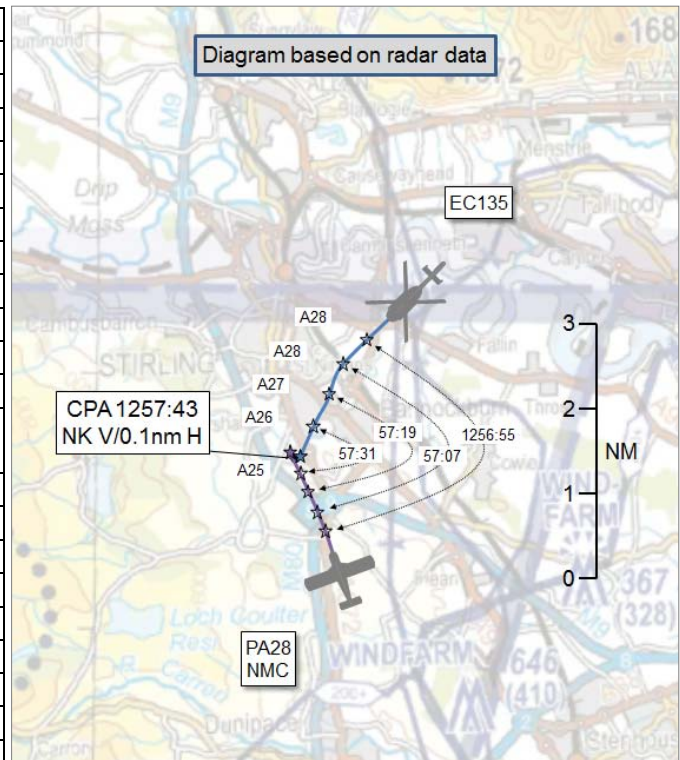


AIRPROX REPORT No 2017157

Date: 16 Jul 2017 Time: 1258Z Position: 5605N 00356W Location: ivo Stirling

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC135	PA28
Operator	HEMS	Civ Trg
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Listening Out
Provider	Scottish Info	Scottish Info
Altitude/FL	2500ft	NMC
Transponder	A, C, S	A (C reported)
Reported		
Colours	Company	White, red, blue
Lighting	HISL, nav, landing	Anti-col
Conditions	VMC	VMC
Visibility	>30km	>10km
Altitude/FL	2400ft	2400ft
Altimeter	QNH (1021hPa)	QNH (1021hPa)
Heading	240°	350°
Speed	120kt	90kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	0ft V/200m H	0ft V/<0.3nm H
Recorded	NK V/0.1nm H	



THE EC135 PILOT reports being en-route to Glasgow Airport when, in the vicinity of Stirling, the crew became aware of a low-wing light-aircraft in the 11 o'clock position at a range of about 300m, moving left to right at the same level. As it passed through the 12 o'clock position it was identified as a white-and-red PA28 and the registration was noted. There was insufficient time to take avoiding action. The EC135 pilot reported the Airprox to the Scottish Information controller and, shortly thereafter, the PA28 pilot checked in on frequency, requested a Basic Service, stated his routing, and confirmed that he had overheard the previous transmissions and that he had seen the EC135 with no time to react. The EC135 pilot noted that their in-cockpit workload had been high; the Airprox took place as the crewman in the front-left seat had been 'heads-in' to re-programme the GPS and navigation units. The crewman felt that the PA28 was probably hidden behind his door pillar until he looked up from the GPS and saw the aircraft. The EC135 pilot had enhanced his lookout whilst the crewman was heads-in but had not seen the traffic.

He assessed the risk of collision as 'Medium'.

THE PA28 PILOT reports conducting an instructional sortie and had instructed the student to climb to altitude 2500ft en-route to Stirling. The instructor did not call Scottish Information immediately due to workload, but kept a listening watch until he had time to do so. The student levelled at 2400ft and, due to the student struggling a bit that day, the instructor was actively coaching him to perform better. He was looking inside the cockpit when the student noticed the helicopter coming from their right-hand side at a range of less than ½nm. The helicopter seemed to be descending and stopped its forward motion going into a hover. From the point they saw the helicopter, turning right to pass behind did not seem possible because they would have flown into it, and turning left would have taken them into its flight path and they would have lost sight of it, so the PA28 crew kept going straight ahead to get out of the helicopter's flight path as soon as possible. There did not seem to be any risk of collision at that point. They then heard R/T transmissions between the Scottish Information

controller and the helicopter pilot, subsequent to which the PA28 pilot called Scottish Information. The PA28 pilot noted that they had not heard any R/T calls from the helicopter in the 5 minutes they were listening-out with Scottish Information, until the point the helicopter pilot called Scottish Information to report the Airprox.

He assessed the risk of collision as 'Medium'.

THE SCOTTISH INFORMATION FISO reports that he was seated at the FISO position when the EC135 pilot enquired whether he was working traffic [PA28 registration]. The EC135 pilot was informed that the FISO was not working that traffic, which was followed by the EC135 pilot advising he had been involved in an Airprox. After some further conversation with the EC135 pilot, the PA28 pilot then also checked-in on frequency.

Factual Background

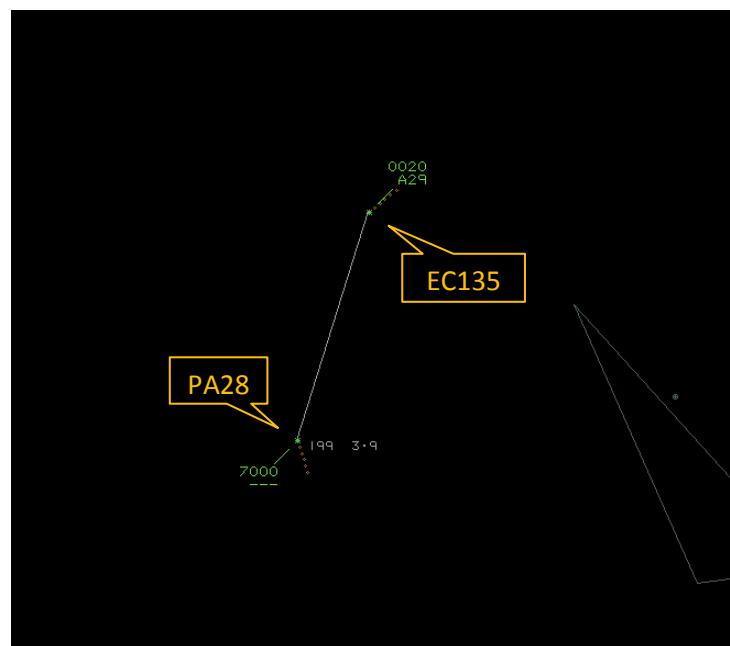
The weather at Edinburgh and Glasgow was recorded as follows:

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METAR EGPB 161320Z 27013KT 9999 SCT040 18/09 Q1020=
METAR EGPB 161250Z 26011KT 9999 SCT038 17/09 Q1020=
METAR EGPF 161320Z AUTO 26013KT 230V300 9999 BKN042 18/08 Q1021=
METAR EGPF 161250Z AUTO 25017KT 9999 BKN040 17/08 Q1021=
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Analysis and Investigation

CAA ATSI

The EC135 had, at the time of the Airprox, been routing towards Glasgow from the northeast of Stirling. The pilot had first called the Scottish Information FISO and a Basic Service was agreed at 1235. The PA28 could not be identified from Mode S on the radar replay but its track matched the pilot's report. The aircraft was first observed in the vicinity of Cumbernauld at 1251:26. The aircraft initially routed east before turning onto a northwesterly track. The situation at 1256:20 is shown below.



The EC135 pilot reported the Airprox to the FIR controller at 1258:25. The PA28 pilot subsequently contacted the FISO at 1300:00 requesting a Basic Service. The FISO was not aware of the presence of the PA28 prior to that call. In Class G airspace, the pilots were responsible for their own collision avoidance.

A Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility.

'Basic Service relies on the pilot avoiding other traffic, unaided by controllers/ FISOs. It is essential that a pilot receiving this ATS remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight.'

UKAB Secretariat

The EC135 and PA28 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 converging then the PA28 pilot was required to give way to the EC135².

Summary

An Airprox was reported when an EC135 and a PA28 flew into proximity at 1258 on Sunday 16th July 2017. Both pilots were operating under VFR in VMC, the EC135 pilot in receipt of a Basic Service from Scottish Information and the PA28 pilot listening-out on the same frequency.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

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

Members quickly agreed that it appeared that both crews had been distracted by in-cockpit activities at the time of the incident to the detriment of a more robust lookout: the PA28 pilot by his coaching of the student; and, although he had enhanced his own lookout, the EC135 pilot by the lack of lookout from the crewman and the obscuration of the PA28 behind the door pillar. A helicopter member felt that although the EC135 door pillar was a hindrance to a clear field of view, the effect could be mitigated by actively looking around it. Notwithstanding, it was recognised that even with a robust lookout technique, the limitations of the human eye in the airborne environment meant that not all aircraft would be sighted, and some members wondered whether a higher level of service could have been obtained by the EC135 pilot (from Glasgow for example), in order to enhance his situational awareness. In a similar vein, members were surprised that the EC135 was not fitted with a TAS given the nature of its tasking; such equipment would also provide useful situational awareness, at least of transponding aircraft such as the PA28 in this incident [UKAB Note: Subsequent to the Board meeting, the UKAB Secretariat was advised that the subject EC135 has now been fitted with TCAS].

The Board acknowledged that it was for both pilots to see-and-avoid, and for the PA28 pilot to give way to the EC135, which was on his right. In the event, the aircraft flew into proximity due to a late sighting by both pilots. Members were concerned as to the risk and, given the lack of action by both pilots, wondered whether a collision had been avoided purely by providence. After further consideration of the pilot-reported separations and their assessments of degree of risk, the Board decided that this was not the case, but that safety had been much reduced below the norm.

PART C: ASSESSMENT OF CAUSE, RISK AND SAFETY BARRIERS

Cause: A late sighting by both pilots.

Degree of Risk: B.

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(2) Converging.

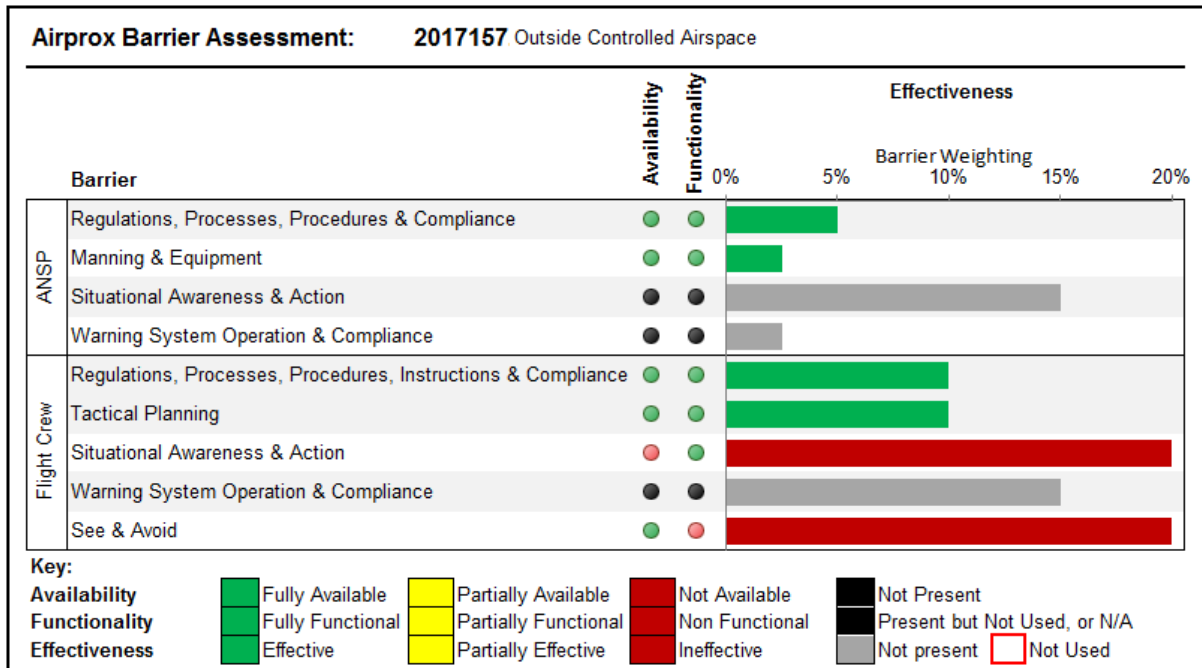
Safety Barrier Assessment³

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

Flight Crew:

Situational Awareness and Action were assessed as **ineffective** because neither crew had situational awareness on the other aircraft's position prior to first sighting.

See and Avoid were assessed as **ineffective** because although each pilot saw the other aircraft, neither had time to react to increase separation.



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