

AIRPROX REPORT No 2022090

Date: 28 May 2022 Time: 1359Z Position: 5358N 00205W Location: 2NM W Skipton

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Paraglider	PC12
Operator	Civ Hang	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Traffic
Provider	N/A	Leeds Approach
Altitude/FL	3500ft	3300ft
Transponder	Not fitted	A, C, S+
Reported		
Colours	Orange, Grey	Blue, Silver
Lighting	None	Strobe, Landing, Anti-col
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	3500ft	3300ft
Altimeter	NK (NK hPa)	QNH (NK hPa)
Heading	'East'	'Easterly'
Speed	NK	220kt
ACAS/TAS	Not fitted	Not fitted
Separation at CPA		
Reported	100ft V/100ft H	300ft V/2.5NM H
Recorded	~200ft V/~0.1NM H	



THE PARAGLIDER PILOT reports that they were flying east-northeast towards Skipton, keeping to the north of the A59 to avoid Leeds Bradford CTA to the south. They heard a loud noise, which they took to be farm machinery, and turned 180° to find [they believe] a twin prop executive type of aircraft flying on the same path and bearing as they had been, only just below and to the south of them. They completed one 360° turn, by which time the aircraft had passed, continuing flying east-northeast. They saw no avoiding action. The aircraft was close enough that they were able to read some of the registration numbers/letters on the rudder/tailplane. They are not sure that the pilot of the other aircraft saw them - there was no indication that they had done so.

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

THE PC12 PILOT reports that both crew members noticed the paraglider in the distance and the landing lights were put on in pulsating mode and the aircraft was turned 15° to the right. [They believe that there had been] no risk whatsoever of a collision during the time they were in class G airspace.

The pilot assessed the risk of collision as 'None'.

THE LEEDS BRADFORD CONTROLLER reports that they were not aware of the Airprox and that there had been no pilot report.

Factual Background

The weather at Leeds Bradford was recorded as follows:

METAR EGNM 281350Z 03008KT 360V070 9999 SCT040 SCT044 14/05 Q1025
 METAR EGNM 281420Z 02006KT 350V050 9999 SCT040 SCT044 14/05 Q1025

Analysis and Investigation

Leeds Bradford ATC

An investigation was carried out by Leeds Bradford ATC which established the timeline below and concluded that the ATCO actions were in accordance with their standard operating procedures.

1351 - First contact with [PC12 pilot], requesting a Traffic Service.

1352 - Traffic Service (reduced due terrain) provided.

1354 - [PC12 pilot] was given transit of CAS not above 3500ft altitude.

1357:45 - [PC12 was observed] in area reported, nothing was seen on PSR and no report made by pilot at the time.

CAA ATSI

The paraglider pilot was on an east-northeasterly track towards Skipton at the time of the Airprox and was not in receipt of an ATC service.

The PC12 pilot was passing through the Ribble Valley, en-route from [departure airfield] to [destination airfield] at the time of the Airprox and was in receipt of a reduced Traffic Service from Leeds Bradford Radar.

ATSI had access to reports from the pilots of both aircraft and an investigation report from Leeds Bradford ATC. The Leeds Bradford RTF recordings were reviewed for the relevant period. In the interest of brevity only the RTF exchanges between the radar controller and the PC12 pilot have been included within this report. The area radar recording was reviewed for the relevant period, the paraglider was not displayed on the area radar recording and it has been confirmed by Leeds ATC that it was also not displayed on the display in use by the controller at the time.

At 1351:40 the PC12 pilot made initial contact with the Leeds Radar controller and advised that they were *“a PC12 from [departure airfield] to [destination airfield] and were currently just to the east of (unintelligible), 3000 feet, looking for a Traffic Service and zone transit just north of Keighley on a direct track to [destination airfield].”*

At 1352:20 the controller instructed the PC12 pilot to squawk 2672. The pilot read this back correctly. The QNH of 1025hPa was passed and the pilot was advised that it would be a Basic Service initially. The pilot acknowledged the Basic Service and read back the QNH accurately.

At 1353:00 the controller advised the pilot that they were identified and that it would now be a reduced Traffic Service due to the aircraft being at the base of radar cover, the pilot was then reminded that they were responsible for their own terrain clearance. Traffic Information was passed on unrelated traffic, the pilot acknowledged the Traffic Information and advised the controller that they were visual with the traffic and were victor-mike-charlie with the ground.

The controller turned their attention to other traffic.

At 1354:10 The controller advised the PC12 pilot that they would be able to get them a track via Keighley towards [destination airfield], advised them to maintain their present track for the moment, that they may be able to give them a transit round the northern edge of controlled airspace and that they had a couple of IFR transits out to the northwest. The pilot acknowledged and advised the controller that they could accept a track right of their current track by about 15°, which they felt would take them on a direct track to [destination airfield].

At 1354:40 the pilot was given clearance to transit Leeds Bradford controlled airspace VFR, not above altitude 3500ft, on track to [destination airfield]. The pilot read back the clearance verbatim, they followed this by saying QNH 1026hPa and advising the controller that they would report entering the zone. The QNH was corrected by the controller to 1025hPa and an accurate readback was provided by the pilot (Figure 1).

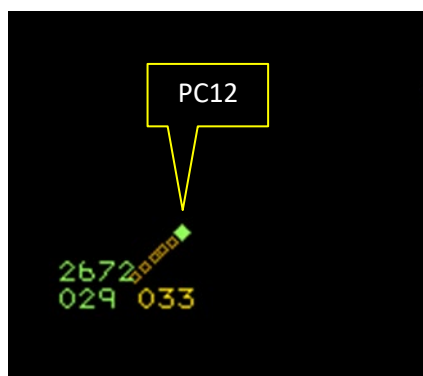


Figure 1 - 1354:40

The controller turned their attention to other traffic.

There was no further communication between the controller and the PC12 pilot until after the time of the reported Airprox at 1358:00.

At 1400:40 the controller advised the PC12 pilot, *"I see you descending taking your own terrain clearance descend at your discretion, QNH 1025."* The pilot read back the QNH and advised that they were on track for [destination airfield] now and thanked the controller.

At 1403:30 the controller advised the pilot that they had 10 miles to run to [destination airfield], and advised, *"caution it looks like Sutton Bank is active today, radar service terminates, squawk conspicuity and freecall en route."* The pilot thanked the controller for their help and advised that they were changing frequency.

The paraglider pilot was not in contact with the Leeds Radar controller and the paraglider was not displayed on the Leeds radar display.

The Leeds Radar controller was unaware of the presence of the paraglider and as such was not able to warn the paraglider pilot of the presence of the PC12, or the PC12 pilot of the presence of the paraglider.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the PC12 was detected and identified using Mode S data. The paraglider did not appear on the radar replay however, the pilot was able to supply the UKAB Secretariat with a GPS data file of their flight which has been used, along with the radar data, to create the diagram on page one and to measure CPA which, due to the necessity to combine differing data sources, has been recorded as an approximation.

The 360° turn described by the paraglider pilot was recorded in their GPS data file and the manoeuvre was seen to have been executed as CPA occurred. It has not been possible to determine whether the paraglider that the PC12 pilot reported seeing was the one involved in the Airprox. The 15° turn to the right described by the PC12 pilot was not visible on the NATS radar replay during the 10min prior to the Airprox or the following 4min.

The Paraglider and PC12 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

¹ (UK) SERA.3205 Proximity.

is considered as overtaking then the Paraglider pilot had right of way and the PC12 pilot was required to keep out of the way of the other aircraft by altering course to the right.²

Comments

AOPA

As seen, electronic conspicuity and communication with ATC does assist in improving SA and is to be recommended. However, where these are not present, effective lookout is the major barrier for MAC avoidance in Class G airspace. If paraglider pilots are thermalling, it might be advantageous to contact the nearest ATC unit by phone prior to the activity taking place, or carry a form of compatible EC to improve SA. The issuance of a NOTAM informing other pilots and ATC of paragliding would unfortunately overload the system.

BHPA

The BHPA notes the fortuitousness of the paraglider pilot in hearing the approaching PC12 and is relieved that the outcome of this Airprox didn't have more serious consequences. We also note that, although the paraglider pilot executed a manoeuvre in an attempt to make themselves more visible, both their observations and the NATS radar trace seem to indicate that no avoiding action appeared to have been taken by the PC12 pilot. It is possible, of course, that the PC12 pilot may have seen another paraglider pilot and not the one reporting the Airprox.

The BHPA acknowledges the fact that without EC or other means of producing a radar return, paragliders are notoriously hard to spot and so the 'see and be seen' principle is of paramount importance for all pilots flying in Class G airspace. Furthermore, the BHPA feels that, as the PC12 pilot specifically asked for, and was receiving, a (reduced) Traffic Service, it would perhaps have been helpful for them to inform Leeds ATC of the paraglider's position to assist Traffic Information given to other pilots in the vicinity.

Summary

An Airprox was reported when a Paraglider and a PC12 flew into proximity 2NM west of Skipton at 1359Z on Saturday 28th May 2022. Both pilots were operating under VFR in VMC, the PC12 pilot in receipt of a reduced Traffic Service from Leeds Approach and the paraglider pilot not in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS data files, reports from the air traffic controllers 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 paraglider pilot and was grateful to them for supplying their GPS data file to the Secretariat. Members discussed equipment that paraglider pilots are able to carry and agreed that there are both size and weight limitations; however, new 'pocket-size' devices are becoming available, especially with regard to EC that could be utilised. Members also discussed whether there had been an opportunity for the paraglider pilot to inform Leeds Approach that they had been in the area but agreed that, without handheld VHF equipment, the paraglider pilot would only have been able to do this prior to departure and that, prior to departure, the paraglider pilot would have had very little certainty regarding their likely direction of travel, altitude or location. Members were encouraged that, despite their initial assumption that the engine noise the pilot heard had been farm equipment, the paraglider pilot still used this generic situational awareness (**CF2**) to turn to check for approaching traffic, a manoeuvre which would have also enhanced the visual conspicuity of their

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

aircraft. The Board was satisfied that, following this manoeuvre, the paraglider pilot had become visual with the PC12, however, the proximity of the aircraft had caused them some concern (**CF4**).

Next, members discussed the actions of the PC12 pilot and quickly agreed that it had been appropriate for them to have been in receipt of a Traffic Service. However, as there had been no Traffic Information or EC alert regarding the presence of the paraglider, the PC12 pilot had not had any awareness of its presence (**CF2**) and a GA pilot member went on to state that lookout remains of paramount importance, especially when within Class G airspace. Members agreed that paragliders can be extremely difficult to visually acquire and, whilst the Board was encouraged that the PC12 pilot had become visual with, and turned to avoid, a paraglider on their sortie, members concluded that, based on the PC12 pilot's report, the paraglider which they had visually acquired had probably not been the paraglider involved in the Airprox (**CF3**).

The Board then turned its attention to the contribution of the Leeds Approach controller and members quickly agreed that, as the paraglider had not been displayed on their radar screen, they had not had any awareness of its presence (**CF1**), and as such there had been nothing that they could have done to prevent the event from occurring.

Finally, the Board considered the collision risk involved in this Airprox. Members noted that the pilot of the PC12 had not had any awareness of the presence of the paraglider, nor had they become visual with it. However, the paraglider pilot had become visual with the PC12 early enough to have enabled them to have taken action to provide separation should it have been required and, although safety had been degraded, members were satisfied that there had been no risk of collision. Consequently, the Board assigned a Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2022090			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
	Flight Elements			
	• Situational Awareness of the Conflicting Aircraft and Action			
2	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			
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 Assessment³

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

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

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **ineffective** because the Leeds Approach controller had not had any awareness of the presence of the paraglider.

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because, whilst the paraglider had heard the PC12 approaching, giving them generic situational awareness, the PC12 pilot had not had any awareness of the presence of the paraglider.

Airprox Barrier Assessment: 2022090		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	■	■	■	■	□			