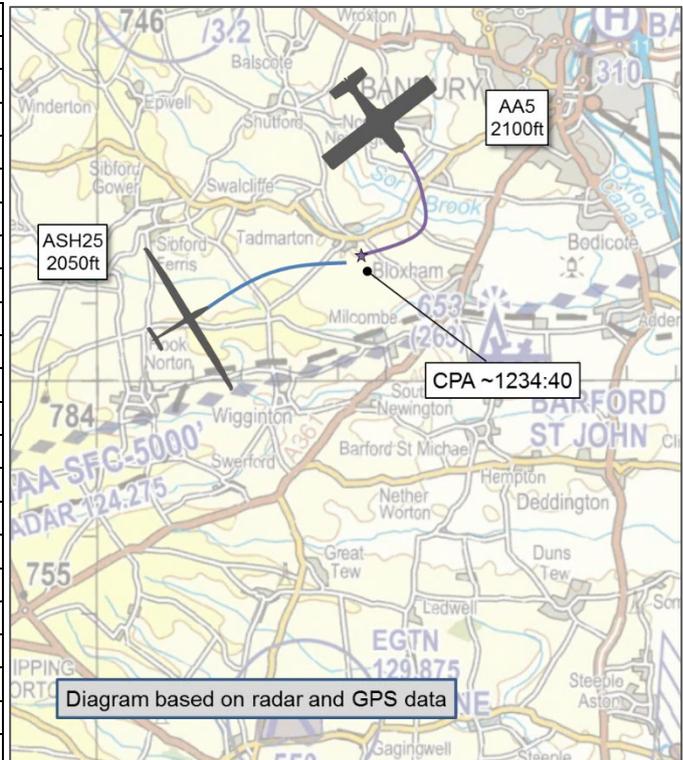


AIRPROX REPORT No 2019058

Date: 12 Apr 2019 Time: 1234Z Position: 5201N 00124W Location: 3nm SW Banbury

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASH25 Glider	AA5
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Provider		
Altitude/FL	2050ft amsl	2100ft
Transponder	Off (Disabled)	A, C
Reported		
Colours		White, Blue
Lighting		Nav, Beacon
Conditions	VMC	VMC
Visibility	>10km	
Altitude/FL	2100ft	2300ft
Altimeter	QNH	NK
Heading	060°	WSW
Speed	60kt	
ACAS/TAS	FLARM	Not fitted
Alert	None	N/A
Separation		
Reported	0ft V/10m H	Not Seen
Recorded	NK	



THE ASH25 GLIDER PILOT reports that he had flown out to Hereford and was returning to his base in weakening soaring conditions. At the time of the Airprox he was flying straight-and-level and was considering calling Hinton with a view to starting the engine in their circuit. Conditions were VMC, but fairly gloomy. He was at around 1600ft and reviewing the flight instruments for glide information to Hinton; he had set their frequency, although not yet called on it. He was starting to review available field options, but was still scanning outside. He suddenly sighted the other aircraft at the last minute and rolled very hard to the right and also pulled back. The glider is a two seater tandem, he was the handling pilot in the front seat, the pilot in the back did not see the other aircraft (it would have been obscured by the front seat pilot) but he clearly heard its engine as it passed just below and to the left. The handling pilot believed that had he not taken avoiding action they would have collided head-on.

He noted that the glider was equipped with a transponder but an agreement with Luton (at the time) meant that they did not turn it on when flying out of Dunstable.

He assessed the risk of collision as 'High'.

THE AA5 PILOT reports that he couldn't remember the exact details of the flight and he had no recollection of flying close to another aircraft. He flew to the north of Banbury, flying directly over Shotteswell air strip before flying west towards Chipping Campden. The weather was scattered broken cloud, and he was flying between 1700-2300ft. The cloud was well above his level and the visibility was good. He was alone in the plane, so there were no distractions, and he was navigating visually with the occasional reference to a map, he did not have a GPS with him. He wasn't following a rigid pre-planned route; he executed a 360° turn at Wroxton and, although he recalled being further north than the reported Airprox, it was possible that he was further south than he remembered. He was not aware of any on-coming traffic and thought the flight uneventful. He felt sure he would have seen another aircraft in close proximity and reported feeling unsettled that he may not have done. He

encountered no problems with the plane, the work-rate was low and he is familiar with the area, so there was no significant 'head-down' time. His eyesight had been tested in a medical the week before and was good.

Factual Background

The weather at Oxford was recorded as follows:

METAR EGTK 121220Z 09007KT 9999 SCT040 09/01 Q1026=

Analysis and Investigation

UKAB Secretariat

The ASH25 and AA5 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right². If the incident geometry is considered as converging then the AA5 pilot was required to give way to the glider³.

Summary

An Airprox was reported when an ASH25 and an AA5 flew into proximity in the vicinity of Banbury at 1234hrs on Friday 12th April 2019. Both pilots were operating under VFR in VMC, neither in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft and radar photographs/video recordings. Relevant contributory factors mentioned during the Board's discussions are highlighted within the text in bold, with the numbers referring to the Contributory Factors table displayed in Part C.

The Board first discussed the fact that the ASH25's transponder was reported as 'off'. They were told that the gliding club that the pilot belonged to was concerned that gliders returning to base whilst wearing a 7000 squawk could cause issues for ATC at the local airport, who would need to apply separation against them for CAT traffic. In an effort to be helpful to the airport they had issued guidance to club members telling pilots to disable their transponders. Since this Airprox the gliding club had reviewed its position and were in the process of writing new procedures which would instruct glider pilots to squawk 7010 when close to, or inside CAS. Although the lack of a transponder did not materially affect this Airprox (because the AA5 was not fitted with a CWS) it did in another Airprox soon after (2019060). Although heartened to hear there had been a change of policy, the Board expressed its serious concern about clubs advising pilots to disable transponders, even though well-intentioned.

Looking at the actions of the ASH25 pilot, members noted that at the time of the Airprox he was searching for lift, considering starting his engine and was setting up the frequency ready to call Hinton. Although he reported that this didn't affect his look-out, the Board noted that he would have been busy at this point and was probably distracted by the task in hand (**CF3**). Although the glider was fitted with FLARM, this was not capable of detecting the transponder on the AA5 (**CF4**) and so the glider pilot had no prior notification that the AA5 was approaching (**CF2**) until he saw it at the last minute and was able to take emergency avoiding action (**CF6**).

For his part the AA5 pilot was on a local flight, he knew the area well and reported that his work-rate was low. The Board thought that it may have been a good idea to call an ATC unit such as Brize, even if only for a Basic Service because being on a frequency may have given him generic information about

¹ SERA.3205 Proximity..

² SERA.3210 Right-of-way (c)(1) Approaching head-on..

³ SERA.3210 Right-of-way (c)(2) Converging..

other pilots in the area (**CF1**) (although it was also noted that on this occasion the glider was also not receiving an ATS and there was little chance that ATC would see a glider on the radar). The AA5 did have a serviceable transponder, although it was not fitted with a CWS so, again, the pilot did not have any situational awareness about the glider (**CF2, CF4**) and the AA5 pilot did not see the glider at all (**CF5**) and therefore could not take any avoiding action.

In assessing the risk the Board quickly agreed that this had been a very close encounter and that even though the glider pilot had managed to take last-ditch emergency avoiding action, they agreed that there had been a serious risk of collision; Category A.

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

CF	Factor	Description	Amplification
	Flight Elements		
	• Tactical Planning and Execution		
1	Human Factors	• Communications by Flight Crew with ANS	Appropriate Surveillance-based ATS not requested by pilot
	• Situational Awareness of the Conflicting Aircraft and Action		
2	Contextual	• Situational Awareness and Sensory Events	Pilot had no, or only generic, or late Situational Awareness
3	Human Factors	• Distraction - Job Related	Pilot was distracted by other tasks
	• Electronic Warning System Operation and Compliance		
4	Technical	• ACAS/TCAS System Failure	Incompatible CWS equipment
	• See and Avoid		
5	Human Factors	• Monitoring of Other Aircraft	Non-sighting by one or both pilots
6	Human Factors	• Monitoring of Other Aircraft	Late-sighting by one or both pilots

Degree of Risk: A.

Safety Barrier Assessment⁴

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

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any awareness of the other prior to the incident.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the FLARM could not detect the transponder on the AA5 and the AA5 was not fitted with a CWS.

See and Avoid were assessed as **partially effective** because the AA5 pilot did not see the glider at all and the ASH25 pilot only saw the AA5 at the last minute and could only take late 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](#).

Airprox Barrier Assessment: 2019058		Outside Controlled Airspace						
Barrier		Provision	Application	Effectiveness				
				Barrier Weighting				
				0%	5%	10%	15%	20%
Ground Element	Regulations, Processes, Procedures and Compliance	○	○					
	Manning & Equipment	○	○					
	Situational Awareness of the Confliction & Action	○	○					
	Electronic Warning System Operation and Compliance	○	○					
Flight Element	Regulations, Processes, Procedures and Compliance	●	●					
	Tactical Planning and Execution	●	●					
	Situational Awareness of the Conflicting Aircraft & Action	⊗	●					
	Electronic Warning System Operation and Compliance	⊗	⊗					
	See & Avoid	⚠	⚠					
Key:		<u>Full</u>	<u>Partial</u>	<u>None</u>	<u>Not Present</u>	<u>Not Used</u>		
Provision	●	⚠	⊗	○	○			
Application	●	⚠	⊗	○	○			
Effectiveness	■	■	■	■	□			