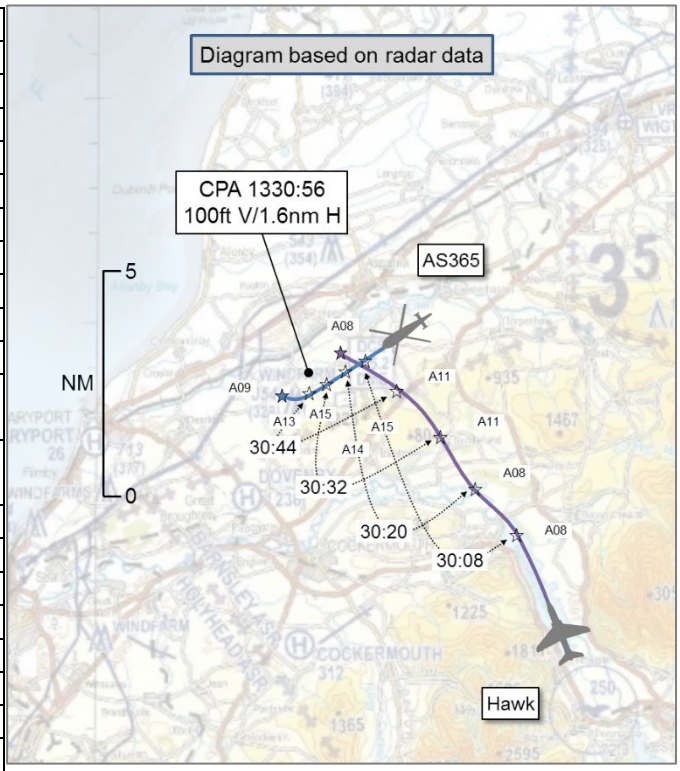
AIRPROX REPORT No 2018282

Date: 18 Oct 2018 Time: 1331Z Position: 5444N 00322W Location: 9nm SW Wigton

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	AS365	Hawk
Operator	HEMS	HQ Air (Trg)
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	None
Provider	London Info	N/A
Altitude/FL	900ft	800ft
Transponder	A, C, S	A, C
Reported		
Colours	White, yellow, green	Black
Lighting	Nav, strobe, landing	HISLs, nose, nav
Conditions	VMC	VMC
Visibility	>25km	>10km
Altitude/FL	1200ft	450ft
Altimeter	RPS (1023hPa)	agl
Heading	240°	320°
Speed	150kt	420kt
ACAS/TAS	TCAS I	TCAS I
Alert	Information	Information
Separation		
Reported	200ft V/NK H	NK V/2nm H
Recorded	100ft V/1.6nm H	



THE AS365 PILOT reports being in straight-and-level cruise when an aircraft was displayed on TCAS to the left, 200ft below. With the icon closing fast, and climbing, an instant decision was made to aggressively conduct a descending right turn in order to get below the closing aircraft's climbing flight path. This meant being belly up to the aircraft, which was never seen by the front crew and was only seen by a rear seat passenger, who described it as a small, black, fast fixed-wing aircraft. A few seconds after the initial TCAS icon was seen, the icon split into 2 (the pilot thought perhaps due to radio bouncing off terrain and/or the refresh rate of the TCAS screen). The pilot noted that as a HEMS pilot working in the busy Cumbrian airspace with limited or no Traffic Information, he found it hard to believe that they did not have a way of communicating with military traffic. All military aircraft are fitted with VHF radios, but blind calls on a low-level common frequency are made on UHF for only military traffic to hear. He stated that he would approach his operating authority about the possibility of staff inputting HEMS sorties into CADS in order to pass potential confliction issues to HEMS crews. He noted that this would not always be possible due to high-workload and last-minute tasking. The pilot also noted that he was 'stuck between a rock and a hard place in Cumbria' with limited traffic service from Carlisle or London Information and no radar. Climbing to 2000ft put him in the danger zone where most non-transponder aircraft fly; below 1000ft resulted in potential confliction with military traffic with which he could not communicate; and between the 2 he would still have the risk of encountering military aircraft climbing out of low-level.

He assessed the risk of collision as 'Medium'.

THE HAWK PILOT reports that from recollection, and supported by the on-board recording system, he was well aware of a helicopter travelling from east-to-west at approximately 1000ft agl. The TCAS had alerted him and the student to the helicopter's distant proximity and they had both visually acquired the

aircraft approximately 3-4 miles away in the 1130 'going away'. To provide further safe separation they altered course to ensure that they passed well clear, behind and below the helicopter. Due to their early sighting and associated flight path modification they did think they had passed closer than 2 miles and were at all times fully aware of the helicopter's position. The pilot noted that the helicopter's route did not appear to have been posted on CADS.

He assessed the risk of collision as 'Low'.

Factual Background

The weather at Carlisle was recorded as follows:

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METAR EGNC 181350Z NIL=
METAR EGNC 181320Z NIL=
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Analysis and Investigation

UKAB Secretariat

The AS365 and Hawk 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].

Comments

HQ Air Command

The Hawk pilot had planned his mission in accordance with current procedures and had entered his route onto CADS. The HEMS aircraft had entered a circle of 2nm radius for a duration of 12hrs onto CADS but there was no information on the route to/from the area. The information provided by the HEMS aircraft was not, therefore, of sufficient clarity for the Hawk pilot to be able to conduct plan-to-avoid activity. However, the Hawk pilot was aware that a helicopter *may* be in the vicinity and had briefed accordingly. At low-level, the barrier of employing a surveillance-based Air Traffic Service is unavailable, so the Hawk crew were relying on TCAS and lookout as their primary means of deconflicting with the helicopter. The Hawk crew became aware of the helicopter's presence through TCAS and acquired it visually shortly afterwards. They were content with the separation at all times and altered course to increase separation behind the helicopter. This Airprox highlights that it is imperative to provide 'actionable intelligence' wherever possible. The information on CADS was of insufficient granularity for the Hawk crew to deconflict from the helicopter prior to flight and so the barrier, whilst available, was not employed. The helicopter pilot laments the unavailability of a common frequency in this part of the country to aid deconfliction between aircraft; this continues to be a workstrand that the RAF Safety Centre is pursuing with the CAA.

Summary

An Airprox was reported when an AS365 and a Hawk flew into proximity near Wigton at 1331hrs on Thursday 18th October 2018. Both pilots were operating under VFR in VMC, neither in receipt of a FIS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a reports from the appropriate operating authority.

Members were first briefed by the HQ Air Command Board member, who explained that the HEMS operating company had access to CADS and had added a notification of a 2nm radius circle for the AS365's operation. However, that was 12nm from the location of the Airprox, and did not include

[1] SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

information on routeing to or from the site. Furthermore, the HEMS site notification had generated 3 conflictions on CADS, none of which were acknowledged by the HEMS operator. It was recognised that workload and the last-minute nature of HEMS tasking may mean that CADS notification was not straight-forward, but that it therefore fell to ground-based operations staff to input accurate routeing information, and to the pilot to acknowledge any confliction information if they wished to benefit from the system. The RAF member emphasised that CADS was a '2-way plan-to-avoid tool' that required accurate and timely input from all its users if its intended function was to be fulfilled; if routeing was inaccurate or missing its utility was much reduced. Anecdotally, RAF Valley had reported a marked increase in such HEMS site notifications in Cumbria, each notified as valid for 12 hours, and such notifications greatly complicated the RAF deconfliction task, reduced pilot confidence that HEMS aircraft would be where they said they would be, and reduced the airspace available for their planning if they were to avoid these 'spurious' CADS entries. The RAF member also emphasised that correct notification also included the need for correct timing to allow all airspace users maximum flexibility and use of the airspace. Turning to the issue of a VHF common-frequency, the RAF member also briefed the Board that work on this was ongoing but had stalled because the CAA staff involved with the project had now moved on prior to a conclusion being reached. As a result, the project had had to be restarted and was again in the early stages.

The Board endorsed the RAF member's observations with regards to CADS, and noted that whilst the incident was no doubt alarming for the AS365 pilot due to the sudden appearance of the Hawk on his TCAS display, the Hawk pilot had had the helicopter in sight and had remained clear by an appropriate margin. Members noted the AS365 pilot's assessment of the degree of risk in his analysis of the threats to which he was exposed, but were also clear that concurrent military and civilian flying had been occurring in that area for many years, and that this had been possible due to the high standard of lookout undertaken by both sets of pilots in the see-and-avoid environment of Class G airspace. Notwithstanding, members agreed that correct use of CADS was a significant addition to MAC mitigation and wholeheartedly endorsed the AS365 pilot's comments regarding the need for his operating authority to review their procedures and use of the system.

Although acknowledging the AS365 pilot's concern's regarding the perceived proximity of the Hawk, analysis had shown that this incident was a benign sighting report, and the Board determined that normal procedures, safety standards and parameters had pertained.

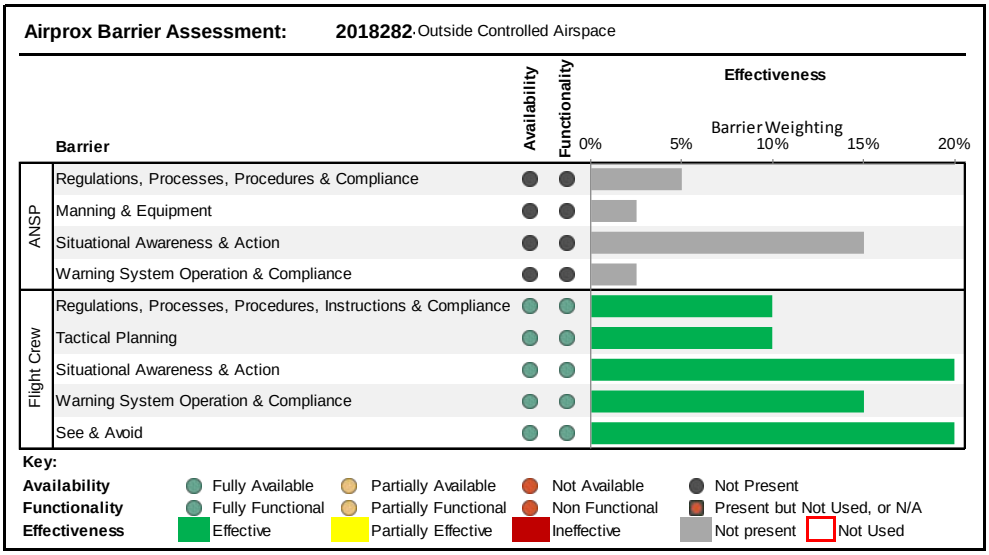
PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A sighting report.

Degree of Risk: E.

Safety Barrier Assessment[2]

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that all the relevant barriers had functioned correctly.



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