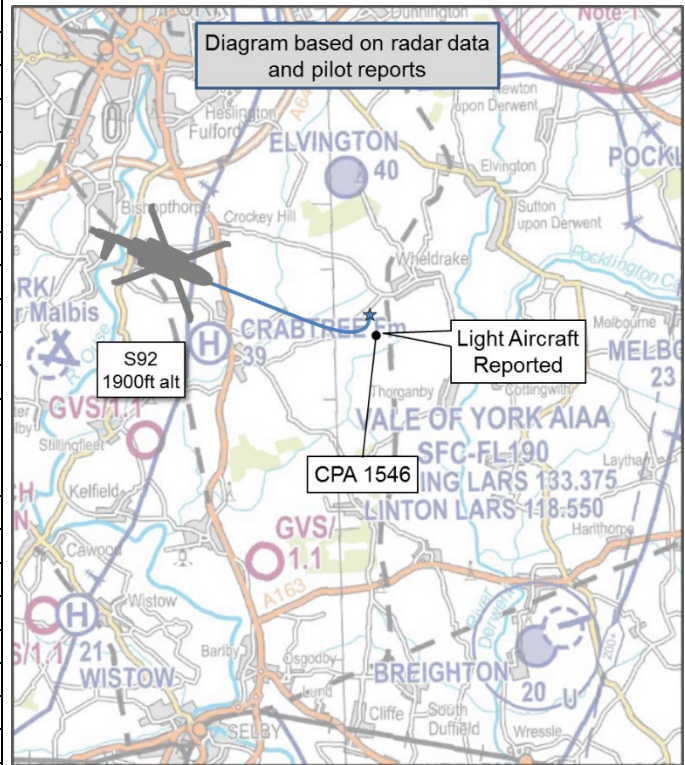


AIRPROX REPORT No 2017245

Date: 12 Oct 2017 Time: 1546Z Position: 5352N 00059W Location: 5nm SE Elvington

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	S92	Light Aircraft
Operator	HEMS	Unknown
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	
Service	None	
Provider		
Altitude/FL	1900ft	
Transponder	A, C, S	
Reported		
Colours	White, Red	
Lighting	Landing, Position lights, Anti-cols	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	2000ft	
Altimeter	QNH (1016hPa)	
Heading	110°	
Speed	130kt	
ACAS/TAS	TCAS II	
Alert	None	
Separation		
Reported	400ft V/500m H	
Recorded		NK



THE S92 PILOT reports that he was at the end of a search and rescue training sortie, had just terminated an ATS with Leeds, and gone *en-route*. He transited between Linton and Leeds East (Church Fenton) but had not yet called Humberside when he saw a small high-wing single-prop aircraft directly ahead on a near reciprocal track; it was slightly above him, about ½ nm away. He turned to the left and descended 400ft. The other aircraft passed nearly overhead and did not appear to change heading or altitude. Humberside Radar was contacted immediately afterwards. He queried whether Humberside could see anything in the area and they advised that they could see an aircraft on secondary radar only, 6-7nm behind. He continued with his flight and landed without further incident. He had not received a TCAS indication at all during the encounter. A later review of a radar replay with Humberside revealed that the aircraft reported by Humberside 6-7nm behind had not come close to them throughout the flight and nothing else was seen in the area at the time.

He assessed the risk of collision as 'Medium'.

THE LIGHT AIRCRAFT PILOT could not be traced.

Factual Background

The weather at Leeds/Bradford was recorded as follows:

METAR EGNM 121550Z 23012KT 210V270 9999 SCT030 13/11 Q1016=

Analysis and Investigation

UKAB Secretariat

The S92 and the light-aircraft 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, notwithstanding the overriding responsibility to avoid a collision.

Summary

An Airprox was reported when a S92 and a light aircraft flew into proximity at 1546 on Thursday 12th October 2017. The S92 pilot was operating under VFR in VMC, without an ATS, the light aircraft pilot could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the S92 pilot and radar photographs/video recordings.

The Board first looked at the actions of the S92 pilot. He was transiting through the Vale of York area of intense aerial activity (AIAA) and some members thought he would have been wise to have sought an ATS; although not yet in range for Humberside, they suggested that he could have called Linton on Ouse for a LARS transit. However, noting that the light-aircraft did not show on the NATS radars and seemed not to have been visible to Humberside when the S92 pilot did call them, it was acknowledged that in this particular case it might have made little difference. The Board noted also that the S92's TCAS did not alert, implying that the other aircraft was not transponder equipped (or not selected on), which left look-out as the final barrier. Ultimately, the S92 pilot saw the other aircraft at a range of 0.5nm, which, although later than ideal, gave him enough time to take avoiding action.

Without his report, it was not possible to know whether the light aircraft pilot was visual with the S92 or not. Certainly, the S92 pilot reported that it didn't appear to take any avoiding action, which would imply that the light-aircraft pilot did not see the helicopter. The light-aircraft also did not appear to be squawking, and may not have been transponder equipped; however, the Board wished to highlight to all pilots that, since 12th October 2017 (coincidentally, the date of this Airprox), it is now mandated by SERA 13001 that aircraft that are fitted with a serviceable transponder are required to turn it on with all modes selected.

Finally, the Board looked at the cause and risk of the Airprox, which was agreed as a late sighting by the S92 pilot and a probable non-sighting by the light aircraft pilot. However, when assessing the risk, the Board were split in their debate with some believing that this was Category C, timely avoiding action had been taken by the S92 pilot, and others opining that the avoiding action had been of an emergency nature in a head-on situation where safety had been much reduced below the norm, making this Category B. In the end the Chairman took a vote and, by a narrow margin, the latter view prevailed.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the S92 pilot and probably a non-sighting by the light aircraft pilot.

Degree of Risk: B.

¹ SERA.3205 Proximity.

² SERA.3210 Right-of-way (c)(1) Approaching head-on.

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:

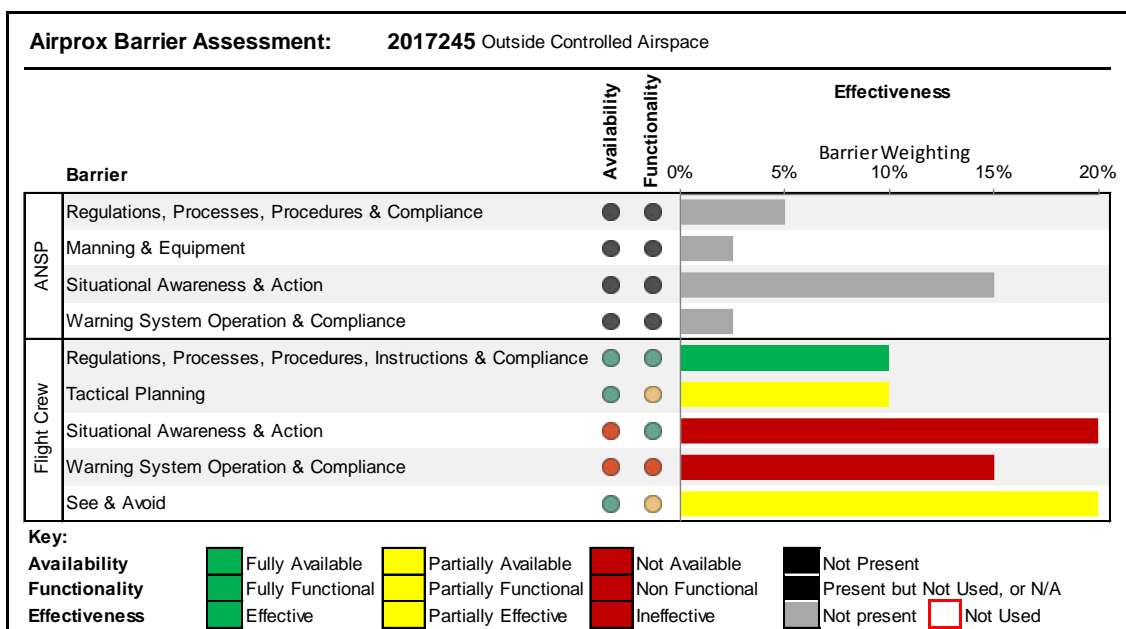
Flight Crew:

Tactical Planning was assessed as **partially effective** because the S92 pilot could have called Linton for a LARS service.

Situational Awareness and Action were assessed as **ineffective** because the S92 pilot wasn't able to get any situational awareness from any source.

Warning System Operation and Compliance were assessed as **ineffective** because the unknown aircraft did not have a transponder (or it wasn't switched on), so the TCAS could not detect it.

See and Avoid were assessed as **partially effective** because it was a late sighting by the S92 pilot, who then had to take emergency avoiding action.



³ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](http://www.ukab.co.uk).