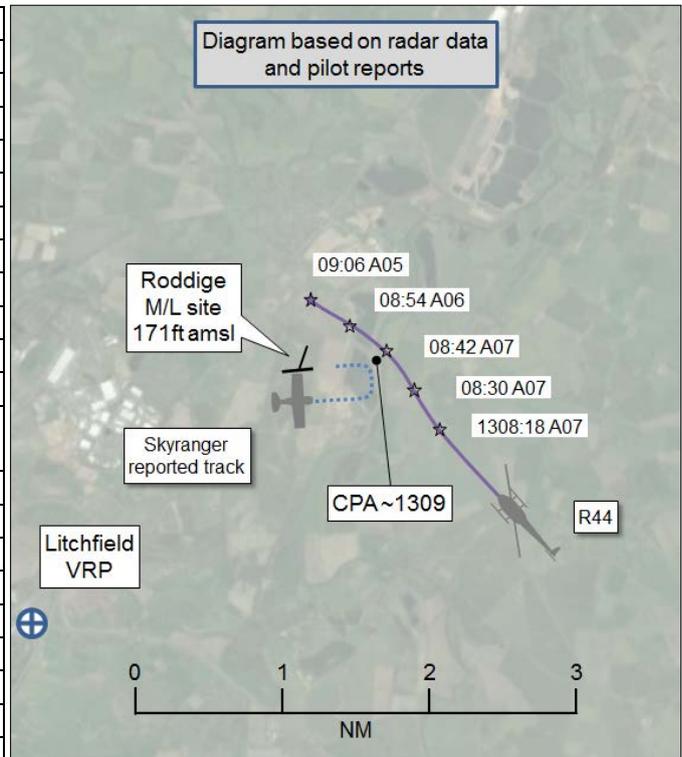


AIRPROX REPORT No 2017037

Date: 07 Mar 2017 Time: 1309Z Position: 5243N 00144W Location: Roddige airfield (elev 175ft)

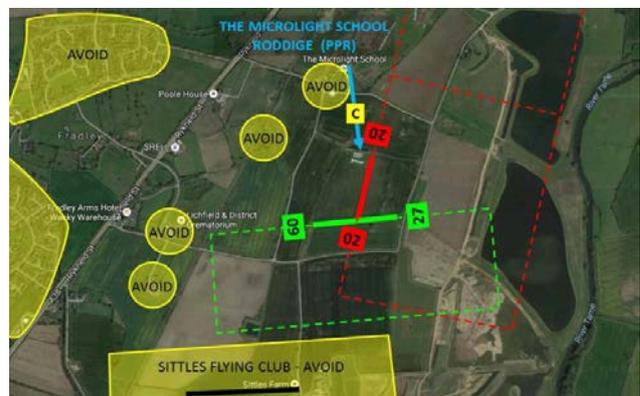
PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Skyranger	R44
Operator	Civ Trg	Civ Comm
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	N/A	London
Altitude/FL	NMC	700ft
Transponder	Not observed	A, C, S
Reported		
Colours	White	Blue/white
Lighting	Nil	Strobes, HISL, nav
Conditions	VMC	VMC
Visibility	>10km	20nm
Altitude/FL	500ft	6-700ft
Altimeter	QFE (1011hPa)	RPS (NK hPa)
Heading	270°	300°
Speed	60kt	90kt
ACAS/TAS	Not fitted	TCAS I
Alert	N/A	None
Separation		
Reported	<100ft V/0m H	300ft V/1nm H
Recorded	NK	



THE SKYRANGER PILOT reports instructing a student pilot (PF) in the visual circuit, descending on left base for RW27 and turning final from a 500ft circuit. At this point, a helicopter passed under them from behind on a heading of about 300° and appeared to continue across the airfield with no change of heading or height.

He assessed the risk of collision as 'High'.



THE R44 PILOT reports that whilst approaching Alrewas, conducting a pipeline inspection, he noticed a high-wing 'ultralight type' aircraft low in the 10 o'clock position at a range of about 2-3000m. He checked the TCAS but could see no return and so initially assumed it was further away. He looked down to confirm he had the R/T frequency of his destination selected. He looked up again to see the light aircraft closer at around the same height. It then did a sharp climbing turn. He commented to the Observer that 'I think he has just seen us' and noted the time on his kneepad. He again checked for a return on TCAS but nothing showed. The R44 pilot stated that, as he was happy he had seen the other aircraft early enough, he continued with the patrol.

He assessed the risk of collision as 'Medium'.

Factual Background

The weather at Birmingham and East Midlands was recorded as follows:

```
METAR EGBB 071320Z 23007KT 180V260 9999 FEW033 09/02 Q1016=
METAR EGNX 071320Z 25007KT 200V290 9999 SCT020 09/02 Q1016=
```

Analysis and Investigation

UKAB Secretariat

In subsequent discussion with the Skyranger pilot it has been determined that his approximate base leg track was over the eastern side of the southerly of the two bodies of water to the east of the airfield.

The Skyranger and R44 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation².

Summary

An Airprox was reported when a Skyranger and an R44 flew into proximity at 1309 on Tuesday 7th March 2017. Both pilots were operating under VFR in VMC, the Skyranger pilot not in receipt of a Service and the R44 pilot in receipt of a Basic Service from London Information.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots and radar photographs/video recordings.

Members commented that this Airprox seemed to be the unfortunate result of a pipeline inspection pilot being required, as part of his task, to pass close to the vicinity of Roddige airfield, which was active at the time. Members discussed the scope of the SERA requirement to avoid the pattern of traffic formed by aircraft in operation at an aerodrome, and agreed that avoidance should be such that pilots in the visual pattern were not distracted to a degree that safety may be compromised. It appeared in this case that the R44 pilot had not achieved that degree of separation.

Turning specifically to the R44 pilot's actions, members accepted that a pipeline inspection could pass in the proximity of dozens of airfields, and that an advisory R/T call to all of them was not practical. However, it was assumed that a pipeline inspection was a planned event and that the operations department of the company conducting the pipeline inspection could both notify affected airfields in advance and ensure that the R44 pilot would be aware that he was transiting close to those airfields during his task. The R44 pilot commented that he had seen the Skyranger at a distance he estimated as 2-3000m and then initially assumed it was further than that due to it not appearing on the range scale of his TCAS display (set to 6km). Members commented that this may have demonstrated an over-reliance on electronic conspicuity as any aircraft he saw may not be transponder equipped. Members felt that the R44 pilot would have been better served by maintaining visual contact with the Skyranger whilst checking the proximity of local airfields such that he could avoid the visual circuit by a suitable amount, if required. Some members opined that, given that he had seen the Skyranger and also should have been aware of the airfield, the R44 pilot had continued with his task to the detriment of the primary SERA requirement regarding operations in the vicinity of aerodromes. Because the Skyranger was in the visual circuit, contrary to the R44 pilot's perception that he was leaving it, and that the geometry of the Airprox was such that the Skyranger pilot was unlikely to see the R44 before CPA, it was agreed that the cause had been that the R44 pilot had

¹ SERA.3205 Proximity.

² SERA.3225 Operation on and in the Vicinity of an Aerodrome.

flown into conflict with the Skyranger. Notwithstanding, it was also agreed that the R44 pilot had seen the Skyranger before CPA and that, although safety had not been assured, there was no risk of collision.

PART C: ASSESSMENT OF CAUSE, RISK AND SAFETY BARRIERS

Cause: The R44 pilot flew into conflict with the Skyranger in the visual circuit at Roddige.

Degree of Risk: C.

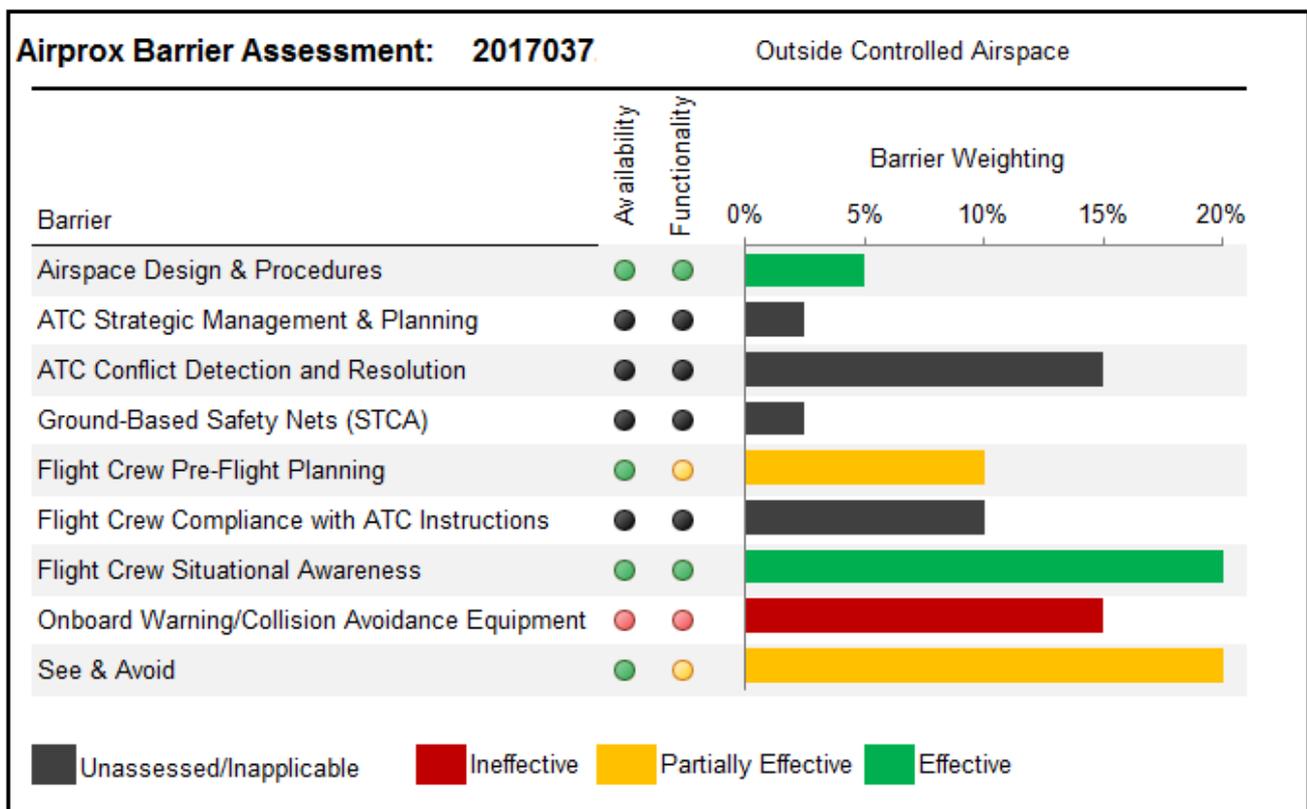
Safety Barrier Assessment³

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

Flight Crew Pre-Flight Planning was assessed as **partially effective** because the R44 pilot did not seem to have included contingency planning should he be faced with traffic in a visual circuit which may conflict with the requirements of his pipeline inspection.

Onboard Warning/Collision Avoidance System was assessed as **ineffective** because the Skyranger was not fitted with such equipment and it appeared from the radar picture and the R44 pilot's narrative that it was not transponding and therefore not able to alert the R44 system.

See and Avoid was assessed as **partially effective** because the Skyranger pilot did not see the approaching R44, although the R44 pilot did see the Skyranger and thereby ensured there was no risk of collision.



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