

Fra vores venner hos den store engelske ballonklub, BBAC, er der den 31. juli kommet information om flere ulykker hvor "åbne ballonkurve" er brugt. Da vi her i landet fortrinsvis bruger mindre åbne kurve er informationen, samt anbefalingerne meget relevante.

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Formand UU

BBAC Safety - "Landing Positions "

Since the return to flying, in the past 2 months, the AIB have received 4 balloon accident reports. All of these accidents have occurred during the landing phase of the flight in Open baskets, with injuries to pilots / passengers and, in one case, occupants being ejected from the basket. But apart from being in the landing phase, all these accidents are markedly different, however they involved relatively experienced pilots and ALL passengers had flown in a balloon before.

As the BBAC Safety Officer, I am pleased to see that accidents and incidents are being reported and they will be investigated in accordance with our excellent "Just Culture" and will be published very soon. These reports provide vital data to support our efforts to minimise risks in ballooning and help identify any trends. Nonetheless, reports only describe what happened and the next steps are to decide what, if anything, can be done to avoid re-occurrence. Given the fact that some pilots may still be a bit "rusty" after the enforced break from flying, it is felt by the CAA/AIB, and the Safety department that a timely reminder to all pilots on this important subject is needed.

The following information is given for your Guidance and to encourage thought and debate on this subject. Please note though that your Manufacturers flight manual is controlling, and any subsequent official investigations will be made with reference to this.

The BBAC pilot training manual (page 58) says the following with reference to Landing Posture in small Open baskets - which is the type of basket that most BBAC members will use and be familiar with.

"In a small basket then it may be appropriate for the passengers to turn sideways. This position will allow them to watch the progress of the landing, and to hold onto handles at the rear and front edges of the basket. Also, if they are jolted forward, they will be shoulder first rather than headfirst. The forward facing posture is invariably discounted because of the inability to brace against a forward jolt and the likelihood of hitting the face against ground or basket top"

The backward landing posture "may in theory be employed in small baskets..... but in practice such opportunities are rare ". There is lot of extra criteria attached to this statement (see page 58) which is unsuitable for most small Open baskets, but it is definitely the norm for those pilots with large partitioned baskets and turning vents.

With these reported accidents occurring during the landing phase of the flight, it's essential that pilots are aware of the procedures for landing and are implementing them.

Some factors that contribute to incidents or accidents during the landing phase could involve a single reason, or a combination of these factors below. So, in no particular order:-

Control of the balloon

Pilot / passengers landing positions.

Pre-landing checks.

Passenger briefing

Pilot actions and responsibility during landing phase.

Having identified potential problems - what can now be done to reduce the likelihood of an incident /accident during the landing phase? Here are a few ideas for you to think about...

1. Before the basket is tipped over and having completed a burner check, the pilot should invite every passenger into the basket and give a full briefing to include a practice of landing positions dependant on basket configuration and tank positions. The passengers should be briefed to be at the front of the basket as far as is possible, or potentially between the tanks in such a way that they should not move on contact with the ground. In order to avoid the catapult effect from being at the rear of the basket with nothing to hold on to apart from a rip line, the pilot should be at the front of the basket, with his/her shoulder on the leading edge of the basket just below the rim knees bent and fully aware of the position of the passengers. He/she should be facing sideways and looking forwards, whilst keeping an appropriate eye on the passengers.

2. Landing Briefings – Do you know what's stated in the flight manual for you and your passengers? - for standard/ hard / fast landing.

What if you have a CBL envelope/ UM bottom end combination for instance – which flight manual do you use as a reference?

3. Landing plan / checks – when do you do it? Before descending for a landing / practice approach, or earlier? Passenger checks to include landing positions practice for passengers, stowage of loose objects, etc. Pilot checks - do you have an unobstructed view of the landing area, can you easily reach the control lines /turn off LPG supply at cylinder / burner ? Before you start the approach - fuel check, position established / marked, crew informed. If a pilot restraint harness is used- check the adjustment and connection.

4. Pilot's responsibility during the landing phase – in addition to control of the balloon (operating the control lines, turning off the burner / cylinder LPG supply) you also need to control your passengers – closely monitor to ensure they are properly positioned in the basket and holding on tightly, are they in the correct landing position, are they holding the rope handles, do you do a countdown (5,4,3,2,1) to help them, are you able to grab them if they have let go of the rope handles on the first touchdown (whilst still controlling the balloon!).

In Summary - The Pilot must make sure that all passengers, whether they are a novice, qualified pilots or an experienced passenger, take up a safe and correct landing position, and check (not assume) they are in the correct position prior to touchdown. And If you yourself are the novice, qualified pilot, or experienced passenger, you must adopt the full passenger landing position.

Please find below the landing position summary by major balloon manufacturers.

Their manuals are all pretty similar for partitioned baskets – but there is a wide range of procedures for Open baskets. This may be a reason why we are having potential issues as it's very confusing and it shouldn't be. I have the utmost sympathy for pilots as it succeeds in creating more problems than it solves, and personally I consider this conflicting information in the manufacturer's manuals unacceptable. It's only an Open wicker basket with rope handles and tanks, so why all the differences between manufacturers? - surely, they can't all be right!

My ultimate aim, is for there to be a general agreement on landing positions in Open baskets across all major manufacturers , so that it ends up broadly similar to the procedures in the BBAC Pilot Training Manual . It is something I will actively be pursuing with the involvement of the BBAC Flying Committee, however this undoubtedly will take time, and may be ultimately unachievable.

This subject, and how we train it in the future, will be covered in detail at the next Instructor days later this year and next.

Some good news is that as a result of our representations, Ultramagic are reviewing their procedure re Open baskets and landing positions and will be changing their manual at the next edition (whenever this may be). I will shortly be asking the same question to Lindstrand Technologies as well, as both manufacturer's manuals currently differ from the BBAC stance re landing posture.

It's important that you familiarise yourself with the procedures for the balloon you are planning to fly as there will be different information on landing positions / pre landing checks / passenger briefings etc. depending on the manufacturer.

Remember again, that in the event of an incident, your manufacturers flight manual is controlling, so I can't stress this enough – **RTM - Read The Manual!**

Landing Positions by Manufacturers as of July 2021 (Summary)

Cameron Balloons (including Sky Balloons and Thunder + Colt)

Open Baskets - On landing stand sideways to the direction of travel, at the front edge of the basket (where practicable). Knees should be together and slightly bent. Hands must remain inside the basket. Hold on to rope handles or cylinder rims.

Partitioned Baskets - Face away from the direction of travel, push back against basket and hold rope handles.

Ultramagic

Open Baskets - Stand at front of basket and face the direction of travel.
Keep your knees together and bend them slightly. Do not sit or squat.
Keep hands inside the basket at all times and hold on to the rope handles.

Partitioned Baskets - Stand squarely with your back firmly against the basket facing away from the direction of travel.
Keep your knees together and bend them slightly. Do not sit or squat.
Press back against the basket wall.
Keep hands inside the basket at all times and hold on to the rope handles.

Lindstrand Technologies (LTL)

Inform passengers that during the landing they should stand in the rear of the basket (or were shown by the pilot), facing the direction of flight, with feet and knees together, knees slightly bent, and holding tightly to the rope handles inside the basket.

In larger balloons, which have compartmentalised baskets, the passengers should be instructed to face away from the direction of flight.

For fast /hard landings. The basket occupants should be instructed to bend their knees and press their backs firmly against the downside of the basket. Their heads should be below the side of the basket. The internal rope handles should be used to prevent the occupants being tipped out of the basket.

The landing position adopted should be with knees slightly bent in order to absorb the compression on impact. Again, it is important to face away from the direction of travel and to hold onto the internal rope handles firmly.

Lindstrand Balloons (LBL)

Face away from direction of travel, bending knees with their heads lower than the side of the basket.

(Important Note - the Cameron Balloons Flight Manual now applies to LBL)

Kubicek

Hold on to rope handles to maintain landing position. Stand with legs together and with their knees slightly bent and head level with the basket top padding. Keep feet flat on the basket floor. Keep hands and arms within the basket.

For fast landing or collision- stay low in the basket and bend knees. Heads always below the upper rim of the basket, hold on the rope handles with both hands. Place as many passengers as possible to the rear side of the basket. In open baskets heavier persons need to be placed first in the direction of flight. Sideways position is the most favourable but difficult to achieve due to limited space. If the sideways position is not possible, the persons placed first should also be oriented backwards to the direction of flight.

I hope that this article has been useful, and if it provokes thought and debate on the subject then this can only be a good thing!

Many thanks to Kevin Meehan, Chris Dunkley, Andy Austin and Glen Everett for their invaluable contributions to this article.

Mark Stelling - BBAC Safety Officer

The Air Navigation (Amendment) Order 2021

The Air Navigation (Amendment) Order 2021 (SI 2021 No. 879) will come into force on 19 August 2021, except for the en-route obstacles provisions which will enter into force on 6 September 2021.

For full details see The Air Navigation (Amendment) Order 2021 (SI 2021 No. 879) which identifies the changes this Order makes to the Air Navigation Order 2016 ("ANO"). Further information can be found in the Explanatory Memorandum to The Air Navigation (Amendment) Order 2021.

For more information please see the following links.

[The Air Navigation \(Amendment\) Order 2021](#)

[Explanatory Memorandum to The Air Navigation \(Amendment\) Order 2021](#)

Airspace Infringements: review and actions update

[Airspace Infringements: review and actions \(CAP1404\)](#) has been amended to highlight the CAA's audit and safety assurance functions of the Infringement Co-ordination Group (ICG), and introduces the option for those provisionally suspended by the CAP1404 process to request a review of that decision. These changes take effect from publication of this amendment to CAP1404 on 2 August 2021.

As well as this new review process we are continuing to assess other options for stakeholders to have certain CAA decisions reviewed, in line with our new regulatory principles.

Read more on airspace infringements: [Airspace infringements | UK Civil Aviation Authority \(caa.co.uk\)](#)