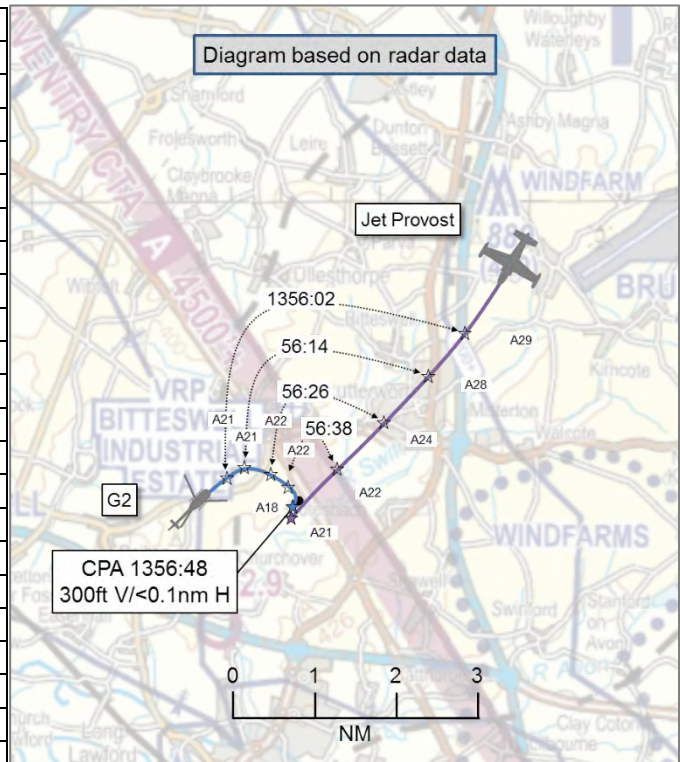


**AIRPROX REPORT No 2018135**

Date: 21 Jun 2018 Time: 1357Z Position: 5226N 00114W Location: 1nm S Bitteswell VRP

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	Cabri G2	Jet Provost
Operator	Civ Helo	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	None
Provider	East Midlands	N/A
Altitude/FL	1900ft	2200ft
Transponder	A,C,S	A,C
Reported		
Colours	Grey	Not reported
Lighting	Strobe	Not reported
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2100ft	2800ft
Altimeter	QNH (1017hPa)	QNH
Heading	100°	211°
Speed	80kt	221kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	~100ft V/300m H	800ft V/0.5nm H
Recorded	300ft V/<0.1nm H	



**THE CABRI G2 PILOT** reports that he spotted the Jet Provost on a direct course towards him in the left-hand side of his screen. It was moving fast and made no heading correction. After a second or two, he took control from his student, immediately altered heading to the right and descended fast. The Jet Provost pilot made no correction and, as they turned right, the aircraft flew in front at roughly the same level, just a little higher, perhaps 100ft or so. They received no information from East Midlands about the aircraft; they were at the time busy giving other pilots a Traffic Service. After landing at his base, he telephoned East Midlands ATC to ask if they had a Jet Provost on frequency at the time, but they did not. He also telephoned Birmingham and Coventry ATC to ask the same question but they also had not been contacted by a Jet Provost pilot. Because they were roughly at the same level and the Jet Provost was flying into the sun, he imagined that they did not see them until late, if at all, which would explain why they made no attempt to avoid them. Given their relatively fast speed and low altitude he opined that he would have expected them to be in radio contact with a local ATC service.

The pilot did not report his assessment of the risk of a collision.

**THE JET PROVOST PILOT** reports that both pilots saw a helicopter well below (800ft lower) on the starboard side, not converging. The pilot in the left-seat asked the pilot in the right-seat to keep the helicopter in sight until well past. As there was no threat of a collision, no avoidance action was taken apart from the monitoring.

He assessed the risk of collision as 'None'.

**Factual Background**

The weather at East Midlands was recorded as follows:

METAR EGNX 211350Z 31013KT 270V350 CAVOK 18/03 Q1027=

## Analysis and Investigation

### CAA ATSI

ATSI had access to reports from the pilots of the Cabri G2 and the Jet Provost. The area radar and East Midlands R/T recordings for the period were reviewed. No formal report was received from East Midlands ATC, but the incident was discussed by e-mail with the ATC Manager at East Midlands. Screenshots in the report are taken from the area radar. All times UTC.

The Cabri G2 pilot was on a local flight routing via two VRPs to the west of East Midlands airspace before returning to his base. The pilot was flying VFR and was in receipt of a Basic Service from East Midlands Radar. The Jet Provost pilot was on a VFR flight; not in communication with any ATSU at the time of the Airprox.

The pilot of the G2 had been receiving a Basic Service from the East Midlands RAD1 controller since first contact at 1327:10. However, there were no further transmissions between the pilot and controller until the G2 pilot indicated that they wished to contact Leicester at 1403:08.

Figures 1-5 illustrate the convergence of the Jet Provost with the G2 (transponding 4571).

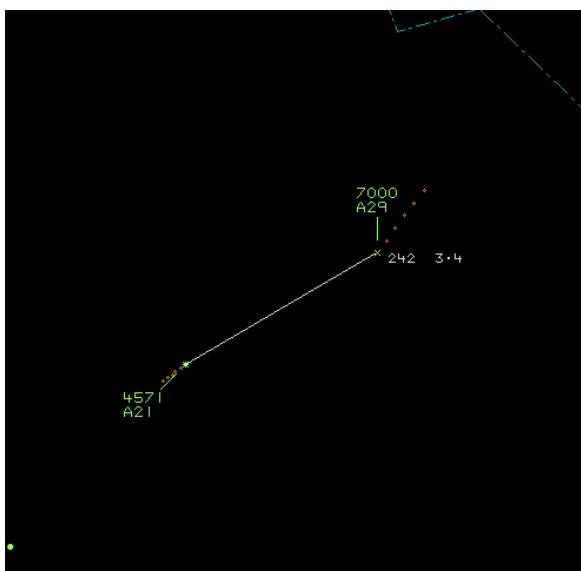


Figure 1 – 1356:03.

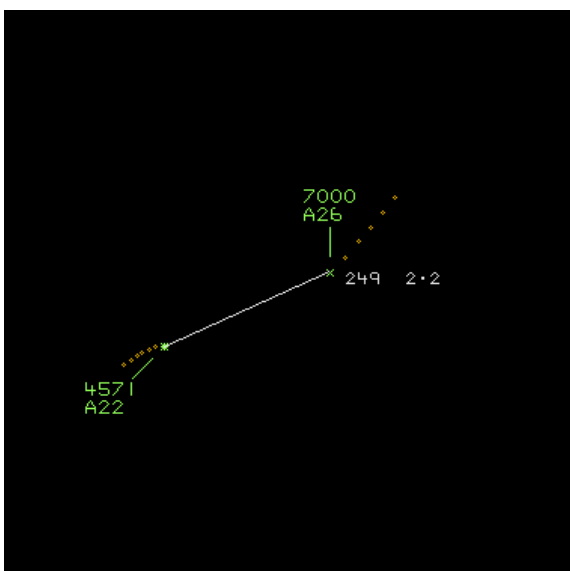


Figure 2 – 1356:18.

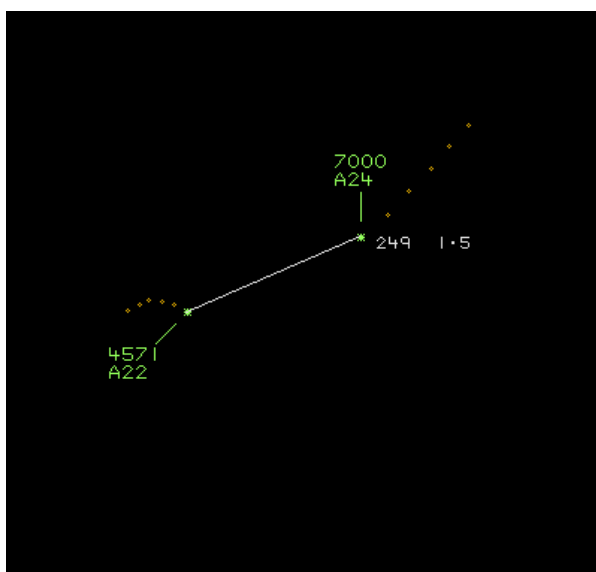


Figure 3 – 1356:26.

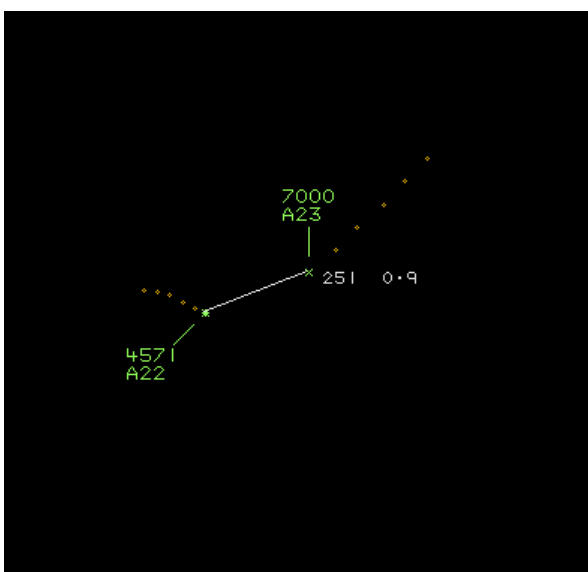


Figure 4 – 1356:36.

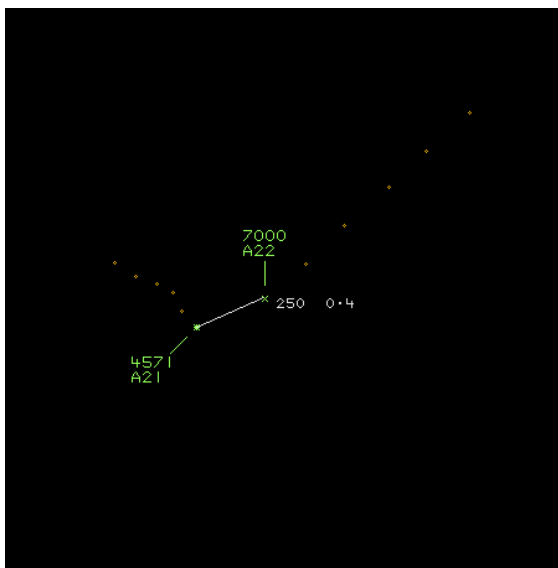


Figure 5 – 1356:44.

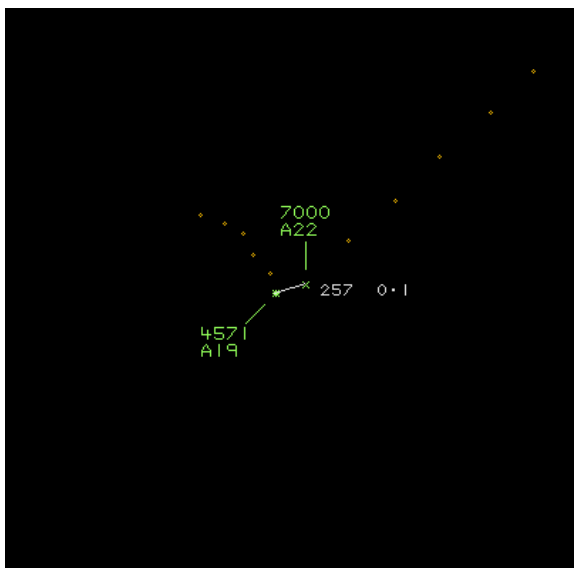


Figure 6 – CPA – 1356:47.

CPA took place at 1356:47, with the aircraft separated by less than 0.1nm laterally and 300ft vertically. No Traffic Information was passed by the RAD1 controller to the G2 pilot (Figure 6).

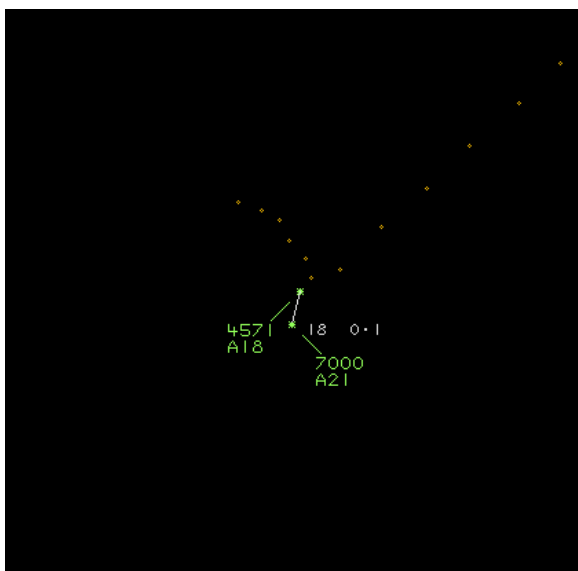


Figure 7 – 1356:50.

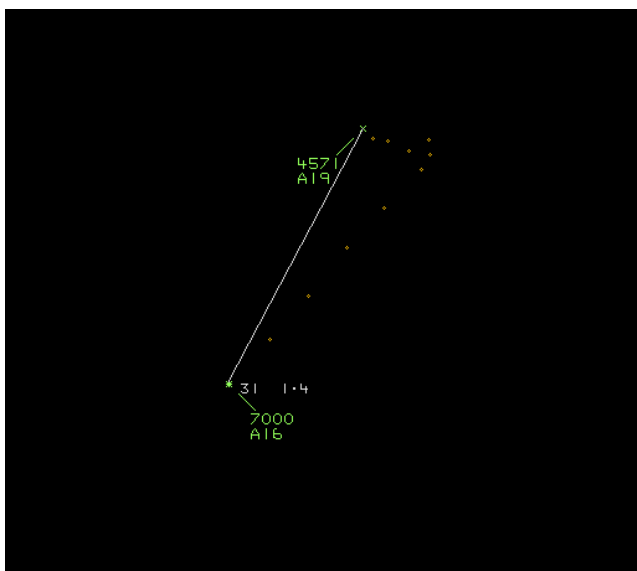


Figure 8 – 1357:12.

No formal report was submitted by East Midlands ATC, however, the events leading up to and including the Airprox were discussed with the East Midlands ATC Manager who had advised ATSI that the controller involved had been under training.

The G2 pilot was receiving a Basic Service. *'Given that the provider of a Basic Service is not required to monitor the flight, pilots should not expect any form of traffic information from a controller/FISO. A pilot who considers that he requires a regular flow of specific traffic information shall request a Traffic Service'. A controller with access to surveillance-derived information shall avoid the routine provision of traffic information on specific aircraft but may use that information to provide a more detailed warning to the pilot. If a controller/ FISO considers that a definite risk of collision exists, a warning shall be issued to the pilot (SERA.9005(b)(2) and GM1 SERA.9005(b)(2))'*.

The pilot remains responsible for collision avoidance.

ATSI opined that it was disappointing that the Jet Provost pilot did not consider it appropriate to contact East Midlands LARS, bearing in mind the aircraft's proximity to East Midlands controlled airspace (with inbound traffic passing above) and that there was also a Royal Helicopter Flight NOTAM'd for the area at the time for which, although not a direct factor in the Airprox, East Midlands ATC could have assisted the Jet Provost pilot with ensuring adequate separation.

The East Midlands ATC manager reported that the radar controller was busy coordinating a handover of an aircraft to the next ATSU and so did not see the G2. There was also no reference to an Airprox made by the pilot of the G2 at the time.

ATSI noted that the report from the Jet Provost pilot did not match with the Airprox with the G2. The Jet Provost pilot reported being at an altitude of 2800ft, with the helicopter 800ft/0.5nm below. As the radar figures show, both aircraft were virtually at the same level for some time. The Jet Provost pilot also reported that the helicopter they saw was not converging (which it was). It is considered possible that the helicopter the pilot of the Jet Provost referencing in their report, was part of a group of other helicopters tracking south in his vicinity.

### UKAB Secretariat

The Cabri G2 and Jet Provost 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>. Because the incident geometry is considered as converging then the Jet Provost pilot was required to give way to the G2<sup>2</sup>. A radar recording at 1353:02 (Figure 9), shows the Jet Provost 0.6nm horizontally and 800ft vertically from another helicopter (not the G2). This would seem to tie up with the information reported by the Jet Provost pilot: 0.5nm horizontally, 800ft vertically and not on a conflicting track. This is likely to have been the helicopter they reported sighting.

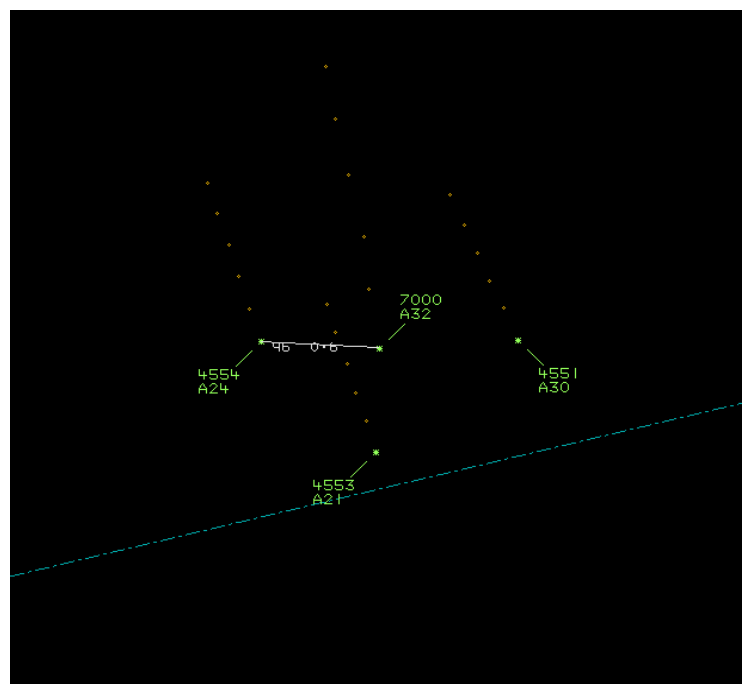


Figure 9 – 1353:02.

### Summary

An Airprox was reported when a Cabri G2 and a Jet Provost flew into proximity at 1357hrs on Thursday 21<sup>st</sup> June 2018. Both pilots were operating under VFR in VMC, the G2 pilot was in receipt of a Basic Service from East Midlands. The Jet Provost pilot was not in receipt of an ATS.

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

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

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

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

The Board first discussed the actions of the G2 pilot and noted that he was in receipt of a Basic Service from East Midlands. Noting that the G2 pilot had said that he was aware that other pilots were receiving a Traffic Service at the time, it was presumably possible, subject to controller workload, that he would have received one if he had asked. GA members commented that he might not have wished to receive a Traffic Service whilst conducting training because of the need to concentrate on flying aspects without interruption. They went on to comment that, in their experience, a considerable number of GA pilots do not request a Traffic Service because either they have been refused it in the past or their colleagues have commented that it is rarely available. In relation to his comment that he had received no information from East Midlands, it was unclear to members whether he had expected Traffic Information when only in receipt of a Basic Service or if this was just a factual background statement about the incident. Members noted that the G2 pilot had found it necessary to immediately alter course to the right and to descend quickly to avoid the Jet Provost. One member wondered whether it would have been more appropriate for the G2 pilot to turn left rather than right, but, looking at the radar recordings, it was noted that the G2 was already in a right turn at the time and so it was considered that the time taken to reverse the direction of turn would likely have meant its pilot would not have been successful in avoiding the Jet Provost.

For their part, the Jet Provost pilot reported seeing a helicopter in the area, but the pilot's description did not tie in with the radar recordings of the event. As a result, it was agreed that the Jet Provost pilot had not seen the G2, probably because the helicopter would have been difficult to see when looking at a stationary object in the windscreen against a dark background. The Board noted ATSI's comments regarding the Jet Provost pilot not being in communication with any ATSU at the time of the incident. They agreed that, ideally, because of the fairly rapid speed of the aircraft and the proximity of controlled airspace, the Jet Provost pilot would have been better served by contacting East Midlands LARS to increase both their own situational awareness and ATC's; this was especially so given that East Midlands was a nominated ATSU for the NOTAM'd Royal Helicopter Flight that was in the area at the time. Although the Board acknowledged that there was no requirement for the pilot to do so, given the absence also of any electronic conspicuity equipment in the Jet Provost, it might have been prudent to have done so anyway in the circumstances.

The Board then turned its attention to the cause and risk. Although the G2 pilot had not reported the range at which he had first seen the Jet Provost, from the immediate action he had taken it was apparent that this had been a late sighting. Having agreed previously that the Jet Provost pilot had not seen the G2, the Board considered that the cause of the Airprox was a late sighting by the G2 pilot and a non-sighting by the Jet Provost pilot. Turning to the risk, although the G2 pilot had taken appropriate action to increase the separation between the two aircraft, it had only been at the last minute. The Board consequently considered that safety had been much reduced below the norm and accordingly assessed the Airprox as risk Category B.

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

Cause: A non-sighting by the Jet Provost pilot and a late sighting by the G2 pilot.

Degree of Risk: B.

### Safety Barrier Assessment<sup>3</sup>

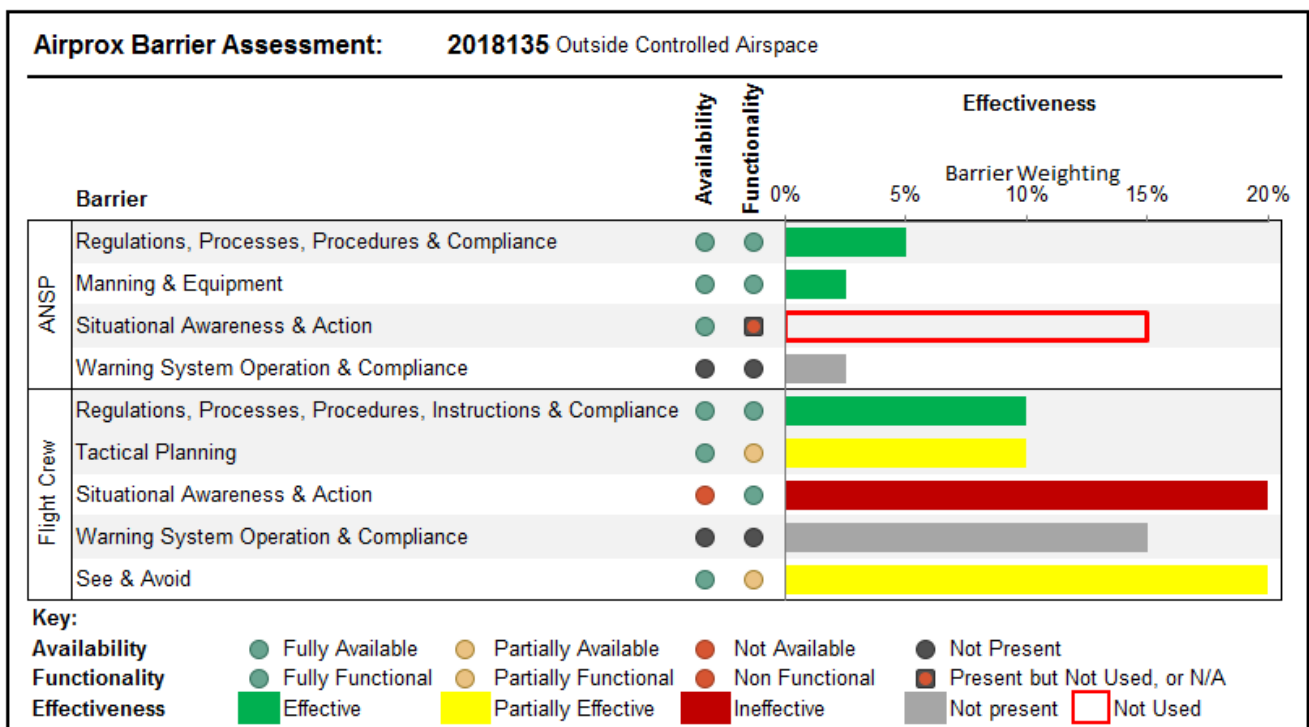
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

#### Flight Crew:

**Tactical Planning** was assessed as **partially effective** because the Jet Provost pilot had not requested an ATS, especially as they were routeing close to East Midlands, which is a publicised LARS unit.

**Situational Awareness and Action** were assessed as **not available** because neither pilot had any knowledge of the other due to neither being on a suitable ATS to receive Traffic Information and neither having a CWS.

**See and Avoid** were assessed as **partially effective** because the Cabri G2 pilot only saw the Jet Provost late and had to take emergency avoiding action. It was believed that the Jet Provost pilot did not see the Cabri G2.



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