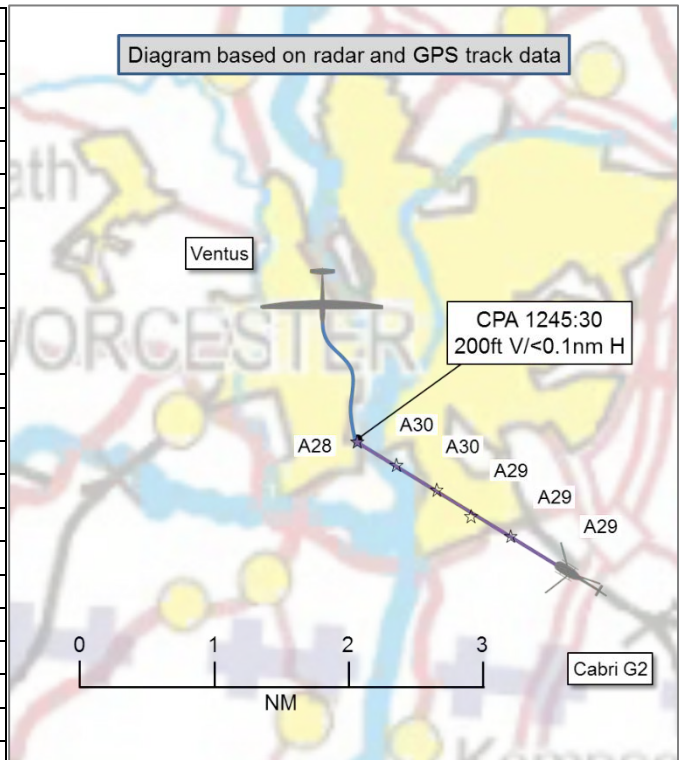


AIRPROX REPORT No 2019061

Date: 13 Apr 2019 Time: 1245Z Position: 5211N 00214W Location: Worcester

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Ventus glider	Cabri G2
Operator	Civ Gld	Civ Helo
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	XC frequency	London Info
Altitude/FL	2800ft	3000ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White	Blue, white
Lighting	None	Landing, strobe
Conditions	VMC	VMC
Visibility	5-10km	9km
Altitude/FL	2600ft	2800ft
Altimeter	QNH (NK hPa)	QNH (NK hPa)
Heading	147°	NK
Speed	60-65kt	90kt
ACAS/TAS	TAS	Not fitted
Alert	Alert	N/A
Separation		
Reported	90ft V/75m H	Not reported
Recorded	200ft V/0.1nm H	



THE VENTUS PILOT reports that during a cross country flight he abandoned his intended northbound leg due to uncomfortably-low cockpit temperature and cloud spread-out ahead, which promised difficult conditions for soaring. He turned south to return to his point of departure and, during the glide over Worcester, his PowerFLARM TAS registered oncoming traffic 12 o'clock 97ft above. He saw nothing immediately visible whilst looking in the direction indicated, but the level of warning escalated quickly from first contact to enhanced threat in a very few seconds. He initiated a roll to the right together with forward stick to accelerate downwards and thereby increase the vertical separation even though he still had no visual contact and was not yet aware of the nature of the oncoming traffic. The threat bearing moved to 11 o'clock on the TAS display with his angle of bank at about 20° and the TAS now registering an imminent conflict. He caught a very fleeting sight of an oncoming small helicopter not far above his level to the 9 o'clock, beginning to make a sharp roll to starboard before it vanished behind him.

He assessed the risk of collision as 'High'.

THE CABRI PILOT reports that he was in straight-and-level cruise when he saw a glider ahead. He took avoiding action by turning right and then continued the flight uneventfully.

He assessed the risk of collision as 'Medium'.

Factual Background

The weather at Gloucester Staverton was recorded as follows:

METAR EGBJ 131250Z 12009KT 9999 SCT045 11/M01 Q1026=

Analysis and Investigation

UKAB Secretariat

The Ventus and Cabri 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 Cabri pilot was required to give way to the Ventus³.

Comments

BGA

This incident illustrates very clearly the safety benefits of fitting and using TAS equipment. We commend the Ventus pilot for taking positive action to increase separation following the alert.

Summary

An Airprox was reported when a Ventus glider and a Cabri G2 autogyro flew into proximity near Worcester at 1245Z on Saturday 13th April 2019. Both pilots were operating under VFR in VMC, the Ventus pilot listening out on the gliding cross-country frequency and the Cabri pilot in receipt of a Basic Service from London Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a GPS track log. 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.

Members first discussed the Ventus pilot's actions and agreed that this incident highlighted the benefit of electronic conspicuity. Indeed, members felt that the Ventus pilot's actions, prompted by his TAS alert and TAS Traffic Information (**CF1**), had prevented a potentially much worse outcome. The Board acknowledged that various TAS could be incompatible, but noted that in this instance it had provided critical and timely information to help prevent mid-air collision. That this could be achieved with equipment which cost the equivalent of a few hours flying seemed to the Board to underscore the obvious benefits of electronic conspicuity. In contrast, the Cabri pilot was not in possession of a TAS and could not take action until he saw the Ventus at a late stage (**CF3**), when avoiding action was necessary.

The Board then considered the risk. With a vertical separation of 200ft, some members were of the opinion that the glider pilot's manoeuvre had represented a situation where sufficient action had been taken to remove the risk of collision (Risk Category C). However, the majority felt that the Ventus pilot's effective non-sighting⁴ (**CF2**) and Cabri pilot's late sighting were such that there had been a degree of chance in the avoidance action which had meant that the glider pilot's manoeuvre had only averted a likely collision at the last minute such that safety had been much reduced below the norm.

¹ SERA.3205 Proximity..

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

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

⁴ A sighting which occurred at such a late stage, normally at or very near to CPA, that separation could not be affected. Effectively the same separation at CPA as if the pilot had not seen the other aircraft.

PART C: ASSESSMENT OF CAUSE AND RISK

Contributory Factors:

CF	Factor	Description	Amplification
Flight Elements			
• Electronic Warning System Operation and Compliance			
1	Contextual	• ACAS/TCAS TA	TCAS TA/CWS indication
• See and Avoid			
2	Human Factors	• Monitoring of Other Aircraft	Non-sighting by one or both pilots
3	Human Factors	• Monitoring of Other Aircraft	Late-sighting by one or both pilots

Degree of Risk: B.

Recommendation: Nil.

Safety Barrier Assessment⁵

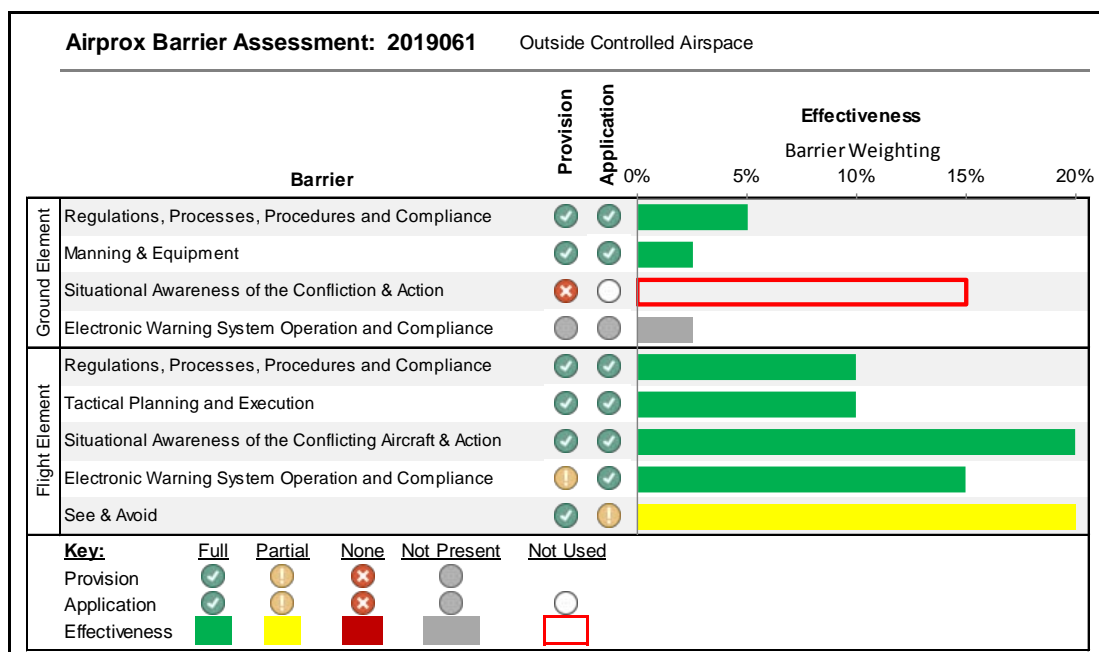
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Ground Elements:

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

Flight Elements:

See and Avoid were assessed as **partially effective** because the Ventus pilot did not see the Cabri until at CPA and the Board surmised that separation at CPA was such that the Cabri pilot had likely only seen the Ventus at a late stage.



⁵ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).