



Issue Number 38

January 2010

Dear Friends,

Firstly Happy New year to all our readers, followed swiftly by Happy Birthday to the forum which celebrated six years of existence on January the 16<sup>th</sup>.

Following on from the success of an unexpected December issue, I felt that January would struggle for content because the Icicle Balloon festival looked unflyable and with the economic predicament, little of interest looked likely to be present (pretty accurate assumption), until along came Mark Shemilt on 2<sup>nd</sup> of January and extended the distance record for the Ax2 category from 138 kms to 183kms. In congratulating him, I asked for more details about the balloon, which was then revealed to be going to the Icicle Meet. This then shortly became a scheduled meeting over a pint of beer which then escalated into a detailed breakdown on the anatomy of a record breaking balloon. Thanks to Mark's openness, we have the makings of another month's newsletter. So for more details, read on.

### **Contents**

In this 38th edition I have for your reading the following choice subjects;

- 1, **Ed Speak**- A chat with a record breaker
- 2, **Essential Extra's** - Mark Shemilt's Inflation Fan

- 3, **The Features Section**-featuring the following submissions:
    - Mark Shemilt sets a new world record
    - The Anatomy of a record breaking balloon
    - Andrew Holly thinking of record attempts with sloggi.
    - My Three favourites and why by Kasey Schwemmer.
  4. **Updates for the Newsletter/Website/ Forum talk**
    - 400 members milestone
    - Unidentified Boland Balloon by Bill Teasdale
  5. **Homebuilt Section** -Mike Patterson's New Kit
  6. **Gallery Pages**- Another mixed choice of hoppers, selected by your editor
  - 7, **Manufacturer News / Events / Updates**
  - 8, **For Sale /Wanted Section**
    - G-BSDV Colt 31A Envelope is up for grabs.
    - Mark 2 T&C Sky chariot bottom end for sale.
  - 9, **Last and not least.**
- 1, Ed Speak by Steve Roake** - A chat with a record breaker

I wandered down to the Elcot Place Hotel for a look at the kit of recent record breaking pilot Mark Shemilt, but it turned into one of those meetings where you just empathise with somebody who is on a mission. This is a man who is on a quest to fly lightweight balloons and push the boundaries on certain world records along the way. Why? Because there is potential to extend them in some categories and Mark is aiming to achieve just that. How focused is he? He has just completed an Annex 2 Ax1 balloon G-CGIU, with which he is aiming to beat the 38miles distance record. This miniscule 9000cu feet balloon is to Mark's own specification capitalising on his own skills and utilising new technologies in fabric designs along the way. The nice thing with Mark's progress is the evolutionary way he sets about improving each and every part of the system. The elements that are in the Ax2 transfer

across to the Ax1. So if he is successful in the attempts what could be next? In combined conversation with Chris Dunkley, the goal seems to be achievable, to create a lightweight balloon that can be packed away into a rucksack and be portable such that it could be taken on a plane. The way materials are going I think he will achieve it sooner rather than later.

Steve Roake

## 2, Essential Extra's- Mark Shemilt's Inflation fan

In our extended conversations regarding record breaking attempts, Mark Shemilt told me that his inflation fan reflected his interest in minimalism and also was incredibly small (enough to be broken down and transported as hand luggage on an aeroplane).



Clearly, with such a claim, I needed to see and photograph the fan which was found for inspection. Not only was it produced, it was started and appeared to have plenty of oomph. Mark's comments

on his fan were that the fan is the smallest and lightest I have come across. The Boelling fan is powered by a Robin Fujitsu 4 mini four stroke...but not sure what it weighs. The only drawback is its wooden prop...I am going to attach a multi bladed plastic prop that Peter Bish is selling. I have only ever inflated my 14 with it, but am confident with a more efficient prop you could inflate up to 42.



The main beauty of this fan is that it strips down easily and I have taken it in a rucksack as hand luggage with Easyjet.

The sump is easy to remove and I thoroughly drained/cleaned all oil residues and then detached the fuel tank and washed out the petrol, which is just a small nylon bottle slung under the engine. Simply speaking, this is a very nice item.

### 3, The Features Section

#### Mark Shemilt on setting a new world record

With all this cold weather we have been enduring in the UK, I decided it was time to see through some unfinished business with my Aerofabrix Um V14 hopper and have a go for the Ax2 distance record. The existing record stood at 85 miles, and I knew I needed a gradient wind of at least 15knots in order to stand a chance at beating it. My other problem was to fly a track that avoided airspace, as carrying a transponder was out of the question. Last Saturday, the 2nd January, my crew and I met Rupert Stanley (BBAC observer) at the Husband Bosworth Airfield at crack of dawn and the plan was to fly east towards the coast. Hus Bos is on a hill with precious little shelter and this meant inflating the tiny envelope and attaching all my kit and the fibreglass fuel tanks a struggle as it thrashed around on the tether.



*Mark Shemilt during his record Flight in G-CFMR. Note the holes above the scoop -jpeg M.Shemilt.*

I was glad to get underway, but alarmed to see that I had burnt a hole just above the Nome, but soon began to enjoy myself as I had forgotten the sheer excitement that only a hopper pilot will understand. The dawn revealed an icy and flooded Leicestershire landscape with a champagne sky.

I had made some mods to my set up since the duration attempt. I had attached a scoop to the envelope, I had put a more comfortable seat in my paragliding harness and I had trialled a new blast valve in my miniature double burner.....all seemed to be working well. All the simple tasks you take for granted in a basket now suddenly become a struggle when you are trussed up in a harness with all sorts of kit suspended from a burner frame that measures 20cm by 30cm. I carried just a GPS, a VHF radio, a quarter inch map as well as 2 strikers. As I climbed, my speed gathered pace to well over 20mph and I was glad to confirm a track that would take me away from the Stansted TMZ. One interesting effect of a small mouth on a small balloon is stale air around the mouth. On occasions my main burn would fail to ignite, only to re ignite soon afterwards. I am told if you place a burner too close to the mouth of a balloon you can encounter this phenomenon.

I will spare you the details of all the place names that whistled by, when Ely cathedral hove into view, I knew it was time to cross the profusion of MATZs north of Stansted. At the same time I suddenly heard my pilot light go out. Luckily I was high enough to wip out my striker and after a few clicks it re light the main burner. My 1 litre pilot light bottle had lasted even less than I had predicted and this is where you have to have real faith in your striker. Believe me, I have really researched strikers and have looked at a few, my favourite is a stainless steel one made



by brabantia and I had just refilled it!

As I crossed the record distance, I guessed I still had well over 2 hours of fuel duration and kept an eye open for the coast. My first glimpse of it was when I spotted the white dome of Sizewell power station north of Ipswich. As I descended I noticed that my speed was still fast, and now I was forced to twist round in my harness in order to see forward. the Ultramagic envelope was fitted with just a onetime only rip panel, which I must say works very well and after a short undignified drag.....it stopped one field from the beach and 115 miles from my launch field. This envelope is truly amazing and after weighing my tanks, I still had enough fuel for another 1.5 hours. I would like to express a massive thanks to both Tom Shenton, my crew and Rupert Stanley (the observer) who were tremendous in helping me launch and with keeping up with me and providing heaps of encouragement.

**Anatomy of a Record Breaking Balloon-**by Steve Roake



All the things you need for a record

The best bit of the Icicle Meet for me was seeing the Balloon in the flesh, and getting a detailed breakdown of each element and the performance related to that particular part.

Breaking those items down into individual elements

### **A-Envelope**

Aerofabrix 14,000 cubic foot Ultramagic Envelope, whilst incredibly thermally efficient, is a pig to put away. The double skinned envelope is actually huge in its bag but is incredibly good at heat retention. The photograph below is of the main man plus envelope in the retrieve vehicle.



Mark Shemilt -Envelope -Fan and retrieve vehicle.

At the time these photographs were taken, the envelope was being returned to the factory in Spain for panel damage repairs.

### **B-Burners**

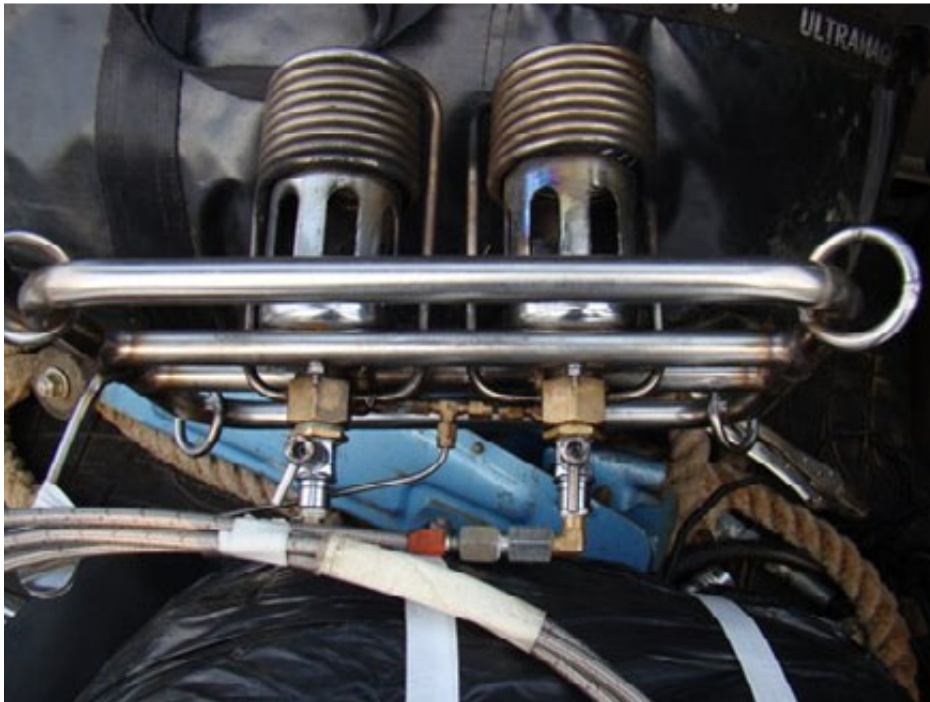


The heart of any Ultralight system is the burner block and the power that is achieved by what are miniaturised scale versions of the real thing. In this case the frame measures up at about 30cms by 20cms. Mark says this is the smallest size you can achieve without the mouth of the balloon collapsing. In this case the burners are manufactured by Richard Boelling who specialises in model balloons. Mark says," The actual burner part and can is made from a South American weed burner that they import...then old man Boelling mounts it on a burner frame and attaches his mini pilot light fittings and mini valves. The clever part is the machining up of dip tubes and mini tank valves".



Mark said that initially the burner block was multiple jetted but suffered from pilot light failures, so Mark reverted to a Single Jet arrangement which is more reliable. Mark specified the connections he required to fit with the braided hoses and ultra small connections and both blast valves are made to order. The beauty of the system can be seen in this second jpeg which was

taken in order to show the small burner controls and the uniqueness of bespoke installations which don't come cheap. The price of a set of double burners like this comes in at about £1500 which is basically all about the expertise that you have paid for in the construction.



The beauty of this design is in its simplicity and functionality. Clearly all of the elements have been carefully thought about and whilst keeping the weight down to a minimal 1kg, is robust enough for the purpose.

### C- Fuel Cylinders

Whilst the photograph doesn't do justice to the cylinder design, Mark discovered these 20 litre capacity tanks from a source in South Africa where they were readily available. Previously used for patio heaters, Mark had special fittings developed with record breaking attempts in mind. Flying with four of these suspended on bungee cords, enables Mark duration of up to eight

hours (utilising another tank for initial inflation). The tanks are mounted on bungee cords and once the vapour pilot light tank is empty, there is usually enough left in one of the main cylinders to run the pilot lights for the rest of the flight.

### **D- Pilot Tank**

The dedicated (red) Pilot tank has a capacity to last up to 3-4 hours depending on how high the vapour lights are turned up.

Mark said he definitely likes to hear them when flying. This tank attaches to the harness that Mark flies in so is easy to access and has the same fittings as on the main fuel tanks. Once again the connection is directly to dedicated braided hoses which are small bore.

### **E- Hoses**

The final element of the kit is still a bespoke part to see how to keep the weight as minimal as possible. "Brake-line" style braided hoses are utilised to ensure good pressure delivery and consistency and lightweight connections, all done to Marks own specification.

I just wanted to say thanks very much to Mark Shemilt for his complete openness and acceptance to speak about this project to me; I hope you enjoyed the insight as much as I have.

Steve Roake

### **Andrew Holly**-May revive record attempt with "Sloggi" Hopper

News from Exclusive Ballooning's Website, indicates that perhaps Andrew Holly is rethinking his idea to have a go at the duration record in G-CDFI his Colt 31A lightweight Hopper. Flown on the 5<sup>th</sup> of January at the Mondovi Balloon festival the website states

that the balloon will be flown more soon in Italy with a view to potentially having ago at the world 9hr record. In order to achieve this target, naturally the attempt would have to be taken somewhere cold.



Commissioned in 2005, the hopper has remained relatively unused and would be fresh for record attempts having barely flown 4-5 hours total time. The original idea was to be based in the Arctic region but it seems another site may be being considered. More information when we get it.

### My Favourite Jpegs and why-

In this Ninth selection of my favourites and why, Kasey Schwemmer steps up to the plate and delivers his favourite three photographs with reason why he loves them.



*Allie Dunnington Flying G-HEXE Colt 17A*

The first is of G-HEXE taken in Bristol 2009 by Martin Freeston. What I like about this picture is how small this balloon is. I have a thing for really small balloons... to me, the smaller the balloon, the cooler it is :) It must have something to do with my liking of remote control balloons as well.



In his second selection, Kasey picks an even smaller balloon picture as his second favourite.



The second is of *G-BHOJ*, one of the Green Ice Cloudhoppers. My reason for liking this one is identical to the first, only this one is smaller yet! I love the idea of being able to throw a balloon into your luggage and take it with you nearly anywhere. I know these tiny balloons aren't always appropriate for year-round flying, but just having one available right there ready to go is a nice thought :]

The third I swiped from Jon Radowski's site ([www.apexballoons.com](http://www.apexballoons.com)), and was taken at the 2001 EBAA Meet in Post Mills, Vermont. I know these aren't all hoppers, but they are all (with the exception of maybe the Adams 39k in the back) solo systems. This just seems like ballooning and hopping at its finest. Good weather, great scenery, great-looking balloons, older



balloons, newer balloons, really small (!!!) balloons, and larger small balloons. This one just captures it all for me.



Next Month's submissions are by Pat Bubb. Who will follow with their hopper or duo chariot favourites? Selections to me as ever please, care of [steve.roake@ntlworld.com](mailto:steve.roake@ntlworld.com).

#### **4, Updates to the website / Newsletter/ Forum Topics**

In a month of not very much going on, we managed to secure membership of our 400<sup>th</sup> member which isn't bad for six years of the forum being established. Since we are only a small facet of the ballooning society, I think we should celebrate when we get to 500, so anyone with ideas on how we can find 20% more members and how to celebrate, please contact me- LOL! February and

March are (with the exception of the Alpine events), generally very quiet so if you have stuff for the newsletter please send it to me for inclusion.

Later on in the month this jpeg appeared from Bill Teasdale.



*Jpeg by Bill Teasdale and ABPIC's*

It is a York Geostat4 homebuilt balloon and was flown in Sligo in May 1996. Called a George York, it set up quite a few emails about the event and the ownership of the balloon. It transpires that the balloon is 52,000 cubic feet in size and George York was the designer. The episode of it flying at a cross border event highlights how far homebuilding has progressed and the amazing amount of knowledge out there in forum land.

## 5, Homebuilt section -Mike Patterson's New Kit

Mike Patterson posted a series of jpegs to the photo section of his latest project in December. Amongst the jpegs were a number relating to a basket called a Padelt Basket. Seeing as the quality of finish is so high , I thought it only right and proper that i post some of them here for you all to see.



*One Fine looking Basket, beautifully detailed below.*





Mike who comes from Arrington in Virginia has clearly got an eye for fine finish on his kit. The burner frame and burner itself are also to this level of quality (as seen draped on the envelope bag).



Apparently test inflation was due this month and we look forward to seeing the balloon rigged and resplendent, until then Mike leaves us with a hint of the whole kit waiting "play time"! Many thanks Mike.



6. **Gallery Pages**-This section is the Editor's choice of new jpegs, visuals and older balloons of interest or alterations.



*Bought in late 2009, Gareth Gray is captured in G-BGHS his Cameron N-31 over Surrey. Thanks Gareth for the jpeg.*



After storage former Virgin Balloon G-BTXM (Colt 21A) is expected to be flying shortly again in Surrey with Alison Haugham-jpeg thanks Mark Stelling.



*Colt 25A Sky Chariot 2 from Chateau D'oex in 1992 .Beautiful House Colours, Jpeg by Bill Teasdale. Balloon now owned by Clive Bailey in Bristol.*



## 7, Manufacturer News / Events / Updates

Nothing to update you on this month as The Icicle Meet had no new notable wares on sale from anyone. In fact Lindstrand Balloons and Kubicek didn't bother attending the event.

## 8, For Sale /Wanted section

### G-BSDV Colt 31A for Sale priced to sell £1500 for cash!

Your editor is selling his Colt 31A Envelope, registered on 19th April 1990, she has done 76 hours 15 mins (last flown 21<sup>st</sup> March 09) and cold inflated in July 2009. Lapsed Cof A with EASA agreement to be renewed. She is now surplus to requirements as I can't fly two at once.



*Ready for a new owner in 2010 -who will buy G-BSDV Colt 31A?*

Turning vents are currently disconnected but lines will be supplied and can be reused. In the current climate, a price reduction to £1500 for a cash sale seems fair. The price includes the original Colt bag and stylish Lindstrand 31A replacement bag. Great entry to Hopping Balloon with loads of life left in her, she needs new Loving owner!

Contact Steve Roake on 07721-358758 or 01276-516125 after 7pm weekdays or Email [steve.roake@ntlworld.com](mailto:steve.roake@ntlworld.com)

### **Thunder and Colt Sky Chariot Mk 2 Bottom end for sale**

Just a small reminder that the ex BT Chariot bottom end is still for sale by Dave Baker. This represents a very good way to get into hopping when you consider that the price includes the integral fuel tank and therefore is a complete bottom end ready to fly. It dates from 1993 and has done approx 200hours.



The bottom end comes with an integral H-30 Tank which has a Rego fitting. It all looks in great condition-Ed!



The Bottom end utilises the Colt Mark 2 Single burner which has a Liquid Pilot light. Naturally this sale is as a complete kit and Dave isn't going to split it up. The price is a very reasonable £1850 complete. Contact Dave Baker on mobile number 07860-937103 or 01635-866682. Email via [dave.2.baker@bt.com](mailto:dave.2.baker@bt.com)



**And Finally.**

Another Bill Teasdale teaser jpeg.



Apparently, G-BNHF Cameron N-31 went to the Lebanon, can you update the information on this old classic Balloon -jpeg courtesy of Bill Teasdale /ABPICS

Membership is currently a healthy 402 members and despite a small dip, numbers are generally still rising. All articles for inclusion in future issues will be gratefully received by your editor. Please forward them to [steve.roake@ntlworld.com](mailto:steve.roake@ntlworld.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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