

**AIRPROX REPORT No 2015171**

Date: 6 Sep 2015 Time: 1508Z Position: 5157N 00129W Location: 10nm N Brize Norton airfield

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	C404	PA34
Operator	Civ Comm	Civ Trg
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Traffic	Basic
Provider	Brize	Oxford
Altitude/FL	2900ft	3200ft
Transponder	A/C/S	A/C/S
Reported		
Colours	NK	White/Blue
Lighting	NK	Nav, HISL
Conditions	VMC	VMC
Visibility	10km	>10km
Altitude/FL	3000ft	3500ft
Altimeter	QNH (1028hPa)	NK
Heading	NK	Vrb
Speed	NK	115kt
ACAS/TAS	Unknown	TAS
Alert	Unknown	None
Separation		
Reported	NK	400ft V/2nm H
Recorded	400ft V/0.2nm H	



**THE CESSNA 404 PILOT** reports that he was in level flight at 3000ft whilst transiting to a survey site. Brize informed him of traffic. He saw the traffic in the 12 o'clock, crossing right to left. It started a left turn and came back on itself to face his aircraft. He took an avoiding-action right-turn, pitching nose down. The aircraft passed down his left-hand side. He informed the controller of the event. Another operator was sitting in the P2 seat acting as second look-out. He spoke with the controller post flight who informed him that the other aircraft was a PA34.

**THE PIPER PA34 PILOT** reports that while completing a look-out turn to the left prior to a stall (gear and flap down) the TAS displayed another aircraft in his 2 o'clock approximately 400ft below at a range of 2nm. The look-out turn was halted because the wing was obscuring the view, and the other aircraft was visually identified. No risk of conflict was identified and, once the other aircraft was seen to clear to the south, the manoeuvre was restarted.

He assessed the risk of collision as 'None'.

**THE BRIZE CONTROLLER** reports that he was covering the Approach, Zone and Director Frequencies with one aircraft on the Zone frequency operating at Redlands. He was handed a flight strip by the LARS controller who had received a free-call from the C404 pilot requesting transit of the Brize CTR. The C404 pilot contacted him on the Zone frequency when he was approximately 13nm north of Brize. He was Identified and placed under a Traffic Service. Traffic Information was called on an aircraft in his 1 o'clock, approximately 200ft above, crossing from right to left. This was subsequently updated as crossing left to right below. The pilot called visual with the aircraft crossing right to left ahead. Shortly afterwards he tried to give the pilot a crossing clearance and was requested to standby. After subsequently giving the clearance the pilot requested details on the previously called traffic which had turned into his path. As the other aircraft was now wearing a 4520

squawk he contacted Oxford who gave the details as a PA34 general handling under a Basic Service, whose pilot had been visual with the C404. The C404 pilot continued without further incident.

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

## Factual Background

The weather at Brize was recorded as follows:

METAR EGVN 061450Z 29006KT 999 FEW040 18/07 Q1028 BLU NOSIG=

## Analysis and Investigation

### Military ATM

Portions of the tape transcript between the C404 pilot and Brize Zone are below:

From	To	Speech	Time
C404	Zone	Brize Zone afternoon [C404 C/S] request traffic service zone transit	15:07:15
Zone	C404	[C404 C/S] Brize Zone identified altitude three thousand feet traffic service, traffic right one o'clock three miles crossing right left indicating two hundred feet above	15:07:22
C404	Zone	Traffic service looking [C404 C/S]	15:07:32
Zone	C404	[C404 C/S] further traffic left eleven o'clock three miles crossing left right indicating five hundred feet below	15:07:36
C404	Zone	[C404 C/S] visual one ahead	15:07:43
Zone	C404	[C404 C/S] err request your routing	15:07:46
C404	Zone	East Midlands East Midlands(unintelligible) via Boscombe Down and request north south transit via the overhead	15:07:50
Zone	C404	[C404 C/S] roger are you looking for VFR or IFR transit	15:08:01
C404	Zone	VFR transit [C404 C/S]	15:08:05
Zone	C404	[C404 C/S] cleared VFR transit Brize controlled airspace not below altitude two thousand eight hundred feet Brize QNH one zero two eight routing via the overhead	15:08:18
C404	Zone	Sorry say again was avoiding traffic for [C404 C/S]	15:08:27
C404	Zone	Were you in two way with the erm the aircraft we erm passed down (unintelligible)?	15:10:09
Zone	C404	Negative	15:10:14
C404	Zone	Do you have any details on it?	15:10:15
Zone	C404	We believe he's err speaking to Oxford his own issue	15:10:19
C404	Zone	He just turned straight into our path erm I didn't seem to ever see or avoid. We avoided him by descending and turning, so it's alright I'll look (unintelligible) when I get on the ground.	15:10:21
Zone	C404	[C404 C/S] roger I'll err find out the details for you now	15:10:35

At 1507:22 (Figure 1), the C404 pilot was placed under a Traffic Service and traffic was called as right one o'clock, 3 miles, crossing right to left, indicating 200 feet above.

At 1507:36 (Figure 2), further Traffic Information [not about the PA34] was passed as left 11 o'clock, 3 miles crossing left right, indicating five hundred feet below. At 1507:43, the C404 pilot reported visual with the one ahead.

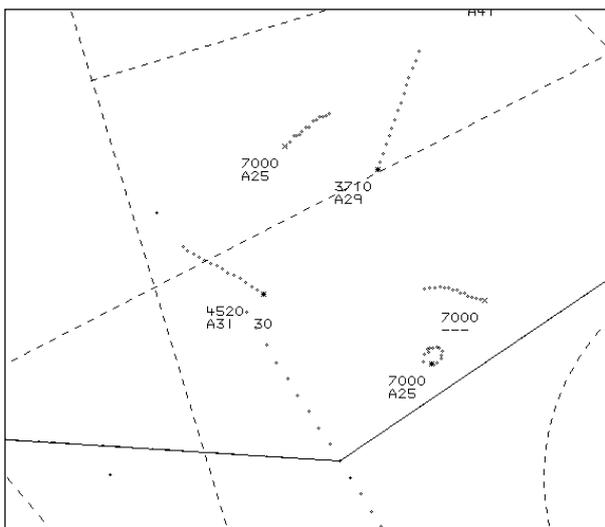


Figure 1: Traffic Information at 1507:22 (C404 squawk 3710; PA34 squawk 4520)

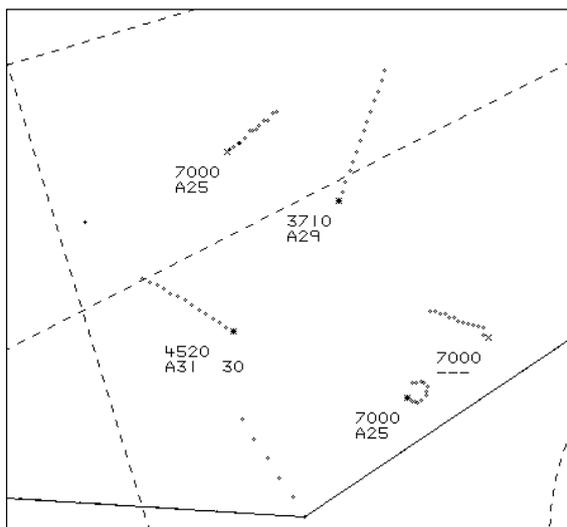


Figure 2: Traffic Information at 1507:36

At 1508:12 (Figure 3), the PA34 pilot had initiated a left-hand turn.

The Closest Point of Approach (CPA) was estimated at 1508:26 (Figure 4) with 0.2nm horizontal and 400ft vertical separation.

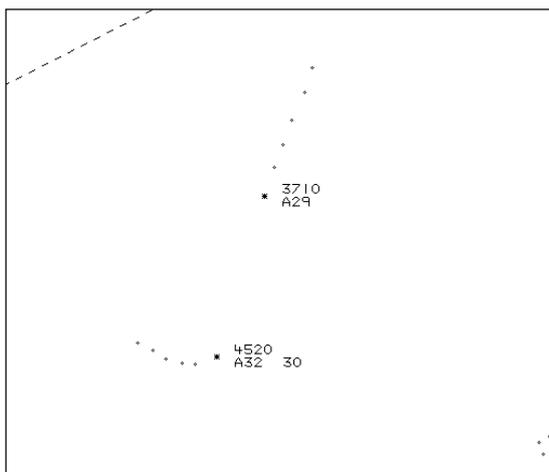


Figure 3: Geometry at 1508:12.

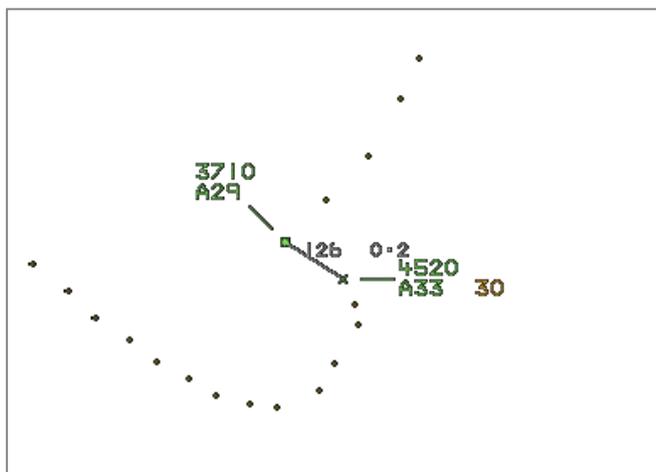


Figure 4: CPA at 1508:26.

As per the rules of a UK FIS, the Brize Norton controller provided a Traffic Service and issued two pieces of accurate Traffic Information. The C404 pilot called ‘visual one ahead’ and this corresponds with the PA34’s squawk. Once the pilot called visual, the controller would not be compelled to provide any further updates on that particular track. The controller then proceeded to provide the Zone transit clearance and this would have coincided with the left turn of the PA34 pilot that rapidly closed the geometry between the two aircraft.

**UKAB Secretariat**

The C404 and PA34 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard<sup>1</sup>. If the incident geometry is considered as converging then the PA34 pilot was required to give way to the C404<sup>2</sup>, which he did.

<sup>1</sup> SERA.3205 Proximity.

<sup>2</sup> SERA.3210 Right-of-Way (c) (2) Converging.

## Summary

An Airprox was reported when a C404 and a PA34 flew into proximity at 1508 on Sunday 6<sup>th</sup> September 2015. Both pilots were operating under VFR in VMC, the C404 pilot in receipt of a Traffic Service from Brize and the PA34 pilot in receipt of a Basic Service from Oxford. The minimum separation of 400ft vertical and 0.2nm horizontal occurred as the PA34 passed down the left side of the C404. By this time each pilot had visual contact with the other aircraft.

### **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available included reports from both pilots, the Brize controller, area radar and RTF recordings and reports from the appropriate ATC and operating authorities.

The Board first discussed the PA34 pilot's actions and noted that he was conducting a training flight with the intention next of carrying out a stall manoeuvre. The Board were pleased to note that he was making an appropriate look-out turn as part of his HASELL<sup>3</sup> checks before commencing the stall manoeuvre, and that, in response to his TAS showing traffic in his vicinity, he had stopped his left turn which had then allowed him to look into the blind side of the turn. The Board noted that he had then seen the traffic and, judging that no action was required, he had resumed his detail after it had departed to the south. The Board commented that this incident highlighted the benefit of aircraft being equipped with a TAS. Notwithstanding, and recognising the dynamism of GH sorties with continually varying headings and heights, the Board also wondered whether the PA34 pilot had considered asking Brize Norton for a Traffic Service whilst he was conducting such tasks with potential distractions in what was fairly busy airspace.

The Board noted that the C404 pilot had been in receipt of a Traffic Service from Brize and had observed the PA34 crossing his track after having been given Traffic Information about it. The Board commended the pilot for seeking a Traffic Service and reflected that, along with ACAS/TAS, the receipt of Traffic Information greatly assists in the prevention of aircraft colliding in Class G airspace by cueing pilots' lookout onto potential threats. Although he was in visual contact with the PA34, it had been unfortunate that the coincidental turn by the PA34 had brought it into conflict with the C404; however, the Board noted that the C404 pilot had been able to react and take avoiding action as it had turned towards him.

The Board commended the Brize controller for passing timely and appropriate Traffic Information to the pilot of the C404 about the PA34.

The Board then considered the cause of the Airprox and noted that both pilots had been entitled to operate where they had, were operating with due care and caution in VFR/VMC, had gained visual contact with each other, and had been able to take appropriate action to avoid each other. It was considered therefore that the cause of the Airprox had simply been a conflict in Class G airspace which had been resolved by both pilots. Because timely and effective action had been taken to prevent the aircraft colliding, the Board categorised the Airprox as risk Category C.

### **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: A conflict in Class G airspace resolved by both pilots.

Degree of Risk: C.

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<sup>3</sup> Height, Airframe, Security, Engine, Location and Look-out.