



Cloudhopper News

Issue Number 124

April 2020

Hello again all you "stay at home" people,

Welcome to your April edition of the Newsletter, and in the crazy mucked up world in which we find ourselves, I'd like to think I bring to you a small slice of normality.

The Covid-19 Corona Virus pandemic is never out of the news and as you think it can't get worse and you've kind of heard how bad it's going to get, another day rolls by and with it, ever increasing numbers of deaths and cases reported.

You've been reminded numerous times about how to protect yourselves ,so just be safe out there and in the meantime , for a short period I'll try to entertain you.

In edition 124 (really ? only seemed like yesterday we were doing number 100), I have for you a **new feature**. I've started a thread, not dissimilar to the brilliant Aunty Monkey pod cast , where I talk to people who are interesting in the hopper world. For this article I spent just under an hour talking on What's App to Kevin Cooper from Sydney Australia about hoppers and duo's as he is a rarity who has both.

Also, after last month's review of LBL bottom ends, we talk about the passion and history Tim Ward has for T&C Chariots. I have to say he has written a cracking article, (many thanks).

Hopper of the Day continues to flourish and brings more divine photographs that can only raise the standard used in the magazine.

Apart from all that , there are all the normal features as you would expect.

As the Header page is full , let's leap into the April Edition without wasting anymore time.

Please send to me articles for inclusion in future newsletters to the email address below.

Steve Roake -Editor

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Just a Great Photograph- by David Head.



Sent in and featured in "Hopper of the Day", David Head submitted this one of an April's Morning in 2017 , in Hungerford Berkshire waiting for the fog to clear. David who flies G-CJIX his Cameron O-31, is Europe's most prolific hopper pilot and has amassed 95 hours in his craft in just over two years of usage whilst travelling to Myanmar and working commercially during their season . I think he's just trying to test Cameron Balloons who guarantee the fabric for 250 hours or four years (whichever comes first lol). Either way he's definitely getting value for money and with this photograph, sending us all a reminder of days when we have stood in the field waiting for the action to start.

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1,Ed Speak- Plenty of time for all this .

What's a man to do when he finds himself with time on his hands and an order to stay home? I'm a guy who likes a challenge , so besides half killing myself twice daily learning to skip with a rope, and picking the Hopper of the Day, I love to write, in a cathartic kind of way. It is my natural vent valve, and without being too bonkers sounding, I enjoy the process.

It is even more rewarding when someone you know well steps up to the plate and delivers a cracking tale about something you know they absolutely love to death. That's the case this month with Tim Ward who gives us his analysis and appreciation of the humble Thunder and Colt Chariot with a reflection back in time and the differences between the various types. This is never more apparent than in his own version and his desire to get it spot on accurate with his restoration. It's just something you've either got or you haven't and knowing Tim for years, he loves to uncover the history, to understand the decisions taken along the way, and has a very high attention to detail with any project he undertakes. Probably, along with Keith Sproul, there isn't a more passionate person for chariots than Tim.

Personally ,I'm like so many of you in flux. I have my millennium bottom end and two tanks in at my local repair station for their ten-year PRV's and PPT's , and a C of A so that a Form 1 can be sent to Cameron Balloons , so that they can comply with the CAA need for the balloon to be registered within 30 days . This needs its Test inflation and quality check signed off , so I can take delivery of G-CLKC, and all of that is without thinking about recency and how out of date we will all be when we get back eventually into flying. Seems a long time ago I last got my hands on the "Taps".

I also think we should acknowledge, at this time, all the hard efforts organisers of events have put in behind the scenes to only have the events naturally cancelled. On behalf of all of us who take, thanks for your collective unrecognised efforts , very much appreciated and yet never praised .

It goes without saying, the important things come first, so for all of you who like me got laid off, hope things aren't too tough currently.

Stay safe , and we'll meet again soon. Take care out there .

Steve Roake- Editor.

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2, Essential Extras – by Greg Winker.

There is a new generation of striker on the market.



If you have been around ballooning for any amount of time, you will probably recall we all started flying with flint strikers as a safety measure.

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Back in the day it wasn't uncommon for pilot lights to go out from time to time and you needed a way to relight the pilot. There were lots of versions of flint strikers: the classic welder's striker with the cup on the end, wand shaped and ever popular gun shaped to name but a few.

We also tried butane lighters for a while with mixed success. Mine would usually be butane-free by the time I actually needed to use it, and I could never get a flame big enough to make me happy.

When piezoelectric strikers came on the market, they were not only installed into the burners, but they morphed into portable strikers too. I've never been particularly fond of them and have stayed with flint-based strikers.

But I just ran across something that shows great promise. Tack life, amongst other brands, has recently introduced a rechargeable arc lighter. Designed for lighting candles, it also appears to work really well lighting raw propane. It has a built in Lithium-ion battery and recharges using a standard USB port.

They claim it's good for 300 uses before needing recharging. It's about the length of two pencils and the end of the wand has a 3.8" flexible neck to improve the aim.

Personally, I wish it was longer but it seems to get the job done. I have used it to light my Lindstrand hopper burner, kitchen stove, candles and paper. I'd say it's pretty slick.

They even have a version available with two power modes. This product is available from **Amazon** for **\$13-00** in the United States. Now that's a bargain.

Ed- This is exactly why I put this section into the newsletter for things that just might change the way you go flying. Many thanks to Greg for passing on his thoughts on this innovation which if you go out to buy one might just end up being your – Essential Extra.



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3,The Features Section

Interesting people in Hopping meets -Kevin Cooper by Steve Roake (SR)

To some of you the name Kevin Cooper(KC) might not mean too much, but don't be surprised to know he is a leading exponent of both hopping and Duo Chariot flying in Australia.

The 57year-old from Sydney is surprisingly not a Commercial pilot by trade. He has got a CPL , but works in sales and marketing for Fuji films which fits nicely with his other love which is photography.

Kevin is a unique exponent of hopping being in the fortuitous position of owning both a Duo Chariot and a hopper.

I spoke to him for an hour via a "What's App" call to get to know what makes him tick and how his love of chariots and hoppers has grown. I broached the subject of his flying experiences , asking the following questions to understand his passion.

SR: What sort of hours do you have in command and how many on Duo's?

KC: I got my PPL license in 1989 and my CPL in 1995 and I've got around 400 hours p1 with around 150 of these in the Duo Chariot.

SR: Clearly Duo chariots are prominent in your flying, but are there many in Australia?

KC: Believe it or not there are only three, two of which are Thunder and Colts and a third that belongs to Steve Campbell which is a Bonnano.

SR: With such a big country, and so few Chariots about, how did you get involved with this type of craft, and who introduced you to them?

KC: In 1990, following on from Chateau D'Oex festival, Thunder and Colt shipped a pair of Duo's to Australia with 42 sized envelopes(VH-JLB and VH-CHR). Kevin's close friends Graeme Scaife(who owns Balloon Aloft in Australia), and Brian Smith brought another one over from BSB limited (Graeme's UK company) leaving it for a period of time in Kevin's care once they returned to the UK. One of the T&C Duo's was purchased by Pete Vizzard who was at Balloon Aloft(and a world champion pilot).



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Kevin saw the pleasure in owning one of these craft, and made an agreement with Pete Vizzard that if any when he were to ever consider selling the Duo Chariot, then Kevin would get first refusal on buying it. Most of the time Pete's wife Judy flew in the Chariot, and ultimately flying predominantly commercially the chariot ended up left in the barn and with Pete and Judy also travelling to their other love (a barge in France), eventually Kevin got his hands on the bottom end around 2010.

SR: Having obtained the bottom end, what factors affected your choice of a suitable envelope and with that choice have there been any interesting factors since you've had ownership?

KC: What might not be understood to the wider world, in Australia it is very hard to mix and match manufacturers of envelopes with other makes of Duo Chariots with large amounts of paperwork involved. Luckily living in Sydney, Kevin had a good relationship with Sean Kavanagh of Kavanagh Balloons who agreed to undertake the task since Kevin was looking at a bigger envelope as the temperatures and the lift capacity made the 42's very limited with (45 min flights and limited AUV). Kevin chose a Kavanagh 65 for the task that was Teal, pink and yellow in colour. Reason for picking a 65 was this was the maximum permitted size allowed on the bottom end and with Phil Kavanagh (Sean's dad) having been in business for some 50 years and Kavanaghs having a reputation of lasting well, with only really Kubicek making inroads into ballooning due to import costs etc, it seemed the natural choice.

I didn't detect from Kevin whether the envelope was bought new but after 10 years and only 120 hours on it, Suddenly, the pink gave up the ghost. Kavanagh to their credit agreed to replace all the pink (roughly one third of the total balloon) free of charge for another colour with Kevin choosing Purple. He went on to praise such a gesture as pretty unique amongst manufacturers.

Clearly the 65 suits the temperatures better experienced in Australia and a typical flight will see Kevin and his wife (combined weight of 140kgs), regularly flying up to two-hour flights easily.

SR : Clearly with some 150 hours plus spent in your duo, you must have some extraordinary experiences. Could you share any with our readers any memorable highlights?



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G-CKHU over the Duo Chariot in Iguillada Spain.

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KC: I've had some pretty stunning experiences. Flying over your capital city (Canberra), in controlled airspace, right over the parliament buildings with an agreement to fly up to 3000 feet with permission up till 9am is stunning. Mind you so is flying in the beautiful countryside at Todi Italy. Being friends with Matthew Scaife (Graeme's Son) gave the opportunity to visit Iguillada Spain utilising Matthew's new Kavanagh racer envelope G-CKHU over the Duo. Kevin described the flights as scintillating and would recommend either a 56 or a 60 racer for "magical flying" as opposed to traditional choices.

With all this Duo experience and a keen desire to fly it regularly the conversation got around to Kevin's more recent purchase of a Hopper to go with the Duo.



VH-IXW Kevin's Um H-31



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SR: With such a prolific flying profile with the Duo, how do you get around to buying a hopper and why this choice?

KC: Well , I guess there are times you just want to fly alone and I was looking into hopper with a view that I might just build my own envelope. This didn't happen in the end, however the bottom end arrived(just like before) before the envelope. Around 4 years ago I picked up my bottom end from Barb Smith who was selling hers. A year later, Richard Penny (UK dealer) sold me the dedicated tank for mine. I looked into what was around and then the guys at Ultramagic in Spain were such a pleasure to work with that I ended up buying directly from the factory. VH-IXW H-31 (c/n 31/19) arrived in 2018. It was lightweight weighing only 35kgs and has been flown at such places as Alice Springs where we have a hopper meet every two years. Chucking either balloon into the back of the pick-up truck is simplicity itself. Made sense to have both.

That wraps up my conversation with Kevin .Many thanks to him for his time and for opening up on what got him to where he is now . If you know of someone you'd like me to talk to, please let me know.

Steve Roake

Tim Ward -Appreciates Thunder and Colt Chariots

Continuing the recent thread on looking deeper into bottom ends with last month's LBL submission , this month I'm delighted to receive a very articulate transcript from Tim Ward on early Chariots from probably the greatest fan of the subject matter in the UK. Please enjoy a beautiful piece from a real enthusiast.

[The Thunder Sky Chariot.](#)

It is difficult to write an article about the Sky Chariot without mentioning its competitors. This is because the early designs of all were developed around the same time, 1979 -1980 and each offered something different to solo ballooning and all were game changers!



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Also, the two main competing companies, Thunder Balloons & Colt Balloons started to merge during 1980, but continued to work separately as Thunder / Colt and then completely joining forces, becoming, Thunder & Colt, so there was a lot going on at the time!

It's also difficult to ascertain exactly what happened and when as there are not that many records to view other than Aerostat and the odd bit of sales literature I have, so here goes.

My fascination with hoppers started in April 1980 while looking at a grainy black and white photo and article written by Robin Batchelor in Aerostat, which showed a contraption made by Colt Balloons. It looked like a Worthington which had Meccano bolted to it with a burner stuck on the top. The Cloudhopper had been born and it wasn't long before the Smirnoff sponsorship and the film Green Ice came to the world of ballooning.

The other two UK manufacturers were equally on the case. They must have known what each other were doing, however their designs were different.

Thunder Balloons were a very forward-thinking company and around the same time I believe they developed a pioneering idea which not only facilitated the building and safety of the sky chariot, but also contributed to commercial passenger flying using larger balloons. It was of course the rotation vent, it is not clear to me, which came first, the Chariot complete with its rotation vents or just the rotation vent as an invention on its own? When flying with your legs dangling it is essential that you can rotate to ensure that you either land sideways or backwards. Per Lindstrand the owner of Colt balloons had got it spot on, because the Cloudhopper rotates on wheels, above the load ring. However, the chariot needed rotation vents to be safe.

I was at a balloon meet at Belton House near Grantham and can remember vividly seeing the first standard balloons in the UK to rotate, these were the Bandag sponsored balloons G-BHXT and G-DICK. Suddenly, a sponsor's logo could be turned to face the public, or a gondola of any shape could be turned in preparation for landing. It was the first time they had been seen at a UK ballooning event and it changed ballooning!

Now Thunder had the means to turn a balloon very efficiently and the Sky Chariot was designed and had been on show at



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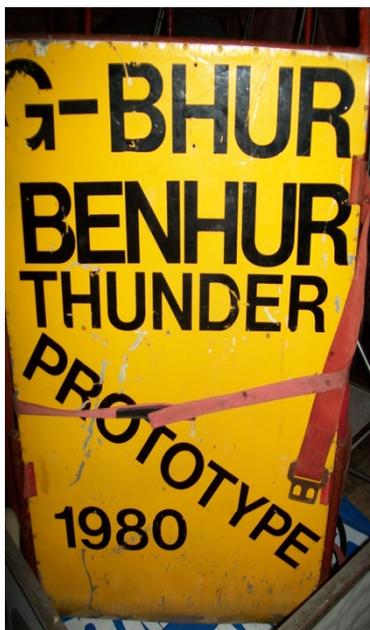
the Icicle in 1980. Also came two versions built by Cameron balloons, one was a chariot style hang balloon, the other was a metal frame and wooden seat with tanks on either side. I'm not sure of their names, but I think the hang balloon was called an Air Chair. Both had rotation vents and a Cameron Mk 3 burner. The Cameron versions were not as popular as Thunder's, so few were sold. By mid 1980, all the different hoppers available had been premiered.

When flying the early Cloudhoppers the pilots wore a parachute harness and sat on a swing seat, this hung from two shoulder brackets.

For pilots who didn't want to fly this way the Sky chariot offered a more conventional way of flying. The Chariot had a gimballed burner and a view of the tank gauge and the envelope which the Cloudhopper didn't. Also, the Chariot's seat belt arrangement was easier to use than the early Cloudhoppers. The Maxi (see later) offered a longer duration.

[Thunder Sky Chariot Mk 1 \(red frame\).](#)

The first Chariots built by Thunder were made of steel and painted red. The prototype had a 17,000 Cu.ft. envelope with a single horizontal Worthington tank, suitably named Ben-Hur (G-BHUR), though I don't think this was registered first.





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By February 1981 there were 3 variants, (Mini, Midi & Maxi) the envelopes were built as mini versions of the successful 8 gore Bolt envelopes (Chariot 8). There was no purpose made seat, the pilot sat on the tank / foam padding on top of the tank cover. The seat belt arrangement consisted of a chest strap and two leg straps.

Mini – 17,500. Cu.ft, – Single Worthington tank.



G-BHOP a classic example of a Thunder Ax3-17 Mini Sky Chariot



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Midi – 19,000. Cu.ft. – Single Worthington tank and 6Kg (10lb) mini Worthington (additional brackets).

Maxi – 21,000. Cu.ft. - Two Worthington tanks, (additional brackets).





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I have always been a bit sceptical regarding the sizes of these envelopes, at present I can only go on what is stated in the flight manual.

The largest envelope to support a chariot during the time was 31,000 Cu.Ft. It was built using the design of the very successful Thunder Z type. G-LORY is still flying.

The burner used was either a Thunder Mk1 or Mk2, difficult to tell which? Some of the early versions had problems with air flow and/or condensation. Some versions had a shroud, removable burner jets, others didn't. The majority were powerful enough for the job.

The main issue with the early Chariot bottom end was that it came in one piece and unlike the Cloudhopper could not be collapsed. This made it awkward to transport, so Thunder supplied the Chariot complete with a roof rack attachment to bolt the chair to the roof of the car.



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There could be an early Mk1 Chariot bottom end still flying, in Brazil. Over there they call them a pushchair balloon.

A pilot by the name of Rodrigo Marquez is either flying an original or a very good copy, the burner looks like an early Thunder Mk1, I think his company manufacture a similar version of the burner. He fly's his chariot with two tanks, the second being strapped to the back of the chair. He and his company CACO balloons designed and built an envelope of 28,000 Cu.Ft. (I think), to me, it looks the right size and shape for the job.



Caco Balloons 28,000 cubic feet Envelope



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Thunder Sky Chariot Mk 1s (stainless steel, collapsible).

The majority of the Chariots built by Thunder were red steel framed examples. Later (around 1982), Thunder redesigned the Chariot which then became collapsible and made from stainless steel. The collapsed bottom end of G-NEIL was used as an advert in Aerostat, April 1982.

THUNDER SKY CHARIOT

More Than One Good Reason...



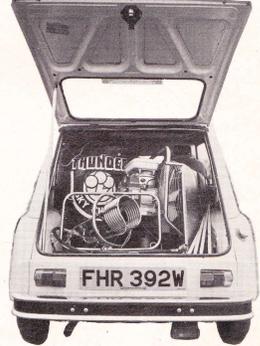
new collapsible frame

More pilots are discovering that flying Sky Chariot offers a unique ballooning experience. Lightweight and responsive, the Sky Chariot is both exhilarating and fun — yet simple and easy to fly.

Easy on the pocket too! The Sky Chariot costs less than any other production balloon available on the market today.

The new collapsible Chariot frame, means that the Sky Chariot is conveniently transportable, even in the smallest family car.

The Chariot Chair is generously padded for protection and comfort, whilst precision control rotation vents allow safe backward landings — everytime.



Sky Chariot is the no fuss balloon. Easy to launch, easy to pack away, with minimum crew. In every way it's a winner!

So syndicate member, individualist, commercial pilot, and sponsor, when considering your next balloon — think Sky Chariot.

After all, you've every good reason...



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The original concept of 3 sizes remained as above. There were versions made that were completely stainless steel and versions made with stainless steel burner frames and steel bottom sections painted red. I assume this was dependant of cost or what was requested by the purchaser?



Mk1s Midi.



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Thunder also designed a smooth gore envelope called a type M. I think only one was made G-OFOR, not sure of the size (possibly AX3) so around 21,000CuFt. It was originally registered to Tom Donnelly (director of Thunder).

Also, around this time the first duo air chair from Thunder & Colt appeared, however this is a whole different subject and not included here.

There is an original Mk1s Thunder Sky Chariot still flying, G-BKBD. The bottom end is a Midi, the envelope is a Maxi. It is owned by Alex Court, since owning it Alex has changed the burner.

Chariots Mk1s (Midi) and a Mk 2 are seen photographed in the hopper newsletter dated issue 3 dated winter 2005.

[Derry Moore.](#)

One year at the solo meet I had the pleasure of talking to Derry Moore who owned an early chariot, he told me that the complete balloon had no issues, was a delight to fly and most important was that the burner had the right amount of power for a small balloon, it didn't over cook the envelope which kept the temperature inside the balloon stable. He recalled one or two stories about the great flights he had had, it made interesting listening and was one of the highlights of my weekend.

[Thunder & Colt Mk2 \(3rd generation\).](#)

Around 1989/90 T&C turned their attention to the Chariot with the Mk2 upgrade.

The Mk 2 was an improvement on the previous bottom end in the fact that it utilised the Colt C2 burner, a bespoke 30kg stainless steel tank, better tank protection on either end and a padded wooden seat! This catered again for the larger pilots and/or longer duration of flight, the upgrade still utilised

an old Colt style burner frame but was changed later by having conventional corner plates added.



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Sky Chariot – The Classic Solo Balloon

Ride our chariot in the sky and appreciate the absolute freedom of solo flight. Skim through the air and you will quickly discover the rewards of piloting this small, responsive craft. With the Sky Chariot we have taken the concept of a solo balloon and given it the style and comfort that you would expect from a classic. This sports balloon will give you a flight of two hours duration and, at the end of the day, you can pack it up and put it in the back of the family car. Here is all the adventure of solo ballooning married to excellence of design for comfort.

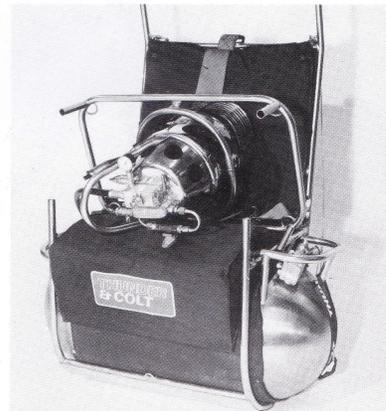


Comfort in Flight

Styled for comfort and safety, the Sky Chariot has a cushioned back of high density, shock absorbant foam. The fuel cylinder is built into the base as are landing skids. The pilot is always capable of the correct, backwards landing with legs trailing thanks to four side vents which are capable of rotating the balloon, either clockwise or anti-clockwise, in seconds. Once the parachute is opened, deflation is rapid.

Although the Sky Chariot can be flown at sites where conventional balloons just could not go, it has all the attributes of its bigger cousins. The Ultra Quiet burner is as much a part of this balloon as any standard sports model and is fully gimballed for ease of inflation and steady flight control. The fully gimballed burner will also prevent accidental fabric burns in tethered flight during gusty conditions. The Liquid Pilot light system, developed from the Atlantic Flyer project, eliminates the need for vapour hose and regulator and enables nitrogen pressurisation of the fuel cylinder in winter. The fuel contents gauge, reading from 0-100%, is easily readable.

The Sky Chariot has no equal in flexibility, packing down to an easily portable size and yet giving a flight duration of two hours. Costly vehicles and trailers are unnecessary, and with only one crew member needed, there is little if any forward planning. For Balloon meets and tethered exhibition, the Sky Chariot draws attention and can often fly in conditions that ground conventional balloons.



Convert to a Sky Chariot

When we sell you a Sky Chariot we also give instruction through the medium of tethered flight here, at our factory, in Oswestry.

- A type envelope with rotation vents
- Sky seat and harness
- 30kg cylinder with cover,
- Padded seat, rods and padded covers.
- Radio mounting and map case
- Fully gimballed burner with liquid fire
- Carrying bag
- Flight Manual and Balloon Log Book

The Mark 2 Advertisement .



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The envelopes were redesigned as follows:

Type 21A – 26 gore (21,000 Cu.Ft).

25A – 20 gore (25,000 Cu.Ft).

31A – 16 gore (31,000 Cu.Ft).

Examples of this type which was flown with a Chariot bottom end are:

G-BSAK (21A), G-BSOF (25A) and G-BSMM (31A).

However, there was one improvement which could impact on the Mk2's longevity, certainly in this country. This was the bespoke stainless-steel tank. Whilst these are safer, more efficient and lighter than the Worthington equivalent, like all the stainless-steel tanks over 25 years old (in the UK), they are acceptable to use in flight, unfortunately are not legally carried on the road. If the tank hasn't been replaced you can fly it but not retrieve it back without risk. Most pilots in the UK know of the legislation and accept it.

Developments.

Since the early 90's, the single seat Sky Chariot bottom end has changed little, the only change has been improvements in burner technology. Thunder and Colt installed the Stratus burner after Cameron's bought out T&C, I've also seen what looks like a down rated Mk4 and a mini Mk4 bolted into Chariot burner frames.

It's difficult to see where the chariot as a concept can be improved, I'm sure some clever engineer will come up with something? But the ones that fly them, love them and keep hold of them.

In summary.

The Cloudhopper has always been the more popular of the two and continues to be re-developed as the pilot's choice. Cloudhopper bottom ends command high prices when compared to Chariots. However, for the pilot who wants to fly solo but wants something different, the Chariot is an excellent option. A complete Chariot (bottom end & envelope) becomes available maybe once per year and when they do they sell quickly. With the exception of the Thunder & Colt Mk2 Chariots, the early chariots made by Thunder Balloons cannot be flown with commercial factory-built envelopes in Europe. This is because Cameron's who must now own the patent will not support



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equipment where there are no accurate records of construction, which is not unreasonable. However, the old chariots can still be flown!

Thanks to EASA there is a mechanism in place, (Annexe) which enable's non-factory supported aircraft to fly. So, if you would like to fly one of the early ones they can be flown with a home built or an unsupported envelope at a much lower cost.

I have to admit, I do like them. Some time ago I was lucky enough to find an early Mk1s which has all the brackets to make it a Mini, Midi or Maxi so I bought it. I've flown it and it's lovely to fly, all the things that Derry talk about. At some point I intend to give it some attention and do it up, hopefully better than it came out of the factory.



Tim Ward's Mk1s Midi



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And in Mk1s Maxi Mode.

[Further information.](#)

There is a good website run by Keith Sproul from America. It's called www.SkyChariot.com. It is a good reference point for all single and

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twin seat chariots from around the world. Keith has kindly given me permission to use some of the photos from his website for this article, Many Thanks Keith!

There are also some photos on the web, which I have downloaded and used in support of this article. It's difficult to ascertain who they were taken by and/ or where to get permission for their use. Apologies if offended by their use.

Tim Ward.

Solo Systems -Ace Flight Test.

With the recent introduction to market of the Solo Systems Ace , my original plan was to take a closer look at it at the Temecula Balloon meet over Easter where there were going to be two factory fresh examples for inspection and perhaps even a sneaky flight test. Due to the pandemic and the cancellation of all flights this didn't happen.

However, fear not dear reader, because experienced Pilot Eric Hodges got his "grubby little mits" on the factory demonstrator and this is his appraisal of said beast.

On March 15th, just before the world shut down for Covid-19, I had the pleasure of flying the newest demo version of the Solo System Ace 38,000 cu.ft. balloon in Albuquerque, New Mexico. I have flown everything from a 250 down to a 31. The 31 was about 25years ago and on a tether so my hopper experience is quite minimal. Usually I fly a Kubicek 90 so it was a little shocking how small it was. The basket is 28" x 28" and 40" tall. It has enough room for two 10 Gallon Aluminium Tanks and the Pilot. After standing in it, I'd have to say it's more comfortable than I thought it would be. The high sides also leave you feeling very secure. The 40" height makes it hard to get your second leg in during inflation due to the small sized basket but it's manageable, although probably fun for everyone outside of the basket to watch. It was super easy and quick to hook up, and inflate as anyone who is familiar with hoppers would expect. It is fitted with a standard 4-point hook up with carabiners.

Once inflated I did a quick double check that everything was Correct, and then took off. Being such a small balloon, there isn't



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much burning to be done . The response time is amazing. I initially flew at low altitude for the first few minutes to get acclimatised and then took her up to 3000ft AGL(the launch site we chose was at 5,280 ft MSL).



My max temp was 170deg.F and I stayed at that altitude to take advantage of box winds for a few minutes and then decided to drop back down to the surface. I attained about 800FPM down and the balloon remained pretty stable. There were a couple of spots where light shears buffeted me around a little but I always had an open mouth to burn into. Speaking of burning, the Solo System burner is a tuned down redundant burner with two blast valves (one for each tank), 27 jets , liquid pilot and a glow valve. This burner is far more than needed for this size of balloon but definitely makes it fun to fly. I flew a few minutes near the surface and then back up to 3000ft to utilise the box winds again for about 20 mins.

At this point it was time to put an end to this awesome experience and once again I brought it down fast. The surface winds had picked up to between 7 and 8 mph, so I picked out the place I wanted to land whilst skimming just above the surface, the winds started to shift so I made a quick adjustment and popped up over a large set of powerlines (meaning I had to do a steep descent to get to my



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targeted landing spot). I vented quite a bit to hit that spot and was surprised at how fast it came down in the short time between the lines and the landing spot.



I burned a bit but figured I would overshoot the landing so I didn't burn as much as I should have. The result was a crater in an arroyo in Rio Rancho, New Mexico now lovingly called "Hodges Hole". All joking aside, after I hit, I dragged a few feet and stopped right where I had intended. The landing was hard, but it was good to see the balloon could withstand it and I have to say I could not stop smiling after I got out of the basket.

The balloon was awesome during all aspects of the flight. It was quick and easy to set up, performed well at altitude at a very manageable temperature. It was also great during the 800 FPM decent. It stopped very fast during a quick landing.



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After all of that which took an hour to do, I had used only 9.8 of the usable 17.5 Gallons that I had onboard. I'd say that's pretty good for hauling my 210lb.body all over the sky.



My general opinion of this system is that it was absolutely one of the most fun balloons I have ever flown(and I have flown over 130 types of balloons). The feeling I got was one of pure joy. It was like being a kid again and now I can't imagine not having one. It was as if you had a thought about what you wanted the balloon to do and it justdid it. Although I don't do it much, flying solo for me is one of the most rewarding ways to fly. You are truly one with the balloon, and there is nothing in the world but you. I would recommend any balloon pilot to try one of these out.

Balloon Specs.

Envelope: 38,000 Cu. Ft. built with Denier 1.3 Oz. high tenacity urethane coated Nylon. Lightweight Nomex base panel. Parachute top.

Basket: Collapsible 28" x 28" and 40" tall. 4-point carabiner hookup with flexible uprights and 1000 Denier Cordura sides.



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Burner: Solo System burner with dual blast valves , 27 jets. One Liquid fire And one Glow valve.

Tanks: (In the configuration flown). 1 x 10 Gallon Worthington Aluminium Tank and one Viking Cylinders 7.5 Gallon Fibreglass Tank.

The balloon comes with your choice of two of either of these tanks or a combination.

Introductory price is \$9,995. It is available in Experimental or Part 103 configurations and currently Solo Systems are hard at work making a 56,000 Cu. Ft., two place model.



Just remains for me to thank Andy Richardson of Solo systems for the opportunity to sample the craft .

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4, Corona Virus Therapy- “Hopper of the Day/ Bling Up your bottom End”

During the extended lockdown at Home, I've tried to add my small miniscule ideas on how to keep everyone entertained. Initially I thought we could make people smile with the Hopper of the Day feature which has morphed into a twice daily jaunt into the photo archives with loads of great submissions coming in from right around then world.

This was then extended to the slightly more reserved Bling up your bottom end which whilst still popular is taking longer to emerge as a regular feature. The idea behind the bottom end feature is to introduce versions of different solutions to spark people's imagination of what is possible and encouraging during the lockdown people get out there and maintain and polish the bits that tend to get neglected and taken for granted.



“The Blue Peter Special Bottom End”



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One of the more interesting Bottom Ends that got submitted came personally from Cameron Balloon's Simon Askey. Simon was involved on all levels supporting the attempt to train a non-pilot presenter to get her through her PPL and then to go to Scandinavia and try to break the female world duration record and national record during a flight over a frozen lake. Ultimately due to resource restrictions and a timing restriction the attempt failed but as you can see the much-modified bottom end is still technically interesting. The unusual setup utilised a titanium V40(80litre) Tank, alongside two v30 (60litre) supplementary tanks. All of these and the light weight pilot flew under a Cameron Colt 21A envelope at very cold temperatures. Given a budget, there is a feeling that the goal would get achieved sometime in the future, and as such I believe the envelope is in storage awaiting a decision regarding its future usage.

5,Second Hand balloons

Funny that in all this CV-19 environment, I managed to discuss an impending purchase possibility for a friend. Fortuitously for him, the owner is a close friend and the balloon is very well known and is a very desirable piece of kit. I managed to advise a price band based on previous sales of this type of hopper but I did emphasise to the prospective new owner that if the existing owner insists on a price at the higher end of the range, then the prospective buyer should in my opinion still bite his hand off. The kit is complete and I suggested values for both the envelope and the bottom end and when you add the two up it enforces the bracket by which the market could range.

As and when the deal gets completed I will advise you all and we can welcome another newcomer to cloudhopping.

6,New Allocations

Due to a virtual shutdown of all the normal sources the new allocation sector is almost empty. There is one exception to the rule. In Switzerland on March 10th, Stefan Ziberli registered his new Homebuilt hopper HB-QZT. This beautiful looking 31,000 cubic foot balloon is a twelve gore design and thanks to Thomas Gleixner I was alerted to the



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balloon when the two friends went flying during April. He was responsible for the photos which feature in the Interesting section later in this edition. Many thanks for both the information and the great aerial shots.

7,Manufacturer News and Events

The Flydoo Hoppy

In times of this convoluted lockdown some people use the time to develop. One such person is Leandro Corrandini of Flydoo Balloons in France, and it appears the time has been well spent. Keen to expand his product range, the entrepreneur has come up with another product and gave me the exclusivity on its launch . Here for your pleasure is the **Flydoo Hoppy** a basket that is collapsible with burner and tank specifically aimed at part 103 in the USA and Annex 1 in the UK.

Flydoo products always look the part with a great attention to detail on the way they look, the quality of the manufacturing and funky colours that brighten up the products. This particular item comes in a very neat fold up storage system , has its own dedicated burner , can come in single feed or double feed depending if you want to fly single or double tanked.



Introducing the Flydoo Hoppy.

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The kit comes in various formats but comprises a collapsible basket that folds into a really small travel bag. Then there is a dedicated burner that fits .You can choose either to use a single or twin feed and Flydoo sells the Cameron 40 litre tank as part of the equipment.





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Advertisement



38,000 cubic foot
super lightweight
envelope

Fully redundant
single burner with
dual blast valves

Collapsible
28x28-inch basket

You, having the
time of your life

Starting at \$9,995!

Available in Experimental or Part 103 Ultralight configurations

ACE by
Solo
System



SoloSystem Balloons
yournextballoon@gmail.com

Solo Systems actively support Cloudhopper News .

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8, Interesting photos

This one tickled my sense of humour . Marius Polak is a relatively new member from Poland and is involved with a balloon manufacturer called Nanoo. He sent in recently this photo of his retrieve for a duo outfit.



Just not too sure id trust two tanks to one strap. Very good
Space utilisation none the less.



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9, The Photo section

As any regular reader will know, this section of the newsletter is an utter indulgence by your editor of photographs received of new or interesting hoppers or duo's.

We have a couple of first flights for you this month .starting with Stefan Ziberli's lovely swiss homebuilt HB-QZT.



Photo with thanks to Thomas Gleixner.

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Second one is from Per Lesser of Sweden who has been patiently waiting for the right weather to first fly G-CLFF his new Cameron Z-42 . This happened towards the end of April on a stunning day.



Many thanks to Per Lesser for the Photograph.

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10, News and Events

No event news to report of currently and practically nothing from any of the manufacturers so this section is dormant awaiting (as we all are), the lifting of the restrictions that we are all suffering from.

Nanoo Balloons of Poland

I am delighted that we have attracted Marius Polak from Poland to our fold who is involved with a company I have to say before April I had never heard of . Nanoo successfully build both single and duo chariots for a wide range of envelopes . Here we see an example of their bottom end.



The Nanoo duo bottom end.



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And finally

Thanks to a raft of new members joining whilst bored during lockdown through CV-19 , current membership on Facebook stands at 1469 which is very good, with 68 new members alone in April. Many thanks, as we continue to still grow which is a good thing . Views expressed by contributors may not be those of the editor but are wherever possible entered un edited for fairness and equality.

Please send all submissions for future editions to Steve.roake33@gmail.com

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