AIRPROX REPORT No 2018279

Date: 13 Sep 2018 Time: 1239Z Position: 5157N 00046W Location: 1nm SW Milton Keynes

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA34	Glider
Operator	Civ FW	Civ Gld
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	VFR
Service	Traffic	
Provider	Oxford	
Altitude/FL	4000ft	NK
Transponder	A, C, S	Not fitted
Reported		
Colours	White, Blue	
Lighting	Strobe, Nav, Anti-Col	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	4000ft	
Altimeter	QNH	
Heading	230°	
Speed	140kt	
ACAS/TAS	TAS	
Alert	None	
Separation		
Reported	200ft V/0nm H	N/K
Recorded	NK V/0.1nm H	

THE PA34 PILOT reports that Oxford Radar had passed Traffic Information, but they did not see the glider until it was at a very close range, just above and ahead of him. They passed the glider within 3 to 4 secs. There was no risk of collision, but the proximity didn't allow for much time to react.

He assessed the risk of collision as 'None'.

THE GLIDER PILOT reports that he was in the area of the reported incident but does not recall anything unusual that caused him concern regarding the close proximity of a powered aircraft or anything that required him to take any evasive action.

Factual Background

The weather at Cranfield was recorded as follows:

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METAR EGTC 131220Z 27006KT 220V300 9999 SCT042 17/08 Q1022
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Analysis and Investigation

UKAB Secretariat

The PA34 and Glider 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].

[1] SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.
[2] SERA.3210 Right-of-way (c)(1) Approaching head-on. MAA RA 2307 paragraph 13.

Comments

PA34's Operating Company

The PA34's operating company reported that the PA34 was conducting an instrument training flight and was transiting IFR, in Class G airspace back towards Oxford. The conditions were hazy, and the aircraft was flying into the sun. The student was operating under 'simulated IMC' using an instrument hood and the instructor was responsible for lookout. The airspace was busy with multiple other traffic in the area. The mitigations which were employed by the crew against the mid-air collision risk were:

1. They were operating under a Traffic Service.
2. The instructor was maintaining a visual lookout scan.
3. The aircraft was equipped with a TAS, which had been tested as serviceable as per checklist.
4. The rear-seat student observer was also helping with look-out iaw their SOPs.

The instructor responded to the traffic information from Oxford Radar by looking for the glider but didn't acquire it visually until it was already too late to make any useful manoeuvre as the glider passed. The rear-seat student observer did not see the glider either. No TAS alert was generated. Although Oxford Radar detected the glider and passed Traffic Information, neither the instructor nor the rear-seat observer acquired the glider visually until a late stage. Gliders can be, as is well known, notoriously difficult to acquire visually due to their small frontal profile and generally white colour which provides low contrast. No TAS alert was generated presumably because the glider was not transponding. This occurrence provides further evidence of the need for effective, standardised, electronic conspicuity means as an adjunct to visual 'see-and-avoid'.

Summary

An Airprox was reported when a PA34 and a Glider flew into proximity at 1239hrs on Thursday 13th September 2018. The PA34 pilot was operating under IFR in VMC and in receipt of a Traffic Service from Oxford.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings and reports from the appropriate operating authorities.

The Board began by looking at the actions of the PA34 pilot. He was conducting an instrument training flight with the student flying under an instrument hood; the instructor was responsible for lookout. GA members commented that the student's instrument hood and the hazy conditions would both have served to compromise his lookout to an extent, and the Board agreed that the hazy into-sun conditions would have been contributory to the PA34 pilot seeing the glider later than normal. Unusually, the glider had been displayed on the Oxford controller's radar and the controller had passed Traffic Information to the PA34 pilot. Some members wondered if the PA34 pilot should have altered his course based on this Traffic Information but it was agreed that, given the associated lack of altitude information, the contact could have been at any height and so they could understand why the instructor had opted to redouble his lookout efforts instead.

The Board then turned to the actions of the glider pilot. Some members noted that he was operating in the vicinity of Cranfield's approach path and wondered whether he would have been better placed being in contact with them. Recognising that the PA34 pilot was not in contact with Cranfield anyway, a discussion ensued about when it would be prudent to contact an aerodrome ATSU. The Board noted that the current advice on the VFR chart and UK AIP was that pilots intending to fly within 10nm of any part of the IAP symbol (the feathers) were strongly advised to contact the associated aerodrome ATSU. Noting that this was only advice, and that it was the responsibility of pilots to determine when it would be prudent to contact the relevant ATSU, the Board wondered about the practicality of such advice

given that it inferred a need to do so when within a 20nm wide lozenge orientated on the relevant runway; pilots could find themselves doing little else than talking to associated ATSUs in some of the more congested parts of the UK. Ultimately, the glider pilot did not recollect being in close proximity to another aircraft, so the Board concluded that he may not have seen the PA34 flying in the opposite direction, the Glider member reinforced this conclusion by commenting that if the PA34 had been very close then the glider pilot would probably have heard it.

The Board then turned to the cause of the Airprox and agreed that the hazy conditions had reduced the PA34 pilot's ability to see the glider earlier, and that this had contributed to the Airprox. Noting also that the glider pilot had reported not being aware of another powered-aircraft close by, the Board accordingly agreed that the cause of the Airprox was a late sighting by the PA34 pilot and a non-sighting by the glider pilot. Turning to the risk, members agreed that the PA34 pilot had seen the glider and that, with 3-4secs to go before they passed, had been able to assess that there was no requirement to take any action. Coupled with the fact that the glider pilot would likely have heard the PA34 if it had come close, the Board considered that, although safety had been degraded, there had been no risk of collision; risk Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the PA34 pilot and a non-sighting by the glider pilot.

Contributory Factor(s): The hazy conditions reduced the PA34 pilot's ability to see the glider earlier.

Degree of Risk: C.

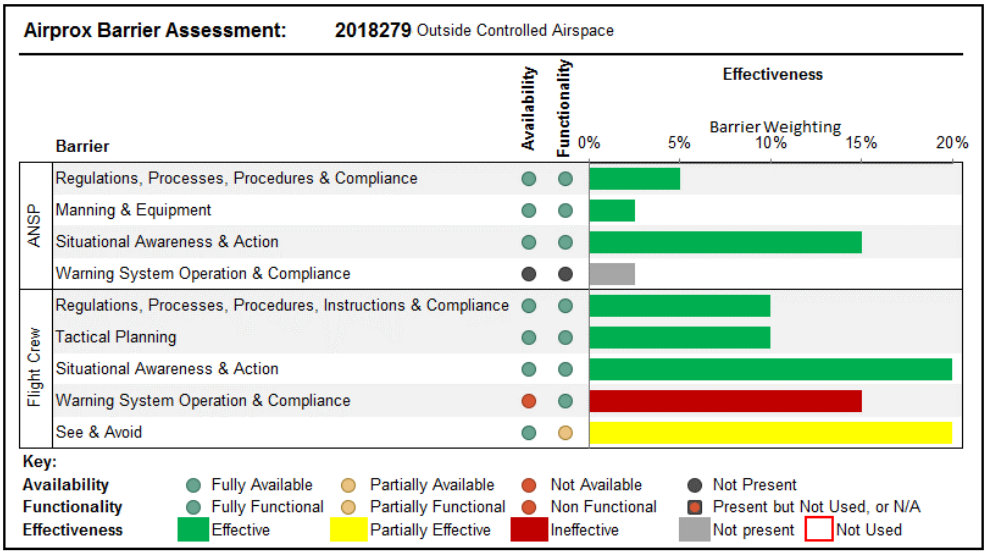
Safety Barrier Assessment[3]

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

Flight Crew:

Warning System Operation and Compliance were assessed as **ineffective** because the PA34's TAS could not detect the non-transponding Glider.

See and Avoid were assessed as **partially effective** because the PA34 pilot saw the glider late. It is not known for certain if the glider pilot saw the PA34 but it is assumed not.



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