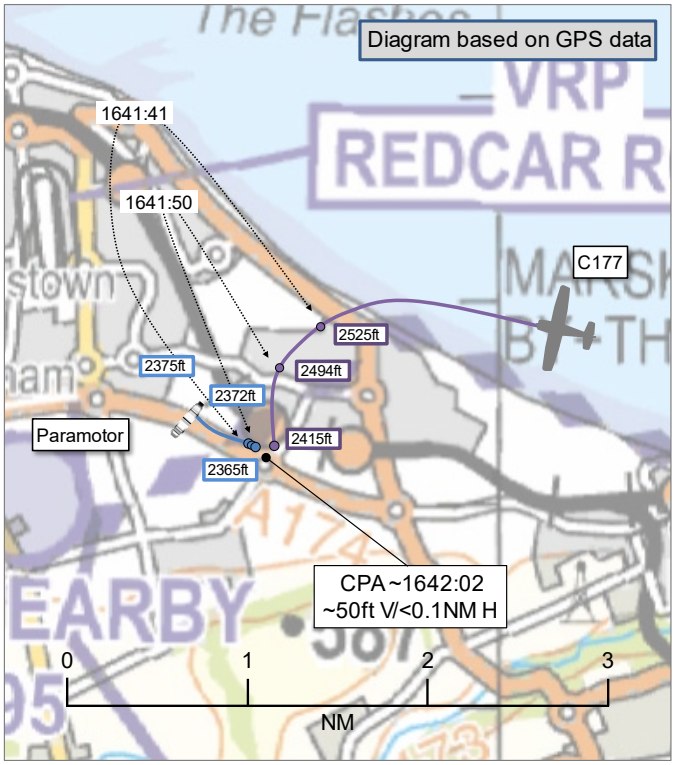
AIRPROX REPORT No 2025149

Date: 17 Jul 2025 Time: ~1642Z Position: 5435N 00102W Location: Marske-by-the-Sea

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Paramotor	C177
Operator	Civ Hang	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	N/A	Teesside
Altitude/FL	~2365ft	~2415ft
Transponder	Not fitted	A, C, S
Reported		
Colours	Pink, Blue	White
Lighting	Nil	Landing, Nav, Anti-cols, Strobe
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2250ft	2500ft
Altimeter	QFE	QNH
Heading	110°	NK
Speed	20kt	108kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	0ft V/100m H	Not Seen
Recorded	~50ft V/<0.1NM H	



THE PARAMOTOR PILOT reports that they have been flying for 12 years, frequently fly in the Redcar area and are very familiar with it. There is rarely any GA traffic as they fly under the extended airspace of Teesside International [Airport] (3000-6000ft). The only aircraft they normally see are passenger jets usually much higher at maybe 4000 to 6000ft. They take off from a large flat area of disused land behind the now demolished steelworks. They fly with a phone app (Gaggle) open on a flight deck in front of them. This app shows them altitude, direction and airspaces. The app also provides voice connection to their headset warning them of approach to any controlled airspace. They are FRTOL trained and have a radio set. However, they never use the radio as when they originally tried contacting Teesside ATC (6 years ago) they were not interested in a slow moving paramotor. It is also quite difficult to hear clearly when in an open cockpit aircraft. They also contacted Teesside ATC to obtain permission to fly from a local school field (which is 2 miles inside the controlled airspace). Despite the fact that they could legally fly at 500ft until clear of the controlled airspace, Teesside refused permission as the paramotor was too slow moving. On this flight around Redcar, they were a little higher than they usually fly as the conditions were quite windy,10-15mph at take-off. Climbing higher takes them out of any of the ground generated wind turbulence and makes the flying more pleasant. They had been on the same heading for about 15min prior to the incident i.e. they had not changed course or altitude. Their planned route was taking them around Redcar town, as they avoid overflying the town if possible. When they first saw the other aircraft, it was to their left, travelling in the same direction. The other aircraft was banking left, as though it had just turned to avoid a collision with them. Alternatively, the other pilot may have deliberately flown close just to look at the paramotor? After the incident they reduced power to idle, turned 180° and headed back towards the coast while descending to 1200ft. They remained at this altitude while tracking back to their landing zone.

The pilot assessed the risk of collision as ‘High’.

THE C177 PILOT reports that they had been on a local flight and were in contact with Teesside Radar for the whole time. They had not seen or heard the other traffic on the radio.

THE TEESSIDE CONTROLLER reports that they had been informed of an Airprox on the 17th of July 2025, between a C177 and a paramotor in the vicinity of Marske-by-the-Sea. They were not aware of the incident and were not informed at the time.

Factual Background

The weather at Teesside was recorded as follows:

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METAR EGNV 171620Z 18009KT 9999 FEW037 23/14 Q1014=
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Analysis and Investigation

Teesside Occurrence Investigation

Timeline Breakdown of Incident

1600: [C177] airborne. Radar instructed the pilot to climb VFR and report maximum, maximum reported as 3500ft. Radar advised Basic Service in 4NM, on leaving controlled airspace.
1621: [C177] disappeared from the radar display 35NM southeast, and Radar called for a radio check. No reply x 2.
1627: [C177] contact reappeared 38NM southeast along the coast.
1630: Radar called [C177] for radio check, readability 5 both ways, and asked to report level, pilot replied 2400ft.
1642: [C177] observed following the coast northbound, then 2NM south of Redcar made a left turn onto a southerly heading. No other contacts observed in the vicinity.
1644: A contact popped up on radar 1NM south of Redcar and disappeared again, approximately 1NM north of the point where [the C177] turned south. Nothing further seen.
1647: [C177 pilot] reported at Stokesley and requested re-join, and was cleared inbound VFR, given info on circuit traffic, and transferred to the tower.

Investigation Findings

[The C177 pilot] did not report any incident to Teesside ATC at the time or following the reported incident. The only radar contact on the situational display at the reported time in the vicinity of Marske-by-the-Sea was [the C177]. No other contacts were observed and, as a result, no action was taken or could have been anticipated to have been taken.

Figure 1 - C177 squawking 7030 at 2500ft approaching Marske-by-the-Sea prior to the time of the reported incident.

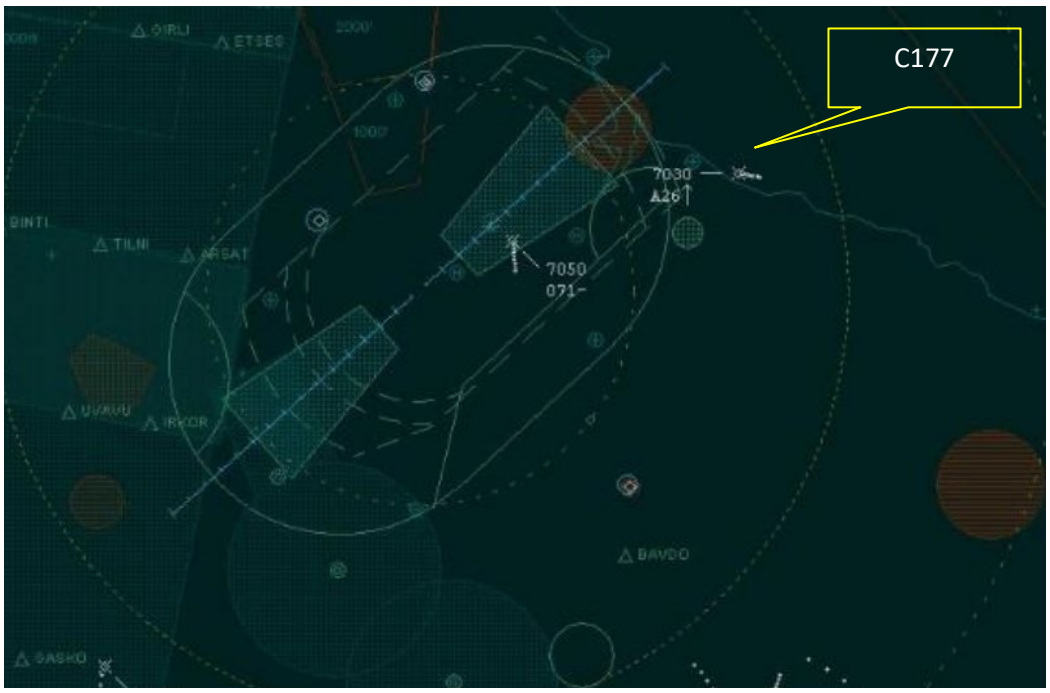

Figure 2 - C177 squawking 7030 at 2600ft overhead Marske-by-the-Sea at the time of the reported incident.

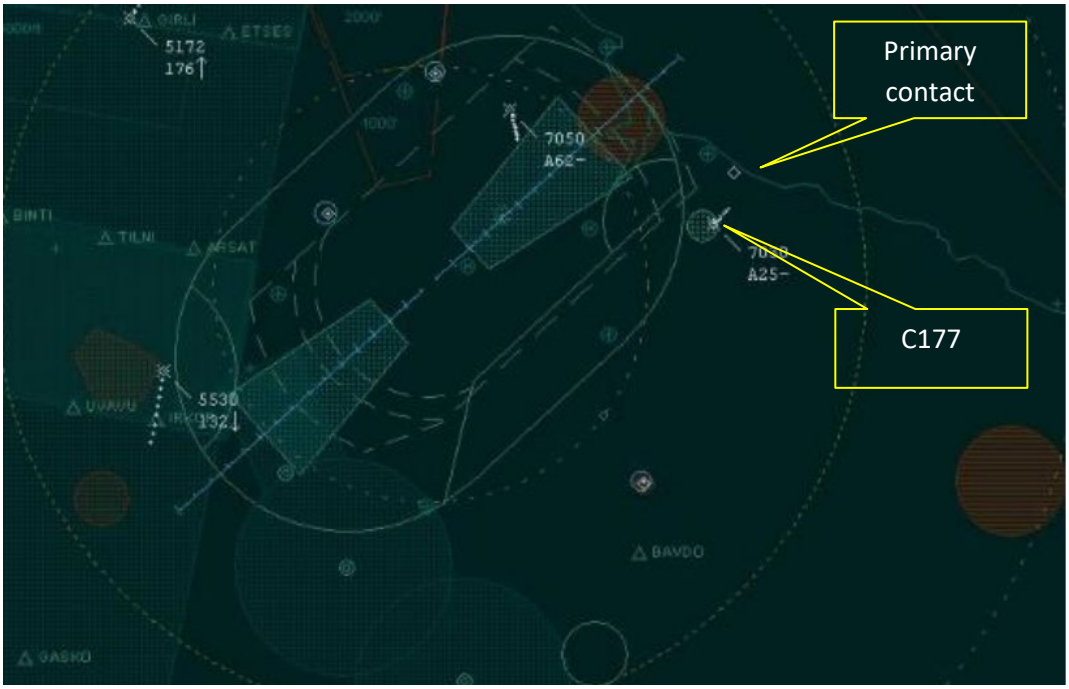

Figure 3 - C177 squawking 7030 at 2500ft overhead Guisborough heading south-west several minutes after the reported incident.

This was the first time that a primary contact had appeared in the vicinity of Marske-by-the-Sea.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken, the C177 could be seen and identified via Mode S data, however the radar track was jittery (Figure 4). The paramotor could not be seen on the radar. Neither aircraft could be observed by reference to ADS-B data sources.

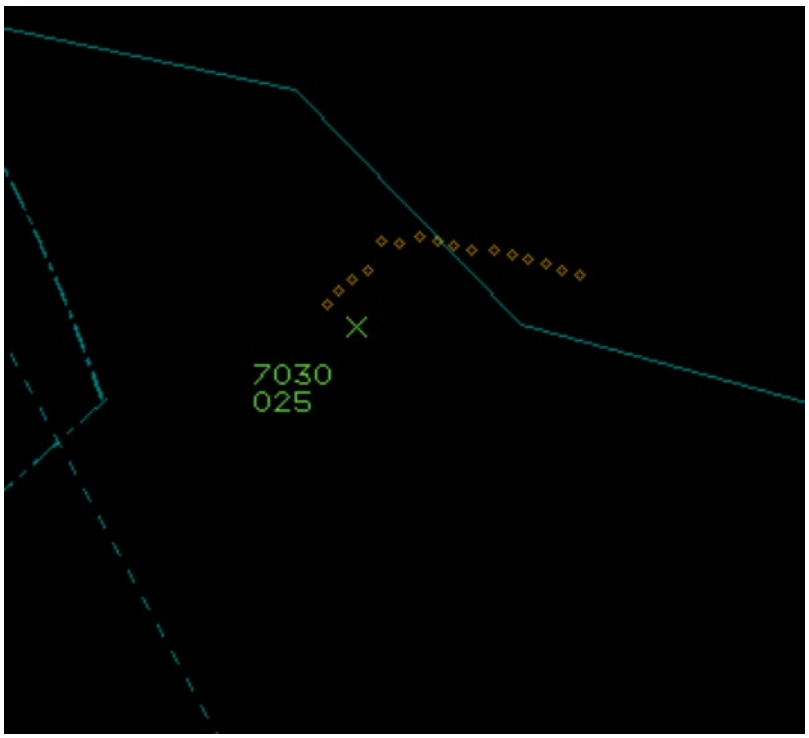

Figure 4 – 1642:03 approximate CPA

Fortunately, both pilots provided GPS data, which could be compared using the closest data points, and the diagram at the top of the report was compiled using this data.

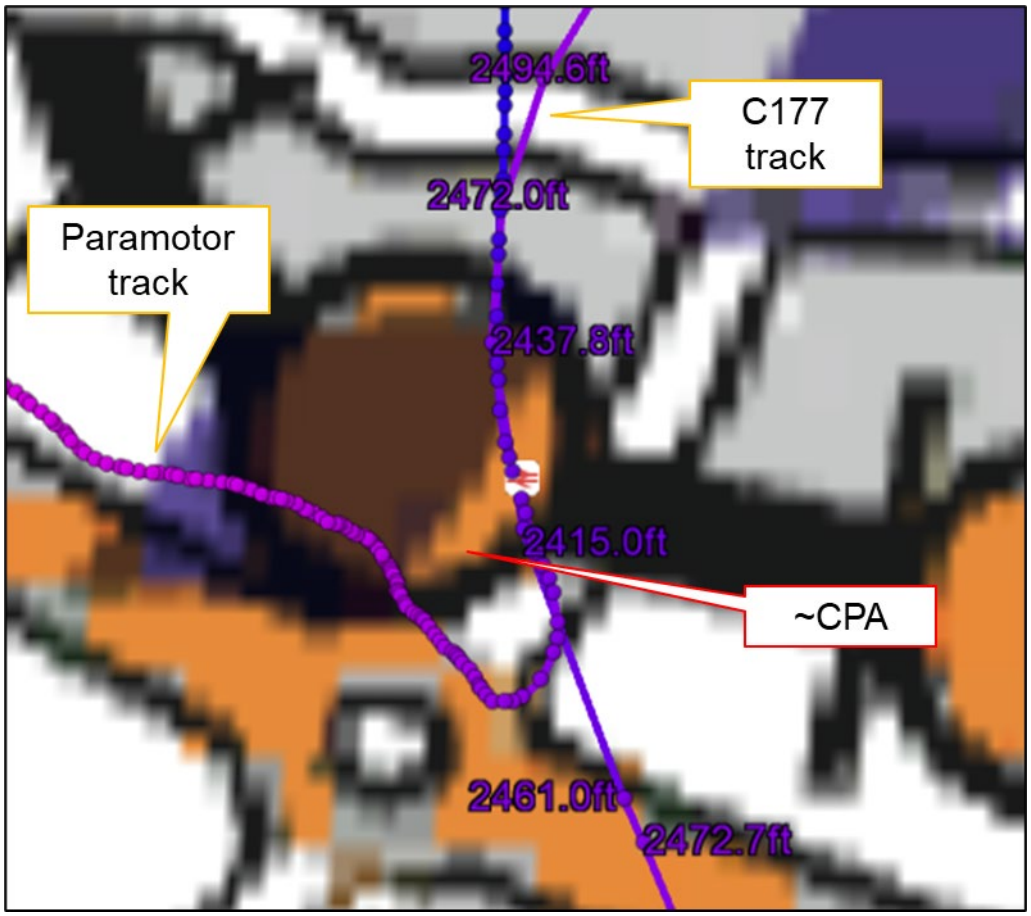

Figure 5 – GPS tracks from both pilots

The paramotor and C177 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard. [1] If the incident geometry is considered as overtaking then the paramotor pilot had right of way and the C177 pilot was required to keep out of the way of the other aircraft by altering course to the right. [2]

Comments

AOPA

We await with interest if/when the Department for Transport announces its preferred type of electronic conspicuity system and which form of aviation will have to comply with it. Hopefully, it will be across all forms of aviation activity. In this case, had both parties been equipped with [compatible] EC equipment, then it may have provided situational awareness to both parties, allowing decisions to be made to increase the separation distance.

BHPA

The BHPA is more than a little concerned regarding some of the comments from the reporting pilot. It would appear that they are both knowledgeable regarding airspace and air law and more than likely fly another aircraft as they have a FRTOL and an airband radio. It would also appear that they had been proactive in trying to establish some kind of communication with Teesside ATC regarding their flying. We are disappointed to hear that Teesside ATC did not wish to communicate via radio due to them being 'a slow moving paramotor'. Furthermore, Teesside ATC also [reportedly] didn't wish to negotiate with them with regards access to a take-off area inside their zone in which they could have facilitated a jointly amenable procedure which would have enabled the paramotorist to fly away from their zone at low altitude and kept them apart from other traffic. This could easily have been done by the use of radio or by the paramotorist telephoning ATC before departure with timings and route. It would also have meant that ATC would have been in communication with the pilot whilst they were operating. There are many non-radio aircraft operating from strips inside controlled airspace within the UK which have arranged jointly acceptable flight procedures with local ATC.

With regards to the Airprox, we believe that only luck prevented this Airprox from having a more tragic outcome, as the paramotor pilot only noticed the C177 as it was in a banked left turn manoeuvring away from them whilst the C177 pilot didn't see the paramotorist at all. It would therefore seem that the C177 [pilot] wasn't banking left to avoid the paramotor but was merely banking left to alter course. There were no EC or ATC-derived barriers in this Airprox and the sighting by [the pilot of] one aircraft would appear to have been at the last moment. Although the paramotorist was carrying an electronic device which gave altitude, groundspeed and positional information, it was not an EC device and was ineffective as a barrier in this Airprox. We hope the CAA takes into consideration that, if ADS-B is the EC format they decide to adopt, vulnerable aircraft such as paragliders, hang-gliders and their powered variants will find it almost impossible, with anything available on the market today, to comply due to power supply issues, aerial positioning/radiation concerns and cost.

Once again, we advise all pilots of all aircraft to maintain a vigilant lookout at all times. There can never be any complacency regarding this barrier in uncontrolled airspace. The only advice that we could give to the paramotorist would be to try and re-negotiate their requests for using the radio in flight and their desire to operate from a private take-off site inside Teesside's zone. Firstly, operating personnel may have changed since the request was first made and it would always be worth escalating and challenging any verbal decision. Finally, our advice would be that for future flights, it may be prudent for the paramotorist to telephone Teesside ATC with an approximate route, flight times, altitude, take-off and landing position, etc. The BHPA understands that due to the (usually) random nature of a paramotorist's recreational flightpath and altitude, this could be difficult to

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

verbalise and difficult for ATC to act upon. However, Teesside ATC may be able to give a general warning to GA aircraft flying in the area that a paramotorist is operating.

Summary

An Airprox was reported when a paramotor and a C177 flew into proximity at Marske-by-the-Sea at about 1642Z on Thursday 17th July 2025. The paramotor pilot was operating under VFR in VMC not in receipt of a FIS, and the C177 pilot was operating under VFR in VMC in receipt of a Basic Service from Teesside Radar.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS track data, a report from the air traffic controller involved 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 paramotor pilot and in particular their attempts to engage Teesside in their operations. Members lamented that Teesside ATC had not been very accommodating when the pilot had made their enquiries but noted that the contact had been 6 years ago. They urged the paramotor pilot to make another attempt, noting that the personnel at Teesside may have changed, technology had improved and ADS-B equipment meant that some ATC units could now detect suitably equipped slow-moving aircraft. However, controller members pointed out that allowing an aircraft without the ability for two-way communications into controlled airspace is still problematic and so the original request for flight within the Teesside CTR may still be refused. Nevertheless, members thought that, at the very least, a telephone call before getting airborne to advise Teesside ATC that the paramotor pilot had been intending to fly in the area would have enabled controllers to pass generic Traffic Information to other pilots in the vicinity (**CF2**). On this occasion, the paramotor pilot had been on a flight routeing around the Redcar area, but the weather conditions and nature of their operations had meant that they had executed the flight higher than they usually would have done. Members noted that, with the Teesside CAS just to the northeast of Redcar, and the Redcar racecourse as a VRP, other pilots would also be likely to be using the area as a turning point, to remain clear of CAS, or inbound to Teesside, making the chances of an encounter with other aircraft more probable. The paramotor pilot had not been carrying any form of electronic conspicuity (EC) equipment, which the paragliding members told the Board were available, but generally limited to FLARM or FANET, which could be useful for detecting gliders or other paragliders but had limited value for wider aviation. The C177 had also not been fitted with any form of additional EC equipment either, so it would not have made any difference for this Airprox. However, without any information from ATC, or any form of EC equipment, the paramotor pilot had not received any situational awareness that the C177 had been close-by (**CF3**). The Board agreed that the C177 had been approaching the paramotor from its rear-left quarter, and so the paramotor pilot had not seen the C177 until it had passed down their left-hand side, at CPA, making this effectively a non-sighting (**CF4**).

Turning to the C177 pilot, they had been on a local flight and had been receiving a Basic Service from Teesside. Members noted that, in general, pilots should not expect to receive any Traffic Information from ATC when on a Basic Service but noting that the aircraft had at times faded from Teesside's radar, members acknowledged that the pilot had been unlikely to have been able to upgrade the ATS to a Traffic Service on this occasion. Furthermore, ATC had not had any knowledge about the paramotor and so had been unable to pass any information to the C177 pilot. Again, without any additional EC equipment and with no information from ATC, the C177 pilot had not received any situational awareness about the paramotor (**CF3**). Although the paramotor pilot had reported that the C177 had turned away to avoid, the C177 pilot had reported not having been visual with the paramotor at all (**CF4**). Members opined that the two aircraft had been at similar altitudes and that it was difficult to spot a paraglider/motor canopy from the side, particularly with an urban ground backdrop. They noted that, similarly to the advice for the paramotor pilot, lookout when flying close to a VRP and CAS was paramount, because of the likelihood of encountering other traffic.

The Board then discussed the role of ATC. They were disappointed to hear of the situation described by the paramotor pilot, with controller members noting that it was usually possible to provide some version of a listening watch and, even if the paramotor pilot had been difficult to communicate with once airborne, a phonecall prior to take-off, with an approximate time airborne, could have provided some useful information. The Board therefore urged Teesside ATC to reach out to the paramotor pilot to try to agree a mutually beneficial relationship. For this Airprox, the controller had not known anything about the paramotor and, when providing a Basic Service, had not been required to monitor the C177 (**CF1**) in any case.

When determining the risk, the Board considered the reports from both pilots and the controller, together with the radar replay and GPS data provided by the pilots. They noted that neither pilot had seen the other aircraft prior to CPA, with the C177 pilot not becoming visual with the paramotor at all. Given the proximity of the two aircraft and the fact that neither pilot had taken any avoiding action, the Board unanimously agreed that there had been a serious risk of collision and that providence had played a major part in events (**CF5**); Risk Category A.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025149			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• ANS Flight Information Provision	Provision of ANS flight information	The ATCO/FISO was not required to monitor the flight under a Basic Service
	Flight Elements			
	• Tactical Planning and Execution			
2	Human Factors	• Accuracy of Communication	Events involving flight crew using inaccurate communication - wrong or incomplete information provided	Ineffective communication of intentions
	• Situational Awareness of the Conflicting Aircraft and Action			
3	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
	• See and Avoid			
4	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
	• Outcome Events			
5	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: A.

Safety Barrier Assessment[3]

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 **not used** because the Teesside controller was providing a Basic Service and was not required to monitor the C177.

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

Flight Elements:

Tactical Planning and Execution was assessed as **partially effective** because the paramotor pilot could have called Teesside ATC prior to getting airborne to advise them of their planned route.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot knew that the other aircraft had been in the vicinity.

See and Avoid were assessed as **ineffective** because neither pilot had seen the other in time to take effective avoiding action.