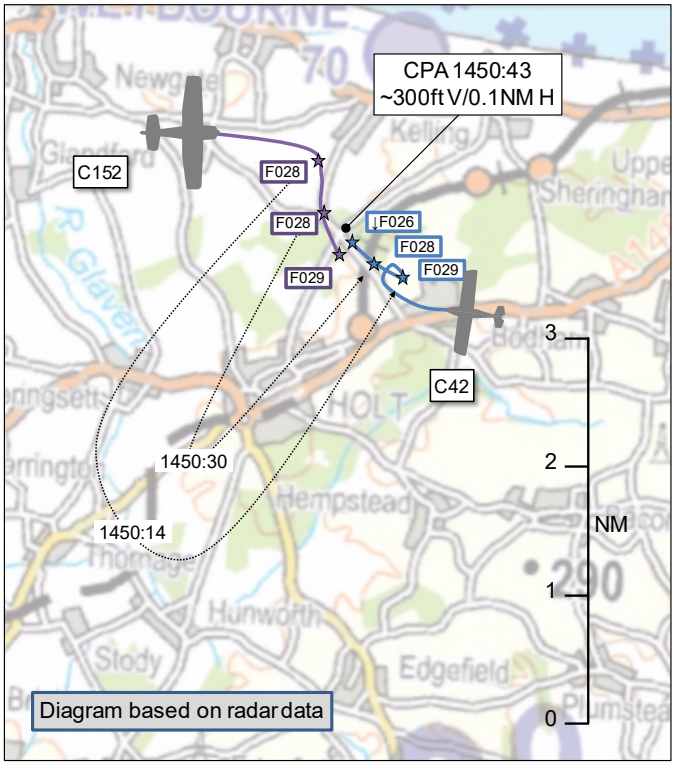
AIRPROX REPORT No 2025036

Date: 20 Mar 2025 Time: 1451Z Position: 5255N 00107E Location: IVO Holt, Norfolk

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	C42	C152
Operator	Civ FW	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	None
Provider	Norwich	N/A
Altitude/FL	FL026	FL029
Transponder	A, C, S	A, C, S
Reported		
Colours	White	White
Lighting	Strobes, Landing, Nav	Nav, Beacon
Conditions	VMC	VMC
Visibility	5-10km	5-10km
Altitude/FL	3100ft	2900ft
Altimeter	QNH (1019hPa)	QNH
Heading	340°	NK
Speed	75kt	93kt
ACAS/TAS	PilotAware	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	150ft V/200m H	'Below' V/2-300ft H
Recorded	~300ft V/0.1NM H	



THE C42 PILOT reports that they were on an instructional flight with a student under a Basic Service, in hazy conditions. An aircraft was spotted and they dived and turned right to avoid it. The other aircraft took no action and, a few minutes after reporting the Airprox via the radio, the other pilot was heard to call for a Basic Service.

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

THE C152 PILOT reports that they were flying at 2900ft when they saw a very small white dot in the distance, it was moving towards them and seemed as though it was orbiting somewhere and then went north. They did see it getting closer, but couldn't tell what aircraft it was. It was roughly around 2-300ft below, but once they started edging closer to Norwich for a zone transit they didn't see the aircraft again. The weather on this day was good and clouds were high, however it was a little bit hazy.

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

THE NORWICH CONTROLLER reports that, at 1452, [C42 C/S] reported an Airprox on frequency against [C152 C/S]. The C42 was conducting a local sortie to the north of Norwich. They were on a Basic Service operating at various levels within Class G airspace. The controller acknowledged the call and saw that they were no longer in confliction. [C152 C/S] called to request a service, but was told to standby due to opening a second ATCO radar position due to traffic levels. Subsequently, they received a Basic Service and transited Norwich CTA with a clearance, never reporting anything themselves about the Airprox.

Factual Background

The weather at Norwich Airport was recorded as follows:

METAR COR EGSH 201420Z 14009KT 120V190 9999 FEW047 18/07 Q1019 NOSIG=

Analysis and Investigation

Norwich Investigation

[C42 C/S] was in receipt of a Basic Service and general handling in the vicinity of Weybourne on the North Norfolk coast in Class G airspace at the time of the reported Airprox. The other aircraft involved was [C152 C/S]. [C152 C/S] free-called Norwich Radar at around the time of the Airprox requesting a Basic Service and was told to standby. After a short delay due to the ATCO opening the RAD2 position due to high workload, the flight details were obtained and a Basic Service provided. Approximately 4min later, [the C42 pilot] stated that they would like to file an Airprox.

[The Investigator] watched the Radar Replay and listened to the RT recordings of the incident. The APS ATCO had a high and increasing workload (2 aircraft on standby including the Airprox C152) and was in the process of opening the RAD2 overload console at the time of the Airprox. The C152 was displaying a squawk of 1177 LFIS leading up to the Airprox and tracking east following the North Norfolk coast. The C152 pilot free-called Norwich Radar requesting a Basic Service, during which the aircraft turned onto southerly track and into confliction with [the C42]. Due to the high workload, the controller was unable to immediately offer a service to [the C152 pilot] and asked the pilot to standby. Subsequently, no Traffic Information was passed and the Airprox was reported by the C42 pilot some 5min after the event had occurred.

Whilst Traffic Information could have been passed, given the proximity of the 2 aircraft, with one of the aircraft under Basic Service, the ATCO appears to have had multiple other inputs at the time. It is highly likely that the ATCO concerned did not even observe the Airprox as they were busy liaising with a second controller who was opening the 2nd radar console, whilst also answering other pilots that were free-calling. The frequency was, therefore, extremely busy with other aircraft at the time of the event and [the C152] had changed course shortly before the Airprox; this resulted in the aircraft unexpectedly coming into confliction with [the C42].

CAA ATSI

CAA ATSI noted that no Traffic Information was passed by the controller to the pilot of the C42 on the C152, but the Norwich investigation suggests that they were pre-occupied with opening a second operational position. They had another aircraft coming out to the hold for a procedural approach and were providing services to another 4 aircraft at the time.

The pilot of the C152 called at about the moment of CPA and was told to standby.

The controller had passed Traffic Information to the pilot of another aircraft on the C152 earlier in the period when the C152 was routeing up along the coast. The C152 did then turn inland, heading towards the area in which the C42 was carrying out general handling.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and both aircraft could be identified using Mode S data.

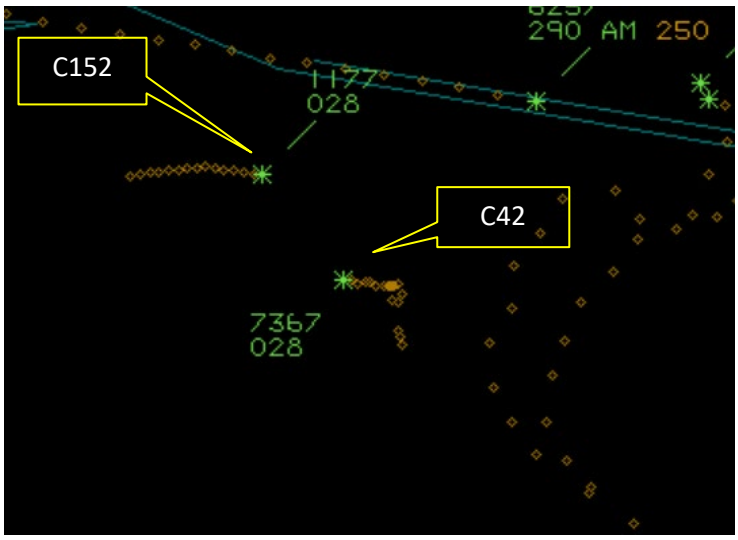


Figure 1 - 1450:01

The C42 could be seen conducting general handling at around FL028 and the C152 could be seen heading south-westerly at FL029 (radar QNH 1019 hPa). At 1450:42 the two aircraft were indicating 0.2NM and 100ft apart. CPA occurred between radar sweeps, by the next radar sweep the C42 had descended and the two aircraft were 300ft and 0.1NM apart. The C152 did not appear on an ADS-B analysis tool and so a more accurate separation could not be ascertained.

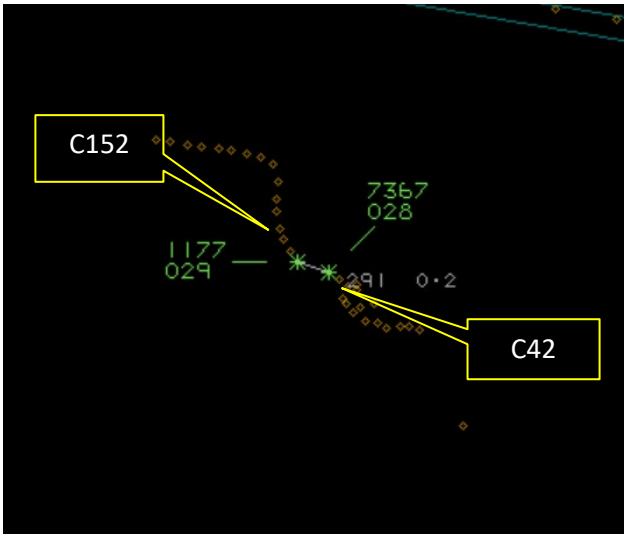


Figure 2 - 1450:42

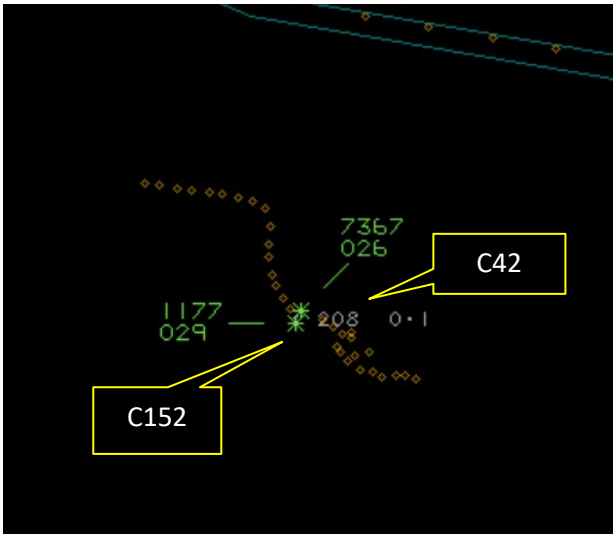


Figure 3 – Radar CPA 1450:46

The C42 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 head-on or nearly so then both pilots were required to turn to the right.[2]

Summary

An Airprox was reported when a C42 and a C152 flew into proximity in the vicinity of Holt, Norfolk at 1451Z on Thursday 20th March 2025. The C42 pilot was operating under VFR in VMC in receipt of a Basic Service from Norwich and the C152 pilot was operating under VFR in VMC not yet in receipt of an ATS.

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

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs, a report from the air traffic controller 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 looked at the actions of the C42 pilot. They had been conducting an instructional flight and manoeuvring in hazy conditions under a Basic Service. The controller had not been required to monitor the aircraft under a Basic Service and so it had been unlikely that Traffic Information would have been passed, therefore, members opined that requesting a Traffic Service could have been a better option in these circumstances (**CF3**). The CWS on the C42 would have been expected to alert to the Mode C on the C152, but no such alert had been reported (**CF5**). Therefore, without Traffic Information from ATC, or a warning from the CWS, the C42 pilot had not received any prior situational awareness on the C152 (**CF4**). Members noted that see and avoid had been the final barrier against MAC and, fortunately, the C42 pilot had become visual and had taken avoiding action; nevertheless, the Board agreed that they had been concerned by the proximity of the C152 (**CF7**).

Turning to the actions of the C152 pilot, they had been receiving a Basic Service from London Information before leaving the frequency and eventually calling Norwich. Members thought that the C152 pilot could have called Norwich ATC earlier, noting that Norwich is a LARS provider and use radar, which London Information does not, so Norwich would have been more likely to have been able to provide Traffic Information (**CF3**). Furthermore, the chances of hearing other aircraft in the area would have also been improved by being on the appropriate LARS frequency. Unfortunately, when the C152 pilot had called ATC, they had been asked to 'standby' as the controller had been conducting a handover. Members agreed that, because this had been more or less at CPA, even if the controller had provided a service immediately, the pilot would have been unlikely to have received any Traffic Information early enough to have made a difference, but an earlier call to ATC may have resulted in such information being passed. The Board noted that the C152 had not been fitted with a CWS, which in these circumstances could have provided some information because the C42 had been equipped with a transponder and had been carrying ADS-B equipment. Consequently, the C152 pilot had not received any prior situational awareness on the C42 (**CF4**). The C152 pilot reported seeing the C42 at range but, not believing it would have been a factor, had continued on track, and members cautioned against continuing close to aircraft when the intentions of its pilot are unknown, particularly ones which are conducting manoeuvres, as they can be unpredictable. In this case, although the C152 pilot, who had been visual with the C42 for a while, had been content with the separation, the C42 pilot, surprised to suddenly see the C152, had been concerned (**CF6**).

The Board then discussed the actions of ATC. They agreed that the controller had not been required to monitor the C42 under the provisions of a Basic Service (**CF1**) and that, although Norwich ATC was fitted with an STCA, it would not have alerted in these circumstances because, in line with standard ATC practice, the Basic Service squawks would have been outside the select frame for an alert (**CF2**). A discussion then followed about the timing of the ATC handover. Controlling members noted that it was standard procedure to bandbox control positions when not busy, but that opening up new consoles in time was imperative. They noted that the controller had been controlling 4 aircraft and had been expecting another to join the Hold as well as receiving free-calls from pilots calling for a service, and members opined that the task could have been split earlier. However, given that the C152 pilot had not called for a service until at, or about, CPA, members stopped short of attributing the bandboxing as a contributing factor on this occasion. That being said, whilst acknowledging that for traffic levels it was not a case of 'one size fits all', still members thought that perhaps Norwich should consider implementing procedures whereby controllers are required to open a console at a specific traffic level, for example, stating that during daytime hours LARS should always be opened if there is Approach traffic expected, etc.

When discussing the risk of the Airprox, the Board considered the reports of both pilots and the controller, together with the Norwich investigation and the radar screenshots. Members agreed that the C152 pilot had been visual with the C42 throughout, and that, although once visual the C42 pilot had

been concerned by the proximity of the C152, they had taken timely and effective action to increase the separation. It was therefore agreed that there had been no risk of collision; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025036			
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
	• Electronic Warning System Operation and Compliance			
2	Technical	• Conflict Alert System Failure	Conflict Alert System did not function as expected	The Conflict Alert system did not function or was not utilised in this situation
	Flight Elements			
	• Tactical Planning and Execution			
3	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			
4	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
	• Electronic Warning System Operation and Compliance			
5	Human Factors	• Response to Warning System	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported
	• See and Avoid			
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
7	Human Factors	• Perception of Visual Information	~~Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement~~	Pilot was concerned by the proximity of the other aircraft

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 controller was not required to monitor the aircraft receiving a Basic Service.

Electronic Warning System Operation and Compliance were assessed as **not used** because the squawks on the aircraft were outside the select frame for the STCA to alert.

Flight Elements:

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

Tactical Planning and Execution was assessed as **partially effective** because the C152 pilot could have called Norwich ATC for a service earlier.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any situational awareness that the other aircraft was in the vicinity, until they became visual.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the CWS on the C42 would have been expected to alert, but none was reported.