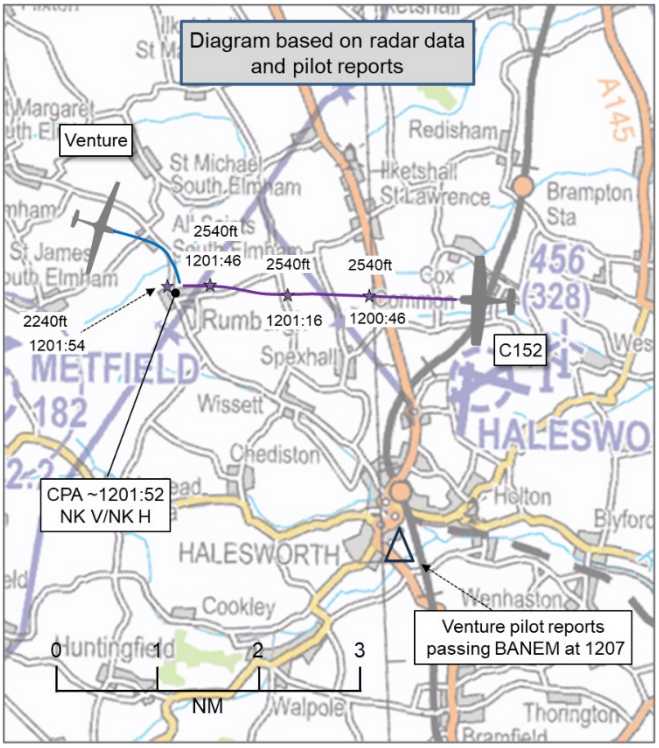
AIRPROX REPORT No 2024216

Date: 11 Aug 2024 Time: ~1202Z Position: 5222N 00126E Location: Rumburgh

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Venture	C152
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Listening Out
Provider	Norwich Radar	Beccles Radio
Altitude/FL	Not recorded	~2400ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White and red	White and blue
Lighting	Strobes	Landing, taxy, strobes, beacon
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2450ft	2000ft
Altimeter	QNH (1022hPa)	NR
Heading	154°	290°
Speed	48kt	95kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	0ft V/100ft H	100ft V/500m H
Recorded	NK	



THE VENTURE PILOT reports that they had just completed a lookout from left-to-right and had then picked up their phone and started to record a video. They had continued a lookout from right-to-left and then [they had seen] the [other] aircraft already heading towards them, and it had clearly been climbing as this was its position when they had observed it slightly above their port wing and climbing to its right. The Venture pilot notes that they had had time to observe the registration before it was gone.

The pilot added that they had taken-off at 1105 and had flown 88NM before landing at 1254 after 1hr 49min. Their maximum groundspeed during the flight had been 74kt and they had reached a maximum altitude of 3084ft. The flight was planned and flown using SkyDemon.

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

THE C152 PILOT reports overhead Halesworth on a navigation exercise setting course for their next waypoint. The student had been carrying out FREDA checks when they had spotted the other aircraft heading towards them. The C152 pilot had made an avoiding right turn and, once cleared, had carried on with their flight.

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

THE NORWICH RADAR CONTROLLER reports that the Venture is a regular service requester with Norwich Radar and is not transponder equipped. Unfortunately, it is also slow and constructed mainly of wood/fabric which means it rarely, often never, paints on primary radar and therefore it is impossible to track unless the pilot updates their location. The other aircraft had not been receiving a service from Norwich. It was not until the pilot of the Venture had stated that they had come close to another aircraft that the controller knew where they had been. The pilot did not state at the time that they were going to file an Airprox.

THE NORWICH AIR TRAFFIC SERVICES MANAGER reports that the incident was brought to the attention of Norwich ATC on the 19th September 2024 via email from the Airprox Board; unfortunately, it was originally notified earlier to an email address of a previous Air Traffic Services Manager and didn't reach current staff until later - this meant that no R/T or Radar recordings were available.

The Airprox between the Venture motor glider and the C152 occurred approximately 5NM northeast of Harleston. The controller stated that they had been providing a Basic Service to the Venture pilot but that the aircraft had not been painting on radar. It was not until the pilot had reported getting close to another aircraft (the C152) that the controller became aware of the aircraft's position. The controller acknowledged the call but there was no mention of an Airprox. The C152 pilot had not been in receipt of a service from Norwich.

Factual Background

The weather at Norwich Airport was recorded as follows:

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METAR COR EGSH 111150Z 08007KT 020V150 CAVOK 24/12 Q1022 NOSIG=
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Analysis and Investigation

CAA ATSI

With the Venture not visible to the Norwich controller and the C152 not on frequency, the controller would not have been aware of the potential conflict, and so no Traffic Information could have been be passed.

UKAB Secretariat

The C152 was tracked via radar (having first appeared at 1200:46) and identified through Mode S data. The Venture carried no transponder or ADS-B equipment and did not appear on radar or other tracking applications. The Venture pilot provided a flight file from which the diagram on page 1 is constructed. The Venture pilot reports having been at an altitude of 2450ft at their estimation of CPA, whilst the C152 can be seen on radar to have descended from 2540ft at an estimated 2sec ahead of CPA to an altitude of 2240ft 2sec after CPA.

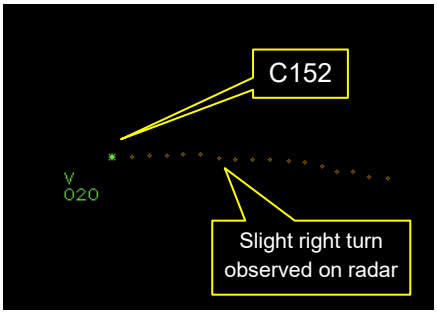


Figure 1: The C152 is shown at time 1201:54. A right turn as described by the C152 pilot can be seen at ~1201:30 (CPA minus ~22sec)

The Venture and C152 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 converging then the C152 pilot was required to give way to the Venture.[2]

Comments

AOPA

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3210 Right-of-way (c)(2) Converging.

Before any manoeuvres, a thorough effective lookout should be undertaken, it is also important when flying straight-and-level to weave and break the constant relative bearing relationship, either of which are effective means of a mid-air collision avoidance technique.

BGA

With no Electronic Conspicuity receiver in either aircraft, see-and-avoid was the only operating MAC safety barrier in this incident. Although no single EC system enjoys universal coverage, fitting any of the widely-used EC devices helps pilots be more aware of at least some of the other aircraft operating in surrounding airspace.

Summary

An Airprox was reported when a Venture and a C152 flew into proximity at Rumburgh at approximately 1202Z on Sunday 11th August 2024. Both pilots were operating under VFR in VMC, the Venture pilot in receipt of a Basic Service from Norwich Radar and the C152 pilot not in receipt of a Flight Information Service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and reports from the air traffic controllers involved. 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 firstly discussed the actions of the Venture pilot. Members noted that they had been on a cross-country route and had agreed a Basic Service with Norwich Radar to improve their situational awareness, but had received no call regarding other traffic. They recognised that the aircraft had not appeared on radar, had not been equipped with a transponder and had not been carrying electronic conspicuity equipment, making the surveillance task entirely dependent on pilot position reporting. Members agreed, therefore, that the Venture pilot had gained no situational awareness of the presence of the C152 (**CF3**). The pilot had been maintaining a comprehensive lookout for other traffic and had interspersed this with filming their route, which the Board considered could have distracted the pilot from their lookout scan on occasion (**CF4**). The pilot reports having visually acquired the C152 at a late stage (**CF5**) and had watched it pass safely down their left-hand side.

In considering the actions of the C152 pilot, members noted that the flight had been a student training sortie and had been establishing for their next waypoint when they had seen the Venture aircraft towards their 12 o'clock. They had eased to the right and passed to the side of the oncoming aircraft. Members felt that, although positive avoidance action had been taken, the proximity of the 2 aircraft at that point had been close enough to cause the Venture pilot some concern (**CF6**). The Board acknowledged that the C152 pilot had been Listening Out on a nearby airfield frequency but felt that in this known area of activity for Class G operations, it might have been prudent to have established themselves on a surveillance-based service to enable greater situational awareness (**CF2**). Members again re-stated their belief that the carriage and use of electronic conspicuity equipment, particularly in flying training aircraft, is an essential tool in the prevention of MAC and should be given greater consideration. The Board agreed that, with no EC and no R/T calls, the C152 pilot had not had any situational awareness of the presence of the Venture (**CF3**).

When reviewing the role played by the Norwich controller, members acknowledged the status of the service they had provided (**CF1**) and accepted that, although the C152 had shown on radar, the position of the Venture had been unknown to them and there had therefore been little more that could have been done to alert the Venture pilot to the presence of the C152. The Board highlighted the need to maintain position reporting when under a Basic Service to improve its utility.

Concluding the discussion, members considered the early sighting of the Venture by the C152 pilot and that the actions taken by that pilot had ensured separation between the two aircraft. Members were in

agreement that as a result of that avoiding action, safety had been degraded but there had not been a risk of collision. The Board assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024216			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
	Flight Elements			
	• Tactical Planning and Execution			
2	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
	• Situational Awareness of the Conflicting Aircraft and Action			
3	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness
	• See and Avoid			
4	Human Factors	• Distraction - Job Related	Events where flight crew are distracted for job related reasons	
5	Human Factors	• Identification/ Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
6	Human Factors	• Lack of Individual Risk Perception	Events involving flight crew not fully appreciating the risk of a particular course of action	Pilot flew close enough to cause concern

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:

Ground Elements:

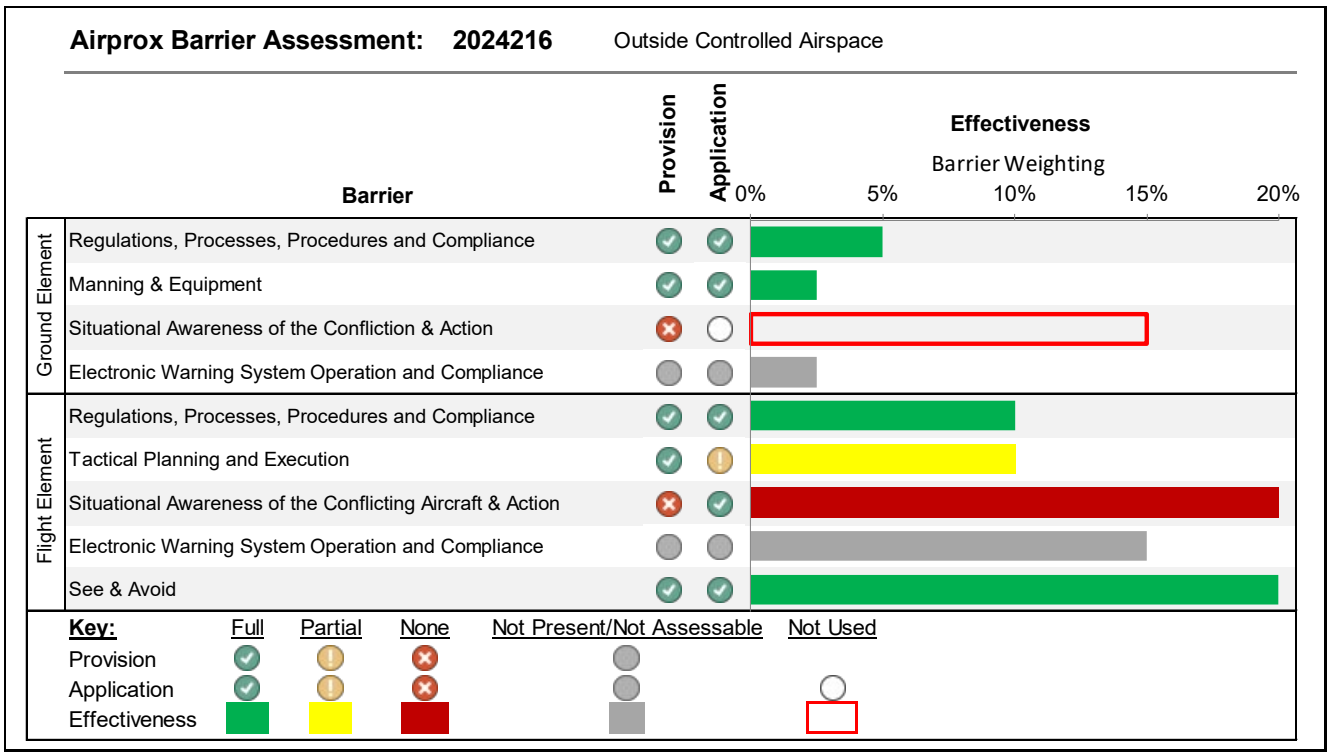
Situational Awareness of the Confliction and Action were assessed as **not used** because the Norwich controller was not required to monitor the flight under a Basic Service.

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the C152 pilot could have agreed a Flight Information Service with Norwich Radar.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any awareness of the proximity of the other aircraft until sighted.

[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: 2024216
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:
Full
Partial
None
Not Present/Not Assessable
Not Used
Provision
Application
Effectiveness