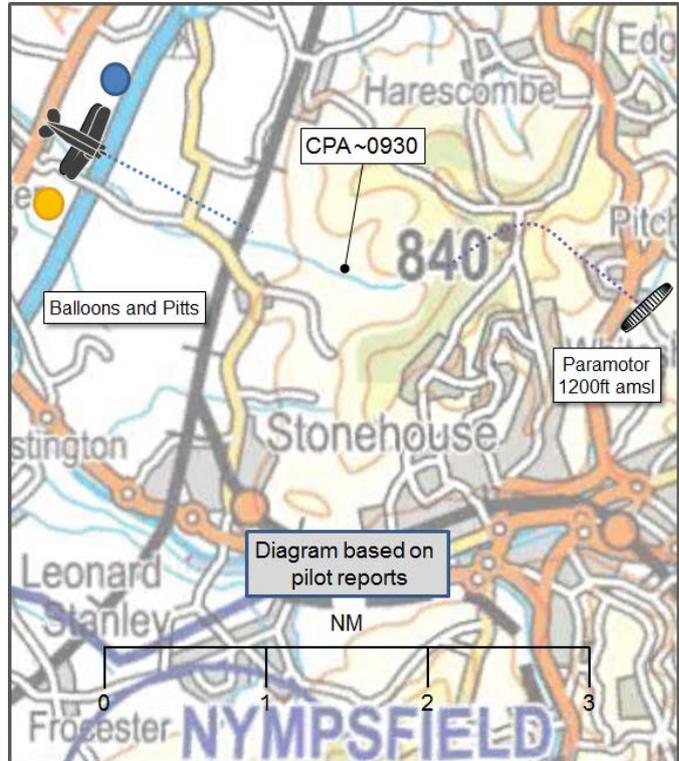


**AIRPROX REPORT No 2016214**

Date: 10 Oct 2016 Time: 0930Z Position: 5146N 00215W Location: IVO Stroud

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	Paramotor	Pitts S2S
Operator	Civ Pte	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Transponder	Not fitted	A
<b>Reported</b>		
Colours	Red, Orange, White	Blue, Red, White Stripe
Lighting	HI strobe	
Conditions	VMC	VMC
Visibility	>10km	10km
Altitude/FL	1243ft	2000ft
Altimeter	QNH	QNH
Heading	223°	180°
Speed	36kt	110kt
ACAS/TAS	Not fitted	Not fitted
<b>Separation</b>		
Reported	200ft V/2nm H	600ft/1000m
Recorded	NK	



**THE PARAMOTOR PILOT** reports that he left his airfield and flew north-west towards the ‘Cotswold edge’ escarpment of Severn Valley. He spotted a balloon and flew towards it, intending to wave hello from a reasonable distance. The visibility of the escarpment was ‘gin-clear’, but the valley below 1000ft AMSL was murky with wisps of light cloud on the escarpment edge. Drawing nearer he could see that in fact it was two balloons flying in close formation, a blue balloon to the north and an orange/gold balloon to the south. Once about 3nm away he could see that they were joined together by a piece of rope between the baskets. He then saw a strobe and spotted a red R22 helicopter formatting close to the balloons, and what he thought was a red drone or an RC aircraft to the far west of them. He estimated they were all at about 1000ft. Not wanting to go any closer he turned left from roughly 300° to 230° and observed. He then saw the drone rapidly resolve into a sports biplane, coming towards him through the gap in the balloons, trailing display smoke. It took him a moment to realise it was a real aircraft and not a model; he was slightly above the balloons and the biplane was closing fast. He couldn’t determine the biplane’s intentions, so he made a hard left turn towards the hillside, reducing power and descending. He then flew away to the north-east, making observational turns and could see that the biplane continued to fly around the balloons for several minutes. The orange/gold balloon then descended and the blue balloon continued south, but he lost sight of the biplane.



He assessed the risk of collision as ‘Low’.

**THE PITTS PILOT** reports that he was in formation with two balloons. He was visual with the paraglider and avoided it, he did not consider the event to be an Airprox, although he could understand that the paraglider pilot was concerned that turbulence could affect his flight.

He assessed the risk of collision as 'None'.

## **Factual Background**

The weather at Gloucestershire airport was recorded as follows:

METAR EGBJ 100920Z 00000KT 9999 FEW014 09/08 Q1028=

## **Analysis and Investigation**

### **UKAB Secretariat**

The Paramotor and Biplane pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>1</sup>. In a converging situation the biplane pilot was required to give way to the paramotor<sup>2</sup>, which is classed as a sailplane for collision avoidance purposes.

## **Comments**

### **BHPA**

In light of the distances involved, this looks like a sighting report. However the surprise of finding a fixed-wing aircraft appearing from between two unusually closely spaced balloons could have been removed by the issuing of a suitable NOTAM warning of this unusual aerial activity and its associated camera-ship helicopter.

## **Summary**

An Airprox was reported when a Paramotor and a Biplane flew into proximity at 0930 on Monday 10<sup>th</sup> October 2016. Both pilots were operating under VFR in VMC, neither were receiving an ATS.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available consisted of reports from the pilots of both aircraft.

The Board first looked at the actions of the Paramotor pilot. Noting that he could see the balloons from a distance, he had flown closer to them to 'wave hello' and the Board cautioned pilots against doing this because, without fully knowing what the other pilots' intentions were, there is always an element of risk of being surprised by their actions. That said, on this occasion the Paramotor pilot had not ventured too close to the balloons themselves, and his reported distance of 2nm separation would likely not be considered a problem by many pilots. Unfortunately, he had been taken by surprise by the associated Pitts and, once he had realised this was not a model, he took the appropriate action to ensure separation.

The Pitts pilot was under-taking a publicity stunt with the two balloons as a pre-briefed activity and was entitled to operate where he did. The Board noted that he had seen the Paramotor and had been content with the separation. Noting the BHPA's comment about whether a NOTAM was advisable, the Board were told that the Balloon pilots had sought advice from the CAA GA section about this particular flight profile and that a NOTAM had not been required, as normal for balloons in free flight.

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

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<sup>1</sup> SERA.3205 Proximity.

<sup>2</sup> SERA.3210 Right-of-way (c)(2)(i) Converging.

- **ATC conflict and detection** had been **inapplicable** because neither pilot was receiving an ATS.
- **Onboard warning/collision avoidance equipment** was also **inapplicable** because neither aircraft were fitted with electronic conspicuity systems.

Finally, turning to the cause and risk, the Board quickly agreed that this had been a sighting report and although it met all the criteria for reporting an Airprox, it represented normal operations in Class G airspace; normal safety standards had pertained and the risk was assessed as Category E.

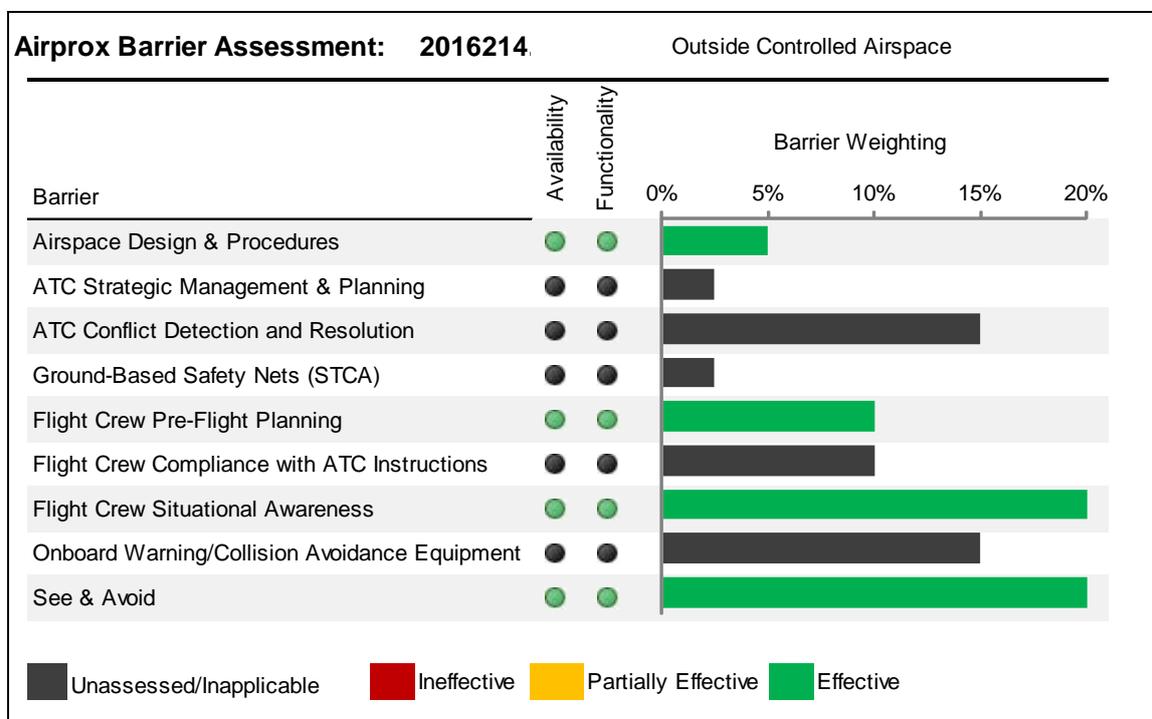
### **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: A Sighting Report.

Degree of Risk: E.

Barrier Assessment<sup>3</sup>:

Modern safety management processes employ the concept of safety barriers that prevent contributory factors or human errors from developing into accidents. Based on work by EASA, CAA, MAA and UKAB, the following table depicts the barriers associated with preventing mid-air-collisions. The length of each bar represents the barrier's weighting or importance (out of a total of 100%) for the type of airspace in which the Airprox occurred (i.e. Controlled Airspace or Uncontrolled Airspace).<sup>4</sup> The colour of each bar represents the Board's assessment of the effectiveness of the associated barrier in this incident (either Fully Effective, Partially Effective, Ineffective, or Unassessed/Absent). The chart thus illustrates which barriers were effective and how important they were in contributing to collision avoidance in this incident.



<sup>3</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#)

<sup>4</sup> Barrier weighting is subjective and is based on the judgement of a subject matter expert panel of aviators and air traffic controllers who conducted a workshop for the UKAB and CAA on barrier weighting in each designation of airspace.