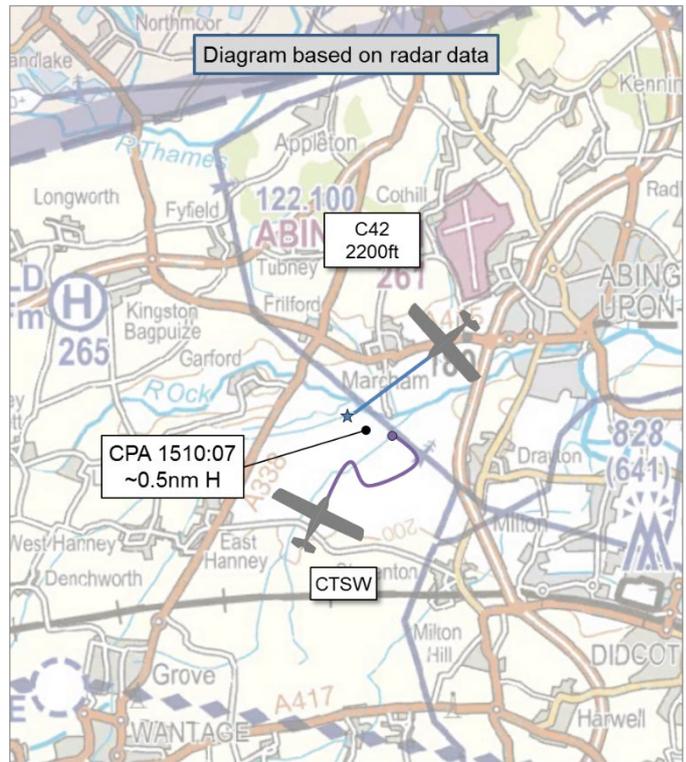


AIRPROX REPORT No 2018007

Date: 14 Jan 2018 Time: 1510Z Position: 5138N 00120W Location: 3nm SW Abingdon

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Ikarus C42	CTSW
Operator	Civ Pte	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	None
Provider	Brize	
Altitude/FL	2200ft	NK
Transponder	A,C,S	Off.
Reported		
Colours	White	White
Lighting	Strobe, Landing	N/K
Conditions	VMC	VMC
Visibility	5km	10km
Altitude/FL	2000ft	2000ft
Altimeter	QNH (1016hPa)	QFE
Heading	270°	180°
Speed	75kt	80kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	0ft V/70m H	150ft V/300m H
Recorded	NK	



THE C42 PILOT reports that on the return leg of his sortie, when heading west, Brize Radar gave Traffic Information on a primary radar contact. The visibility was a bit murky, but they subsequently saw a high-wing aircraft manoeuvring in their 11 o'clock. It was heading in an easterly direction and was approx. 700m away horizontally with about 500ft vertical separation. The other aircraft began to turn onto a northerly heading towards them, and they lost visual contact as it turned behind. About a minute later they were looking for the aircraft to check its position and saw it sitting behind them in the 5 o'clock position, at the same level, heading in the same direction; the separation was approximately 60-80m. This felt too close and compromised their safety. The other aircraft was close enough to read its registration and appeared to be flying in formation with them, without their knowledge or approval. They turned left, began a shallow turn to the south, and the other aircraft peeled off to their starboard, turning steeply to the right and taking up an easterly heading.

He assessed the risk of collision as 'Low'.

THE CTSW PILOT reports that he had arranged a photo detail with a C42 pilot who was due to arrive from the east of his airfield. The C42 pilot telephoned to say he was departing and would be arriving shortly, so the CTSW pilot departed from his airfield a few minutes later. During the take-off roll, he spotted the aircraft in the overhead apparently acknowledging with a turn to the south, so he continued the climb and approached the aircraft from its 4 o'clock position. On realising the mistaken identity, and in order to remain visual, he continued on his heading in a standard overtaking manoeuvre; on taking the lead, he banked and descended to the right. He believed that both pilots were visual throughout, although was embarrassed by the mistaken identity.

He assessed the risk of collision as 'None'.

THE BRIZE RADAR CONTROLLER reports that he was an OJTI with a trainee in LARS. Earlier in the session, during a quiet period, he had discussed with the trainee the controllers' responsibilities with

regard to duty of care, and passing Traffic Information to a pilot under a Basic Service. At the time of the incident, they had 3 aircraft on frequency and the C42 pilot was being provided with a requested Basic Service. The trainee controller provided the C42 pilot with Traffic Information on a non-transponding radar return. Shortly afterwards, the C42 pilot asked whether they had any further information on that contact, but they didn't because it was not transponding and was dropping in and out of radar contact. The pilot told them that he wasn't happy with how close the other aircraft came; they asked the pilot whether he would be declaring an Airprox, and asked him to call via landline if he subsequently decided to. The following day the pilot called and described the incident. He stated that he had gained visual contact after the Traffic Information had been called, and then spotted it in their 5 o'clock at the same level and 60-80m away, the other aircraft was so close that they were able to read the registration. From an ATC perspective, the controller felt that there was little else they could have done to prevent the incident given that they passed the Traffic Information that enabled the pilot to become visual with the other aircraft.

He perceived the severity of the incident as 'Medium'.

THE BRIZE SUPERVISOR reports that he had just taken over the position and was settling into his own control position, so did not witness the occurrence, but did hear the subsequent conversations. He had nothing further to add to the controller's narrative, but commended the trainee's actions.

Factual Background

The weather at Brize was recorded as follows:

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METAR EGVN 141450Z 20005KT 9999 BKN023 05/M00 Q1017 WHT BECMG BKN025 BLU=
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Analysis and Investigation

Military ATM

Figures 1-3 show the positions of the C42, and a primary radar contact believed to be the CTSW, in the lead up to the Airprox. The pictures are taken from a NATS radar feed, which is not utilised by Brize ATC, therefore does not represent the picture available to the controller.

At 15:09:13 (Figure 1), the Brize LARS controller passed Traffic Information (TI) to the C42 pilot. The pilot responded that he was looking for the traffic.



Figure 1: Geometry at 15:09:13

Figure 2: Geometry at 15:09:33

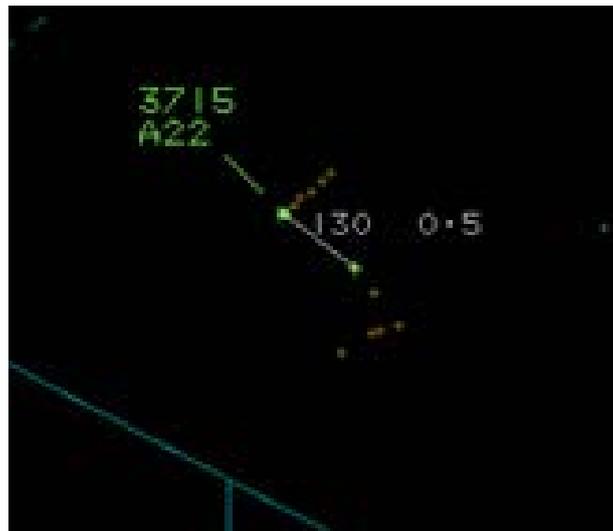


Figure 3: Geometry at 15:10:05 (CPA seen on radar replay)

The C42 was receiving a Basic Service and therefore the Brize LARS controller was only required to provide TI to the pilot if they identified a definite risk of collision. In this instance, the two aircraft still had 1.8nm lateral separation when TI was passed, which is not a definite risk of collision, but the controller interpreted the dynamic scenario as warranting TI provision. Because the CTSW did not have its transponder turned on, the controller was not able to pass accurate altitude information. Additionally, the primary return was intermittent. However, the TI passed did enable the C42 pilot to visually acquire the CTSW.

UKAB Secretariat

The C42 and CTSW pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. SERA.3135 states that for formation flights:

'Aircraft shall not be flown in formation except by pre-arrangement among the pilots-in-command of the aircraft taking part in the flight'

Summary

An Airprox was reported when a C42 and a CTSW flew into proximity at about 1510hrs on Sunday 14th January 2018. Both pilots were operating under VFR in VMC. The C42 pilot was in receipt of a Basic Service from Brize and the CTSW pilot was not in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings and a report from the air traffic controllers involved.

The Board first looked at the actions of the C42 pilot. He was flying at 2000ft and receiving a Basic Service from Brize Radar. Although only a Basic Service (and therefore the controller was not required to give Traffic Information unless he considered there to be a definite risk of collision), the Brize controller provided Traffic Information and the C42 pilot subsequently saw the CTSW in his 11 o'clock. Given that both pilots described a situation in which the CTSW came into formation distance with the C42, the Board noted that it was likely that the CTSW came closer to the C42 than the radar images showed, the intermittent nature of the primary-only contact meant that it faded from radar at 0.5nm.

¹ SERA.3205 Proximity.

Turning to the CTSW, the Board recognised that mistakes happen and that he was unlucky that there happened to be another C42 at exactly the time he expected to meet up with another one. However, they thought that perhaps planning could have been better between that two pilots to ensure that they did meet up as expected and had measures in place to positively identify each other before closing into close-formation range. The Board discussed whether there was a frequency available for air-to-air communication or formation flying, and were told that there wasn't one endorsed by the CAA. It seemed that pilots sometimes find an unofficial quiet frequency to use, but this could not be condoned and the Board wondered whether there would be value in the CAA providing a formal air-to-air frequency. Notwithstanding, the Board thought that in future the CTSW pilot would be wise to ensure that he had robust identification methods and had the correct aircraft in sight before he flew alongside it.

The Board briefly discussed the role of the Brize radar controller and commended him for giving the Traffic Information that cued the C42 pilot to see the CTSW. They thought there was little more the controller could have done bearing in mind the CTSW was not on his frequency and was not squawking.

In determining the cause of the Airprox, the Board quickly agreed that the CTSW pilot had flown close enough to cause the C42 pilot concern. They also agreed that a contributory factor had been that the CTSW pilot mistook the C42 for another C42 with which he had arranged to formate. However, in assessing the risk, the Board thought that because the CTSW pilot had been visual with the C42 at all times, there had been no risk of collision; Category C.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The CTSW pilot flew close enough to cause concern to the C42 pilot.

Contributory Factor: The CTSW pilot mistook the C42 for another C42 with which he had arranged to formate.

Degree of Risk: C.

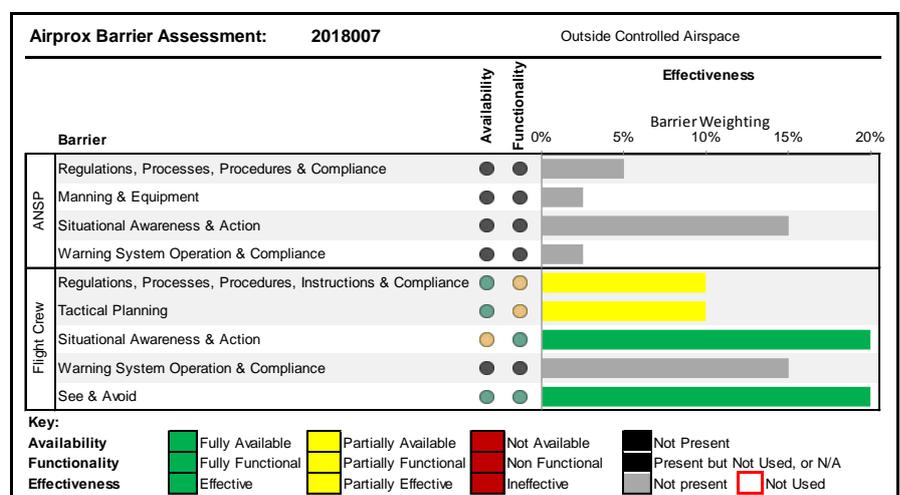
Safety Barrier Assessment²

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

Flight Crew:

Regulations, Processes, Procedures, Instructions and Compliance were assessed as **partially effective** because the CTSW pilot was not authorised to fly in formation with the C42.

Tactical Planning was assessed as **partially effective** because the CTSW pilot should have had a more robust plan to meet up with his partner for formation flying.



² The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).