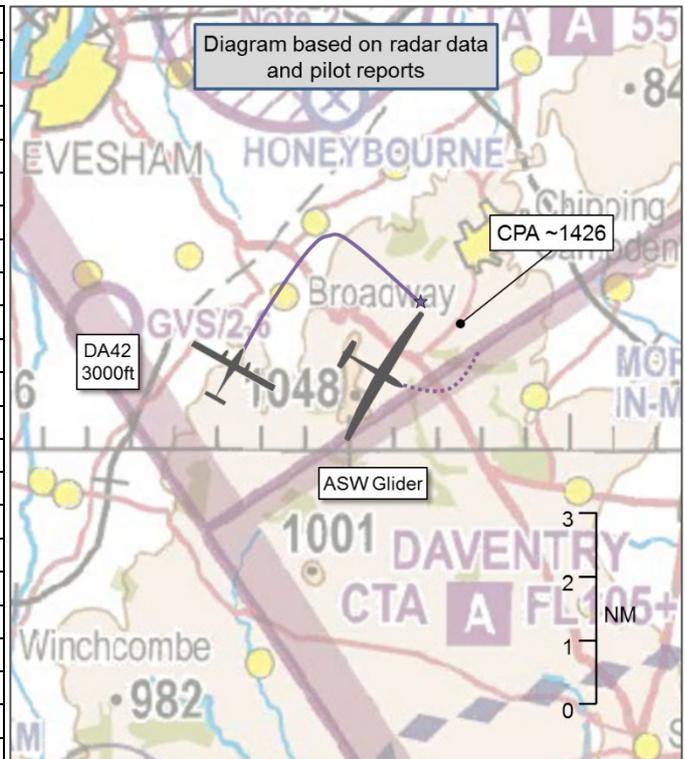


AIRPROX REPORT No 2019196

Date: 15 Jul 2019 Time: 1426Z Position: 5200N 00150W Location: 1nm SE Broadway

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASW glider	DA42
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Listening Out
Provider		Oxford
Altitude/FL		3000ft
Transponder	Not Fitted	A, C, S
Reported		
Colours	White	White
Lighting	Nil	Strobes
Conditions	VMC	VMC
Visibility	8km	25km
Altitude/FL	2900ft	3500ft
Altimeter	QFE	QNH (1022hPa)
Heading	030°	South-east
Speed	70kt	140kt
ACAS/TAS	FLARM	TAS
Alert	None	None
Separation		
Reported	200ft V/500m H	300-400ft V/1nm H
Recorded	NK	



THE ASW PILOT reports that he had been thermalling and had levelled out to continue on his intended track of 030° when he saw a white, twin-engine, light-aircraft. It approached from the left, at 90°, flying west-to-east and was about 200ft below. There was no need to take avoiding action because the other aircraft was in level-flight and below his aircraft. He noted that he had been conducting left turns, which meant that the other aircraft was in a blind-spot for a period of about 20-35secs.

The pilot assessed the risk of collision as 'High'.

THE DA42 PILOT reports that he was conducting an examination, with the student 'under the hood'. He saw the white glider about 3nm away in his 10 o'clock. He briefed the examinee not to turn left and monitored the glider's track; there was no risk of collision. He could see the glider flying straight following a series of turns and they passed each other port-side on.

The pilot assessed the risk of collision as 'None'.

Factual Background

The weather at Oxford was recorded as follows:

METAR EGTK 151420Z 06004KT 010V100 9999 SCT034 20/11 Q1022=

Analysis and Investigation

UKAB Secretariat

The ASW and DA42 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 converging then the DA42 pilot was required to give way to the glider².

Summary

An Airprox was reported when an ASW glider and a DA42 flew into proximity near Evesham at around 1426hrs on Monday 15th July 2019. Both pilots were operating under VFR in VMC, neither were in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots 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 actions of the glider pilot. They noted that he had been thermalling and was perhaps surprised to suddenly see the DA42 (**CF5**). He had no prior situational awareness about the other aircraft (**CF3**), and the FLARM on his aircraft was not compatible with the TAS on the DA42, nor could it see its transponder (**CF4**). Members noted that he had assessed that there was no need for avoiding action, even though he assessed the risk of collision as high (**CF6**).

Turning to the DA42 pilot, he was visual with the glider from some distance and had briefed his student not to turn left and was happy with the separation. Members noted that he was listening out on the Oxford frequency, but thought that he would have been better placed calling Brize for a service, (the designated LARS provider); acknowledging that gliders are not always detected on radars, they may have been able to provide information not only about gliders but also other aircraft (**CF1**, **CF2**). Without any appropriate ATS, a TAS that could not detect the glider (which didn't have a transponder), and no FLARM-compatible equipment (**CF4**), the DA42 pilot was reduced to visually sighting the glider as the only barrier to MAC. In this incident he was able to sight the glider in good time, but circumstances could easily have conspired to render the see-and-avoid barrier ineffective.

In assessing the risk the Board quickly agreed that there had been no risk of collision and that normal safety standards had pertained, risk Category E.

¹ SERA.3205 Proximity.

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

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISKContributory Factors:

	2019196		
CF	Factor	Description	Amplification
	Flight Elements		
	• Tactical Planning and Execution		
1	Human Factors	• Communications by Flight Crew with ANS	Appropriate ATS not requested by pilot
2	Human Factors	• Communications by Flight Crew with ANS	Pilot did not communicate with appropriate service provider
	• Situational Awareness of the Conflicting Aircraft and Action		
3	Contextual	• Situational Awareness and Sensory Events	Generic, late, no or incorrect Situational Awareness
	• 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	Late-sighting by one or both pilots
6	Human Factors	• Perception of Visual Information	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: E.

Safety Barrier Assessment³

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

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the DA42 pilot could have requested a surveillance-based ATS.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any situational awareness that the other aircraft was there until they sighted each other.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the two aircraft had incompatible systems.

³ 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: 2019196 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/Not Assessable</u>	<u>Not Used</u>		
Provision	●	●	●	●				
Application	●	●	●	●	○			
Effectiveness	■	■	■	■	□			