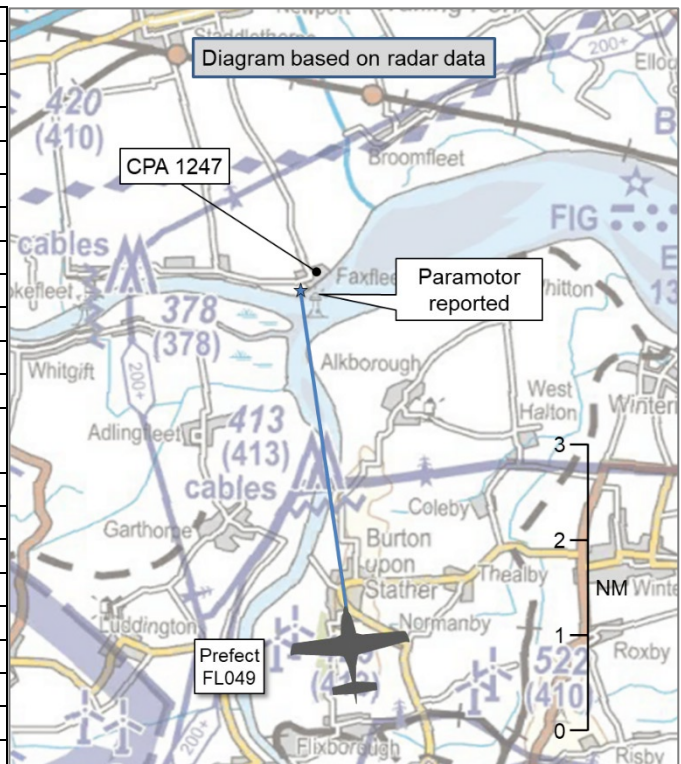


**AIRPROX REPORT No 2021085**

Date: 15 Jun 2021 Time: 1247Z Position: 5342N 00041W Location: Trent Falls

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	Prefect	Paramotor
Operator	HQ Air (Trg)	Unknown
Airspace	London Fir	London FIR
Class	G	G
Rules	VFR	Unknown
Service	None	
Provider		
Altitude/FL	FL049	
Transponder	A, C, S	None
<b>Reported</b>		
Colours	White, Blue	White, Blue
Lighting	Strobes, Nav, Landing, Taxi	
Conditions	VMC	NK
Visibility	NR	
Altitude/FL	5000ft	
Altimeter	RPS (1016hPa)	NK
Heading	006°	
Speed	180kt	
ACAS/TAS	TAS	Unknown
Alert	None	Unknown
<b>Separation</b>		
Reported	100ft V/100m H	
Recorded	NK	



**THE PREFECT PILOT** reports that at approximately 1230z, they departed Barkston Heath for a medium level navigation exercise to the north. As the sortie progressed further north at 5000ft, a handover from Waddington to Humberside was requested, however Waddington ATC advised this was not possible due to contact issues and the aircrew was requested to free call Humberside instead. In the short period between leaving Waddington frequency and calling Humberside, the aircraft was approaching Trent Falls at approximately 1245z. As the student was preparing for their initial call to Humberside for a Traffic Service, the QFI spotted, at the last minute, a paraglider in the 11 o'clock position by 100-200m roughly 100ft above. It appeared to the QFI that the white and blue paraglider was tracking left-to-right so the QFI took control from the student and positioned the aircraft out of the way of the paraglider's track however once the paraglider had cleared to the right hand side, the crew was no longer able to see it. The event lasted only a couple of seconds but it was noted that the paraglider appeared to have deployed what looked to be an orange, circular parachute which later was discovered that was likely to be the reserve parachute. They had a very thorough brief before setting off on the instructional navigation sortie and there were no NOTAMs or CANPs active up in that area; at the point of conflict the closest NOTAM was model flying up to 1600ft AMSL but this was in the wrong direction to where the paraglider came from. The QFI noted that they had seen paragliders flying in uncontrolled airspace before but usually around hilly areas such as the Peak District and Lake District and usually confined to a dedicated paragliding area, but certainly not as high as 5000ft.

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

**THE PARAMOTOR<sup>1</sup> PILOT** could not be traced.

<sup>1</sup> Although the Prefect pilot reported a paraglider, the weather conditions on the day meant that it was more likely to have been a paramotor.

**THE WADDINGTON CONTROLLER** reports that they were working the Zone position when a Prefect was handed over from Cranwell, under a Traffic Service. The aircraft was handed over as it was performing a navex to the North in the Humberside area. As the aircraft approached Scampton MATZ the controller informed the pilot that both Hibaldstow and Kirton Lindsay were active. Close to this time they recalled calling traffic to the pilot, probably when the aircraft was between Cottam and Gainsborough. Shortly after this the pilot requested a handover to Humberside. Humberside had been busy when they had tried to handover a previous track, also on a navex to the north, and had requested that Waddington free-called that aircraft across. They were unable to get through to Humberside on this occasion and informed the pilot that they were unable to arrange a handover and asked the pilot if they were able to accept a free-call. The pilot stated that they were. The controller once again called the traffic, gave the pilot their position, told them to squawk 7000 and free-call Humberside.

**THE WADDINGTON SUPERVISOR** reports that they were not aware of the incident after the aircraft left the Waddington frequency, however they were monitoring the frequencies whilst the aircraft was with Waddington Zone.

## **Factual Background**

The weather at Humberside was recorded as follows:

METAR EGNJ 151220Z VRB04KT 9999 SCT038 19/10 Q1021=

## **Analysis and Investigation**

### **UKAB Secretariat**

The Prefect 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>2</sup> If the incident geometry is considered as head-on or nearly so then both pilots were required to turn to the right.<sup>3</sup> If the incident geometry is considered as converging then the Prefect pilot was required to give way to the paramotor.<sup>4</sup>

## **Comments**

### **HQ Air Command**

This occurrence was subject to a Local Investigation. Although it occurred during a period of flight without a Traffic Service, as a handover couldn't be arranged, it is unlikely that a Traffic Service would have provided any warning to the Prefect crew (the paraglider (or paramotor) had not taken a service nor likely was visible on radar); similarly, the absence of any form of Electronic Conspicuity from the paraglider rendered the Traffic Alert System and FLARM redundant. As no NOTAM was issued to alert the crew during the planning stage, the only remaining barrier was 'see and avoid'. The Prefect pilot spotted the paraglider in the 11 o'clock on a converging track and manoeuvred to avoid it. This was a close enough call for the crew to believe the paraglider may have initiated an emergency parachute and, on landing, Humberside Police were contacted to check any reported incidents for the welfare of the paraglider (none was traced). Ultimately, this Airprox occurred in Class G airspace, in which both parties had a right to operate. The lack of any other mitigations means this type of activity is reliant on 'see and avoid' from both parties. This incident has been publicised among Prefect crews.

### **BHPA**

Considering the additional information from the Prefect pilot's report, the BHPA suggests that the combination of weather conditions and the low-lying geographical position of the incident, it is more

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

<sup>3</sup> (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on. MAA RA 2307 paragraph 13.

<sup>4</sup> (UK) SERA.3210 Right-of-way (c)(2) Converging. MAA RA 2307 paragraph 12.

than likely that the paraglider pilot was flying a paramotor. Our reasons for suggesting this are that it would be highly improbable for a paraglider pilot to be thermalling that high on such a stable day over such flat terrain. Furthermore, if the paramotorist was aiming to fly across the River Humber, they would have felt it prudent to gain surplus height first in case of engine failure whereupon they would still have been able to glide clear of the water.

Unfortunately, from the Prefect pilot's report, it does appear that the Airprox caused sufficient concern or turbulence to have made the paramotorist deploy their emergency parachute. We can only assume that the pilot made a successful, dry landing without injury as no reports have been received to the contrary. Once again, this incident highlights the continuing need for all pilots to maintain a constant look-out, especially when flying in Class G airspace and even when the area is not considered to be a free-flying hot-spot.

Aircraft pilots should also be aware that not all paramotorists have had the benefit of being taught how to submit a CANP or NOTAM. Having said that, neither format would have covered a paraglider pilot or paramotorist undergoing an extensive cross-country flight in uncontrolled airspace.

## Summary

An Airprox was reported when a Prefect and a paramotor flew into proximity at Trent Falls at 1247Z on Tuesday 15<sup>th</sup> June 2021. The Prefect pilot was operating under VFR in VMC and was not in receipt of an ATS. The paramotor pilot could not be traced.

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

Information available consisted of reports from the Prefect pilot, radar photographs/video recordings, and reports from the appropriate operating authorities. 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 discussed the actions of the Prefect pilot. Although the pilot reported seeing a paraglider, due to the weather conditions on the day the BHPA member thought it was almost certainly a paramotor. Members heard that the Prefects conduct their navigational exercises at 5000ft in order to be above most GA traffic and reduce the risk of MAC. The crew had been receiving an ATS from Waddington but, as they flew out of Waddington's cover, needed a handover to Humberside. They were unable to get a handover and the pilot had to free-call Humberside however, members agreed that this was not contributory to the Airprox because the paramotor would not have been displayed on the radar. The Prefect was well equipped with EWS, fitted with both TAS and FLARM, however, the non-transponding paramotor could not be detected by either (**CF2**). Without an ATS or any EWC warnings, the Prefect pilot had no prior situational awareness that the paramotor was in the vicinity (**CF1**). Therefore, the final barrier available to the Prefect pilot was see and avoid, fortunately, the instructor saw the paramotor in time to take avoiding action, albeit late (**CF3**).

Although the paramotor could not be traced, the BHPA member shared some valuable insights into paraglider/paramotor operations. They noted that the Prefect pilot reported being surprised to see a paramotor away from mountainous areas, and told the Board that although a paraglider needed high ground to get airborne, a paramotor can launch from anywhere. Furthermore, once airborne an experienced paraglider/paramotor pilot can travel large distances and BHPA members are regularly covering cross-country distances of as much as 500km, and so should be expected almost anywhere. When discussing the pilot's report of seeing an emergency chute, the member noted that it was increasingly common for paraglider and paramotor pilots to carry such a chute, but that a deployment at 5000ft indicated that the paramotor pilot may have been inexperienced because at that height, even if they had suffered a canopy collapse from the turbulence caused by the Prefect, there should have been plenty of time for the canopy to right itself. Nevertheless, without a report from the paramotor pilot the full facts could not be ascertained and the BHPA welcomed the actions by the Prefect pilot in contacting the police to check for any casualties; fortunately there were none reported. Finally, when addressing the topic of NOTAMs (the Prefect pilot had reported that there were no NOTAMs or CANPs

about the paramotor activity), it was stated that a single paraglider/paramotor pilot was unlikely to NOTAM their activity for each flight; NOTAMs were normally issued when a club planned to launch a number of aircraft at the same time.

The Board then discussed the risk of collision. They took into consideration the Prefect pilot's report, the lack of any situational awareness prior to the event, but noted that the pilot had managed to take avoiding action that probably increased the separation. They therefore agreed that safety margins had been much reduced below the norm, with the late avoiding action averting a more serious incident; Risk Category B (CF4).

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

### Contributory Factors:

	2021085			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Flight Elements</b>				
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>				
1	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, late or only generic, Situational Awareness
<b>• Electronic Warning System Operation and Compliance</b>				
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
<b>• See and Avoid</b>				
3	Human Factors	• Identification/Recognition	Events involving flight crew not fully identifying or recognising the reality of a situation	Late sighting by one or both pilots
<b>• Outcome Events</b>				
4	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: B.

### Safety Barrier Assessment<sup>5</sup>

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 the Prefect pilot had no prior situational awareness that the paramotor would be operating in the area.

**Electronic Warning System Operation and Compliance** were assessed as **ineffective** because neither the TAS nor the FLARM in the Prefect could detect the paramotor.

<sup>5</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).

**See and Avoid** were assessed as **partially effective** because the Prefect pilot managed to take late avoiding action.

<b>Airprox Barrier Assessment: 2021085</b>		Outside Controlled Airspace						
<b>Barrier</b>	<b>Provision</b>	<b>Application</b>	<b>Effectiveness</b>					
			<b>Barrier Weighting</b>					
			0%	5%	10%	15%	20%	
<b>Ground Element</b>	Regulations, Processes, Procedures and Compliance	●	●					
	Manning & Equipment	●	●					
	Situational Awareness of the Confliction & Action	●	●					
	Electronic Warning System Operation and Compliance	●	●					
<b>Flight Element</b>	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>			<b>Full</b>	<b>Partial</b>	<b>None</b>	<b>Not Present/Not Assessable</b>	<b>Not Used</b>	
Provision	✓	⚠	✗	●	○			
Application	✓	⚠	✗	●	○			
Effectiveness	■	■	■	■	■	■		