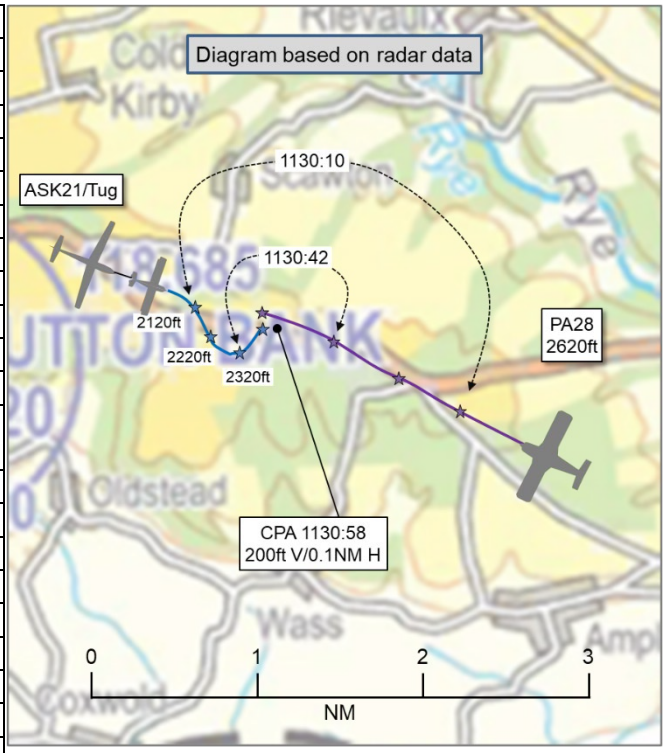
AIRPROX REPORT No 2024249

Date: 02 Oct 2024 Time: 1131Z Position: 5414N 00109W Location: 1NM NNE of Sutton Bank

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	ASK21	PA28
Operator	Civ Gld	Civ FW
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	None	Basic
Provider	N/A	Teesside
Altitude/FL	2420ft	2620ft
Transponder	A, C, S[1]	A, C, S
Reported		
Colours	White and red	Blue and white
Lighting	Nil	Landing, taxy, nav, HISL, strobes, bcn
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	~1500ft	2500ft
Altimeter	QFE	RPS
Heading	~030°	300°
Speed	~60kt	90kt
ACAS/TAS	FLARM	Not fitted
Alert	None	N/A
Separation at CPA		
Reported	200ft V/<0.5NM H	500ft V/1km H
Recorded	200ft V/0.1NM H	



THE ASK21 PILOT reports that they have reported this as they had been concerned that the reported aircraft was transiting their notified and at times busy gliding area and did not appear to take any avoiding action, even when if a collision risk was assessed as not probable, it would have been an advisable thing to do.

They had first sighted the PA28 when they were at approximately 1500ft QFE and 1NM NNE of Sutton Bank whilst being towed by the club's Eurofox tug. It was in their 2 o'clock at less than 1NM and slightly higher, tracking east-to-west. Their first contact reaction/assessment was that [the 2 aircraft] were converging and climbing in such a way that a risk of collision had to be determined by observing how they had been closing for a further short space of time i.e. a few seconds. As the ASK21 pilot was doing this, they advised their front seat handling P2 of the contact and continued to apportion time between monitoring their performance and positioning with the tug and the ongoing closure of the other aircraft. The ASK21 pilot did not feel the need to take over the handling as their P2 was an experienced pilot and they had mentally prepared a takeover reaction plan if they felt there was a need for its execution. In this regard, the ASK21 pilot's thoughts were that they would execute this plan immediately upon determining a risk of collision was probable, but with sufficient time to ensure successful execution. At the same time as they had been strategizing, they observed the tug deviate left by about 10-20° and lower the nose of the tug to flatten the climb profile. That immediately allowed the ASK21 pilot to judge that there had been no risk of collision unless either the tug or the PA28 did something to bring them closer. The ASK21 pilot had kept their eyes on the PA28 and saw it pass right-to-left in front and above them, such that they had been able to read its registration from both its lower wing and rear fuselage. The ASK21 pilot reports that they did not at any time see the PA28 alter height or track and it passed them continuing to track west.

[1] ASK21 pilot reports 'Transponder not fitted'. The Radar trace and 'A/C/S' reference here refers to the towing aircraft.

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

THE PA28 PILOT reports that they [had been made] aware of gliding activity at Sutton Bank from Teesside Radar. Traffic was reported to them and they identified a tug and glider. A slight right turn was made by the student. No avoiding action was required. They remained to the north of the site and well below the cloudbase to maintain good forward visibility. No avoiding action taken as no glider had been seen.

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

THE TEESSIDE APS CONTROLLER reports that this report has been filed on request of the Airprox Board. No details of an Airprox were notified to Teesside at the time of the incident. First notification was received on 9th October via email. This email is being filed outside the required 72hr as a result. At 1127 the PA28 pilot had free-called Teesside radar on 118.855MHz whilst approximately 6NM southeast of Sutton Bank gliding site requesting a Basic Service. The aircraft was allocated a Teesside squawk of 7041 and provided with a Basic Service. As soon as the aircraft was identified, the pilot was given Traffic Information that Sutton Bank had been active with a direction and range as a glider tow aircraft had just become airborne on squawk 0034, which the PA28 pilot had acknowledged. Further Traffic Information was passed to the PA28 pilot whilst 2NM from the 0034 squawk contact. The PA28 pilot subsequently notified Teesside that they had the traffic in sight.

THE TEESSIDE SAFETY INVESTIGATION reports that the PA28 pilot had called Teesside Radar whilst approximately 6NM southeast of Sutton Bank gliding site for a Basic Service with which they were provided. The pilot's track had been northwest towards the eastern edge of the area marked on the Teesside situational display for Sutton Bank glider activity. As soon as the PA28 was identified with a Teesside squawk, Traffic Information was passed (as per a Traffic Service) and subsequently updated to the pilot until they had reported the conflicting traffic in sight. The Teesside APS ATCO had provided more than the minimum required Traffic Information to an aircraft on a Basic Service for an aircraft that was manoeuvring in the area close to an active glider site. Teesside has previously provided all local general aviation flying clubs, owners and airfields, with specific information on Yorkshire Gliding Club at Sutton Bank and the dangers of flying in close proximity to activity including this type of glider towing and cable launching. The situational display at Teesside also has a clear, distinct and defined area showing the glider site.

Factual Background

The weather at Teesside Airport was recorded as follows:

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METAR EGNV 021120Z 05015KT 9999 SCT025 13/09 Q1021=
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Analysis and Investigation

CAA ATSI

ATSI has reviewed the reports for this occurrence. The pilot of the PA28 received both generic and specific Traffic Information on the ASK21 from Teesside ATC.

UKAB Secretariat

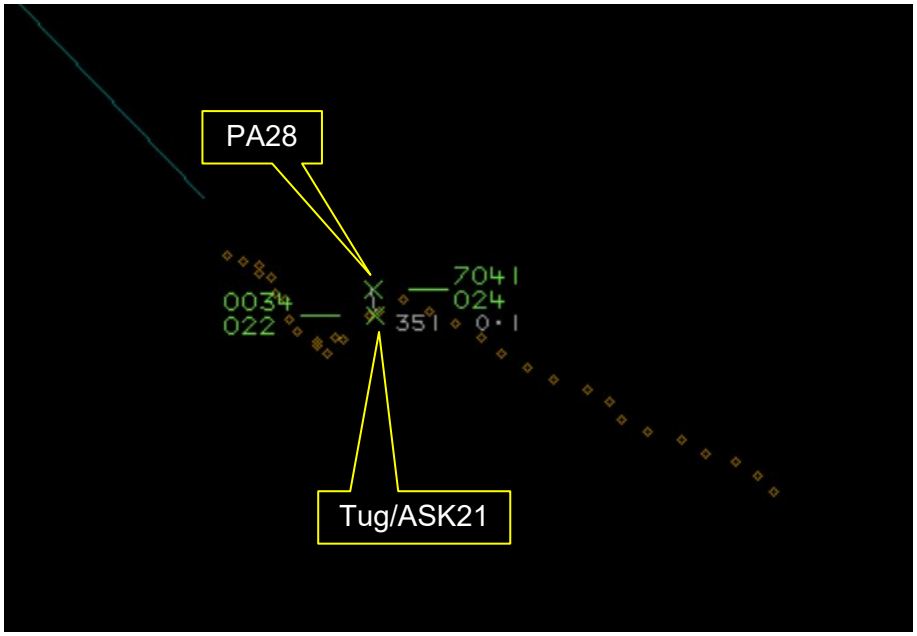


Figure 1 - CPA: 1130:58 200ft V/0.1NM H

The ASK21 and PA28 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] If the incident geometry is considered as converging then the PA28 pilot was required to give way to the ASK21.[3]

Comments

AOPA

This Airprox highlights the advantages to pilots when radar services are available; on a Basic Service the controller is not required to monitor the path of traffic or give Traffic Information. In this case, the controller had spare capacity to do so, which ultimately allowed a mid-air collision to be avoided. It is recommended that if a radar unit is contacted a Traffic Service is requested, this will enable both parties extra assurance and avoids ambiguity about other traffic in the vicinity.

BGA

Sutton Bank glider site operates 364 days per year (weather permitting), recording 15,216 aircraft movements in 2023. Until late 2020 it was bracketed on its north and south sides by the RAF Topcliffe and RAF Linton-on-Ouse MATZ stubs. However, the RAF Topcliffe MATZ stub was removed in September 2020 (ACP-2019-079), and the entire RAF Linton-on-Ouse MATZ was disestablished in February 2021 (ACP-2020-054, AIC Y 086/2020). The next 44 months saw six Airprox between non-military aircraft reported within 2.5NM of Sutton Bank (including this one); the locations and Airprox report numbers are shown in figure 2. Each involved a GA flight transiting the area along a north-south axis encountering Sutton Bank-based gliding-related traffic. By contrast, no Airprox whatsoever were reported within this 2.5NM radius circle in the 44 months preceding the Linton MATZ's disestablishment.

Before February 2021, pilots transiting north or south through this area who wished to remain laterally clear of MATZs would have routed well to the east of Sutton Bank, thus avoiding this area of intense gliding activity. However, since February 2021 transit traffic laterally avoiding the remaining MATZs could instead be funnelled close to Sutton Bank airfield, whose western extremity is only 0.9NM from the current RAF Topcliffe MATZ boundary.

This new Airprox cluster near this busy gliding site is a significant cause for concern.

[2] (UK) SERA.3205 Proximity.
[3] (UK) SERA.3210 Right-of-way (c)(2) Converging.

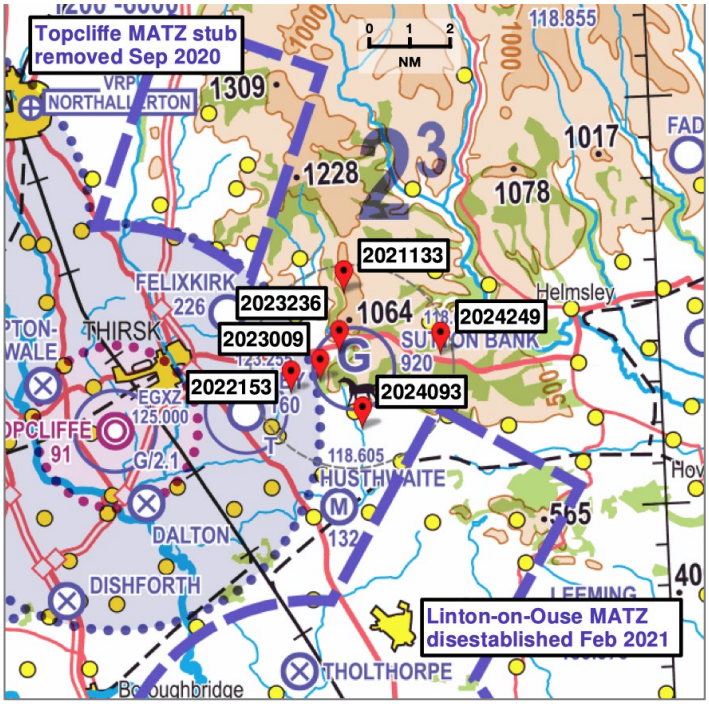


Figure 2: Non-military Airprox near Sutton Bank between February 2021 and October 2024

Summary

An Airprox was reported when an ASK21 and a PA28 flew into proximity 1NM north-northeast of Sutton Bank at 1131Z on Wednesday 2nd October 2024. The ASK21 pilot was operating under VFR in VMC not in receipt of a Flight Information Service and the PA28 pilot was operating under VFR in VMC in receipt of a Basic Service from Teesside Radar.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, a report from the air traffic controller 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 firstly considered the actions of the ASK21 pilot, noting that they had reported the event on behalf of the combined ASK21/Tug unit and that the transponder and EC equipment had been carried by the Tug in this case. The Board noted that the Tug pilot had seen the PA28 slightly earlier than the ASK21 pilot had done so and, having been concerned by its proximity (**CF3**), had initiated avoiding action at that point. Manoeuvrability of the ASK21/Tug combination is extremely limited in this case but the Board felt that the judgement had been made by the ASK21/Tug pilots that the avoidance manoeuvre initiated by the Tug pilot had meant that there had been no risk of collision if both they and the PA28 maintained their respective flightpaths. As the ASK21/Tug combination had not been in receipt of a FIS, and they had received no indications of other traffic on their EC equipment (**CF2**), members agreed that the pilot had not had any situational awareness of the PA28 before having visually acquired it (**CF1**).

Turning to the actions of the PA28 pilot, they noted that they had been in receipt of a Basic Service from Teesside Radar and had received Traffic Information regarding the ASK21/Tug combination and had made a minor heading correction as they had approached. Members were pleased to see the PA28 pilot had utilised an Air Traffic Service, and it had delivered a positive result in this case, but would again stress that a higher level of service if available will give greater assurance and more specific Traffic Information. The Board expressed disappointment that once again a training aircraft had not been equipped with any form of EC equipment and had therefore not received any emissions from the ASK21/Tug combination (**CF2**) which could have raised their situational awareness even further. Board members did note that the PA28 pilot had been operating under VFR, in good VMC and under a Basic

Service and felt that as this is a known busy area of operations for gliders, both greater lateral and vertical separation could be considered to further mitigate the risk of encounters with gliders and glider/tug combinations.

The Board reviewed the contribution from the Teesside Radar controller, noting that they had been providing a Basic Service, in which the controller is not required to monitor the traffic, but had proactively alerted the PA28 pilot to the activity around Sutton Bank and felt that there was no more they could have done in this case.

Concluding their discussion, members noted that both pilots had visually acquired the other aircraft ahead of CPA and both had initiated avoiding action, but they felt that the separation could have been increased with more defined action from the PA28 pilot as the limited manoeuvrability of the ASK21/Tug combination precluded greater from that side. However, members agreed that, although there had been no risk of collision, safety margins had been degraded and had assigned Risk Category C to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2024249			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Flight Elements			
	• 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	• 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[4]

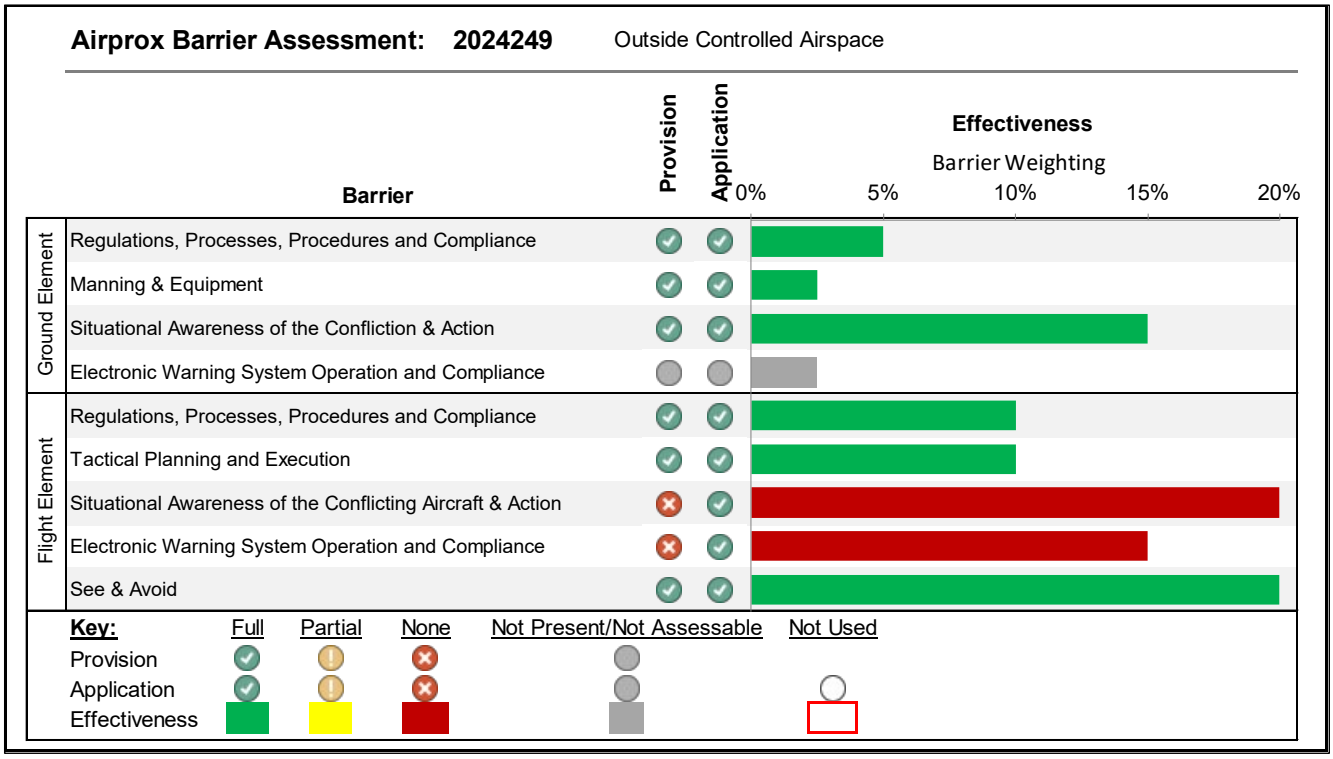
In assessing the effectiveness of the safety barriers associated with this incident, the Board concluded that the key factors had been that:

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because the ASK21 pilot had no situational awareness of the presence of the PA28.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the equipment carried by the ASK21 did not receive any electronic emissions from the PA28.

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


Airprox Barrier Assessment: 2024249
Outside Controlled Airspace
Barrier
Provision
Application
Effectiveness
Barrier Weighting
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
Key:
Full
Partial
None
Not Present/Not Assessable
Not Used
Provision
Application
Effectiveness