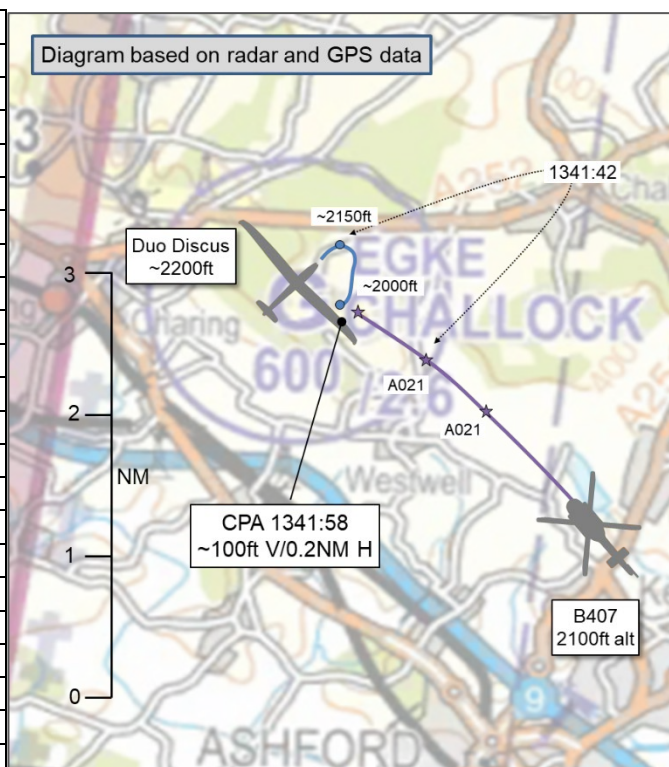


## AIRPROX REPORT No 2021103

Date: 05 Jul 2021 Time: 1342Z Position: 5112N 00049E Location: Challock

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	Duo Discus	Bell 407
Operator	Civ Gld	Civ Helo
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider		London Info
Altitude/FL	~1950ft	2100ft
Transponder	Off	A, C
<b>Reported</b>		
Colours	White, Red	Black, Yellow
Lighting	Nil	Nav, Strobes
Conditions	VMC	VMC
Visibility	>10km	5-10km
Altitude/FL	1400ft	NR
Altimeter	QFE	QNH
Heading	SW	310°
Speed	60kt	120kt
ACAS/TAS	PowerFLARM	TAS
Alert	None	None
<b>Separation</b>		
Reported	0ft V/NK H	150ft V/150m H
Recorded	~100ft V/0.2NM H <sup>1</sup>	



**THE DUO DISCUS PILOT** reports that they were flying down the eastern edge of the airfield at about ½ km from the airfield boundary heading south-west at 1400ft QFE. The pilot in front seat was flying. The pilot in the rear looked to the left and saw the helicopter approximately 1km away heading straight towards them at the same height. They called to the pilot in case they had not seen it and they immediately dived the glider and the helicopter passed behind and slightly above. The helicopter took no avoiding action and continued on its heading which took it straight overhead the airfield at a height less than the winch launch height. The pilot radioed the airfield to ask for someone to look at FlightRadar to get the helicopter registration. There were also 2-3 people on the ground who witnessed this incident.

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

**THE B407 PILOT** reports that they were using a GTN 750, a TAS GTS 800 and iPad with Air Navigation application, Challock airfield was displayed and they were aware of it despite there being no published Visual Approach Charts. There was a heavy shower to the north-west of Ashford and to avoid overflying the town they altered heading to the right. They spotted the glider crossing from right to left below them and they turned slightly to the right to keep it in sight, their TAS was on, but they didn't receive a Traffic Advisory, so they believed they were getting close but not in a dangerous situation. They saw the glider crossing from right to left, below their altitude and in a left turn. In their opinion there was no risk of collision. They noted that they are a glider pilot too and wished to apologise to the glider crew. The pilot observed that on some foreign maps there was a red glider symbol inside a red circle with minimum and maximum altitude for example, (from ground to 2600 feet):GRND-2600 together with frequency and airfield altitude and or Visual Approach Charts, which they believed improved crew situation awareness.

<sup>1</sup> Separation determined by comparing GPS data with radar data.

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

**THE LONDON INFORMATION FISO** reports that this is a response to a request for information concerning a flight which London FIS provided a service to but were not made aware of at the time. They took over the watch and the flight was already on frequency and had been in communication with the previous FISO. [B407 C/S] had reported on the frequency at 1325Z on a flight from [France] to [destination] climbing to an altitude of 2500ft, and gave an estimate for SANDY of 1336Z. At 1336 the pilot stated that they intended to descend to an altitude of 2000ft 'Due to weather'. They observed a 1177 squawk on the FID that equated to the aircraft's position tracking north-west bound over Kent. When it reached the vicinity of DET VOR it appeared to change track to west, then north, then north-east. They contacted Southend APC and explained the perceived situation (possible weather avoidance and the vicinity of CAS) and they agreed to provide the flight with a service. The flight was transferred to Southend APC at 1351Z. The pilot and the previous FISO did not mention any unusual events, and they were not made aware of any later on the day, or the days following.

## Factual Background

The weather at Southend was recorded as follows:

METAR EGMC 051320Z 17009KT 130V210 9999 SCT045 21/12 Q1005=

## Analysis and Investigation

### NATS Occurrence Investigation

The Bell 407 helicopter reported onto the London FIS frequency at 1325:48 (all times UTC). The pilot reported routing to SANDY at 2000ft. A Basic Service was provided to the pilot, and the pilot was instructed to remain outside CAS.

[B407 C/S] tracked from SANDY towards Challock airfield. When 1.5NM from Challock, at 1341:22, a primary radar return appeared in the vicinity of Challock (Figure 1). This primary return was believed to correlate with the positioning of [Discus C/S], a glider operating out of Challock. Challock airfield is located within Class G airspace.

(Safety Investigation Note: London FIS provides an Alerting and Basic Service and does not provide a surveillance radar service.)

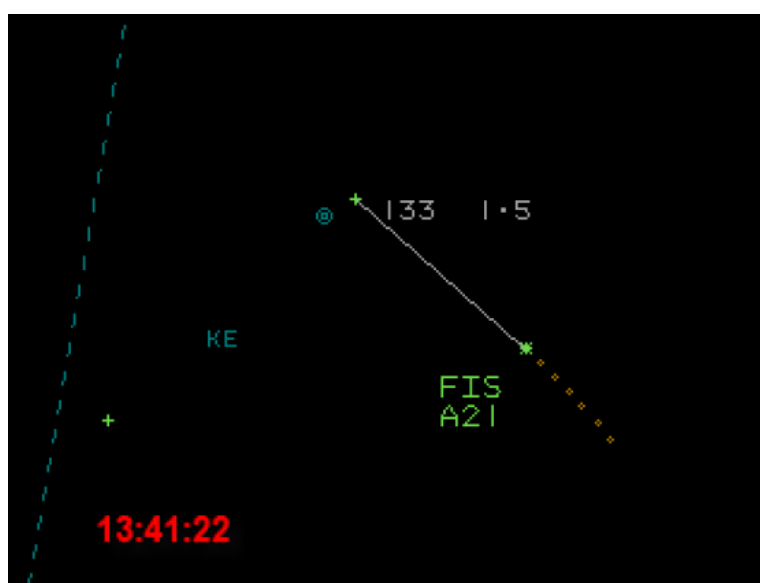


Figure 1

The closest point of approach between [B407 C/S] and the primary radar return occurred at 1341:58, measured on the Multi-Track Radar as 0.2NM (Figure 2). The pilot of [B407 C/S] made no reference to this potential confliction on the R/T.

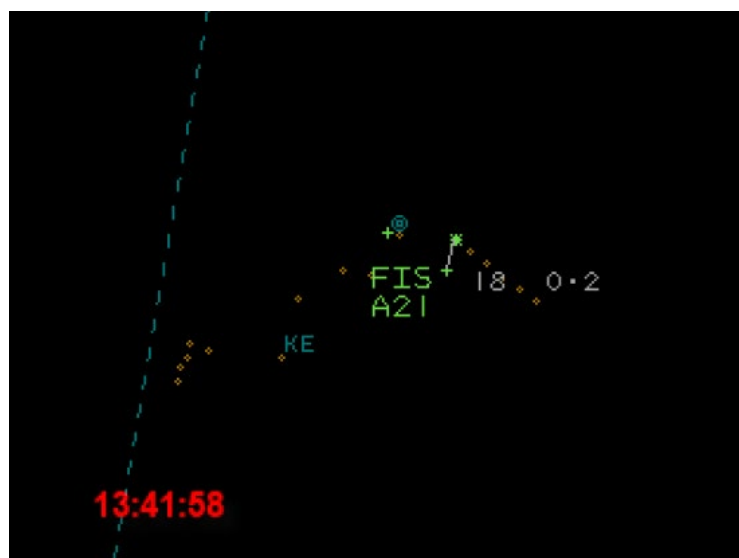


Figure 2

### UKAB Secretariat

The Duo Discus and B407 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 converging then the B407 pilot was required to give way to the glider.<sup>3</sup>

### Comments

#### BGA

It's good to read that the B407 pilot was at least aware of the existence of gliding operations at Challock; it isn't clear whether the electronic navigation data available to them included the potential for winch launching to 2600ft. It is fortunate that the vigilance of the Duo Discus crew meant that the B407 was seen in good time, but had winching being taking place at the time there would have been a serious risk of collision.

### Summary

An Airprox was reported when a Duo Discus and a B407 flew into proximity at Challock at 1342Z on Monday 5<sup>th</sup> July 2021. Both pilots were operating under VFR in VMC, the Duo Discus pilot was not in receipt of an ATS and the B407 pilot was in receipt of a Basic Service from London Information.

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

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS data 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 first looked at the actions of the Duo Discus pilot, they were thermaling to the east of the airfield and had no knowledge that the B407 was in the vicinity until the rear-seat pilot looked left and saw the helicopter approaching (**CF4**). They called to the front seat pilot who then took avoiding action.

<sup>2</sup> (UK) SERA.3205 Proximity.

<sup>3</sup> (UK) SERA.3210 Right-of-way (c)(2) Converging.

Members noted that they would have expected the PowerFLARM on the Discus to alert to the transponder on the helicopter, which could be seen by the radar and so was fully functioning and without such an alert, the Discus pilot was further denied any prior warning (CF5). As the B407 approached the airfield, it was at the same altitude as the glider and closing, causing the glider pilot to be concerned by its proximity (CF7).

Turning to the B407 pilot, their routeing had changed due to weather in the Ashford area, causing them to route further north-east than originally intended. However, members opined that in pre-flight planning, factors such as weather should always be accounted for, and that pilots should have a back-up plan, and that such a plan should take potential hazards, including airfields, into account (CF3). As it was, the pilot over-flew the glider site below the winch-launch altitude (CF2). The B407 pilot reported being aware of the glider site, and therefore would have had generic information that there could have been gliders in the area, although not specific information that the Discus was there (CF4). Given that the pilot described the glider being below them, members thought it likely that the pilot had seen the glider after it had taken avoiding action (CF6). Members discussed the pilot's comments about UK charting and how glider sites were displayed, but noted that UK airspace was constrained compared to other European countries and there was a balance to be struck between providing information, and cluttering charts so as to make them unreadable. Furthermore, different navigation Apps displayed the airfield data in different ways and allowed pilots to pick and choose how much information they would like to have displayed, additionally, many Apps gave a warning as the aircraft approached airfields or CAS. Ultimately, it was the responsibility of the pilot to undertake a full threat-and-error management approach to pre-briefing potential hazards along their route and to decide how to make best use of the functionality of the Apps available to them. There followed a discussion about the alarming number of similar Airprox presented to the Board over recent months, with pilots seemingly unaware of the danger the winch cable could present to an aircraft if they were to be unfortunate enough to come into contact with it. Members were dismayed that despite efforts of the BGA, the message did not appear to be landing with other members of the General Aviation Sports and Recreational community.

The Board briefly looked at the role of the London Information FISO who was providing a Basic Service. Pilots were reminded that London Information provided a Basic Service without recourse to a radar and as such could not monitor the position of aircraft (CF1).

In assessing the risk, members considered the reports from both pilots together with the radar data. They noted that the final lateral separation at 0.2NM was more than that estimated by the glider pilot and acknowledged that comparing two different data sources (GPS and radar) was never ideal, but thought that the glider pilot's estimation was probably coloured by the surprise at seeing the B407 at co-altitude as it approached. Members agreed that the avoiding action taken by the glider pilot had been timely and effective, so that by the time the B407 pilot saw the glider they considered that avoiding action was not necessary. Members agreed that such timely action 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:

	2021103			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Ground Elements</b>				
<b>• Situational Awareness and Action</b>				
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
<b>Flight Elements</b>				
<b>• Tactical Planning and Execution</b>				
2	Human Factors	• Aircraft Navigation	An event involving navigation of the aircraft.	Flew through promulgated and active airspace, e.g. Glider Site

3	Human Factors	• Pre-flight briefing and flight preparation	An event involving incorrect, poor or insufficient pre-flight briefing	
• Situational Awareness of the Conflicting Aircraft and Action				
4	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
• Electronic Warning System Operation and Compliance				
5	Human Factors	• Response to Warning System	An event involving the incorrect response of flight crew following the operation of an aircraft warning system	CWS misinterpreted, not optimally actioned or CWS alert expected but none reported
• See and Avoid				
6	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
7	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<sup>4</sup>

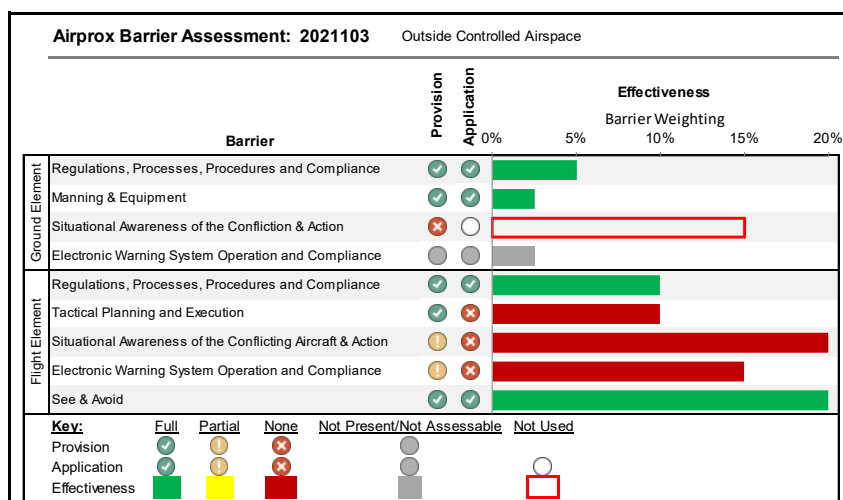
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

**Flight Elements:**

**Tactical Planning and Execution** was assessed as **ineffective** because the B407 pilot flew over the glider site below the winch launch altitude.

**Situational Awareness of the Conflicting Aircraft and Action** were assessed as **ineffective** because the glider pilot did not have any situational awareness that the B407 was approaching and the B407 pilot had only generic situational awareness about the gliding site.

**Electronic Warning System Operation and Compliance** were assessed as **ineffective** because the PowerFLARM on the glider did not alert to the B407 as expected.



<sup>4</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).