

AIRPROX REPORT No 2017107

Date: 03 Jun 2017 Time: 1714Z Position: 5344N 00105W Location: Burn

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK21	DA40
Operator	Civ Club	Civ Pte
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	None
Altitude/FL		1900ft
Transponder	Not Fitted	A, C, S
Reported		
Colours	White	
Lighting	Nil	
Conditions	VMC	VMC
Visibility	20km	>10km
Altitude/FL	1500ft	1900ft
Altimeter	QFE (1013hPa)	NK
Heading	250°	085°
Speed	60kt	110kt
ACAS/TAS	PowerFLARM	Not fitted
Alert	None	N/A
Separation		
Reported	2-300ft V/ 2-300m H	NK
Recorded	NK	



THE ASK21 PILOT reports that he was launching by winch on RW25. As he reached the top of the launch he lowered the nose to a flying attitude and saw the other aircraft pass very close in front and slightly above. It was first seen in his 1 o'clock, travelling NW to SE (he recalled) and was passed in seconds. Observers on the ground thought it was a Cirrus or something similar. Later, Sherburn were contacted, because the aircraft appeared to come from that direction, but after checking their logs, they didn't think it had come from them.

He assessed the risk of collision as 'Medium'.

THE DA40 PILOT reports that earlier in the day he had flown to Sherburn to pick up two pilots in order that they all fly on to their destination. The other two pilots shared a leg each flying to and from their destination and he was happy to take a back seat after a busy and tiring week. After returning to Sherburn to drop off the pilots, he flew the short flight (10mins) back to his landing airfield. As he departed, another pilot called for join and, during a protracted RT exchange, it appeared he was unsure of his position and whether he would be joining overhead, or downwind. To avoid any conflict, the DA40 pilot departed south at right angles to clear the circuit as quickly as possible. He cleared the Sherburn ATZ and then took up a track for his destination. He would usually fly with Skydemon on an Ipad-mini mounted on the left of the canopy but, because it was only a short flight and a clear day, he didn't feel it necessary on this occasion. He had no knowledge of the Airprox until he had landed. He was aware of Burn gliding site and was sure he must have remained clear, so when it was reported to him that he may have had an Airprox he assumed it was with a glider and tug. Although he hadn't used his Ipad for the flight, fortuitously it had remained on in his bag from monitoring the earlier flight, so he was subsequently able to see his track. He was horrified to discover that he had indeed flown through Burn, and that he had not seen the glider. He noted that he was shocked to see his routing, because he was well aware of the gliding sites in the area and would have considered himself a careful and precise pilot. He thought that it was likely he had flown further south than usual to clear

the circuit for the inbound aircraft and had not registered that a direct track would no longer keep him clear of Burn. He noted the dangers of 'mentally switching off' firstly because others were flying the aircraft before and then because it was only a short, and familiar, flight. He would normally have requested a Basic Service from Doncaster, who are very good at reminding pilots about active gliding sites, but, again because of the short trip, he hadn't thought it necessary, another lesson that he intended to learn from. He had since fitted PilotAware, which displays traffic, including FLARM equipped gliders, on his Ipad.

Factual Background

The weather at Doncaster/Sheffield was recorded as follows:

METAR EGCN 031650Z 23010KT CAVOK 19/08 Q1012=

Analysis and Investigation

UKAB Secretariat

The ASK21 and DA40 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹. An aircraft operated on or in the vicinity of an aerodrome shall conform with or avoid the pattern of traffic formed by other aircraft in operation².

Comments

BGA

We commend the DA40 pilot for his open and honest report. The rapid adoption of electronic mapping tools by GA pilots should reduce the frequency of these incidents; and fitting FLARM-compatible equipment to aircraft that share airspace with gliders will add a further defence layer against collisions.

Summary

An Airprox was reported when a ASK21 and a DA40 flew into proximity at 1714 on Saturday 3rd June 2017. Both pilots were operating under VFR in VMC, neither in receipt of an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft and radar photographs/video recordings.

The Board first looked at the actions of the DA40 pilot and commended him for his open and honest reporting. They agreed with his observations about how every flight should be carefully planned, even well-known, familiar routes. They also agreed that it was likely that the change in planned routing to accommodate the aircraft joining at Sherburn had pushed the DA40 pilot much further south than he anticipated and that he didn't then appreciate the effect this would have on his route back to his base. Nevertheless, even on short flights, lookout is of the utmost importance and, whilst there were clearly some human factors at play here from tiredness and mentally switching off whilst other pilots flew the aircraft, it was for the DA40 pilot to fly with due care and diligence. Some members commented on the prevalence of electronic navigation systems and, although they were considered a boon to modern flying, opined that there was a danger that basic navigation techniques might suffer due to over-reliance on them; if the DA40 pilot was concentrating on the flight and referring to a map he would have noted that he was flying south of Selby and Brayton, in the vicinity

¹ SERA.3205 Proximity.

² SERA.3225 Operation on and in the Vicinity of an Aerodrome.

of Burn glider site, and would probably have avoided both it and the glider. Nevertheless, the Board were heartened to hear that the pilot had since fitted PilotAware to aid in collision avoidance; although electronic conspicuity systems do not replace robust look-out, in this instance it should have provided a warning to the DA40 pilot because the glider was fitted with P-FLARM. Finally, the Board wondered if Sherburn could have reminded the DA40 pilot about Burn as he departed their ATZ, assuming that they were aware of his routing, and that Burn was active.

For his part, being in a steep launch attitude on the cable, the glider pilot would not likely see the DA40 until the last minute when he reached the top of his winch launch and lowered the nose of his aircraft. Glider members confirmed that the angle of climb whilst being winched was such that it made forward look-out very difficult until the top of the winch was reached, at which point the glider pilot saw the DA40. Although the glider launch team would have conducted pre-launch lookout checks, the closure rate of the DA40 would likely have meant that it was obscured below the horizon when the launch was commenced; it was likely that by the time the DA40 was seen from the ground, it was already in proximity to the glider. Some members noted that the glider was fitted with P-FLARM, which should have provided an alert on the DA40's SSR; they wondered whether this had alerted during the glider launch, and whether the glider pilot had presumably not assimilated the alert.

The Board then turned to the cause of the Airprox. It was quickly agreed that the DA40 pilot had flown through the overhead of an active and promulgated glider site, below the maximum winch-launch altitude, and into conflict with the ASK21. The risk was assessed as Category B, safety margins had been much reduced below the norm.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The DA40 pilot flew through the overhead of an active and promulgated glider site, below the maximum winch altitude, and into conflict with the ASK21.

Degree of Risk: B.

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:

Flight Crew

Regulations, Processes, Procedures, Instructions & Compliance was assessed as **partially effective** because the DA40 pilot had overflown Burn.

Tactical Planning was assessed as **ineffective** because the DA40 pilot did not modify his routing to avoid overflying Burn after he had tracked further south than usual to clear the Sherburn circuit.

Situational Awareness & Action was assessed as **ineffective** because the DA40 pilot was not aware that he had overflown Burn until after the event, and neither pilot had any knowledge of the other's presence.

Warning System Operation and Compliance was assessed as **ineffective** because although the Glider had P-FLARM it did not warn the glider pilot (or he did not assimilate it) and the DA40 was not fitted with a CWS at the time.

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

See and Avoid was assessed as **ineffective** because neither pilot saw the other in time to take avoiding action.

