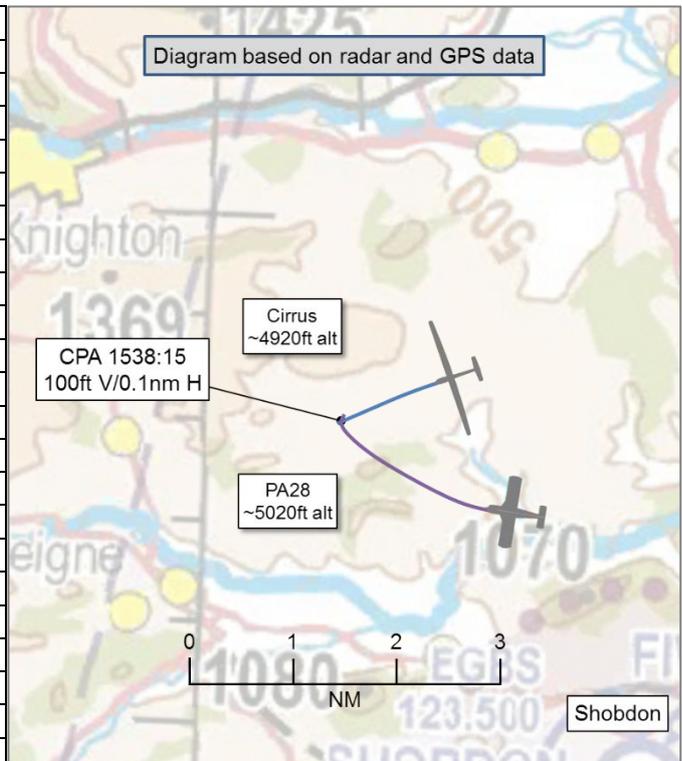


AIRPROX REPORT No 2019105

Date: 12 May 2019 Time: 1538Z Position: 5218N 00257W Location: 4.5nm NW Shobdon

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Standard Cirrus	PA28
Operator	Civ Glid	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Shobdon	London Info
Altitude/FL	~4920ft	~5020ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White	Red, white
Lighting	Not fitted	Strobe, nav
Conditions	VMC	VMC
Visibility	5nm	35km
Altitude/FL	3500ft	5000ft
Altimeter	QFE (NK hPa)	RPS (1035hPa)
Heading	~270°	340°
Speed	60kt	98kt
ACAS/TAS	FLARM	Not fitted
Alert	None	N/A
Separation		
Reported	100m V/100m H	0ft V/500m H
Recorded	100ft V/0.1nm H	



THE CIRRUS PILOT reports that he was a visiting glider pilot to Hereford GC and had first flown from the site the previous year. He was a Silver 'C' pilot and a BGA Basic Instructor. He was local soaring to the north of the Shobdon ATZ. It was a 'blue' day with thermals up to an inversion at around 5000ft, but visibility was good; he could see other gliders thermaling as specks in the far distance. There was slight haze as the inversion was approached, and he was in easy gliding range of Shobdon. He was not flying a particular heading but was heading approximately west at 60kt searching for possible thermal sources. Looking ahead, from wing-tip to wing-tip, the sky was clear of other aircraft. As he started to look left, to the south, he saw a light-aircraft traveling towards him from abeam the left wing in his left peripheral vision. Its wings were almost perpendicular to the horizon as it was making a hard-right climbing turn. It was sufficiently close for him to see that it was a silver or polished aluminium single-engine tail-dragger with red markings and with a side-by-side cockpit and low clipped elliptical wings. As it passed above and behind he clearly heard its engine.

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

THE PA28 INSTRUCTOR reports that they were in straight-and-level cruise on a fine-weather day. There were no suitable radar services available in the area so they were in receipt of a Basic Service from London Information. A white mid-wing glider was identified heading perpendicular to track and 200ft below. They broke right using a bank angle of 45° to 60° to pass behind. They did not consider the glider to be a threat. The training navigation flight was resumed. The instructor noted that the slender glider profile made it harder to see.

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

THE SHOBDON AND LONDON FISOs did not file reports.

Factual Background

The weather at Shobdon was recorded as follows:

METAR EGPB 121020Z 05006KT 010V080 CAVOK 11/06 Q1035=

Analysis and Investigation

UKAB Secretariat

Analysis of radar replay and GPS log file showed that the Cirrus and PA28 were in proximity at about the reported position, date and time specified in the Cirrus pilot's Airprox report. However, there were no tracks of tail-dragger aircraft in the vicinity at the time of the Airprox. Given the similarities between the Cirrus and PA28 pilots' descriptions of the event, it seemed possible that the Cirrus pilot had been mistaken about the other aircraft being a tail-dragger, and so the analysis was conducted on the basis that the PA28 was the aircraft in question.

The ASK21 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 hazard¹. If the incident geometry is considered as converging then the PA28 pilot was required to give way to the Cirrus glider². If the incident geometry is considered as overtaking then the Cirrus glider pilot had right of way and the PA28 pilot was required to keep out of the way of the other aircraft by altering course to the right³.

Summary

An Airprox was reported when a Standard Cirrus and probably a PA28 flew into proximity at 1538Z on Sunday 12th May 2019, 4.5nm northwest of Shobdon airfield. Both pilots were operating under VFR in VMC in receipt of a Basic Service: the Standard Cirrus pilot from Shobdon; and the PA28 pilot from London Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate operating authorities. 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 whether the correct powered-aircraft had been identified. The Cirrus pilot had described the other aircraft as '... a silver or polished aluminium single-engine tail-dragger with red markings and with a side-by-side cockpit and low clipped elliptical wings.'. Members questioned whether a nosewheel PA28 with rectangular wing plan-form could be perceived as a clipped elliptical wing tail-dragger. The Board was informed by the UKAB Secretariat that radar replay and the glider pilot's GPS log file indicated that the two aircraft had come into proximity to the degree stated and that this had occurred on that date 8 mins after the 'approximate time' reported. No other primary or secondary radar tracks were seen in proximity with the Cirrus. Consequently, the Board agreed that this PA28 was in all probability the subject aircraft and that the Cirrus pilot had likely mis-perceived the aircraft's configuration in the heat of the moment.

The PA28 pilot was in receipt of a Basic Service from London Information, which could not have afforded him SA on other traffic (**CF1**, **CF3**), and GA members wondered whether a call to Shobdon or a Traffic Service from Birmingham might have been more useful to him in gaining an understanding of local traffic, not least from other pilots' potential radio transmissions (**CF2**). Members noted that although the Cirrus was fitted with FLARM, it was incompatible with the PA28 transponder (**CF4**)

¹ SERA.3205 Proximity.

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

³ SERA.3210 Right-of-way (c)(3) Overtaking.

Notwithstanding, members noted that both pilots had ultimately seen each other, albeit at a late stage (CF5), and the PA28 pilot likely before the Cirrus pilot. The Board then discussed the risk and felt that, although later than desirable, the PA28 pilot had seen the Cirrus in time to take timely and effective avoiding action. Members commented that the assessed risks of collision of 'High' and 'Low' by the respective pilots probably reflected a degree of startle factor on behalf of the Cirrus pilot, which was not uncommon in the assessment of see-and-avoid from 2 different points of view.

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

2019105			
CF	Factor	Description	Amplification
Ground Elements			
• Situational Awareness and Action			
1	Contextual	• Situational Awareness and Sensory Events	Not required to monitor the aircraft under the agreed service
Flight Elements			
• Tactical Planning and Execution			
2	Human Factors	• Communications by Flight Crew with ANS	Pilot did not communicate with appropriate controlling authority
• Situational Awareness of the Conflicting Aircraft and Action			
3	Contextual	• Situational Awareness and Sensory Events	Pilot had no, only generic, or late 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

Degree of Risk: C.

Recommendation: Nil.

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:

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because neither pilot was in receipt of a service that would provide traffic information.

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot was aware of the proximity of the other aircraft until it was seen.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the PA28 was not fitted with a TAS and the Cirrus FLARM could not detect the PA28 transponder.

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

See and Avoid were assessed as **partially effective** because neither pilot saw the other aircraft until later than desirable.

