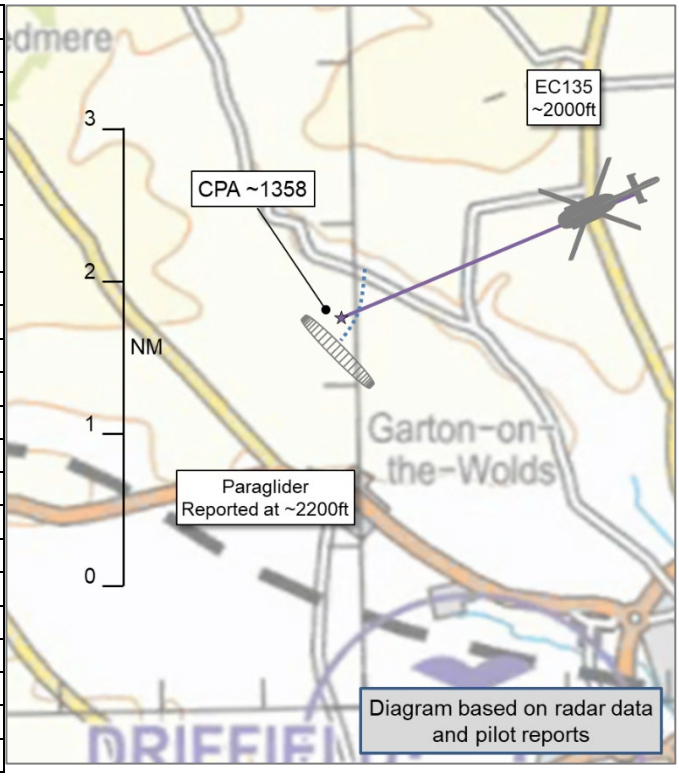
AIRPROX REPORT No 2022168

Date: 08 Aug 2022 Time: ~1358Z Position: 5402N 00030W Location: IVO Garton on the Wolds

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Nova Paraglider	EC135
Operator	Civ Hang	NPAS
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Altitude/FL	NK	FL016
Transponder	Not fitted	A, C, S
Reported		
Colours	Orange, White	Yellow, Black
Lighting	Nil	Nav
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	670m (~2200ft)	1500ft
Altimeter	amsl	QNH
Heading	Westerly	NK
Speed	15kt	60kt
ACAS/TAS	Not fitted	TCAS II
Alert	N/A	None
Separation at CPA		
Reported	3-400ft V/0m H	0ft V/1000m H[1]
Recorded	NK	



THE PARAGLIDER PILOT reports that they were flying close to Garton on the Wolds when colleagues following them on the ground in a car alerted them to the approaching helicopter. At the same time they heard its engines. Almost as soon as they realised the helicopter was there it routed directly beneath them, on a similar heading, 3-400ft below. There was no time to take any action.

The pilot assessed the risk of collision as 'Medium'.

THE EC135 PILOT reports that they were orbiting approximately 3NM south of Eddsfield airfield. There had been reports from a police officer that a very low flying microlight/paraglider/gyrocopter was weaving left and right and disappeared behind some trees and had possibly crashed in a valley. The police, ambulance and fire service were also in attendance. When they arrived on scene, they started the search pattern by conducting right-hand orbits at approximately 1500ft centred on the WHAT3WORDS grid. These orbits were slowly widened-out to encompass Eddsfield airfield, where blind calls were made. At approximately 1450hrs (local), in a right-hand orbit, the front TFO [crewman] caught a glance of a microlight/paraglider approximately 1km away in the 9 o'clock position flying on a southerly heading. The right-hand orbit was continued to move away from the aircraft and they positioned to get "eyes on" the aircraft. No TCAS alerts were seen. When they became visual, they identified the aircraft as a microlight with white triangle upper wing, black fuselage with yellow wheel coverings. The aircraft was positioned into the microlight's 8-9 o'clock to capture video evidence that this was possibly the reported aircraft. The closest distance they were to the microlight was 1.2 miles (verified on camera) and the aircraft did not change direction during this time. They concluded the task at 1455 and returned to base. On reviewing the camera footage, no other aircraft was seen during the search.

The pilot assessed the risk of collision as 'Low'.

[1] Pilot assessed separation from the microlight described in the EC135 pilot's report.

Factual Background

The weather at Humberside was recorded as follows:

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METAR EGNJ 081320Z 23005KT 150V280 9999 SCT044 25/14 Q1027=
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Analysis and Investigation

UKAB Secretariat

An analysis of the NATS radar replay was undertaken. The EC135 could be seen squawking 0052 (listed as Police Air Support) and identified using Mode S data. The paraglider could not be seen on the radar. At 1349 (Figure 1) the EC135 could be seen orbiting as described in the pilot's report approximately 3NM south of Eddsfield and, at 1350:51, left the orbit on a southerly heading (Figure 2).

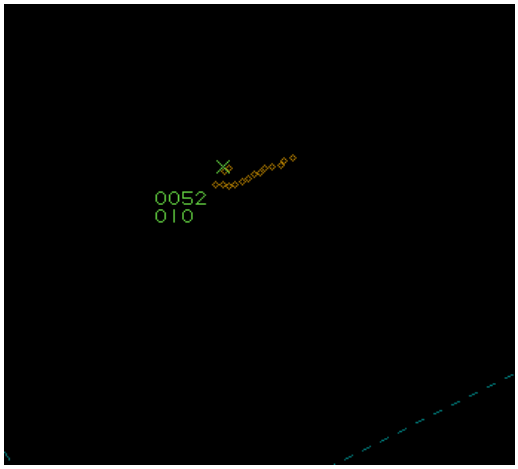


Figure 1:1349:40

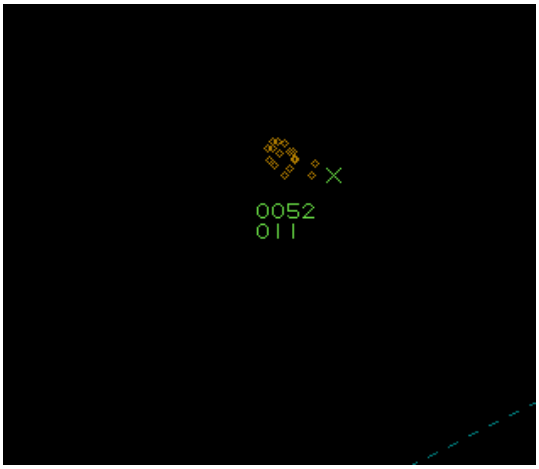


Figure 2 1350:51

The EC135 then continued on a south-westerly heading indicating FL016 (approximately 2000ft on QNH 1027hPa), until at 1358 they transited in the region of Garton on the Wolds (marked on the screenshot with a white cross, see Figure 3). The paraglider could not be seen on the radar at all, however, the paraglider pilot had provided a GPS track of their flight which, when aligned with the radar, placed the paraglider in the vicinity of the EC135's track.

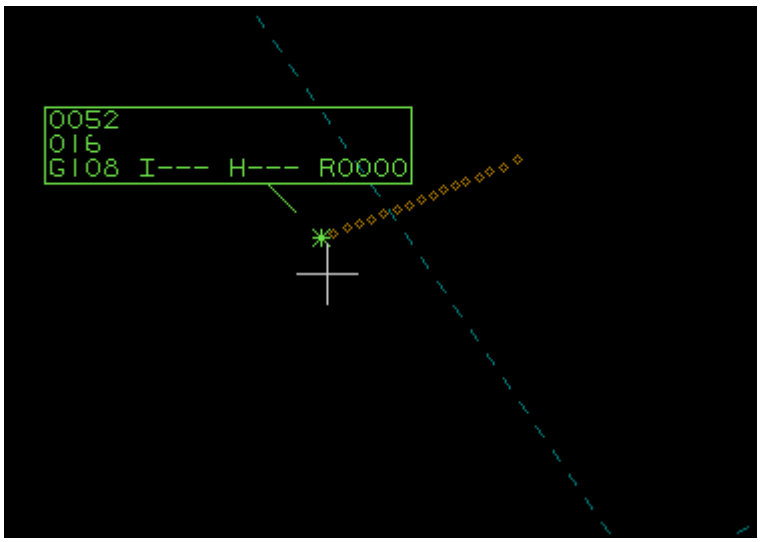


Figure 3:1358:16

The Paraglider and EC135 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.[2] If the incident geometry is considered as converging then the EC135 pilot was required to give way to the paraglider.[3] If the incident geometry is considered as overtaking then the paraglider pilot had right of way and the EC135 pilot was required to keep out of the way of the other aircraft by altering course to the right.[4]

Comments

BHPA

The BHPA is relieved that this Airprox did not result in a collision as it seems clear that the EC135 crew did not see the paraglider pilot at all. In fact, the EC135 pilot very accurately describes the weight-shift microlight that they were looking for but not the paraglider.

The BHPA continues to remind all its members that they should consider filing a CANP if locally soaring/flying and to keep a sharp lookout at all times. We also ask pilots to consider buying one of the small EC devices which have been designed to be used by paraglider, paramotor and hang-glider pilots. Such a device emitting a FLARM or ADS-B Out signal could give a timely warning to other aircraft in the vicinity if they are suitably equipped with compatible EC hardware.

Summary

An Airprox was reported when a paraglider and an EC135 flew into proximity in the vicinity of Garton on the Wolds at around 1358Z on Monday 8th August 2022. Both pilots were operating under VFR in VMC, neither was in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, GPS track data for the paraglider and radar photographs/video recordings. Relevant contributory factors mentioned during the Board's discussions are highlighted within the text in bold, with the numbers referring to the Contributory Factors table displayed in Part C.

The Board first looked at the actions of the paraglider pilot. They had been on a cross-country flight and had colleagues following in a car. Without an ATS, or any form of CWS, they had had no means of gaining any Traffic Information and therefore had had no prior situational awareness that the EC135 had been in the vicinity, until warned about it by their colleagues (**CF1**). Members discussed how the pilot could have improved this situation; whilst it was agreed that an ATS would have been impractical, they were informed about new EC equipment that was emerging on the market that used ADS-B and could be worn on the pilot's harness. They were told that at the moment such equipment was expensive and so not well used, but they looked forward to a time when it became more affordable and, therefore, widespread. Once the paraglider pilot had seen the EC135, they judged that the separation was such that they had not needed to take any avoiding action, but the Board agreed that they had been concerned by the helicopter's proximity (**CF4**). Members thought that the separation had been fortuitous, because the paraglider pilot would have had difficulty taking any avoiding action to get out of the way; they also noted that being above the EC135 meant that there had been no risk of a canopy collapse from the EC135's downwash.

Turning to the EC135, members quickly agreed that the pilot's description of the event did not match the known position of the paraglider and the pilot's description of the other aircraft, with wheel covers, matched that of a microlight and not a paraglider. The EC135 had been equipped with a TAS, but this could not detect the paraglider which had not been transponder equipped, nor carrying any form of EC equipment (**CF2**). As a consequence, the EC135 pilot had also been without any situational awareness on the paraglider (**CF1**). It was noted that the EC135 pilot would have had difficulty in seeing the

[2] (UK) SERA.3205 Proximity.
[3] (UK) SERA.3210 Right-of-way (c)(2) Converging.
[4] (UK) SERA.3210 Right-of-way (c)(3) Overtaking.

paraglider from a distance, due to the known difficulties in spotting such a small target and, because the helicopter had been below the paraglider, as it came closer it would have been obscured by the rotor-head on the helicopter. They therefore agreed that the EC135 crew had been describing an earlier event (looking for, and finding, a microlight) and had not seen the paraglider at all (**CF3**).

Members briefly discussed whether there had been any mechanism for warning the EC135 pilot that the paraglider had been in the area prior to them getting airborne. They discussed the CANP system, but this was only recommended when 5 or more paragliders were airborne, furthermore, being on a cross-country flight would have meant that any prior notice through a CANP would have been vague and of limited use, and therefore would not have been appropriate for this type of paraglider activity.

When assessing the risk, members took into consideration the reports from both pilots and the radar replay. Noting that the report from the EC135 pilot described a different event, but that the radar placed the helicopter in the vicinity of the paraglider's track at the correct time, they were confident that although the EC135 pilot had not seen the paraglider, they had been flying the helicopter involved in the Airprox. Nonetheless, the separation and geometry of the helicopter below the paraglider had meant that, although safety had been degraded, there had been no risk of collision; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2022168			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• Situational Awareness of the Conflicting Aircraft and Action			
1	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late, inaccurate or only generic, Situational Awareness
	• Electronic Warning System Operation and Compliance			
2	Technical	• ACAS/TCAS System Failure	An event involving the system which provides information to determine aircraft position and is primarily independent of ground installations	Incompatible CWS equipment
	• See and Avoid			
3	Human Factors	• Monitoring of Other Aircraft	Events involving flight crew not fully monitoring another aircraft	Non-sighting or effectively a non-sighting by one or both pilots
4	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: C.

Safety Barrier Assessment[5]

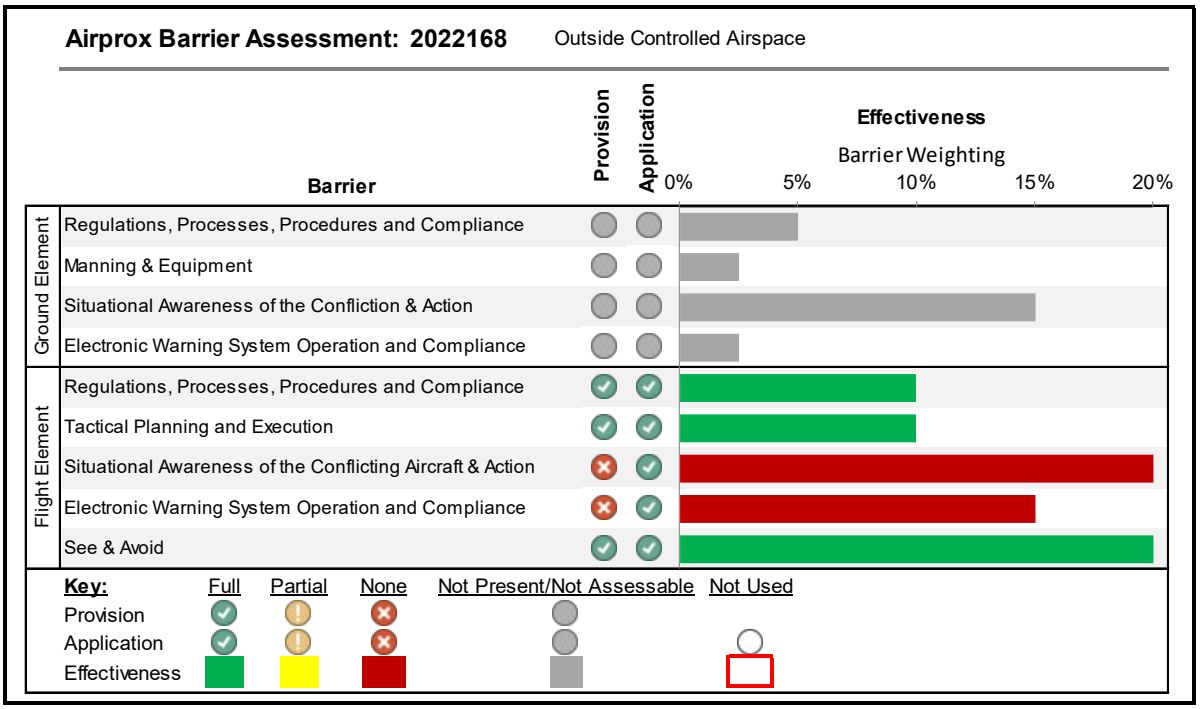
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot had any prior situational awareness that the other was in the vicinity.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the TAS on the EC135 could not detect the paraglider.

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


Airprox Barrier Assessment: 2022168
Outside Controlled Airspace
Barrier
Provision
Application
Effectiveness
Barrier Weighting
0%
5%
10%
15%
20%
Ground Element
Regulations, Processes, Procedures and Compliance
Manning & Equipment
Situational Awareness of the Confliction & Action
Electronic Warning System Operation and Compliance
Flight Element
Regulations, Processes, Procedures and Compliance
Tactical Planning and Execution
Situational Awareness of the Conflicting Aircraft & Action
Electronic Warning System Operation and Compliance
See & Avoid
Key:
Full
Partial
None
Not Present/Not Assessable
Not Used
Provision
Application
Effectiveness