point for the Ripline going up the Parachute securing line. Then do the Velcro around the top which is another 6 hours work. Now go back and sew that last vertical load tape. This next step took me a while to figure out. The trick here is to bring the fabric to the left of the sewing machine as normal. Now normally the fabric would come through the machine on the right but you take it in front of the machine and bring it a little at a time and sew it, repeating until finished. Stop at each horizontal load tape and sew them in with the overlapping tape. Time taken was 6 hours. The excess load tapes at the bottom can now thread in the wires and sew the tapes up. Another 4 hours done. Now go to the top and calculate the circumference using Pi to calculate the length of the load tapes minus the crown ring which can be sewn in at this point. I only sewed it temporarily till inflated to see if it was the correct length. Another 4 hours. Now sew the parachute together with a light load tape around the edge and load tapes to tie the parachute line and centring line and the Velcro, making sure now that it is the hooks Velcro sewn in as the soft Velcro is on the parachute and the two have to join to form the bond. Another full 12 hour day! Now go inside the envelope and secure the parachute lines to the envelope and the Ripline, with takes another 3 hours. Now we are nearly finished. Time to sew up the scoop which is simple after all the other work done and fit it – 5 hours work. Total time spent on the project in the workshop with the sewing machine came to approximately 150 hours.

Now allow five days of organising including inspection at Chris Dunkley’s Easy Balloons Centre. The process of inflating to centre the parachute can take all day. Register the balloon at the CAA (which is best done at the Start), sort the insurance and then Test fly the balloon in a tether. Then when totally happy with everything – go fly your creation.

Planning

The major part of this is planning. Planning is everything.
Buying a twin stitch machine, finding all the suppliers of the materials, knowing where to go to find out the contacts. For example, at the Lindstrand sale, the labels on the products had details of all the suppliers which was very helpful sent from the delivery notes, Thanks very much. Comments from people on what type of threads used, or just going onto the internet with days of trawling and phoning and asking the right questions, until somebody says “we normally sell this to balloon manufacturers”. Bingo- go for it! It is very easy to talk and not to listen to advice but keep an open mind.

This has been a brilliant challenge which has kept me totally occupied all summer, which kept me fascinated in all of the technical aspects. I now look at a balloon in a totally different way. Absolutely mind bogglingly different, simple and yet fascinating.

If I can do it – so can you so what you waiting for? Have a go!

Tim Wilkinson.
5. Favourite Photos –

Relatively rare Customcraft 25A G-DUMP will probably make appearances at both Sackville and the OMM having been recently purchased by Martin Axtell for a great price. This 2004 built balloon only has 3 hours total time on it.
6. Gallery Pages – New Additions

This section is the Editor’s choice of new jpegs, visuals and older balloons of interest or alterations. If you know of a new or interesting hopper or Duo that hasn’t featured in this section, and then feel free to forward details of it with a suitable photograph to me using my normal email address.

Registered just before Metz, G-CIOV is an UM H31 Belonging to Haydn Board, of West Malling Kent. C/N is 31/14. Photo By Sandy Mitchell.
Tim Wilkinson has finished His latest project. Airtour 31G-CISD.
Lindstrand Technologies

I spoke recently to Per Lindstrand enquiring what are their plans for our sector of the marketplace. Whilst current plans are unknown Per confirmed that certification for the new range of balloons should be in place by mid October and shortly after that the first New Generation balloon will be readied probably for the new year.

In a separate announcement, Kelvin Oakley has returned to the family to head up sales from September 1st. So for any requirements you can contact him at Kelvin.oakley@lindstrandtech.com or ring them on 01691 617888.
As soon as I know more, you will too.

Cameron Balloons New Nano V4 Basket

Part way through the week at Metz, Cameron Balloons Ltd had a delivery. With a changeover of staff arrived their latest version of a lightweight collapsible basket called the Nano V4. Having taken note of the alternative product produced by Ultramagic, and with the hindsight of time to add quality to the Um product, Cameron Balloons have taken time to go their own direction with the basket that when collapsed compresses to a size of 40cm height.

When comparing Like for like (which is really the only way to make an unbiased appraisal), you have to say that the attention to detail on the Cameron product is very apparent. Unlike the Ultramagic offering, the Cameron version is enclosed fully all way around and instead of Nylon poles, the Cameron variant comes with Titanium poles. The whole product exudes quality and the most telling piece (the rounded corner sections), are machined from solid billet and with an eye for damage repairing, each member of the floor pan can be changed individually if necessary. I had hoped for some definitive information from Cameron Balloons for this issue on the product, but you will have to wait until next month for the official blurb, because despite badgering for over a week prior to print date, the folks at Bristol failed to deliver the information due to pressing needs to work on a rozier RTW product instead. In conversation both at Metz and at Bristol
staff confirmed that the modular basket can accept any standard burner and the basket has potential to accept a 105 envelope size if demand requires it.

Nano V4 photo courtesy of Cameron Balloons Ltd.

I’m told the basket will cost around £3500 without the burner option but you really need to see it in the flesh to appreciate the quality of the finish. The floor for example is a composite design which has been thought out and is made in batch form to keep the costs down. Interestingly the original idea was to take a tray arrangement similar to a shower cubicle design and utilise that, but the sandwich construction of the approved Preference, gives a stronger construction and lightness. Total basket Weight is under 40kilos and obviously you have options to customise as you feel necessary. I’m told in excess of five units have already been sold proving that the design is both sound and competitively priced. More information on this when I get it hopefully for next month. Suffice to say it is a major step forward on their previous version.
And Finally

My personal magic moment from Metz 2015 was when I was stood in the pilots briefing area and a man approached me and said “Good day Steve, Adam Barrow from Melbourne Australia”. Thank you sir for taking the time to say Hello.

Facebook membership continues to rise with the current level of 666 increasing by six in the last few days. Long may it continue I say. Many thanks for all the articles this time around, especially Tim Wilkinson whose rendition on building a hopper is simply brilliant reading.

Fly safe, but enjoy

Steve Roake

All articles for inclusion in future issues will be gratefully received by your editor. Please forward them to steve.roake33@gmail.com and feedback good bad or indifferent is always welcome. Views aired by contributors may not be those of the Editor Safe and happy hopping!  Steve Roake.

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