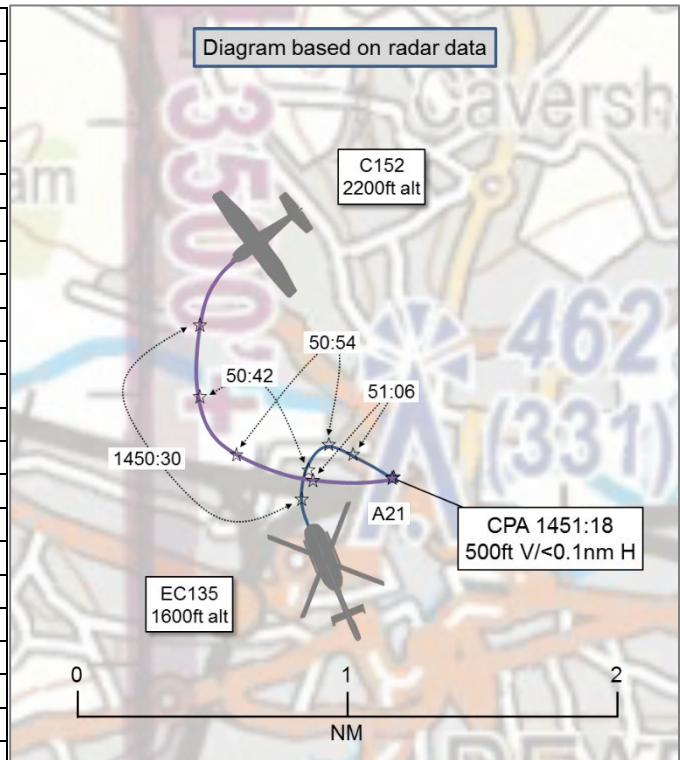


AIRPROX REPORT No 2018045

Date: 05 Apr 2018 Time: 1451Z Position: 5128N 00058W Location: Reading

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC135	C152
Operator	NPAS	Civ Trg
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Benson Zone	Wycombe Tower
Altitude/FL	1600ft	2100ft
Transponder	A, C, S	A, C, S
Reported		
Colours	Blue, yellow	White, red
Lighting	NK	Beacon, landing
Conditions	VMC	VMC
Visibility	>10km	30km
Altitude/FL	1700ft	NK
Altimeter	QNH (1018hPa)	NK
Heading	270°	NK
Speed	40kt	90kt
ACAS/TAS	TCAS I	Not fitted
Alert	TA	N/A
Separation		
Reported	150ft V/0m H	Not seen
Recorded	500ft V/<0.1nm H	



THE EC135 PILOT reports being in a right-hand orbit overhead central Reading train station conducting a ‘high pressure police tasking of a person on the live railway’. ATC passed a ‘traffic notice’ of an aircraft approaching from the east, not under a service from Benson ATC. The aircraft was initially identified via TCAS and then sighted, a C152, once the orbit allowed. The C152 was seen to be transiting north of the task location by about 1 mile, but then, as perceived by the EC135 pilot, on noticing a police helicopter, turned towards the police aircraft to ‘come and have a look at what was going on’. The EC135 pilot opined that the C152 turned directly towards the police aircraft and appeared to have no intention of changing course to avoid a collision. The crew were forced to descend and the C152 flew directly over the top at about 150-200ft above. The crew were all focused on the C152 and had to draw focus away from the task of a person on a live railway. The EC135 pilot stated that this incident was either a genuine case of ‘aircraft not seeing the police helicopter’, or an exceptionally poor case of airmanship and decision making. The pilot commented that incidents such as this raised the issue of awareness of policing and HEMS operations to GA pilots, and that in his opinion a possible aid would be the CAA launching an awareness campaign to highlight the dangers of flying close to police/HEMS operations. [The EC135 pilot subsequently followed the C152, presumably in order to identify it].

He assessed the risk of collision as ‘High’.

THE C152 INSTRUCTOR reports conducting a training flight to familiarise a student with local area landmarks to the south of their home base, how to identify a significant landmark close to base, and hence how to safely rejoin the visual circuit. A PFL was conducted at approximately 1520, towards the end of the flight, before returning home. Neither the instructor or student saw an aircraft in proximity at any time during the sortie.

THE BENSON ZONE CONTROLLER reports that an Airprox was brought to his attention on 11th April 2018, involving the station-based police helicopter. He was not aware of any incident occurring, nor could he recall any details of that particular session on console. No Airprox was declared on frequency or notified to Benson ATC after the helicopter had landed.

THE BENSON SUPERVISOR reports that he was not informed of the event at the time and was unaware of the occurrence. He did recall that it was a busy day with a high level of GA traffic in the local area.

Factual Background

The weather at Benson was recorded as follows:

METAR EGUB 051450Z 18005KT 9999 FEW045 BKN250 11/M01 Q1017 BLU NOSIG=

Analysis and Investigation

Military ATM

An Airprox occurred on 5 Apr 18 at approximately 1455hrs UTC, overhead Reading Railway Station, between an EC135 and a C152. The EC135 pilot was receiving a Basic Service from the Benson Zone Controller and the C152 pilot was not in receipt of a FIS from Benson.

Figures 1-4 show the positions of the EC135 and C152 in the lead-up to the Airprox. The pictures are taken from a NATS radar feed, which is not utilised by Benson ATC and therefore does not represent the picture available to the Controller.

At 14:48:33 (Figure 1), the controller passed Traffic Information to the EC135 pilot on the C152.

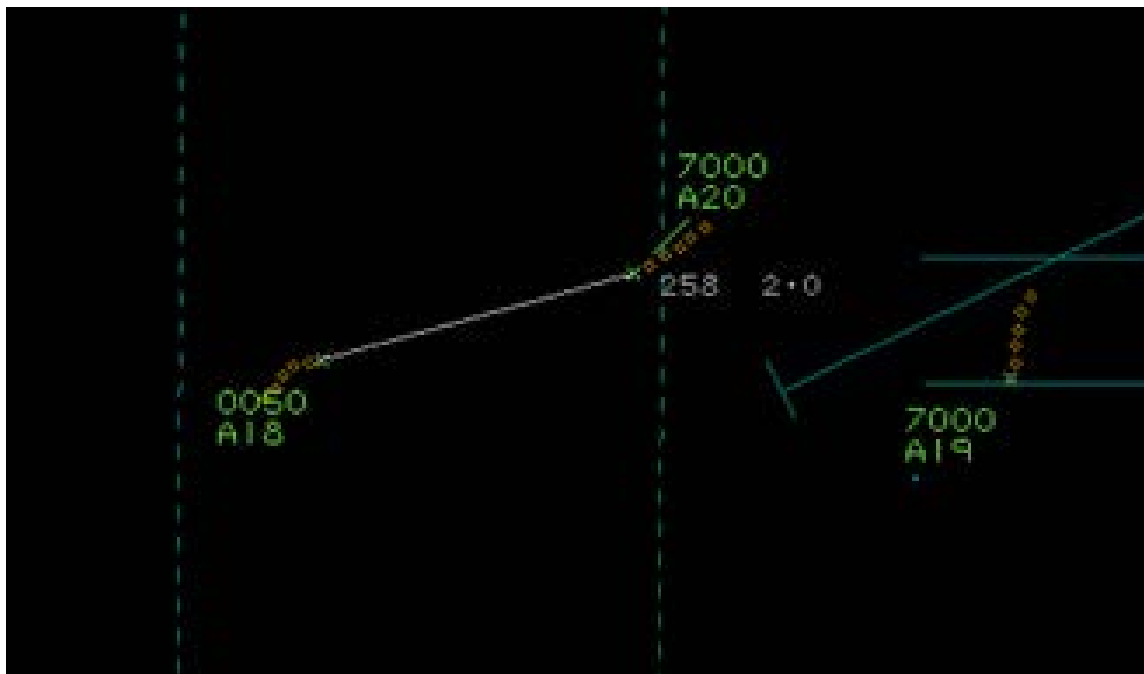


Figure 1: EC135 (0050) and C152 (7000) at 14:48:33

At 14:50:13 (Figure 2), the controller passed additional Traffic Information to the EC135 pilot on the C152 and the EC135 pilot reported visual with the traffic.

At 14:50:33 (Figure 3), the C152 is seen to commence a turn to the south toward the EC135.



Figure 2: 14:50:13



Figure 3: 14:50:33

EC135 (0050) and C152 (7000)

At 14:51:08 (Figure 4), the controller passed further Traffic Information to the EC135 pilot who again reported visual with the C152.



Figure 4: 14:51:08

EC135 (0050) and C152 (7000)

This Airprox was not notified on frequency to the Benson Controller and he was only made aware of the incident some 6 days after the event. As a result, neither he nor the ATC Supervisor recalled the event.

The EC135 pilot was receiving a Basic Service from Benson and under the conditions of a Basic Service, a controller is not required to monitor such flights and pilots should not expect any form of Traffic Information. However, if a controller considers that a definite risk of collision exists, a warning shall be issued. Traffic Information was passed to the EC135 pilot on the C152 on three occasions (1 mile, ½ mile and less than ½ mile) which allowed the EC135 pilot to become visual with the C152.

The EC135 pilot reported that the C152 appeared to be transiting on an east-west track about 1nm away but then turned south toward the EC135 (fig 2-4 above). The EC135 pilot reported that the C152 then flew directly toward them and did not appear to alter course forcing the EC135 to conduct an avoiding action descent.

UKAB Secretariat

The EC135 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 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 pilot on the left was required to give way to the aircraft on the right³. If the incident geometry is considered as overtaking then the EC135 pilot had right of way and the C152 pilot was required to keep out of the way of the other aircraft by altering course to the right⁴.

The NPAS helicopter pilot submitted an Alleged Breach of Air Navigation Legislation (ABANL) to the CAA on 7th April, alleging that the conduct of the other pilot breached ANO Article 240 in that his flight path in the proximity of the EC135 constituted reckless endangerment. A CAA Flight Operations Inspector reviewed the available radar evidence and concluded that no breach of aviation legislation had occurred.

The ANO 2016, Article 240 states as follows:

‘A person must not recklessly or negligently act in a manner likely to endanger an aircraft, or any person in an aircraft.’

Comments

NPAS

It would be useful if generic guidance was added to the UK AIP to include the conduct of operations by manned and unmanned aircraft in the vicinity of emergency service activity.

Summary

An Airprox was reported when an EC135 and a C152 flew into proximity over Reading at 1451hrs on Thursday 5th April 2018. Both pilots were operating under VFR in VMC, the EC135 pilot in receipt of a Basic Service from Benson Zone and the C152 pilot probably in receipt of a Basic Service from Wycombe Tower.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, a transcript of the relevant R/T frequency, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The Board first discussed the actions of the pilots involved. Members agreed that the EC135 pilot had perceived that the C152 pilot turned left to ‘come and have a look at what was going on’ and that his perception and reporting of the incident was framed on that premise. In actuality, neither instructor or student in the C152 saw the EC135, members surmised due at least in part to the urban background over which the EC135 was operating. The Board recognised the EC135 pilot’s concern over GA pilots’ ‘awareness of policing and HEMS operations’ and noted that the regulations contained within the ANO, RoA and SERA do not include provision for the prioritisation or segregation of NPAS surveillance operations in Class G airspace, (other than that provided by the establishment of temporary controlled airspace or a temporary danger area, neither of which had been in effect in this incident). Consequently, it was for both pilots to observe the provisions of the relevant regulations. In this case, due to the C152 pilot being unsighted to the EC135 and the EC135 pilot being in visual contact with the C152, the ability to avoid a collision and not to operate in such proximity to other aircraft as to create a collision hazard

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 SERA.3210 Right-of-way (c)(3) Overtaking.

rested entirely with the EC135 pilot. Members commented that he was not to know that the C152 pilot had not seen him, but his decision to maintain his orbit in the knowledge of the C152's flight path had served only to decrease safety, particularly as he became unsighted to the C152 as he turned away from it. The EC135 pilot was no doubt focused on the high-pressure police tasking, although members noted that, after CPA, he was able to break off from the tasking for 3mins to follow the C152. Members also debated whether to comment on the EC135 pilot's submission of an ABANL, and decided in the circumstances that it could have a material effect on flight safety and that the Board would comment. It was established that the EC135 pilot had received 3 Traffic Information calls on the C152, the latter 2 of which informed him that the C152 was 500ft and 600ft above respectively. The radar replay showed that this was indeed the case and, the Board presumed, so did the EC135 pilot's TAS. The EC135 pilot called visual with the C152 1min before CPA and, rather than descending as reported, had remained at about the same level. That he then submitted an ABANL was based purely on his perception and assumption that the C152 pilot had seen him and had deliberately acted in a manner likely to endanger his aircraft. Board members cautioned against making such allegations of criminal misconduct based on assumption rather than fact. In the opinion of some members, the C152 pilot's actions contrasted starkly with those of the EC135 pilot who, with full situational awareness of the C152's position and course, allowed it to approach close enough (150ft vertically he reported) to potentially endanger the C152 pilot. Whilst the ABANL was not germane to the Airprox, members unanimously agreed that it was a wholly inappropriate and unnecessary action to take before the facts had been established.

The Board also considered FIS provision and noted that although the EC135 pilot was in receipt of a Basic Service from the Benson Zone controller, the provision of the service was such that he was in effect in receipt of a Traffic Service. Members wondered whether such provision was routinely provided on the basis that the NPAS helicopter was based at RAF Benson. It was considered more likely that the majority of traffic in the area would be in receipt of a FIS from Farnborough LARS(W), and that NPAS operations would consequently benefit from being conducted on that frequency so that mutual situational awareness could be achieved as well as specific Traffic Information if a Traffic Service was requested (or perhaps a reduced Traffic Service given NPAS operating altitudes). Similarly, members agreed that the C152 instructor would have been far better placed seeking a surveillance-based FIS with Farnborough LARS(W) rather than a Basic Service from Wycombe Tower that served little purpose overhead Reading. GA members noted that even provision of a Basic Service allowed pilots on frequency to obtain information on planned routing by other pilots in their initial call, with a balance to be struck between useful information and cluttering the frequency.

The Board agreed that although the EC135 pilot had been concerned by the proximity of the C152, this concern was based on his perception that the C152 pilot was 'interfering' with his task, which he was not. Members agreed that the 500ft-600ft vertical separation achieved at CPA represented normal safety standards, albeit closer than desirable from the EC135 pilot's perspective. Notwithstanding, the Board agreed with the EC135 pilot's suggestion that GA pilots should be aware of not encroaching on likely emergency services operations when observed (such as a helicopter orbiting over a fixed position). Members also suggested that NPAS pilots should similarly be aware that they are subject to the relevant regulations and do not have priority over other traffic, even when on task: the requirement not to operate in such proximity to other aircraft as to create a collision hazard is mutual and equal, is independent of police tasking, and, in the Board's opinion, of a higher priority.

Finally, the Board implored all pilots to declare Airprox on frequency when they occurred. This allowed controllers and any other pilots who might be involved to note the incident and preserve any relevant material or notes for future investigation and assistance to the Board in understanding the perspectives of all involved.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The EC135 pilot was concerned by the proximity of the C152.

Degree of Risk: E.

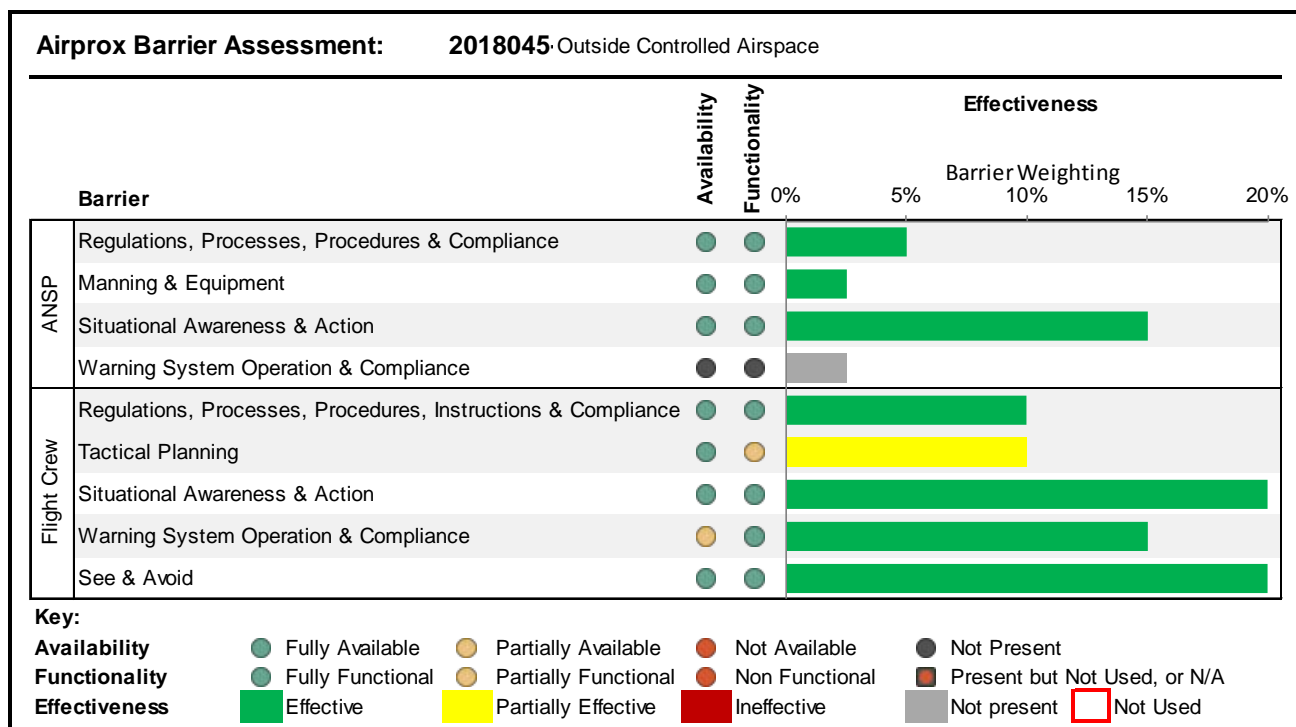
Safety Barrier Assessment⁵

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

Flight Crew:

Tactical Planning was assessed as **partially effective** because the EC135 pilot should have requested a Traffic Service if he required Traffic Information on traffic in his vicinity.

Warning System Operation and Compliance were assessed as **effective** overall but **partially** available because the C152 was not equipped with a TAS.



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