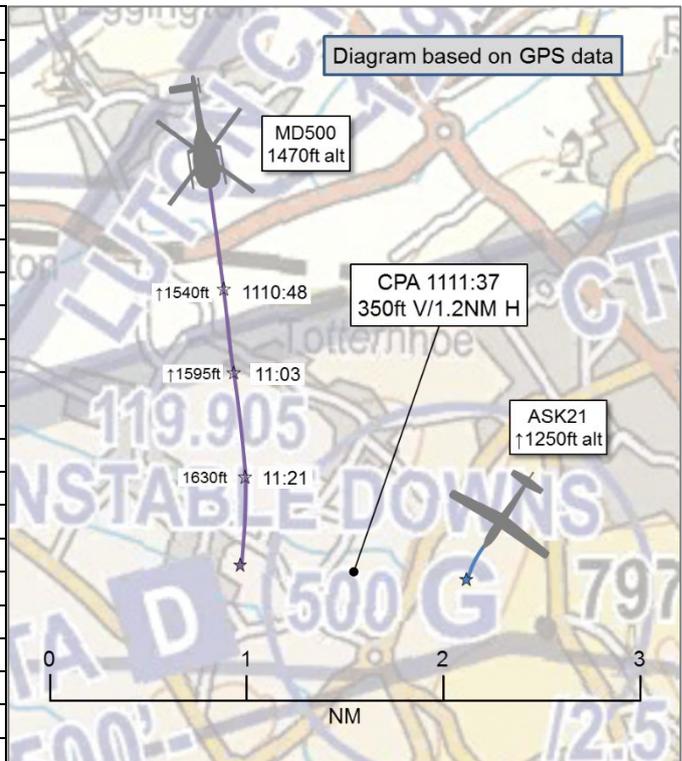


**AIRPROX REPORT No 2020022**

Date: 19 Feb 2020 Time: 1112Z Position: 5152N 00034W Location: 1NM W Dunstable Downs GS

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

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK21 Glider	MD500
Operator	Civ Gld	Civ Helo
Airspace	Luton CTR	Luton CTR
Class	D	D
Rules	VFR	VFR
Service	AGCS	Radar Control
Provider	Dunstable Radio	Luton INT
Altitude/FL	1257ft	1618ft
Transponder	Not fitted	A C, S
<b>Reported</b>		
Colours	White/Red	Blue/White
Lighting	None	NR
Conditions	VMC	VMC
Visibility	>10km	NR
Altitude/FL	1000ft	1500ft
Altimeter	QFE	QNH (1020hPa)
Heading	220°	NR
Speed	75kt	NR
ACAS/TAS	Not fitted	Not fitted
<b>Separation</b>		
Reported	200ft V/500m H	1000ft V/1.5NM H
Recorded	360ft V/1.2NM H	



**THE ASK21 PILOT** reports that the airfield was active with glider winch and aerotow-launching and motor-glider training. They were operating under their LOA and London/Luton was operating on RW26. There was 8/8ths high cloud cover and good visibility underneath. The club was using their 'South West' run (actual 220°). Gliders were typically reaching a height of 1100-1200ft when winch launching. He was the instructor in the rear seat of the ASK21 with the P2 in the front seat and they were flying the winch exercise (they had been undertaking simulated cable breaks). At the time of launch, the helicopter could not be seen from the ground. The initial part of the winch-launch into full climb was normal; at the time of the incident, they were in full climb at approximately 70-75kts and climbing at approximately 45°. At around 700ft agl the instructor saw a helicopter over his right shoulder, approaching from behind to the right and above them, on an apparently converging course. He immediately pulled the cable release to abort the launch and shouted 'helicopter, go left' (or similar). The P2 correctly pushed forward to the recovery attitude and, after achieving safe flying speed, initiated a turn-away to the left, at which point they were at approximately 800ft agl. He estimated the helicopter to be at 1000ft agl and approaching from behind/right, at a lateral distance of about 500m – just outside the airfield boundary and inside the circuit pattern. They continued towards the local Dunstable ridge, and could see the helicopter continuing towards Dagnall. The helicopter did not appear to alter direction before or during the incident. The pilot opined that, if they had not seen it, and if they had reached full launch height and continued straight on their launch heading, they may have collided with the helicopter.

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

**THE MD500 PILOT** did not submit a written report but provided a verbal account to the UKAB Inspector. He reports that he was transiting south towards Hemel Hempstead and had secured a transit of the Luton Zone with the Luton controller. He was under a Basic Service outside CAS and Radar Control inside the Class D and had been instructed to fly at an altitude not above 1500ft. He was passing approximately 1.5-2.5NM W of Dunstable Downs glider site and had received 2 Traffic Information calls – one informing him of a powered aircraft (that he identified as a motor-glider taking off, turning

crosswind then downwind) and another, which he identified on the winch launch (behind the motor-glider that had just launched), approximately 1000ft below him and approximately 1.5NM laterally separated.

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

**THE LUTON INT CONTROLLER** reports that the MD500 pilot contacted them to request a crossing clearance of the CTR, which was issued with the generic Traffic Information that Dunstable Gliding site was active. On entering controlled airspace, the service to the helicopter pilot was upgraded to a Radar Control Service and further Traffic Information was provided regarding one transponding contact and one primary contact in the vicinity of Dunstable. The helicopter pilot proceeded to cross the CTR, north to south, passing close to the Dunstable Downs Gliding site. On leaving controlled airspace, the service was downgraded and the aircraft landed without further incident.

The controller did not assess the severity of the incident.

## Factual Background

The weather at London/Luton was recorded as follows:

METAR EGGW 191120Z AUTO 23011KT 9999 NCD 05/03 Q1020=

## Analysis and Investigation

### CAA ATSI

According to a NATS investigation, at **1106:44**, having previously called the Luton radar controller, the MD500 was identified and a Basic Service agreed. The pilot requested a clearance to transit the Luton CTR, VFR, to the west of Dunstable Downs. The controller confirmed this clearance *“transit the Luton Control Zone, VFR, not above altitude two thousand feet routeing to the West of Dunstable Downs gliding site”*, which was correctly read back by the pilot. The controller went on to advise *“just caution, Dunstable Downs gliding site is active”*, which was acknowledged by the pilot (Figure 1). At **1110:12**, the controller advised the MD500 pilot, *“caution as you approach Dunstable, looks like there is a either transponding glider or possible a tug just airborne, about one mile to the west of the gliding site.”* The pilot responded *“Visual with that contact”* (Figure 2).

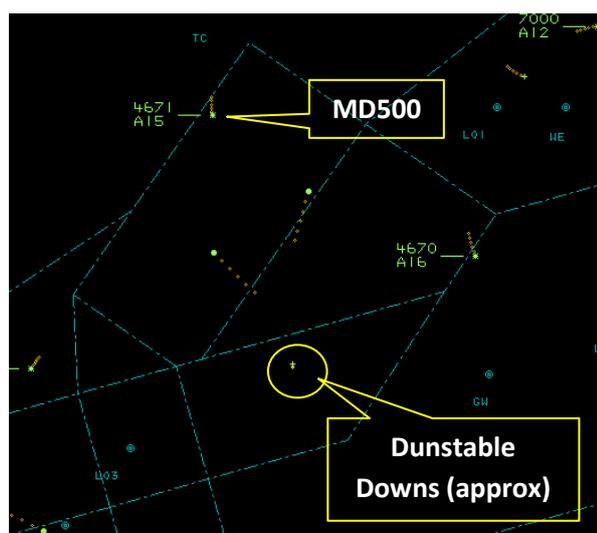


Figure 1 - 1106:44

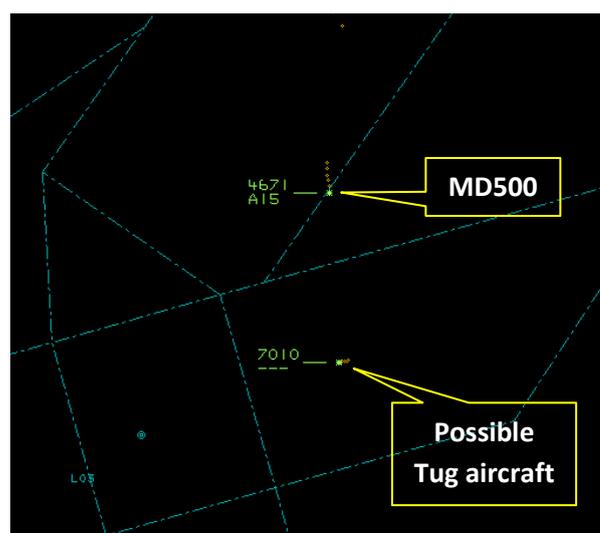


Figure 2 - 1110:12

At **1110:38**, the MD500 pilot, having entered the Luton CTR, was advised that it was a Radar Control Service. At **1111:01**, a primary contact, believed to be the glider, became visible on the radar replay in the vicinity of the Dunstable Downs gliding site. At **1111:04**, the controller passed Traffic

Information to the MD500 pilot: “possibly another contact lifting off there” to which the pilot responded “roger – looking” (Figure 3). The primary contact was last seen on the radar replay at 1111:11 before disappearing - possibly reappearing at 1111:27 (Figure 4).

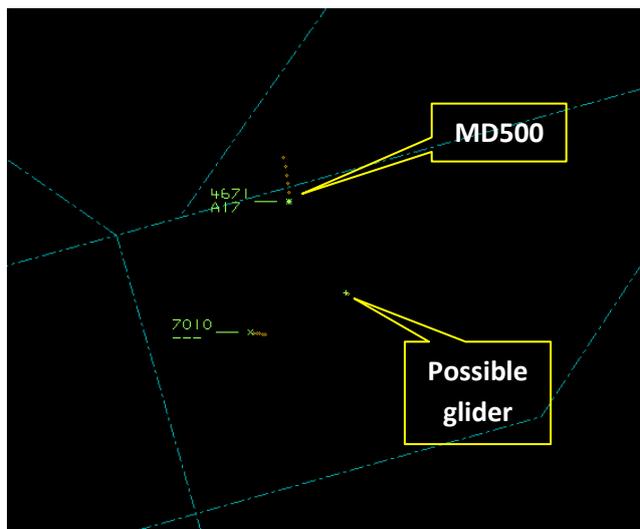


Figure 3 - 1111:04



Figure 4 – 1111:27

Due to Covid-19 restrictions, CAA ATSI had no access to the Luton Radar RTF prior to this report, and so has utilised extracts from a draft report shared by NATS.

Dunstable Downs gliding site operates within part of the Luton CTR, but was not marked on the radar replay. However, CAA ATSI plotted the track of the MD500 in relation to the Dunstable Downs gliding site as published on aeronautical charts (Figure 5) to show that the MD500's track remained clear to the west of that site.

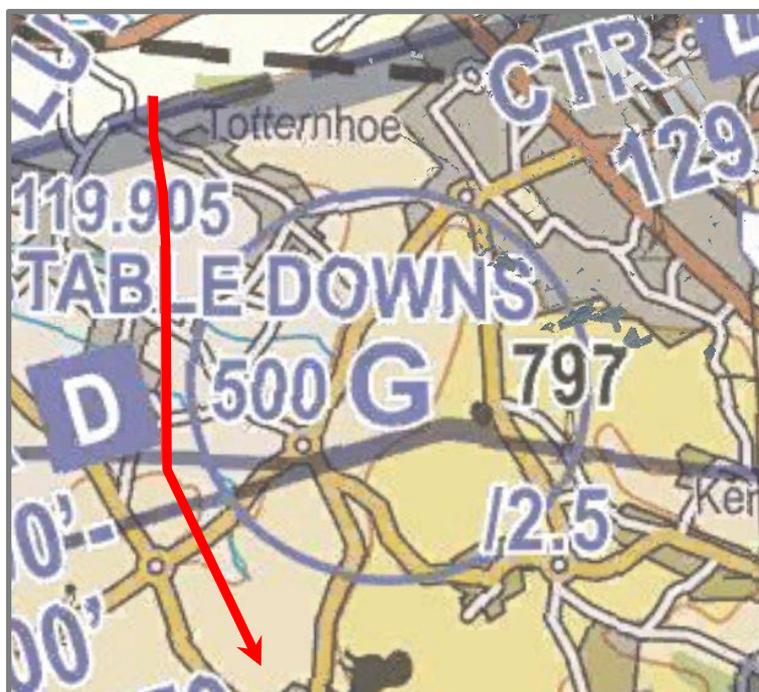


Figure 5 – Track of MD500

The controller passed timely Traffic Information both on the gliding site, and the two contacts visible to them on their radar display. It appeared that the MD500's proximity to the area was sufficient to cause concern to the pilot of the glider. No written report was received from the pilot of the MD500.

## CAP493 Section 3 Chapter 1 Approach Control

**2. Information to Aircraft****2A. Traffic Information and Avoidance**

2A.1 Traffic information shall be passed and traffic avoidance advice given to aircraft on any occasion that a controller considers it necessary in the interests of safety.

**Aerodrome Located in Airspace**

Class D

**Traffic Information to be Passed**

- a) to IFR flights on VFR flights\*;
- b) to VFR flights on IFR flights;
- c) to VFR flights on other VFR flights;
- d) to VFR flights on Special VFR flights;
- e) to Special VFR flights on VFR flights.

**Note 2:** In Class D airspace traffic avoidance advice must be given if requested by pilots of:

- (a) IFR flights against VFR flights,
- (b) VFR flights against all other flights.

**UKAB Secretariat**

NATS Luton provided the UKAB with an investigation report but, to avoid duplication, only information from the CAA ATSI report has been included. Although the track of the glider could not be positively identified on the NATS radar, both pilots provided GPS log files to the UKAB Secretariat from which it was possible to accurately plot the aircrafts' relative positions and measure CPA.

The ASK21 and MD500 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>1</sup>

**Comments****BGA**

Like many gliding sites, Dunstable can be very busy with multiple winch and aerotow launches and circuit traffic. Due to the proximity of the Downs themselves, and the Luton approach/departure path, much of the activity occurs from the SW round to the NE of the field. Dunstable operates on a frequency of 119.905MHz and would appreciate a call from passing aircraft, if possible.

**Summary**

An Airprox was reported when an ASK21 glider and a MD500 flew into proximity near Dunstable Downs gliding site at 1112Z on Wednesday 19<sup>th</sup> February 2020. Both pilots were operating under VFR in VMC, the ASK21 pilot was in receipt of an AGCS from Dunstable Radio and the MD500 pilot was in receipt of a Radar Control Service from Luton INT.

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

Information available consisted of reports from the pilots of both aircraft, GPS log files, transcripts of the relevant RT frequencies, radar photographs/video recordings, reports from the air traffic controller involved and reports from the appropriate ATC 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.

Due to the exceptional circumstances presented by the coronavirus pandemic, this incident was assessed as part of a 'virtual' UK Airprox Board meeting where members provided a combination of written contributions and dial-in/VTC comments. Although not all Board members were present for the entirety of the meeting and, as a result, the usual wide-ranging discussions involving all Board members

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<sup>1</sup> SERA.3205 Proximity.

were more limited, sufficient engagement was achieved to enable a formal assessment to be agreed along with the following associated comments.

The Board first heard from a glider pilot member who informed the other members that a modern winch launch is very effective and can achieve climb rates up to 5000fpm. Furthermore, manoeuvrability of the glider whilst on the launch cable is extremely restricted and the pilot has little influence over the where the glider will be at the point of release. That said, glider pilots do regularly practise winch-launch failures and likened the procedure to a go-around for a powered aircraft in that it is regularly practised but it carries a higher degree of risk than normal operations. In considering the actions of the glider pilot, the Board heard that it can be very difficult to judge closure rates during a winch-launch whilst in the climb and that, if the pilot's perception is such that there may be a conflict with another aircraft, the only options open to them are to either continue or to abort the launch. Members agreed that, having received no prior warning of the presence of the MD500 (CF1), and with the instructor having been concerned by the relative position and proximity of the helicopter (CF2), the glider pilot had taken a sensible course of action in aborting the launch.

Turning to the actions of the MD500 pilot, the Board considered that he had taken reasonable account of the presence of the glider site and had planned to avoid it. However, a civilian helicopter pilot member felt that the MD500 pilot may have been better served by offsetting his route further to the west. Members agreed with this view and wondered if the MD500 pilot had thought that remaining clear of the area depicted by the circle of 1NM radius on the VFR charts would have effectively deconflicted him from glider activity. The Board wished to remind pilots that 1NM radius circle around glider sites on the CAA VFR charts serves only to highlight the presence of the site – it does not depict the limit of glider activity nor any assignment of airspace. The Board also wished to reiterate the utility of using the frequency printed on these VFR charts to call the glider site if passing nearby. It was the Board's view that, had the MD500 pilot called the site with his routing and intentions, then the ASK21 pilot would perhaps have been less alarmed by the presence of the helicopter and therefore may not have aborted his launch. [UKAB note: post-meeting, the MD500 pilot confirmed to the Secretariat that his aircraft was equipped with a single radio].

The Board briefly discussed the actions of the Luton controller, and quickly agreed that he had done all that he could in alerting the MD500 pilot to the activity in the vicinity of the glider site, and had passed Traffic Information on transponding and non-transponding traffic that he could see on his radar screen.

In assessing the risk, the Board took into consideration the fact that the MD500 pilot had been visual with the launching ASK21; therefore, any risk of collision had effectively been removed. Some members argued that safety had been degraded because the glider pilot had had to abort his launch, while others were of the opinion that, regardless of the launch abort, the separation had been such that normal safety standards and parameters had been maintained. After further discussion, the Board agreed that, although the glider pilot had aborted his launch, this had probably not been necessary given that the helicopter pilot was visual with his aircraft and therefore assigned a risk category E to this event.

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

### Contributory Factors:

	2020022		
CF	Factor	Description	Amplification
	<b>Flight Elements</b>		
	<b>• Situational Awareness of the Conflicting Aircraft and Action</b>		
1	Contextual	• Situational Awareness and Sensory Events	Pilot had no, late or only generic, Situational Awareness
	<b>• See and Avoid</b>		
2	Human Factors	• Perception of Visual Information	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: E

Safety Barrier Assessment<sup>2</sup>

In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that all barriers to mid-air collision had functioned as designed.

<b>Airprox Barrier Assessment: 2020022</b>		Outside Controlled Airspace		<b>Effectiveness</b>				
<b>Barrier</b>		<b>Provision</b>	<b>Application</b>	<b>Barrier Weighting</b>				
				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	✓	✓					
<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								

<sup>2</sup> The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).