

AIRPROX REPORT No 2021089

Date: 19 Jun 2021 Time: 1245Z Position: 5147N 00044W Location: Halton elev 369ft

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK21	C182
Operator	Civ Gld	Civ FW
Airspace	Halton ATZ	Halton ATZ
Class	G	G
Rules	VFR	VFR
Service	AGCS	Basic
Provider	Halton	Luton
Altitude/FL	NK	1900ft
Transponder	Not fitted	A, C, S
Reported		
Colours	White	Red, White
Lighting	None	Anti-cols, Strobes
Conditions	VMC	VMC
Visibility	5-10km	5-10km
Altitude/FL	600ft	1600ft
Altimeter	QFE (1003hPa)	QNH
Heading	020°	330°
Speed	60kt	120kt
ACAS/TAS	FLARM	Not fitted
Alert	Information	N/A
Separation		
Reported	600ft V/800m H	1600ft V
Recorded	NK V/0.4NM H	



THE ASK21 PILOT reports that during a winch launch they became aware of a powered aircraft crossing in front of them from right to left. As the other aircraft was dead ahead while they were at 600ft they continued with the launch and released at 1200ft. Looking to the left they could see the other aircraft was 600m away at what looked like the same height as their aircraft. They considered the actions of the other aircraft to pose a serious risk of collision.

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

THE C182 PILOT reports that they were transiting to [destination airfield] and were working Luton since their track took them close to the Luton CTA. They entered cloud and then decided to descend and during this manoeuvre accidentally penetrated Halton's MATZ¹. They looked down to see if there was any obvious activity and saw a glider starting its take-off roll. They immediately turned on to a northerly heading to exit the [MATZ] as quickly as possible. In their view there was absolutely no danger of a collision or even coming remotely close, however they did enter the [MATZ] which was clearly a mistake. They noted that they were reasonably experienced and very aware of controlled airspace but had never really considered Halton to be very active. However having spoken to the CO, they now realise that it is, and will always take care to call if passing nearby. Indeed, they had called Halton several times since the declared incident and established a two way communication twice. They opined that nearby airfields such as Wycombe Air Park or Elstree could make pilots aware that Halton is active if they know an aircraft is heading in that direction. This is common practice at other airfields which are close to gliding sites.

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

¹ Pilot reports MATZ, however Halton only has an ATZ.

THE HALTON AIRFIELD MANAGER reports that at approximately 1235 whilst Duty AFM at the watchtower they heard (but at this stage unsighted behind trees) an approaching piston engine aircraft from the south. They delayed a 'Halton Traffic' warning initially believing it to be in or above cloud - it then appeared from behind some trees at 1500ft on a NW course that would take it very close to the K21 glider which was mid-launch on RW02. They gave warning over the R/T, "*Halton traffic, unannounced traffic south to north – over winch*". Whether the errant aircraft heard this call or saw the Airprox developing is unclear but the Cessna 182 was witnessed to jink right before resuming original heading. They requested and very quickly received 'FlightRadar24' screenshot imagery from several CGC members, including details of the aircraft's departure point and owner details. NATS Swanwick advised that they were not working the aircraft and could not help further at this time. They thought that aggravating factors were: Low Cloudbase; not much higher than winch launch height: Late Sighting; the trees hindered their visual acquisition of the errant aircraft and delayed their R/T broadcast warning.

Factual Background

The weather at Luton was recorded as follows:

METAR EGGW 191220Z AUTO 09006KT 9999 BKN011 OVC020 14/12 Q1015=

Analysis and Investigation

UKAB Secretariat

The ASK21 and C182 pilots shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard.² 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 operation.³ Rules of the Air Regulations 2015 Article 11, Flights within aerodrome traffic zones, states:

An aircraft must not fly, take off or land within the aerodrome traffic zone of an aerodrome unless the commander of the aircraft has complied with paragraph (5), as appropriate.

(5) If there is no flight information centre at the aerodrome the commander must obtain information from the air/ground communication service to enable the flight to be conducted safely within the aerodrome traffic zone.

(6) The commander of an aircraft flying within the aerodrome traffic zone of an aerodrome must—

(a) cause a continuous watch to be maintained on the appropriate radio frequency notified for communications at the aerodrome; or

(b) If this is not possible, cause a watch to be kept for such instructions as may be issued by visual means; and

(c) if the aircraft is fitted with means of communication by radio with the ground, communicate the aircraft's position and height to the air traffic control unit, the flight information centre or the air/ground communications service unit at the aerodrome (as the case may be) on entering the aerodrome traffic zone and immediately prior to leaving it.

Occurrence Investigation

NATS Investigation

The pilot of [C182 C/S] contacted the Luton Intermediate Director (GW INT) at 1240:02 (all times UTC) and requested a Basic Service. The pilot stated that they were approaching Bovingdon (BNN) at an altitude of 1700ft. Radar displayed that the C182 was on an approximate track of 290°. The GW INT controller instructed the pilot to remain outside of controlled airspace, squawk Mode-A 4670, and provided the Luton QNH of 1015hPa, to which the pilot confirmed their altitude as 1700ft. The aircraft indicated track would have positioned [C182 C/S] to the south of Halton, within 1 mile of the Halton centre fix. At BNN, [C182 C/S] initiated a right turn of approximately 10°, tracking towards the Halton overhead. Radar displayed that [C182 C/S] infringed the Halton ATZ at 1243:54

² (UK) SERA.3205 Proximity.

³ (UK) SERA.3225 Operation on and in the Vicinity of an Aerodrome.

at an indicated altitude of 1700ft (see Figure 1). The next radar update displayed Mode-C at altitude 1800ft.



Figure 1

[C182 C/S] continued to track to the east of the Halton overhead, by an approximate 0.3NM and was positioned 0.7NM north of Halton when radar started to display a primary return, believed to be [ASK21 C/S].

This was coincident with the Closest Point of Approach (CPA) between the two aircraft and was recorded by Multi-track radar as 0.6NM (see Figure 2).



Figure 2

The Luton Approach controller was working in a combined configuration of the Luton Intermediate and Director positions. [C182 C/S] was tracking to the west of Luton Controlled Airspace, where there was designated gliding and paragliding activity areas, however Luton was operating on RW07, therefore the Cheddington and Aylesbury designated airspace in relation to Halton activity was not active. MATS Pt 2 LTN 10.6.3.1 stated that the designated airspace could only be activated when Luton was using RW25.

Note: The UKAB notified NATS of potential Swanwick unit involvement on the 19th July 2021, consequently the ExCDS data displaying any potential strip designators highlighting Halton activity, was no longer available to review.

The GW INT controller was not available to submit a CA4114 in a timely manner and therefore the unit report was completed without reference to the controller perspective. As Halton designated airspace was not active, the requirement of the GW INT to provide 'Traffic Information based on reported or observed activity' as stipulated within MATS Pt2 LTN 10.7.4 was not requisite, beyond the controller's duty of care to aircraft receiving a service. Review of radar highlighted that from the time [C182 C/S] had passed overhead BNN, there had been no primary returns displayed that would

correlate with potential glider traffic outbound from Halton. MATS Part 2 LTN 10.6 details that due to activity within the Halton area, even when the delegated airspace was not activated, that 'transiting traffic, in receipt of a service from TC Luton should be encouraged to avoid the ATZ or contact Halton Radio prior to transiting the area,' however the GW INT was not mandated to do so. Halton ATZ was notified in the UK MIL AIP as having a lateral radius of 2NM, and a vertical limit of 2000ft AAL. Halton had a designated aerodrome elevation of 369ft AMSL, ensuring that the ATZ vertical limit was designated as 2369ft in relation to an aircraft altitude.

The VFR Aeronautical Chart 1:500,000 also displayed Halton Aerodrome as winch launching up to altitude 2400ft (see Figure 3).



Figure 3

The Rules of the Air regulations 2015 (Rule 11) in relation to flight within an ATZ stated that: An aircraft must not fly, take off or land within the aerodrome traffic zone of an aerodrome unless the commander of the aircraft has complied with paragraphs (3), (4) or (5), as appropriate. (3) If the aerodrome has an air traffic control unit the commander must obtain the permission of that unit to enable the flight to be conducted safely within the aerodrome traffic zone. (4) If the aerodrome provides a flight information service the commander must obtain information from the flight information centre to enable the flight to be conducted safely within the aerodrome traffic zone. (5) If there is no flight information centre at the aerodrome the commander must obtain information from the air/ground communication service to enable the flight to be conducted safely within the aerodrome traffic zone. The pilot of [C182 C/S] did not comply with these regulations by transiting through the Halton ATZ without prior approval or communication with Halton radio. The GW INT controller would not have been able to provide pertinent Traffic Information to the pilot as the CPA was coincident with the primary target first appearing on radar, and the aircraft had already passed on diverging tracks (see Figure 2). Notwithstanding this, the aircraft was established on a Basic Service. CAP774 details that a 'Basic Service relies on the pilot avoiding other traffic, unaided by controllers/FISOs. It is essential that a pilot receiving this ATS remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight.' The Airprox report from the ASK21 pilot detailed they 'became aware of a powered aircraft crossing in front of me from right to left. As the other aircraft was dead ahead while I was at 600ft I continued with the launch and released at 1200ft [AAL]. Looking to my left I could see the other aircraft was 600m away at the same height as my aircraft.' Combining the pilot description and radar data, Safety Investigations assessed the closest lateral and vertical point of approach to be approximately 0.6NM and 300ft on diverging tracks with [C182 C/S] displaying a radar derived rate of climb of 500fpm. The Airprox report from the pilot of the ASK21 stated that they 'considered the actions of the other aircraft to pose a serious risk of collision.' The pilot report also stated that there was no form of avoiding action taken as C182 'had passed top of launch.' The pilot of the ASK21 report also stated that they were visual with [the C182] 'in front of me' whilst still within the winch climb at 600ft [AAL], and 'continued with the launch and released at 1200ft.' This narrative would suggest that the risk of collision was minimal.

Conclusions: The pilot of [C182 C/S] did not comply with the Rules of the Air Regulations in transiting through the Halton ATZ without prior approval or contact with Halton. VFR charts clearly displayed the potential for gliding activity at Halton up to an altitude of 2400ft, suggesting the pre-flight planning from the pilot was insufficient. The pilot was receiving a Basic Service from the GW INT Controller, who was therefore not required to monitor the flight under the stipulations of CAP774. Radar initially displayed the primary contact associated with the ASK21 after the C182 had passed and the aircraft were on diverging tracks. The GW INT controller did not provide advice to the pilot of C182 that their routeing tracked in proximity to the Halton ATZ with its associated activity, however they were not mandated to do so.

Summary

An Airprox was reported when a ASK21 and a C182 flew into proximity at Halton at 1245Z on Saturday 19th June 2021. Both pilots were operating under VFR in VMC, the ASK21 pilot in receipt of a AGCS from Halton and the C182 pilot in receipt of a Basic Service from Luton Intermediate Director.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings and a report from the AGO 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 considered the actions of the ASK21 pilot. They reported being on the winch launch when they first saw the C182 cross ahead and 600ft above. The glider pilot would have expected to have been protected from unknown aircraft by the ATZ and prior to seeing the C182, the pilot did not have any situational awareness that it was approaching and although the AGO transmitted a warning, this was likely to have been coincident with the pilot becoming visual with it (**CF5**). Although the glider was fitted with FLARM, this could not detect the C182 (**CF6**) and so did not provide the pilot with an alert. Despite the lack of warning, members thought that had the glider pilot believed a risk of collision existed, they would have aborted the launch and disconnected from the winch. Members with gliding experience confirmed that this option would have been available to the pilot and was a practised procedure and so by not taking that option and continuing with the launch, it was likely that the pilot thought that adequate separation existed, although they would have been rightly concerned to see the C182 within the ATZ (**CF8**).

Turning to the C182 pilot, they reported being pushed down lower than planned due to unexpected cloud and also being unaware that Halton was active. Members were disappointed that the pilot did not appear to have a contingency plan for a poor weather scenario (**CF4**) and advocated that threat and error management in the planning stages should include options for encountering poor weather. Furthermore, they further questioned whether the pre-flight planning and briefing had been adequate as the pilot had not pre-briefed well enough to realise that Halton had an ATZ and not a MATZ and they wondered whether this had a bearing on their decision making, in that remaining clear of a MATZ is not mandatory, whilst remaining clear of an ATZ is (**CF1, CF2**). Not only was remaining clear of the ATZ mandatory, being a glider site, Halton has a winch launch altitude of 2400ft and pilots were reminded that to fly through the overhead of a glider site below the altitude of the winch launch risked the danger of coming into contact with the winch cable. Having found themselves in the vicinity of Halton, members thought that at the very least the pilot could have called Halton to alert them to their positioning by calling on the Halton frequency, which was published on the en-route charts (**CF3, CF4**). When approaching Halton, the C182 should have had generic awareness that there were likely to be gliders in the vicinity although they did not have specific awareness about the glider on the launch (**CF5**). Notwithstanding, the C182 pilot reported seeing the glider launch beneath them and described turning right to increase the separation as they passed overhead, which members thought was probably too late to increase the separation (**CF7**).

Members briefly looked at the actions of the Luton controller, they were providing a Basic Service and were not required to monitor the flight, nor were they required to give Traffic Information. They were

told that because Luton were operating from the westerly runway, the controller's focus would have been elsewhere and not in the vicinity of the C182. Whilst it was a missed opportunity for the pilot to receive information that Halton was active, it was nevertheless a reminder to pilots that a Basic Service does not provide Traffic Information and pilots should not expect to be monitored when receiving one. For their part, the Halton AGO did not have any surveillance equipment that could notify them that the C182 was approaching the ATZ, however, members commended their actions in giving a warning call as soon as they became aware that the C182 was in the vicinity.

Finally, the Board assessed the risk of collision. The C182 pilot reported seeing the glider in the early stages of the launch and turning to increase the separation. Meanwhile the glider pilot reported seeing the C182 approximately 600ft above and took the decision that avoiding action, in the form of aborting the launch, was not necessary. Taking both accounts into consideration, together with the radar replay, members quickly agreed that there had been no risk of collision. However, because the C182 had flown through the ATZ and below the winch launch altitude, they agreed that safety had been degraded; Risk Category C.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2021089			
CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
1	Human Factors	• Use of policy/Procedures	Events involving the use of the relevant policy or procedures by flight crew	Regulations and/or procedures not complied with
• Tactical Planning and Execution				
2	Human Factors	• Airspace Infringement	An event involving an infringement / unauthorized penetration of a controlled or restricted airspace.	E.g. ATZ or Controlled Airspace
3	Human Factors	• Communications by Flight Crew with ANS	An event related to the communications between the flight crew and the air navigation service.	Pilot did not request appropriate ATS service or communicate with appropriate provider
4	Human Factors	• Insufficient Decision/Plan	Events involving flight crew not making a sufficiently detailed decision or plan to meet the needs of the situation	Inadequate plan adaption
• Situational Awareness of the Conflicting Aircraft and Action				
5	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				
6	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				
7	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
8	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 Assessment⁴

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

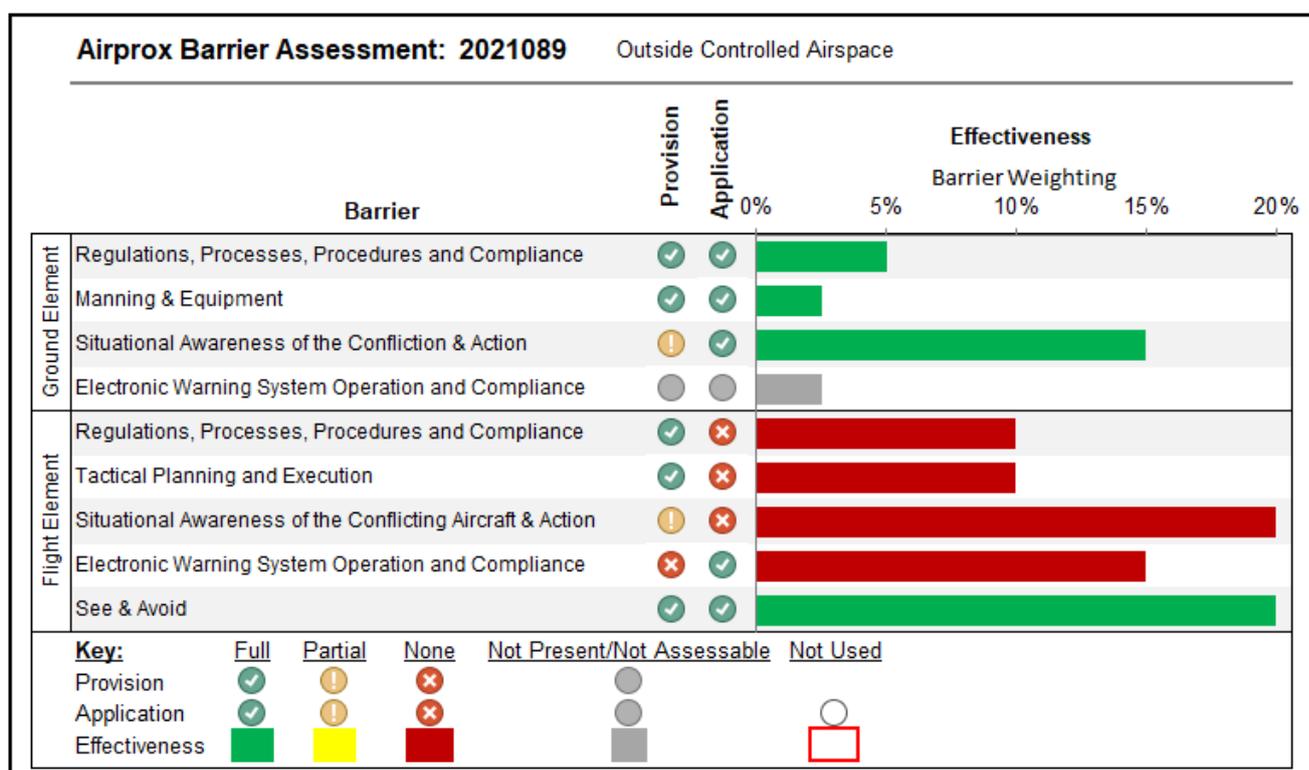
Flight Elements:

Regulations, Processes, Procedures and Compliance were assessed as **ineffective** because the C182 pilot flew through the ATZ without communicating with Halton.

Tactical Planning and Execution was assessed as **ineffective** because the C182 pilot did not take the Halton ATZ into consideration when planning their route or didn't contact Halton when weather forced them to descend.

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the C182 had generic information that gliders operated out of Halton, but the ASK21 pilot had no prior knowledge that the C182 was approaching.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the FLARM in the ASK21 could not detect the C182.



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