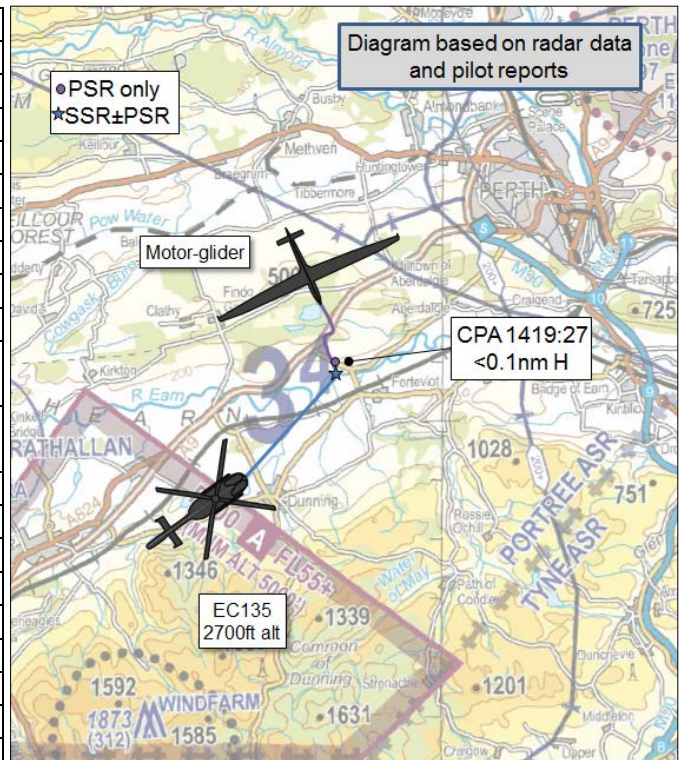


AIRPROX REPORT No 2017042

Date: 25 Mar 2017 Time: 1420Z Position: 5620N 00331W Location: 8nm SW Perth

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	EC135	Motor Glider
Operator	HEMS	Unknown
Airspace	Scottish FIR	Scottish FIR
Class	G	G
Rules	VFR	
Service	None	
Altitude/FL	FL023	
Transponder	A, C, S	
Reported		
Colours	Yellow, Green, Blue	White, Red
Lighting	Strobes, Landing, Nav	
Conditions	VMC	
Visibility	>40km	
Altitude/FL	2700ft	
Altimeter	QNH (1030hPa)	
Heading	040°	
Speed	115kt	
ACAS/TAS	Not fitted	
Separation		
Reported	25ft V/200m H	
Recorded	NK V/<0.1nm H	



THE EC135 PILOT reports that he was returning to his base having dropped off a patient in Glasgow. He was in the open FIR, 8nm SW Perth, and had just left Scottish Info’s frequency, but not yet checked in on Perth’s. He was in a gentle descent from 3500ft to 1400ft. They were running through the arrival check-list when a mid-wing, red and white motor-glider, thought to be a Schiebe-Falke SF25, appeared from behind the windscreen pillar, slightly below the 10-11 o’clock position, head-on and on a converging course. He manoeuvred to the right and he saw the motor-glider also turn away and pass down the left-hand side, 200m laterally and 25ft vertically. The motor-glider had been invisible to the RHS pilot due to being obscured by the windscreen pillar, and the LHS paramedic was heads-in reading the checklist at the time.

He assessed the risk of collision as ‘High’.

THE MOTOR-GLIDER PILOT could not be traced.

Factual Background

The weather at Dundee was recorded as follows:

METAR EGNP 251420Z 22007KT CAVOK 14/06 Q1030=

Analysis and Investigation

UKAB Secretariat

Figures 1 and 2 are screen shots of the radar data showing the EC135, squawking 0020 and an unidentified primary only track. At Figure 1 the two aircraft are 1.4nm apart and at Figure 2 they are less than 0.1nm apart.

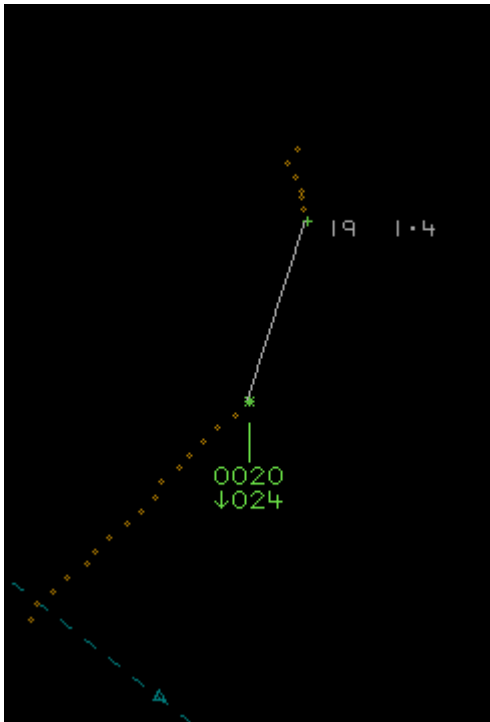


Figure 1 1419:00

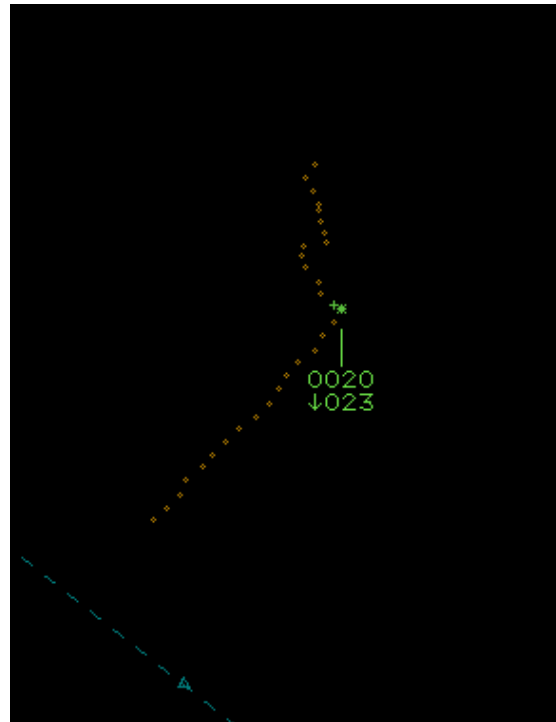


Figure 2 1419:27

The EC135 and motor-glider 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. If the incident geometry is considered as converging then the EC135 pilot was required to give way to the motor-glider³ (a motor-glider is classed as a glider for the purposes of rules of the air).

Summary

An Airprox was reported when an EC135 and a motor-glider flew into proximity at 1420 on Saturday 25th March 2017. The EC135 operating under VFR in VMC, not in receipt of an ATS. The motor-glider pilot could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the EC135 pilot and radar photographs/video recordings.

The Board first looked at the actions of the EC135 pilot. Noting that he was not receiving a radar-based ATS at the time, and that none was practically available at his altitude, it was unfortunate timing that he came into proximity with the motor-glider when he did; even if he had called Perth ATC prior to doing his checks, Perth are not radar equipped and so would have been very unlikely to be

¹ SERA.3205 Proximity.

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

³ SERA.3210 Right-of-way (c)(2) Converging.

able to give him any Traffic Information on the motor-glider. Members noted that the EC135 was not fitted with a CWS and, given the likelihood of encountering gliders during their tasking, some members wondered whether the operating authority had considered fitting a FLARM-compatible CWS or similar, as had NPAS with its fleet. If the motor-glider had been FLARM fitted (quite likely given FLARM's increasing prevalence amongst the gliding community) such a system might have alerted the EC135 pilot to the motor-glider's presence. Ultimately, operating as he was in Class G airspace without an ATS or CWS, see-and-avoid was the EC135 pilot's only mitigation against mid-air collision, and the fact that he was conducting his arrival checks had understandably reduced his and his crewman's capacity for robust and effective look-out. That being said, although it was a late sighting, he did see the other aircraft in time to take avoiding action, albeit achieving less separation than would be desirable.

Turning to the motor-glider pilot, the Board were disappointed that he couldn't be traced; despite efforts by the UKAB Secretariat and the Gliding Board Member to contact local gliding clubs in the vicinity, the pilot could not be found. Without his report it was not known at what stage he had seen the helicopter, or whether he was concerned by its presence. Although the EC135 pilot reported that it appeared that the motor-glider pilot too was taking avoiding action, the Board could not be sure this was the case, he could have simply been turning to enter a thermal.

In assessing the cause of the Airprox, the Board quickly agreed that this had been a late sighting by the EC135 pilot; unfortunately, they could make no assessment of whether the motor-glider pilot had seen the EC135. Based on the radar recording and the EC135 pilot's description of the incident, they assessed the risk as Category B; although the EC135 pilot had taken avoiding action, safety margins had still been much reduced below the norm.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the EC135 pilot.

Degree of Risk: B.

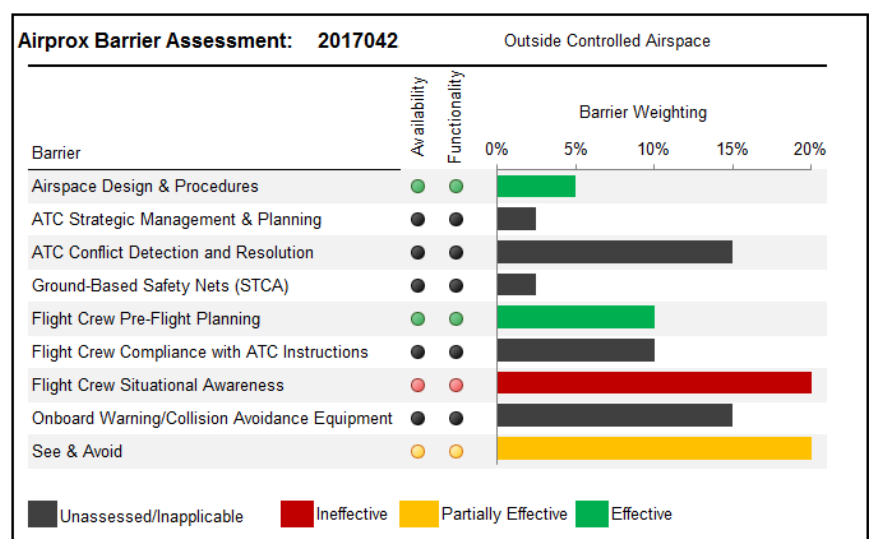
Safety Barrier Assessment⁴

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 was assessed as **ineffective** because there was no information available to the EC135 pilot to warn him about the motor-glider.

Onboard Warning/Collision Avoidance System was assessed as **inapplicable** because the EC135 was not fitted with a CWS.

See and Avoid was assessed as **partially effective** because although the EC135 pilot took avoiding action, it was later than ideal.



⁴ The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).