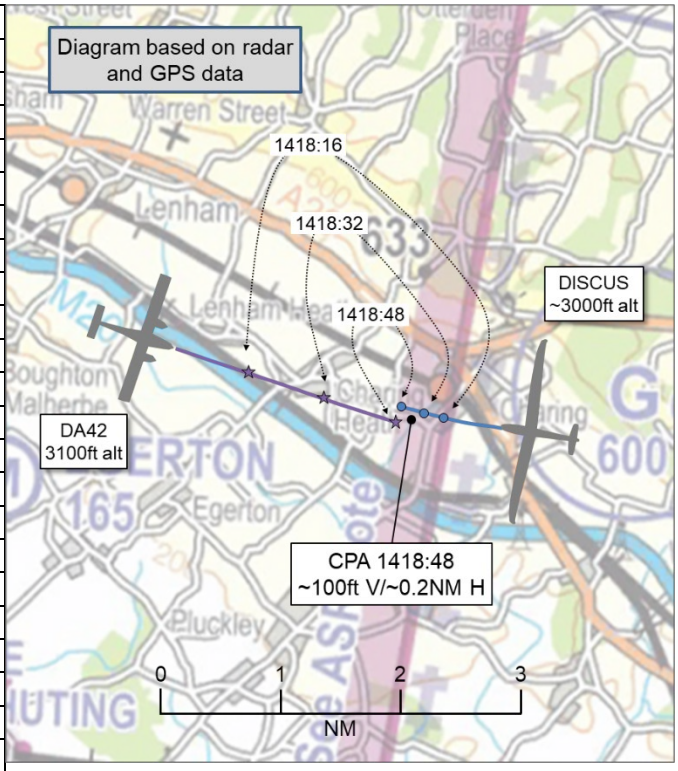
AIRPROX REPORT No 2022146

Date: 23 Jul 2022 Time: 1419Z Position: 5112N 00046E Location: 2NM W Challock

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Discus B	DA42
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	IFR
Service	Listening Out	NK
Provider	Challock Traffic	NK
Altitude/FL	~3000ft	3100ft
Transponder	Not fitted	A, C, S+
Reported		
Colours	White	White
Lighting	NR	Anti-col strobes
Conditions	VMC	VMC
Visibility	>10km	5-10km
Altitude/FL	~3000ft	3000-3200ft
Altimeter	QFE (NK hPa)	QNH (NR hPa)
Heading	284°	NK
Speed	50kt	145kt
ACAS/TAS	FLARM	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	0ft V/300m H	NK V/NK H
Recorded	~100ft V/~0.2NM H	



THE DISCUS PILOT reports that they were flying straight and level towards Lenham on a heading of approximately 284° at 3000ft. Their situational awareness was being maintained through a lookout, by [EC device] and by listening out on the Challock Traffic frequency. Whilst approximately 2NM west of the airfield, they caught sight of a fast-moving, twin-engined aircraft at the same altitude and on what appeared to be a reciprocal heading. Within 2 to 3 seconds of tracking the aircraft, they recognised that their paths were parallel to each other and not intersecting so they did not feel the need to take evasive action by turning away to the right. Rather, they preferred to keep the other aircraft in sight throughout its transit past. They noted that it did not deviate from its course either. The Discus pilot commented that it was startling to encounter this kind of traffic so close to [a local gliding centre] and with such a high relative speed and at exactly their altitude.

[The Discus pilot] did not receive a radio call to notify them that the twin would be passing close to Challock airfield and opined that the twin may have been on an IFR training flight and flying an instrument approach into Lydd. As such, they may have been tuned to Lydd and not able to communicate with traffic in the vicinity of the gliding club. They did not receive an [EC device] warning which suggested to them that; either the [DA42] was not equipped with [a compatible EC device] or that collision was not calculated to be a risk.

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

THE DA42 PILOT reports that they were on an IFR training detail from [departure airfield] via Southend and Detling at 3000ft then on to the Lydd Approach frequency which had directed them to route to SORDI [5NM ESE Challock]. Lydd had also given them a squawk. Although there was a reasonably high workload, it did not detract from a lookout. At all times they were 400-600ft above Challock winch height (2600ft). The DA42 pilot reports to have not seen the other aircraft.

THE SOUTHEND CONTROLLER reports that [the DA42] was not under the control of Southend at the time of the Airprox. However, having reviewed the recordings, they can confirm that [the DA42] departed [departure airfield] to [destination airfield] and the pilot requested to leave the frequency at DET to Lydd Approach at 1413. The aircraft subsequently passed 1NM west and then south of Challock indicating 3100ft on a 7000 squawk at 1419/1420.

THE LYDD CONTROLLER reports that they were contacted for their assistance after too much time had elapsed since the Airprox had occurred for them to have retained Flight Progress Strips (FPS) or RT from that day. However, the Lydd controller confirmed that [the DA42] had carried out a missed approach at Lydd at 1430.

Factual Background

The weather at Lydd was recorded as follows:

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METAR EGMD 231420Z 23017KT CAVOK 23/15 Q1020
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Analysis and Investigation

UKAB Secretariat

An analysis of a GPS data file kindly supplied by the Discus pilot, a printout of the DA42 track kindly supplied by the DA42 pilot, and of the NATS radar replay was undertaken. The DA42 was identified on radar from Mode S data, squawking 7000, heading 104° (see Figure 1).

An intermittent primary return on the radar replay was seen to match the timings and route of the Discus from the GPS data file. It is with these separate sources that the diagram was constructed and the CPA estimated.

It could not be positively determined whether the DA42 pilot had made contact with Lydd Approach prior to the CPA, or whether an ATS was being provided to the pilot of the DA42 at that time. It was observed on radar that the squawk of the DA42 changed at 1420 to 7067 which is listed as a Lydd Approach IFR code.

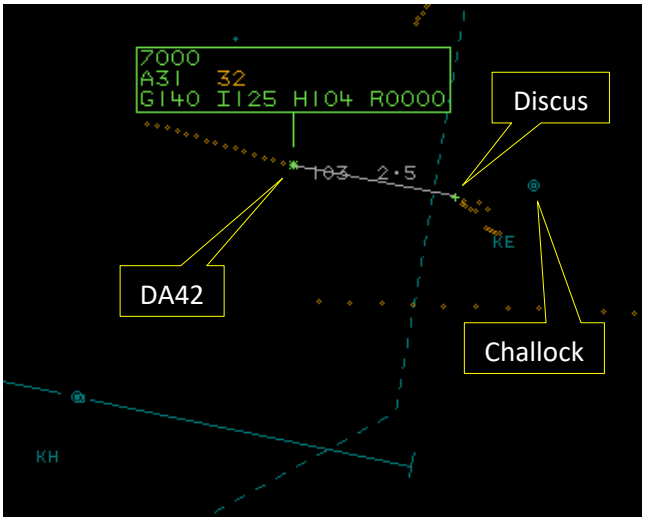


Figure 1 – Positions of the aircraft at 1418:01

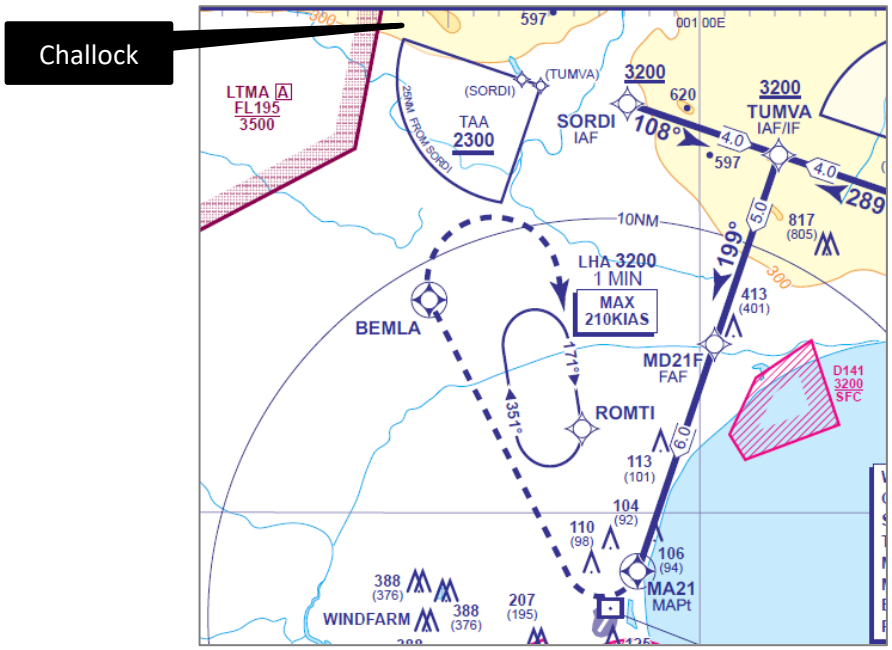


Figure 2 – The relative positions of Challock and the RNP approach to Lydd

The Discus and DA42 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 head-on or nearly so then both pilots were required to turn to the right.[2]

Comments

AOPA

With the introduction of RNP approaches in the UK, and them becoming more widely available, it would be prudent for all airspace users to refer to the UK AIP[3] and NOTAMs to familiarise themselves with their location. Appropriate electronic conspicuity devices can be purchased using grants that are available from the CAA. This would assist with identification of other airspace users; however, an effective lookout is paramount when flying IFR in VMC.

BGA

It is very encouraging to see that the DA42 pilot was aware of Challock gliding site and in particular of the maximum altitude of glider winch launches there (2600ft AMSL). However, on a good soaring day a greater density of gliders may be expected in the vicinity of a gliding site at any time during daylight hours, and at any altitude up to cloudbase. The difficulties of sighting another aircraft approaching head-on and with little relative motion are well known. Many pilots now opt to permanently switch on forward-pointing high-intensity landing lights, even in full daylight, to aid visual conspicuity in this direction.

Summary

An Airprox was reported when a Discus and a DA42 flew into proximity 2NM west of Challock at 1419Z on Saturday 23rd July 2022. The Discus pilot was operating under VFR in VMC and was listening out on the Challock Traffic frequency. The pilot of the DA42 was operating under IFR in VMC but it cannot be positively determined whether they were in receipt of an ATS.

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.
[3] UK Aeronautical Information Publication https://www.nats.aero/ais

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, GPS data for the Discus, 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 discussed this event and were satisfied that the separation between the aircraft, and the actions taken by the Discus pilot, had been sufficient to ensure that there had been no risk of collision. Members wished to emphasize that, as the RNP approach to Lydd passes very close to Challock, pilots must remain vigilant and maintain a good lookout. The Board agreed that the use of additional electronic conspicuity equipment may have provided useful information to aid visual acquisition. It was for pilots to decide on their own requirements for additional equipment according to their needs and the Board wished to highlight to pilots that funding has been made available for electronic conspicuity devices through the CAA's Electronic Conspicuity Rebate Scheme, which has been extended until 31st March 2023.[4] Members were satisfied that normal safety standards and parameters had pertained and, as such, the Board assigned Risk Category E. Members agreed that the following factors (detailed in Part C) had contributed to this Airprox:

CF1. The pilot of the Discus had no situational awareness of the DA42. The pilot of the DA42 had generic situational awareness in respect of their planned track which passed adjacent to Challock.

CF2. The EC device fitted to the Discus would not have been expected to provide an alert to the proximity of the DA42.

CF3. The pilot of the DA42 did not see the Discus.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2022146			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	• Situational Awareness of the Conflicting Aircraft and Action			
1	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
	• Electronic Warning System Operation and Compliance			
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
	• 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

Degree of Risk: E

[4] https://www.caa.co.uk/general-aviation/aircraft-ownership-and-maintenance/electronic-conspicuity-devices/

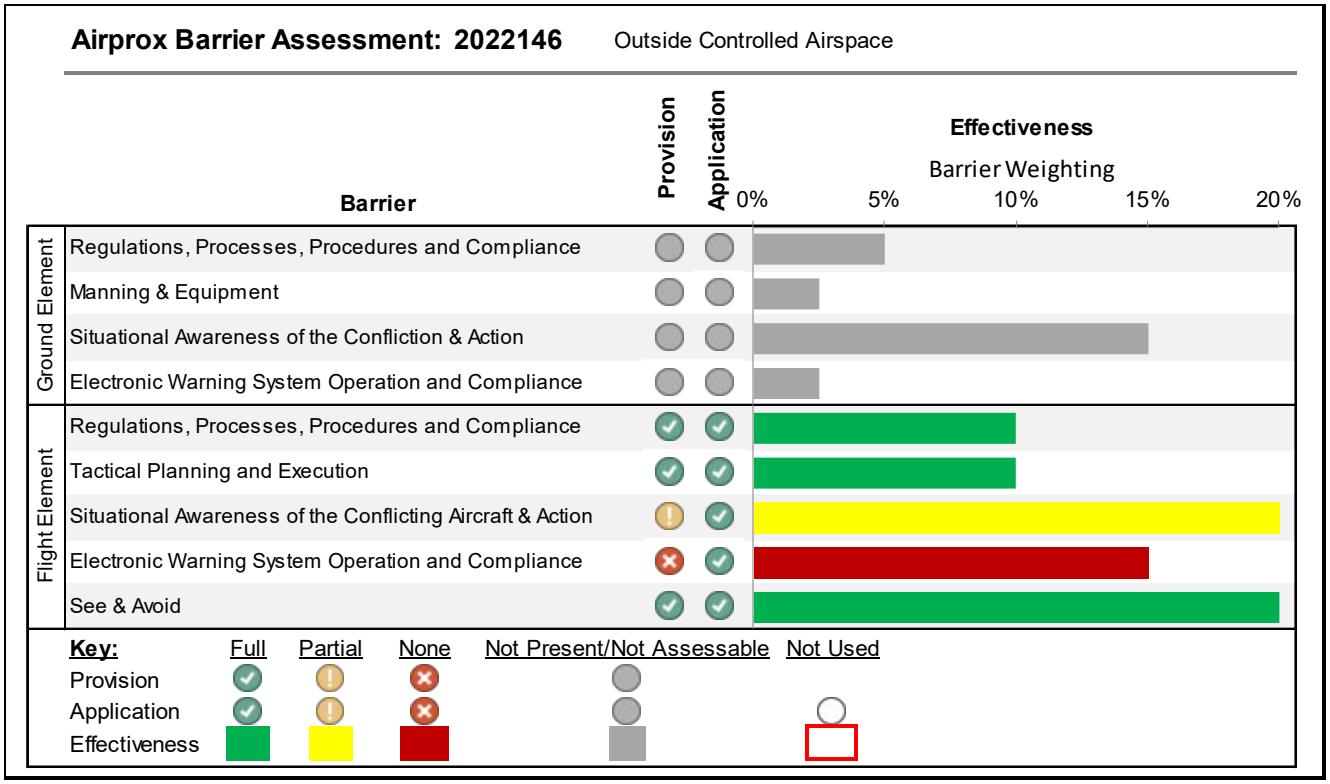
Safety Barrier Assessment[5]

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 **partially effective** because the Discus pilot had no situational awareness of the DA42. The DA42 pilot had generic situational awareness in respect of their planned track which had passed adjacent to Challock.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC device fitted to the Discus would not have been expected to provide an alert to the proximity of the DA42.



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