



Issue Number 22

December 2007/ January 2008

Hello Members and Happy New Year to All!

May I be one of the first to wish you all well for 2008, and I hope you all had a great Christmas and festive break? As you all know this is a combined edition of Dec/Jan, largely due to nothing to report in December and no submissions be the consumers and a general apathy on the part of your editor. I look forward to receiving all your new stories, tales and projects as the year unfolds and hope that we have a productive year.

The festive break in our household was unseasonably quiet, with practically all of us falling foul to the dreaded cold bug that swept the UK, coupled to the untimely death of my mother a week before the break that flat lined all spirits.

Luckily there was some action on the ballooning front to keep us interested, with Pierrick Duvoisin (our newest member) pulverising the AX1 world record (more on this later).

I would also like to draw your collective attentions to a very critical hopper orientated safety directive from Cameron Balloons. If you read nothing else in this issue, I urge you to read and act on this potentially life threatening issue and ensure that your equipment is safe for flight. We take your flying safety very seriously hence John Davies from Cameron Balloons Ltd put this announcement directly to the membership via the forum as soon as we knew about it.

January also saw the Icicle Balloon meet, so fresh from the trade show I have for you all the relevant information for hopper pilots

including details of the new Ultramagic Lite Burner system and the new Lindstrand Electronic Fuel gauge which were both debuted to the UK public.



*Pierrick Duvoisin en route to the new world record in HB-QMD
(Photo with thanks P.Duvoisin).*

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- Alpine Flying season kicks off with Mondovi - A flavour of this Italian festival.

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1, Ed Speak by Steve Roake - Alpine Blues and a missed opportunity!

First editorial dribble of the year from me and I can honestly say I have got the "Alpine Blues" big time. For all of you not in Europe, this is the time of year that most flyers shoot off to Italy (Mondovi), Austria (Mauterndorf), and Switzerland (Chateaux D-Oex) that I know of to wet your appetites. For me sensibility has to prevail and this year a newer car has to take priority so unfortunately all winter excursions are out. On top of that, it is also records time with both Pauline Baker/Malcolm White back into Italy for a second consecutive year and a fine standard already set by our most recent member Patrick Duvoisin. Let me be the first to congratulate him on raising the standard by such a margin - no mean feat.

To add to the injustice, over xmas we had flyable conditions in the UK and I got a Cold that was doing the rounds and so had to ground myself when most of my friends got some flying done. Fresh from recovery I ventured to the first event of the year the Icicle meet on a windswept Friday night in the knowledge that plenty of rain and high winds would preclude any Saturday flying

chances. The trade show held some items of interest, but having the luxury of a brand new hopper envelope on loan from Lindstrand Balloons Ltd, I looked gloomily at the information on weather for Sunday am thinking that flying wouldn't be possible and the thought of the hopper staying in the bag all weekend. With rain also on Saturday morning, we took a conservative view that the possibility of change on Sunday was at best minimal and so we packed up, left our hotel and travelled home. What actually happened was a serious freeze overnight, and a two hour slot appeared in which the other 32 balloons attending flew. Then thanks to the eager members of our list who attended, I received copious jpegs of the hopper tethered in the grounds of the hotel, which they "collectively tethered". Below is a good example.



*Beautiful shot of the venue- Ramada Elcot Hotel with G-CEOU
LBL 31A. Thanks to Neil Ivison for reminding me what I missed!*

2, The Features Section-

Pierrick Dunvoisin -"Pulverizes" the AX1 World record

On December 19th 2007, Pierrick Duvoisin obliterated the Ax1 record for duration in his Balloon "Chimere" at La Brevine near Neuchatel in Switzerland. This was the culmination of 18 months work by his team and followed on from a successful attempt on the Ax2 record in 2006. With thanks to Pierrick, we have an insight to how the attempt went directly from his notes, which I have translated from French (hopefully still catching the essence of what happened).

The "Chimère" project (STATS)

After the successful record flight in AX-02 (400m³) my team worked 18 months on this new project named "Chimère", using specific material developed especially for this kind of efficient balloon. This balloon is the smallest FAI class in hot air balloon (0>250m³). The Chimère balloon is using a double skin concept and extra light envelope **10.5 Kg for 250m³**, the burner and load frame unit weight **1.2 Kg** (including piezo and double burner), a light propane tank **6.5 Kg** is using as a unique cylinder. I used a light paragliding harness **0.4 Kg**. The total weight of the balloon is **18.2 Kg**. Fuel consumption is **8.3lts/h**

First tests

November 2006

A preliminary test was conducted in November 2006 with 13 sensors placed all around and inside the balloon; all of this data was recorded and allowed us to improve the balloon. In Fact, the balloon was ready

by the end of December 2006. After a lot of different envelope configurations, we were ready for a first attempt but last winter was exceptionally warm in Europe, so I decided to wait and attempt the flight in December 2007.



The Record flight

Early Morning - 19th December 2007

We started at 06h15 in the morning, extremely cold temperature slowed the team in preparations, after an hour and a half the balloon was ready to fly; it was -24°C at this time. I took off at 07h39 in morning with -24°C and landed 06h20min 38sec. later at almost 14h00 in the afternoon. The first 1hour 30mins of flight was very cold, I was frozen, especially my feet, then the sun rose up and it was a bit better. I felt after the flight a little pain in my feet, but it was only light burns. The flight was conducted with a very light wind surface. I moved only few kilometers from the starting place to the landing place which is perfect for that kind of record. The temperature inside the balloon was controlled during all the flight by 4 sensors placed in different points on both envelopes. That allows me the check and

prevents any over temperature. I landed smoothly in snow, after that the balloon stayed inflated more than 1 hour 30mins without any fuel, that showed the concept is good.

Pierrick Duvoisin

The actual flight was recorded by a French television channel and the link below shows you their report from the day.

<http://tinyurl.com/2ob6m2> or if this fails try www.tsr.info.ch and look up 19th December 2007.



Never mind the record, look at the conditions! Weather to die for in a regular hopper -let alone whilst record breaking-ED! (jpeg P.Duvoisin).

Pierrick's website can be found here where you can find out more details, <http://www.balloonconcept.ch/>

Pauline Baker / Malcolm White- head for Italy.

Whilst the incredible record set by Pierrick is incredible, he is not the only person trying for new records this winter. Pauline Baker and Malcolm White (who set new records this time last year) are on the hunt again for pushing forward the boundaries and potentially even challenge Pierrick's new Ax1 standard. As Malcolm White pointed out. " Pierrick's envelope was a double envelope made of thin Mylar. If it's the same fabric he used for his AX-2 record last year, it's a thin Mylar stuck with Scotch Permacel Mylar tape.

Pauline's envelope is a single bonded skin made of 2 x 3 micron Mylar sandwich with a polyester centre (called Trispi-25), so different technology to Pierrick. It'll be interesting to see how it performs. We won't get the extreme cold that Pierrick did but we have a 15% overall weight advantage, more fuel, plus we'll be flying at around 1200' amsl whereas Pierrick was at 3500' amsl.

Anyway, it's not just the AX-1 record that we are concentrating on" :-)

Malcolm and Pauline also have a new piece of equipment from last year's record breaking feats. Renowned engineer and burner guru, Paulo Bonanno has created a unique bespoke burner unit specifically to order for Pauline to hopefully assist with the attempts. Once again Malcolm White elaborates. "The framework you see (in the jpeg below), is simply a test rig put together to support the harness/burner whilst testing takes place. The astute amongst you will have noticed extra pipes from the burner.

This burner has been set up to operate efficiently under very specific criteria.

This is crucial for maximum fuel economy. The burner operates at very low pressure (circa 1.2 bar or 20psi in old money). This means that the same pressure can be maintained throughout the flight irrespective of tank content. The maintenance of this is achieved by venting vapour which increases the density of the propane and, consequently, reduces the pressure.



Pauline Baker in the test rig with new burners (jpeg M. White).



Sandy Mitchell photographed EI-DZA at Chateau D'oex

There is a feedback system for the vented gas back into the burner. There are temperature gauges on the fuel tanks and the burner jets to monitor the combustion temperatures. The main burner valve is two-stage - the first stage is the main vapour/coil valve and the second stage is a regular liquid feed. The burner has been adequately tested with a Colt 21A (EI-DZA ex-G-MLGL) with pilot and 4 tanks (240 litres). The balloon response was excellent even at positive temperatures (Celsius). If the conditions get colder, we will carry out similar tests with G-CEHX, the Lindstrand 9A. If we don't get colder weather, we will try some altitude flights with the burner before heading to Chateau D'Oex on Sunday. We then hope to take all the equipment to Alaska next month for some serious cold weather.

After a visit to Chateau D'oex, Pauline and Malcolm returned to Mondovi where on the 24th January Pauline set a new Women's World Record for altitude in the Ax3 and Ax4 classes in EI-DZA the Colt 21A. She moved the record from 9,679ft (Ax3) and 12,545ft (Ax4), up to 13,353feet. The intention was to try to get close to 20,000 feet but higher than predicted upper temperatures and higher than expected fuel usage precluded Pauline going higher on this occasion.

It seems for more settled weather, the team will have to go to Alaska in February.

Mondovi - Italian Balloon festival

Another of our newer members is Paulo Oggioni who is based in Mondovi Italy. This year, like many others Paulo hosts a balloon festival based around his home town and this year 40 balloon teams went to the three day event over the first weekend in January. I'm told by those who attended that the hospitality is

first class with accommodation, gas, meals and copious amounts of wine thrown in for nothing, for the duration of the event.

This area is a regular visiting place for UK based pilots who love to jet over here for regular flying particularly during the winter where its unique micro-climate suits flying.

Unfortunately there weren't many hoppers present at this year's gathering, with only the resident Cameron H-34 G-OBLU and Ian Chadwick's Shell Helix Cameron N-42 flying amongst the regular sized craft.



Gavin Chadwick in G-BMWU over Mondovì - jpeg Ian Chadwick.

They say a picture replaces a thousand words (see above), but according to Jonathan Dyer, the survivors meal which is multi coursed blew him out after only three courses.

Chateau D'oex -Switzerland

The third of our regular winter balloon festivals is Chateau D'oex in Switzerland, which this year was celebrating thirty years of the festival. The normal level of hopper and duo chariot activity was present for the event which ran from the 19th until the 26th January. Both sets of record breakers were present, with five balloons between them .Flying conditions were generally fine throughout the event with sporadic hopper activity during the event. Janet Folkes had the oldest hopper present with a welcome return of G-BHOJ the old Green Ice Colt 14A. (Photographed by Sandy Mitchell on the launch field).



A welcome addition was this beautiful liveried Cameron Z-42 F-HABA flown by Patrick Foubert, built in 2007.



3, Updates to the website / Newsletter/ Forum Topics

Forum talk this month has been both varied and vibrant. Unfortunately for some, the main criteria for discussion started with Pieter Kooistra's T&C 31A (PH-PUK), which sparked my interest as it is made totally of Hyperlast. Apparently this particular balloon was made for a record attempt in Holland where it went to 11,000ft and was also due to tether plenty of the time. This then turned into a hot topic with envelope weight verses expected life being the desired knowledge.



PH-PUK, a fully Hyperlast Envelope weighing 70kilos

The range of envelope weights for a 31,000 cubic foot balloon ranged from 36 kilos for Malcolm White's ultra light Smart Telecom LBL 31A (EI-DJZ) through the normal 50-57kilos of older designs with newer builds shaving 10 kilos off this range (typically 45 kilos), up to the Hyperlast heavyweight 70 kilos. Normally weight is King! In a lot of cases with spare lift capacity available and flown in colder weather conditions, a heavier envelope may be a good idea. It has been established (and confirmed by Don Piccard), that a typical hopper envelope can last if treated right up to 200 hours. Therefore most pilots don't have problems with envelope life, but some prolific pilots will be pushing the limits quite soon.

Homebuilt section

News of several new projects have come to my attention and I hope to be able to bring you some progress news of these in the not too distant future.

Please send details and jpegs as the projects progress to the regular e-mail address.

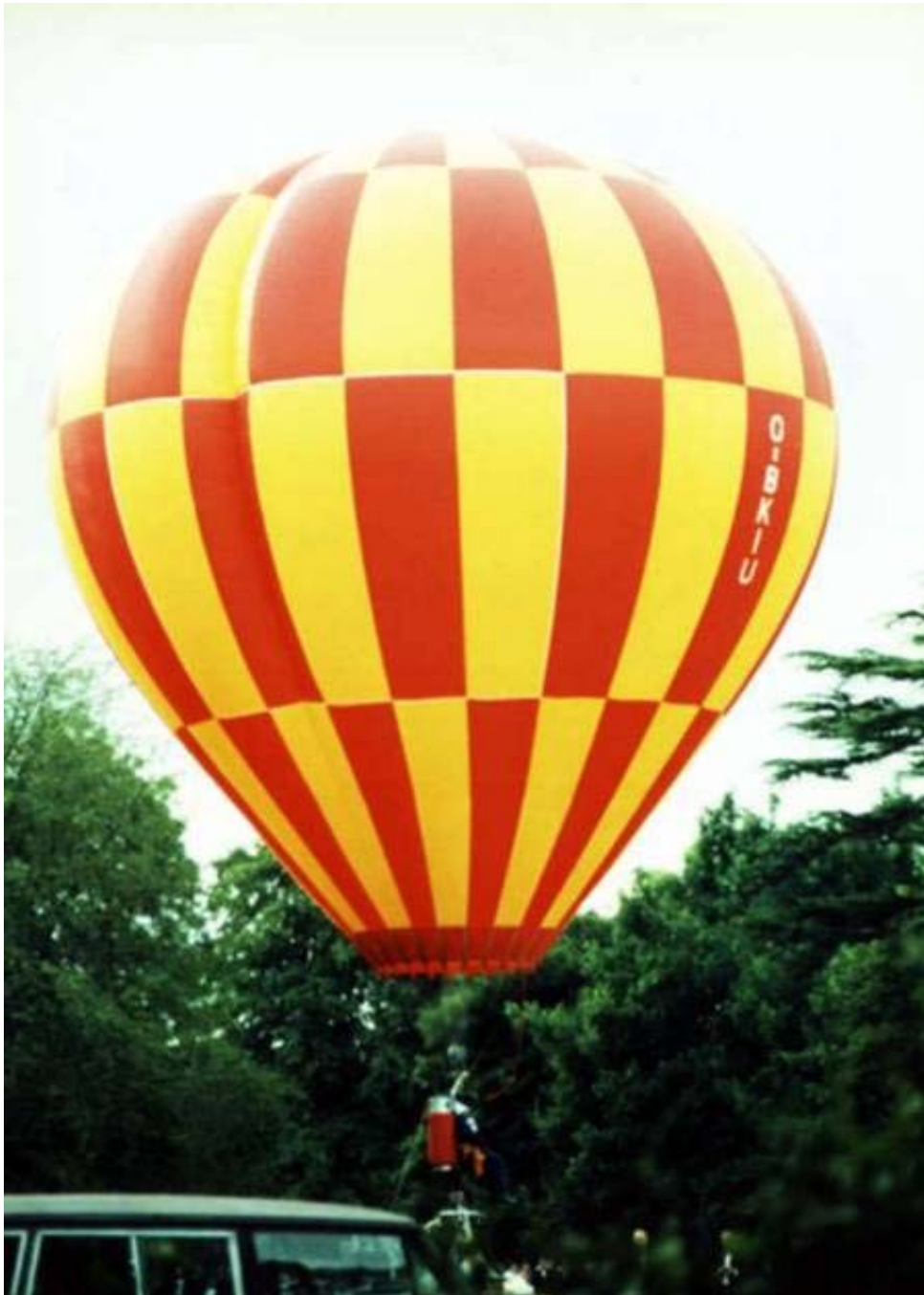
The home building scene is particularly active currently; however the editor appears to be the last person to receive news on the projects.

5, Gallery Pages.

This section is the Editor's choice of new and older jpegs/ visuals. Most this month feature balloons that have appeared at winter festivals with one exception.

The exception is G-BKIU which is a Colt 17A and has just re-appeared on the UK register as current in the hands of Sebastian

Pooley of Borehamwood. Seen below in its earlier years, the recent whereabouts of G-BKIU have been a mystery.



G-BKIU Colt 17A -Photo thanks to Mel Kirby



Very Pretty Cameron Concept 60 G-BVDY with Duo Chariot has recently had turning vents added for Malcolm White / Pauline Baker -caught in Chateau D'oex sunshine by Sandy Mitchell.



Even Pierrick Duvoisin flies regular hoppers -HB-QBU is his regular Colt 31A.which was built in 1995. (Jpeg Sandy Mitchell).

If your hopper /Duo picture has yet to feature in this section of the Gallery pages, send me a jpeg of approx 600kb size for future inclusion. Usual address Steve.roake@ntlworld.com

6, Manufacturer News /Events /Updates

Cameron Safety Directive - Seals on Fuel Cylinders



Cameron Balloons Limited recently issued a safety bulletin which specifically impacts on hoppers with some seals on Cameron fuel cylinders that need changing. Whilst on regular multi tanked balloon flights, the impact of a defective seal is not so bad, on a hopper the impact could be catastrophic, and so the factory and I urge you all to check your valves against the directive in (Safety Bulletin No 17) if you own Cameron equipment. Fortunately for us, John Davies from the factory is a member of our list and immediately put out details onto the forum as soon as this issue was known. A quick link to the relevant documentation is below but if in doubt please contact your dealer directly for advice.

<http://www.cameronballoons.co.uk/index.php?id=78>

The Icicle Balloon Meet 2008

This popular annual festival hosted by the Dante Balloon Group had a new venue for 2008. The trade show moved to the Ramada Hotel at Elcot between Newbury and Hungerford in Wiltshire. Flying was still from Warren Farm in Savernake Forrest but

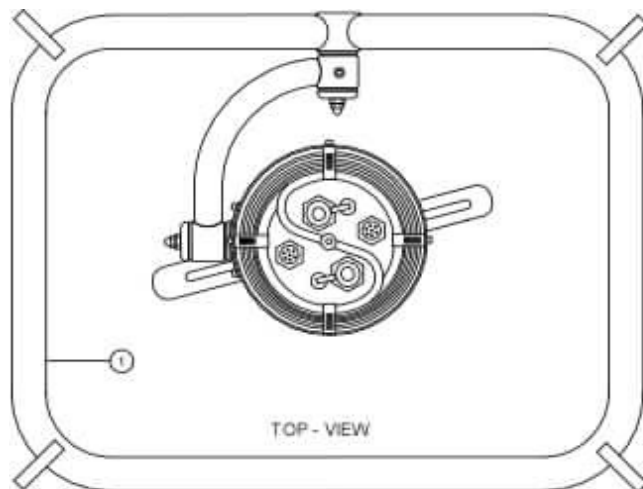
unseasonal weather meant that entries were down compared with recent years but there was still plenty of interest particularly for us hopper exponents.



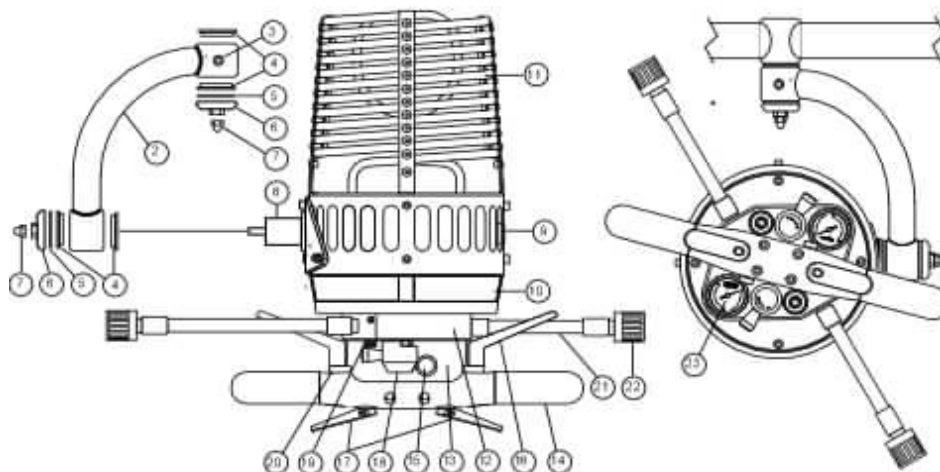
Ultramagic Balloon's Tim Revel and Paul Dickenson proudly presented the New Ultramagic Powerplus Burner that is essentially a single that thinks it is a twin!



This joint venture with Paulo Bonnano (who now works for Ultramagic), has a two stage throttle squeeze action and is rated from a 25,000ft balloon through to a 120,000 envelope. The execution of the new design has all the attention to detail that comes with a Bonnano design, with a unique single sided mount and light weight whilst retaining duel feed and twin pietzo's.(see below for diagrammatical view)



ITEM	DESCRIPTION	PART NUMBER
1	FRAME	5
2	SUPPORT ARM	5131
3	ROTATION LIMITATION	5147
4	FRICTION WASHER	5147
5	ELASTIC COMPRESSION O-RING 3/16"	
6	FRICTION WASHER	5147
7	STOP NUT	5147
8	ORBITAL SUPPORT	5133
9	BURNER CAN	5018
10	NETTING	5134
11	VAPORISATION COIL	5017
12	VALVE BLOCK	5031/1/2
13	EXTERNAL VALVE BODY	5071/2
14	BAR HANDLE	5072/3
15	SAFETY BUTTON	5029
16	MAIN VALVE HANDLE LH	5070/1RH/2LH
17	LIQUID HANDLE	5069
18	PILOT VALVE	5054
19	PISTON BUTTON	5067
20	MAIN VALVE CAM	5071/2
21	FUEL HOSES	5
22	FUEL CONNECTORS	RECOTEMA
23	PRESSURE GAUGE	5061



Ultramagic say in their literature;

The ultra compact **POWERPLUS Single** burner complete with frame and hoses weighs only 14 Kg and consequently has the highest power to weight ratio of any production balloon burner in the world, whilst still producing an efficient quiet flame.

The main valve action has tremendous feel and gives you the option to independently operate the normal main action part of the burner by engaging the first phase only. However if you then press the valve action an extra step you then engage phase two of the burner giving you the "plus" part of **POWERPLUS**.



The quiet burner can also be activated on its own by the separate valve under the main valve handle. With a complete duel burner system throughout the **POWERPLUS Single** gives you everything that you need in a burner and more!

The **POWERPLUS Single** is certified for use with Ultramagic balloons from 25,000 cu ft to 120,000 cu ft.

If you want that special burner to add real enjoyment to your flying then the **POWERPLUS Single** is for you.

UK retail price is £2990 according to Tim Revel; check out the narrow flame pattern!



Internal and external views of the burners beautifully finished!
Looking forward to hearing about from someone who uses this burner on their hopper or duochariot-Ed!



Cameron Balloons had a neat stand at the Icicle meet compromising a light weight basket and the last ever Duo chariot bottom end with a horizontal fuel tank arrangement. This was available for purchase for £7500 and indeed sold to a UK based Commercial pilot. Speaking recently to Graham Bell, in excess of 50 of these duo chariots have been built over the years with demand for them still very strong.

Colin Wolstenholme was subjected to my barrage of questioning (apologies), and we discussed at great length the merits or otherwise of hyperlast material in hoppers and Colin alluded to the ongoing problems of sourcing HTN90 Nylon and how various manufacturers are now scouring the world for appropriate fabric with South Africa being the new favourite suppliers.

He assured me that the promised new fan blade for the Cameron 3.5 hopper fan is high on his list of priorities for 2008 and I will let you know how this progresses. With the performance of the Klein fan now showing favourably, the onus is on Camerons to produce a more efficient blade design to replace the "egg-whisk" that came as standard and perceived uptake on a new blade is high.

The next generation of hopper design is also continuing and we await further details expectantly.



The Full array of the sales team from Lindstrand was present at Elcot Hotel and for the event and on their stand they had the bottom end of the hopper I was supposed to be flying at the event. Mind you for gadget fans, they had a new product on

display as part of their presentation, that I for one have been talking to manufacturers about for the last four years.



So here it is! - The Lindstrand Remote Gauge

I remember distinctly in Metz 2004, speaking to Joseph Costa of Ultramagic discussing the merits of a Digital fuel gauge for use in a cloudhopper. In my version, an inline impellor would count down the fuel quantity from a preset value repeated on an umbilical display digitally.

Now in 2008, Lindstrand were announcing to the world the first production ready application of those very thoughts. They had utilised the dip tube with a special gauge sender unit to indicate levels and displayed it using bright LED lights on a user friendly display mounted near to the lap straps on the bottom end.

Initially, according to Simon Forse, they took the gauge to Albuquerque on the quiet and asked a few people what they thought of the application. Returning with 15 orders they knew

that the idea was a winner, and further sales took place at Elcot Hotel. Coming in its own dedicated box with connection cable and replacement gauge for swapping on the tank in question, the unit has really bright high quality lights for ease of use and a level of finish comparable to the usual quality of their bespoke equipment.



The strap supplied with the kit gives the option of mounting the gauge on your thigh as opposed to having it at the end of the padded strap. The price for all this? £325-00 to you sir!

Lindstrand instructions state

- The Remote Fuel Gauge utilises a special fuel cylinder mounted gauge sender head to provide readout of fuel contents displayed by the 'remote unit'. This device was designed primarily (but not exclusively) with the Hopper pilot in mind, as the remote unit can be placed in a easy to view position, making fuel management a much more comfortable experience. For peace of mind the special fuel cylinder gauge

head still maintains a traditional analogue needle gauge which is visible via your Hopper fuel gauge sight mirror in the manner you are accustomed to.

- On your existing fuel cylinder there is a fuel gauge, the needle of which is driven magnetically by the internal float mechanism within the cylinder itself. This fuel gauge is removed and replaced with our special gauge sender head, which is also magnetically driven in the same manner with a needle displaying contents. In addition, the sender head produces a variable voltage electrical output (Hall Effect sender unit) which is connected by cable to the remote unit. The remote unit contains a battery power supply and digital electronics which allow representation of the fuel cylinder float gauge to be displayed via a series of illuminated LED's.
- Once you have installed and connected the gauge, operation is simple – just switch it on using the silver button on the front face of the unit. The button is recessed slightly to aid protection; you may find it easier to switch on prior to wearing flying gloves. The unit carries out a quick LED check by illuminating them in a clockwise order, if any of them fail to illuminate the unit needs to be returned for service. After the LED check has completed a single LED should be illuminated relating to the fuel level in the attached cylinder.
- Due to the physical constraints of the float gauge, the remote gauge only operates over the last 40% of cylinder contents. The green LED marked '100-40+' will stay illuminated until the fuel contents reach 40%. At this stage the next green LED marked '40' illuminates and the original extinguishes. When the fuel has dropped to 35% the LED marked '35' illuminates, and so on. The final LED, marked '10/E' is dual function inasmuch as it illuminates at 10%, and starts to blink after a further couple of kilograms of fuel are burnt, by now it is definitely time to land.

Conclusions?

From my perspective, the money spent on this product with its massive battery life (40-50hours), and saving your neck when contorting around to peak at the mirror is money well spent. My one reservation is that most hopper pilots I know don't tend to dedicate one specific fuel tank to their hopping, and I would prefer a unit that could clip onto any desired tank fitted with the attachment and detachable when not in use or when being used for a bigger balloon flight. Having said that, I have suggested that very modification to Lindstrand balloons for their consideration and knowing them I dare say that modification may become available. Contact your dealer for delivery details (available from February onwards).



And will your editor be buying one? If I can get the modified version with multiple sender units and I feel like a treat to myself then probably yes I will.

7, For Sale /Wanted section

G-CBLN Cameron Z-31 is for sale

Lee Hooper is offering for sale his Z-31 G-CBLN. See below for details.



Cameron Z-31. G-CBLN. 52 hrs, Orange with "One a day relief" artwork that can stay. Turning vents. It comes with brand new, un-flown Thunder & Colt Mark 1 hopper bottom end (Orange parachute harness) with electric ignition. All bottom end equipment recently purchased from Camerons. C of A until May 2008. Great little balloon, all in excellent condition. All equipment being stored at Cameron Balloons in Bristol... £5500 ONO
Lee Hooper - 07973 741 025 e-mail: lee@spiritballoons.com or
Colin Wolstenholme 0117 9637216

Second item for sale comes from John Tyrrell



Lindstrand Cloud Hopper Bottom End. Seat and burner mount directly to the 60L stainless steel tank, PRV and Internal Inspection until June 2015 and current CofA until July 2008. Date of manufacture 1995, estimated flying time around 45 hours. Finished in blue, complete with burner and tank carry bags. Recently adjusted jets by Lindstrand, flies very well under my LBL31A, flown at UK one man meet this year. Excellent condition, offered for sale at £3150, contact John Tyrrell - john@ixthus.co.uk <<mailto:john@ixthus.co.uk>> or 07753 910992

Wanted- T&C Skychariot

Colin Wolstenholme has a buyer looking for a T&C Skychariot. The buyer is looking for a Mk2 version with nylon poles, so if you have one for sale please contact Colin Wolstenholme directly cwolstenholme@cameronballoons.co.uk

And Finally

That Freelander Advertisement

Following a plea for a link to the forthcoming advert for the Landrover Freelander 2, you can see the advert in all its glory at You Tube using the quick link below. Enjoy!

<http://n1.youtube.com/watch?v=GSucwBzpoQY>

Membership (current to end of January 2008) stands at a very healthy 346 . Please keep putting the word about, we only thrive by growth and your inclusion of articles and projects.

All articles for inclusion in future issues will be gratefully received by your editor. Please forward them to info@cloudhoppers.org and feedback good, bad or indifferent is always welcome. Views aired by contributors may not be those of the Editor

Safe flying and apologies for those of you who sent in articles that got left out this month

Steve Roake.