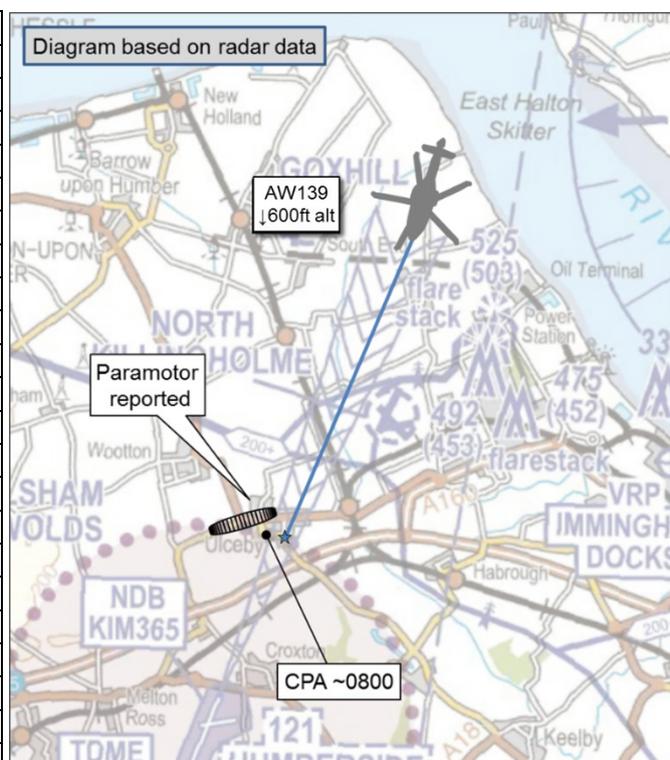


## **AIRPROX REPORT No 2019273**

Date: 13 Sep 2019 Time: 0800Z Position: 5337N 00018W Location: Humberside

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	AW139	Paramotor
Operator	Civ Helo	Civ Para
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	
Service	ACS	
Provider	Humberside	
Altitude/FL		
Transponder	A, C, S	
<b>Reported</b>		<b>Not Reported</b>
Colours	Red, White	
Lighting	NR	
Conditions	VMC	
Visibility	>10km	
Altitude/FL	600ft	
Altimeter	agl	
Heading	203°	
Speed	110kt	
ACAS/TAS	TCAS I	
Alert	None	
<b>Separation</b>		
Reported	0ft V/100m H	
Recorded		NK



**THE AW139 PILOT** reports that he was on short finals for Humberside, having conducted an ILS, when the left-hand pilot (PM) saw a paramotor at a similar level approximately 300m away. He announced the conflict, but due to the approach speed the paramotor passed quickly down the right-hand side of the aircraft. The late sighting meant that no avoiding action was taken because they were passing the conflict at the point of sighting. ATC were informed and they reported that they could also see it.

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

**THE PARAMOTOR PILOT** could not be traced.

**THE HUMBERSIDE CONTROLLER** reports that the AW139 was transferred from radar to his frequency at around 7nm on the ILS approach for RW20. As soon as the aircraft came on frequency he looked down the final approach and along the runway to check for obstacles and, with none seen, gave a landing clearance. He repeated the action again when the aircraft at around 4 or 5nm from touchdown and again nothing was seen. When the pilot was passing 3nm he reported that he had just passed a 'paraglider' at a similar level on his right-hand-side. At this point the controller also became visual with the paraglider. The pilot estimated that it was at a height of 200-300ft as he passed it. The controller watched the paraglider descend behind trees in the vicinity of Ulceby village and disappear from sight. Humberside ATC were not informed about any paragliding or paramotor activity in the area.

### **Factual Background**

The weather at Humberside was recorded as follows:

METAR EGNJ 130750Z 24005KT CAVOK 12/09 Q1035=

## Analysis and Investigation

### UKAB Secretariat

The AW139 and paramotor 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>. If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right<sup>2</sup>. If the incident geometry is considered as converging then the AW139 pilot was required to give way to the paramotor<sup>3</sup>. If the incident geometry is considered as overtaking then the paraglider pilot had right of way and the AW139 pilot was required to keep out of the way of the other aircraft by altering course to the right<sup>4</sup>.

### Occurrence Investigation

A Humberside investigation report found that a subsequent radar replay displayed a weak, intermittent radar return that corresponded with the position given by the AW139 pilot. The radar return was inside the ATZ.

### Summary

An Airprox was reported when a AW139 and a Paramotor flew into proximity in the vicinity of Humberside at 0800 on Friday 13<sup>th</sup> September 2019. The AW139 pilot was operating under IFR in VMC, and conducting an ILS approach at Humberside. The Paramotor pilot could not be traced.

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

Information available consisted of reports from the AW139 pilot, radar photographs/video recordings, and a report from the air traffic controller involved. 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 discussed the actions of the AW139 crew, the non-handling pilot first saw the paramotor, and alerted the Captain to its presence but, by the time the Captain saw it, they were passing and it was too late to take any action (**CF6**). The TCAS on the AW139 would not have detected the paramotor and ATC had no knowledge that it was there, so the crew had no situational awareness about it prior to seeing it (**CF1, CF2, CF5**).

The BHPA member confirmed that the weather aftercast and the topography around Humberside both indicated that it was almost certainly a paramotor and not a paraglider. He noted that paraglider pilots tended to belong to clubs and receive training and regular briefings from the BHPA, whereas paramotor pilots were not regulated and often did not belong to any form of club. Certainly the BHPA would advise members intending to fly that close to Humberside to telephone prior to getting airborne to inform ATC about their intentions. The Board could not be sure whether the paramotor was within the ATZ or not, but thought that to fly so close to approach lane at 2nm and 600ft, the exact height of any inbound traffic without contacting Humberside at all, indicated either lack of planning or lack of knowledge of aviation procedures with respect to airfield approach paths or their depiction on the VFR chart (the feathers) (**CF3, CF4**). The Board noted that they had previously recommended to the CAA that paramotor activities are licensed<sup>5</sup>, but this had been rejected based upon the burden of doing so and the perceived low risk versus the estimated number flying hours. Members noted that it was now necessary to register to fly a drone, but not to fly a paramotor.

<sup>1</sup> SERA.3205 Proximity. MAA RA 2307 paragraphs 1 and 2.

<sup>2</sup> SERA.3210 Right-of-way (c)(1) Approaching head-on. MAA RA 2307 paragraph 13.

<sup>3</sup> SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

<sup>4</sup> SERA.3210 Right-of-way (c)(3) Overtaking. MAA RA 2307 paragraph 14.

<sup>5</sup> Airprox 2018216 Feb 2019

Finally, in determining the risk, members quickly agreed that the late sighting by the AW139 crew and the fact that the paramotor would have been unable to take any meaningful avoiding action even if he had seen the helicopter in plenty of time, meant that in their opinion there had been a definite risk of collision; Category B, safety much reduced below the norm.

### **PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK**

#### Contributory Factors:

2019273			
CF	Factor	Description	Amplification
<b>Ground Elements</b>			
<b>• Situational Awareness and Action</b>			
1	Contextual	• Situational Awareness and Sensory Events	Generic, late, no or incorrect Situational Awareness
2	Human Factors	• Conflict Detection - Not Detected	
<b>Flight Elements</b>			
<b>• Tactical Planning and Execution</b>			
3	Human Factors	• No Decision/Plan	Inadequate planning
4	Human Factors	• Aircraft Navigation	Did not avoid/conform with the pattern of traffic already formed
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>			
5	Contextual	• Situational Awareness and Sensory Events	Generic, late, no or incorrect Situational Awareness
<b>• See and Avoid</b>			
6	Human Factors	• Monitoring of Other Aircraft	Non-sighting or effectively a non-sighting by one or both pilots

Degree of Risk: B.

#### Safety Barrier Assessment<sup>6</sup>

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

#### **Ground Elements:**

**Situational Awareness of the Confliction and Action** were assessed as **ineffective** because the Humberside controller had no knowledge that the paramotor was there.

#### **Flight Elements:**

**Tactical Planning and Execution** was assessed as **ineffective** because the paramotor was at the same height as the Humberside finals traffic as he flew close to the approach lane.

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **ineffective** because the AW139 pilot had no prior knowledge that the paramotor would be there.

**See and Avoid** were assessed as **ineffective** because the AW139 pilot did not have time to take any avoiding action.

<sup>6</sup> 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: 2019273** 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 Conflicion & 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	✗	✗			
<b>Key:</b>		Full	Partial	None	Not Present/Not Assessable	Not Used
Provision	✓	⚠	✗	○		
Application	✓	⚠	✗	○	○	
Effectiveness	■	■	■	■	□	