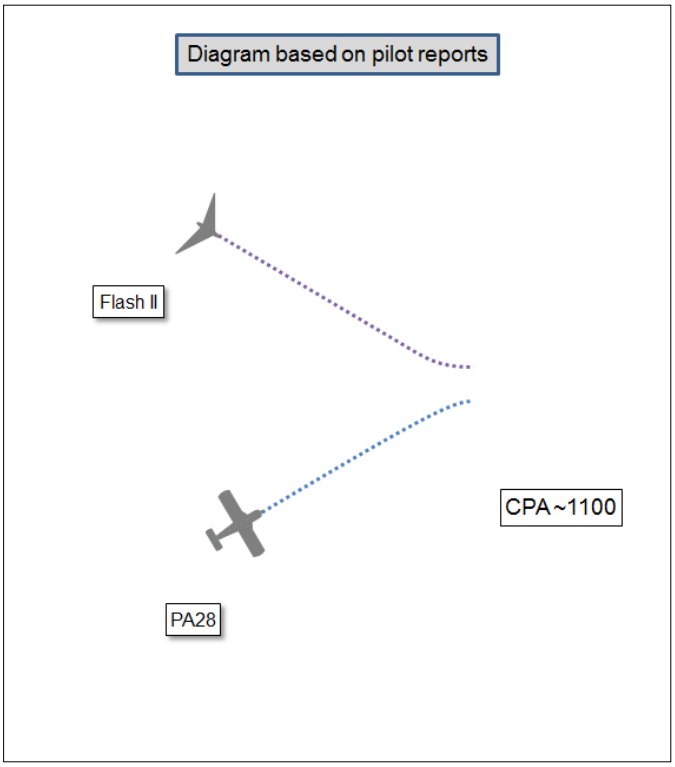
AIRPROX REPORT No 2017224

Date: 02 Sep 2017 Time: 1100Z Position: 5240N 00224W Location: Shifnal airfield (elev – 410ft)

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA28	Flash II Alpha
Operator	Civ Club	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	None
Provider	Cosford	N/A
Altitude/FL	NK	NK
Transponder	Selected off	Not fitted
Reported		
Colours	Blue/white	White/red
Lighting	Strobes	NK
Conditions	VMC	VMC
Visibility	25nm	>10km
Altitude/FL	2000ft	1200ft
Altimeter	QFE (1015hPa)[1]	QFE (NK hPa)[2]
Heading	060°	120°
Speed	100kt	50kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	NK V/15m H	100ft V/250m H
Recorded	NK	



THE PA28 PILOT reports that as he passed abeam Shifnal microlight site, well clear just off the right wing, he instructed his passengers to keep a good lookout. As the airfield positioned approximately in the right-rear quarter, the front-left-seat occupant called out and the pilot immediately saw the underside of a red-bodied microlight in the front-left quarter at the same height. He instinctively made a descending diving turn to the right, loosing approximately 500ft. He looked out for the microlight whilst descending and saw it position to return and land at Shifnal microlight site.

He assessed the risk of collision as 'High'.

THE FLASH II ALPHA PILOT reports that prior to his flight he confirmed with a club member at Shifnal Microlight Club that nearby RAF Cosford had been informed of the club's intention to fly microlights throughout that day. The pilot noted that the club 'is an area of intense microlight activity' and that they have an agreement to inform RAF Cosford Tower of their intention to operate prior to flying at the start of the day. He departed from Shifnal for a local flight at 1015 and was returning back to a position 300-400m northwest of the airfield when, at approximately 1115, he saw a PA28, 300-500m to his right, about 100ft above, 300-400m due west of the centre of the Airfield, and heading towards him. He immediate banked left, descended by 100ft and saw the PA28 enter a left (sic) turn.

He assessed the risk of collision as 'Medium'.

THE COSFORD SATCO reports that Cosford Air Traffic Control was not manned that day due to it being the weekend. The Cosford Powered Flying Club were working 'air traffic unmanned' procedures as laid down in the Cosford Flying Order Book. The SATCO was unaware of the callsigns of the aircraft involved or whether or not they were informed that Shifnal Microlight Airfield was active.

[1] The Cosford QFE.
[2] The Shifnal QFE.

Factual Background

The weather at Birmingham was recorded as follows:

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METAR EGBB 021120Z VRB01KT 9999 SCT033 17/09 Q1022=
METAR EGBB 021050Z VRB03KT 9999 FEW025 SCT034 16/10 Q1022=
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Analysis and Investigation

UKAB Secretariat

The PA28 and Flash II pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[3]. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation[4].

Neither aircraft appeared as either a primary or secondary return on NATS area radar.

Summary

An Airprox was reported when a PA28 and a Flash II flew into proximity at 1100 on Saturday 2nd September 2017. Both pilots were operating under VFR in VMC, the PA28 pilot listening out on Cosford Tower frequency and the Flash II pilot not in receipt of a Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots.

Members first discussed the pilots' actions and noted that the PA28 pilot appeared to be in the vicinity of the Shifnal visual circuit. Members agreed that his reported altitude of 2000ft agl was most likely based on his setting of the Cosford QFE. With Cosford airfield elevation of 271ft and Shifnal airfield elevation of approximately 410ft, the PA28 pilot was probably at a height of about 1850ft above Shifnal. As such, it appeared that he was clear of the microlight circuit although some members thought that he would have been better served by remaining further clear of the area, at least laterally. The Flash II pilot reported being at a height of 1200ft, which would have placed him some 650ft below the PA28. Members discussed the disparity in reported height at some length and in the absence of Mode C, S or GPS log information were unable to reach a definitive conclusion. However, members noted that both pilots agreed that they were effectively co-altitude at CPA and so it was clear that the 2 aircraft had been in closer proximity vertically than the reported heights suggested. It was agreed that pilots should pay particular attention to effective and robust lookout when in the vicinity of a known airfield.

Given the disparity between each pilot's reported minimum horizontal separations, and with no radar or ATC information available, some members wondered whether the PA28 pilot had seen a different aircraft to the Flash II. After further discussion it was noted that the PA28 had been able to describe the underside of the Flash II and had talked of instinctively making a descending diving turn at 250m separation. This matched the Flash II pilot's report (other than the direction of PA28 turn which may have been incorrectly reported) and indicated that it probably was the Flash II that the PA28 pilot had seen. Additionally, both pilots had reported the same time and location of the Airprox. The Flash II pilot's assessment of 15m separation indicated a very close encounter indeed and some members wondered if startle-factor may have influenced his assessment given that he had reported initially seeing the PA28 at a range of 500m to his right. That being said, the PA28 may have come close as it dived and turned away, the PA28 pilot simply not being able to make a judgement as to minimum separation because he was blind to the Flash II in the turn.

[3] SERA.3205 Proximity.
[4] SERA.3225 Operation on and in the Vicinity of an Aerodrome.

Without any radar traces to analyse, the Board was unable to make a judgement as to the proximity of the incident to Shifnal airfield. After some further discussion as to the PA28 pilot's proximity to the Shifnal pattern of traffic, his responsibilities to avoid same, and whether this might be the cause of the incident, the Board agreed in the end that the uncertainty in the incident's location and height meant that it was probably best described as a late sighting by both pilots. Turning to risk, and again after much discussion, members reluctantly agreed that given the disparity between each pilots' assessments of separation there was insufficient information with which to make a determination of risk.

PART C: ASSESSMENT OF CAUSE, RISK AND SAFETY BARRIERS

Cause: A late sighting by both pilots.

Degree of Risk: D.

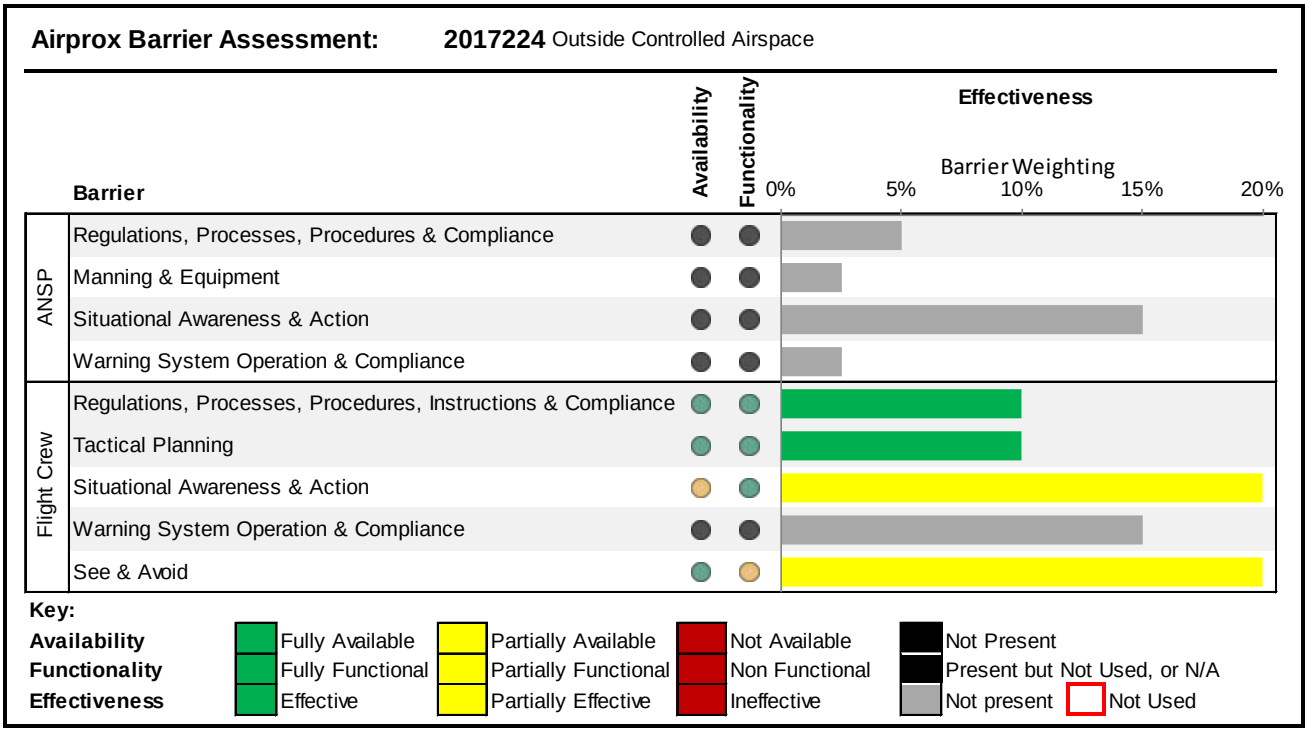
Safety Barrier Assessment[5]

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

Flight Crew:

Situational Awareness and Action were assessed as **partially effective** because neither pilot was aware of the other until a late stage, when avoiding action had to be taken.

See and Avoid were assessed as **partially effective** because although both pilots saw the other aircraft, it was at a late stage and avoiding action was required.



[5] The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the UKAB Website.