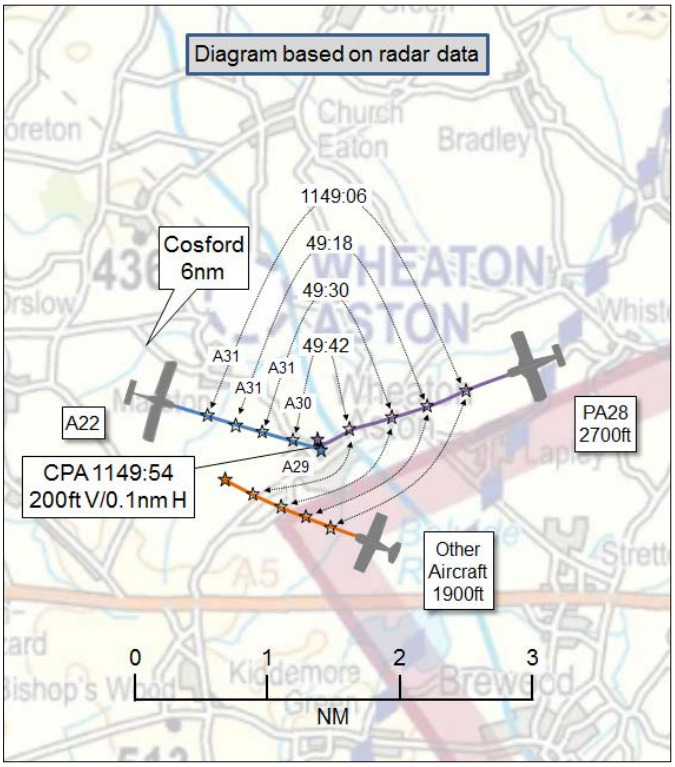
AIRPROX REPORT No 2017059

Date: 08 Apr 2017 Time: 1150Z Position: 5243N 00213W Location: 6nm NE Cosford

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Foxbat	PA28
Operator	Civ Pte	Civ Club
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Provider	N/A	N/A
Altitude/FL	3000ft	2800ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Blue, silver	White, red
Lighting	Strobes	NK
Conditions	VMC	VMC
Visibility	30nm	>10km
Altitude/FL	2500ft	2700
Altimeter	QNH (1021hPa)	NK
Heading	090°	NK°
Speed	60kt	95kt
ACAS/TAS	TAS	Not fitted
Alert	None	N/A
Separation		
Reported	0ft V/200m H	Not seen
Recorded	200ft V/0.1nm H	



THE FOXBAT PILOT reports descending towards Otherton when he had a warning from his 'PilotAware' [Traffic Awareness System (TAS)] of traffic 200ft below. Since GPS altitudes are often in error by more than that he checked and identified traffic at his 2 o'clock and well below him. When he turned back he saw the underside of the subject aircraft at his 10 o'clock, banking hard right and passing behind him. The pilot noted that had the other pilot not taken action it is unlikely he would have had time to react sufficiently and that he was eternally grateful to them.

He assessed the risk of collision as 'High'.

THE PA28 PILOT reports conducting a 310nm round trip on a very hazy day but with bright sunshine. Both he and his passenger saw a large number of aircraft on that day but neither recalled being in such proximity to another aircraft that it was reportable.

Factual Background

The weather at Birmingham was recorded as follows:

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METAR EGBB 081150Z 20007KT 170V230 CAVOK 16/05 Q1023=
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Analysis and Investigation

UKAB Secretariat

The Foxbat and PA28 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard[1]. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right[2]. If the incident geometry is considered as converging then the PA28 pilot was required to give way to the Foxbat[3].

Summary

An Airprox was reported when a Foxbat and a PA28 flew into proximity at 1150 on Saturday 8th April 2017. Both pilots were operating under VFR in VMC, neither in receipt of an Air Traffic Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots and radar photographs/video recordings.

Members first discussed the actions of the Foxbat pilot and noted that he had been using the PilotAware TAS. The system had provided warning of the aircraft approaching from the right 2 o'clock but the Board were unable to ascertain why no warning had been generated for the converging PA28 or whether the Foxbat pilot had not assimilated a warning. It was stressed that this was not a comment on the PilotAware system but that variables such as antenna location could have a marked effect on performance. Whatever the reason, it was unfortunate that the Foxbat pilot was not aware of the converging PA28 and that his attention had been directed to the right, away from the converging aircraft. The PA28 pilot reported that neither he nor his passenger had seen an aircraft in such proximity that it was reportable. Members commented that the radar picture showed the PA28 making a 90° right turn at CPA followed by a 90° left turn back to track, but accepted that this could equally have been coincidental. Some members commented that a Traffic Service would probably have improved both pilots SA but that provision of such service may not have been possible on a busy weekend afternoon. In the event, the Board agreed that the Foxbat pilot hadn't seen the PA28 until at or just after CPA, effectively a non-sighting, and the PA28 pilot had reported not seeing the Foxbat at all. Although the radar picture indicated 200ft vertical separation, the Foxbat pilot's vivid description of the event and the possibility of error in transponder altitude encoders convinced the Board that the aircraft had been in close vertical and horizontal proximity and, given the PA28 pilot's coincidental turn away from the Foxbat, it was agreed that collision had only been avoided by providence.

PART C: ASSESSMENT OF CAUSE, RISK AND SAFETY BARRIERS

Cause: A non-sighting by the PA28 pilot and effectively a non-sighting by the Foxbat pilot.

Degree of Risk: A.

[1] SERA.3205 Proximity.
[2] SERA.3210 Right-of-way (c)(1) Approaching head-on.
[3] SERA.3210 Right-of-way (c)(2) Converging.

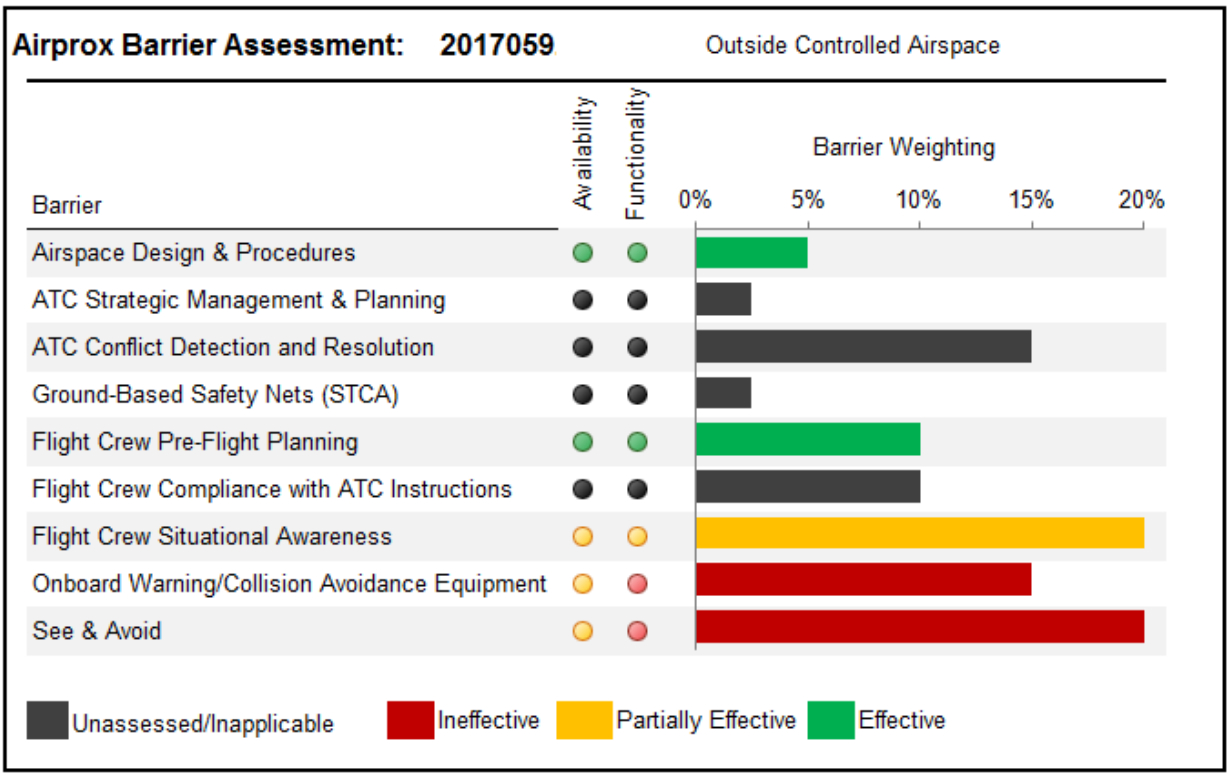
Safety Barrier Assessment[4]

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 was assessed as **partially effective** because the Foxbat pilot had received a warning on his TAS and so was aware of aircraft generally in the area.

Onboard Warning/Collision Avoidance System was assessed as **ineffective** because the PA28 was not fitted with a TAS and the Foxbat system did not detect the transponding PA28.

See and Avoid was assessed as **ineffective** because neither pilot saw the other aircraft in time to take avoiding action.



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