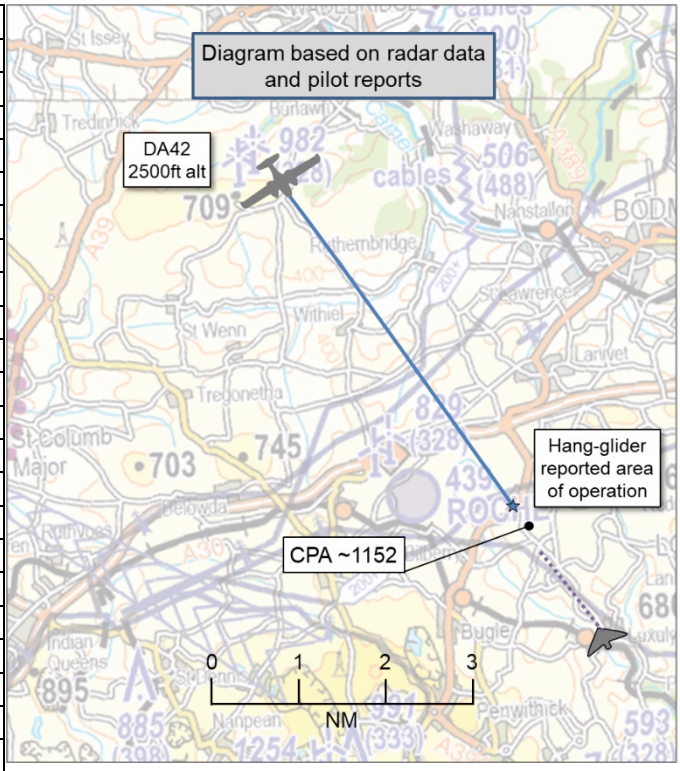
AIRPROX REPORT No 2025141

Date: 08 Jul 2025 Time: ~1152Z Position: 5026N 00446W Location: ivo of Roche airstrip

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	DA42	Hang-glider
Operator	Civ Comm	Civ Hang
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	VFR
Service	Traffic	None
Provider	Newquay Radar	N/A
Altitude	2500ft	NK
Transponder	A, C, S	Not fitted
Reported		
Colours	White	
Lighting	Strb, nav, ldg, taxi	None
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	2500ft	
Altimeter	QNH (1022hPa)	QFE
Heading	130°	NK
Speed	130kt	NK
ACAS/TAS	TAS	Not fitted
Alert	None	N/A
	Separation at CPA	
Reported	0ft V/500m H	Not seen
Recorded	NK	



THE DA42 PILOT reports that they were inbound to [destination] post aerial survey, they began to be vectored for the ILS approach for RW30 approximately 20min before they landed. A Traffic Service and radar vectors were being provided at this point. They were intermittent IMC as they descended to the ATC instructed altitude. When on the downwind leg of the approach (2500ft altitude, QNH 1022hPa, 130kt IAS, 130°M), approximately 8NM 095°T from Newquay, they were studying the approach plate for the ILS RW30. As they looked up out the front of the aircraft, a fixed-wing aircraft was directly in front of them, at the same altitude and what appeared to be a reciprocal track to themselves, at a closing distance of roughly 10sec or less. They immediately disconnected the autopilot and began a steep turn to the right which inadvertently caused them to climb to approximately 2700ft. Once they levelled the wings, the aircraft mentioned was to their left at approximately 500m or less, close enough to visibly see the pilot and what they were wearing. It appeared to be a non-powered glider and the pilot was in the laid down position. They informed Newquay Radar that they had deviated from the given heading and altitude due to avoiding action being taken for traffic avoidance. Newquay Radar informed them that they had no radar contacts or "*clutter*" that indicated any form of traffic within the vicinity of them. Altitude was then regained and further vectors given. Newquay advised if they wanted to give them a call to discuss on the ground they were welcome to do so.

The remainder of the approach was carried out without incident and they landed roughly 5min later. The next day they had a phone call with the Radar controller on duty when they were being vectored onto the approach. Points from the conversation were similar to the above and nothing more to add.

The report further described that the pilot had made a steep turn to the right to avoid the other aircraft, and that their workload was considered as medium.

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

THE HANG-GLIDER PILOT reports that they can categorically say that they did not see another aircraft at the given time and coordinates. They further noted that they did not know the exact time they had taken off, but that they had passed the area of the reported Airprox twice. The first time was just after taking off from a nearby field and the second time was on their route to [a feature point]. They confirmed that they did not fly with a GPS tracker of any sort.

THE NEWQUAY RADAR CONTROLLER reports that [the DA42] was being vectored from the north of the aerodrome for an ILS approach to RW30. While on the downwind leg (130°) at an altitude of 2500ft on Newquay QNH (1022hPa at the time), the pilot reported deviating from their clearance to avoid collision with a hang-glider, observed from their cockpit at the same level, in their 12 o'clock heading in the opposite direction. There were no radar returns, primary or secondary, observed on the situation display at any point before or after the report from the pilot on frequency, and the presence of this unknown aircraft was completely unknown to them as the Radar controller. As far as they could see, there were no aircraft showing in the immediate area of [the DA42] as they were on the downwind leg of the pattern. [The DA42 pilot] was under a Traffic Service at the time of the report. Once [the DA42 pilot] reported they were clear and happy to continue vectors. they turned onto base leg and continued to land safely at Newquay via the ILS on RW30.

They talked to the pilot the next day on the telephone to ask for more details on what had happened, and [the pilot] confirmed seeing what looked like a hang-glider, dark in colour, which was piloted by a person wearing a red suit who appeared to be in a lying down position holding onto a handlebar in front of them. The pilot of [the DA42] said they were checking the approach chart at the time and looked up to see the hang-glider, which took them by surprise, and they turned off the auto pilot, banked right and pulled back to initiate a right turn to avoid a collision. They stated that they thought, without the avoiding action, they would have likely hit the opposite direction traffic. The pilot stated their intention to also file an Airprox report for this incident.

Factual Background

The weather at Newquay Airport was recorded as follows:

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METAR EGHQ 081150Z 33008KT 9999 BKN022 16/11 Q1022
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Analysis and Investigation

Newquay ATC

The DA42 pilot, while being vectored for an ILS approach to RW30 at Newquay, apologised for deviating from the allocated heading and level to avoid traffic at the same level. A timeline was provided:

1149:10 (APS) *"*[DA42 C/S] *turn left heading 130°"*.

1149:45 (APS) *"*[DA42 C/S] *descend to altitude 2500ft downwind leg"*.

1152:07 (DA42 pilot) *"*[DA42 C/S] *apologies I've just had to deviate, there's some traffic at our level, which* (not heard) *I've had to take to avoid* [them]*"*.

(APS) *"*[DA42 C/S] *that's copied, no traffic showing on radar. Are you happy to continue vectors?"*.

(A/C*) "Affirm it looked like a sort of hang-glider.* [DA42 C/S]*".*

(APS) *"*[DA42 C/S]*, roger. thanks for the report. When you're ready descend to altitude 2500ft, turn right heading 210° for base leg".*

1153:12 (APS) *"*[DA42 C/S] *did you see which direction the hang-glider was going in?".*

(DA42 pilot) "*It was in my opposite direction whatever heading that was at the time".*

(APS) *"*[DA42 C/S] *thanks good spot.* [DA42 C/S] *turn right heading 270°, cleared ILS approach RW30".*

1154:38 (DA42 pilot) *"*[DA42 C/S] *localizer established, and just confirm it was probably heading the sort of Padstow direction".*

(APS) *"If you want to give us a call on the ground to chat about that, that's fine. If not then no worries".*

1155 [DA42 C/S] transferred to Newquay at 7NM.

A playback of the corresponding radar recording showed no radar return of the hang-glider.

During a later discussion via mobile phone (not recorded) between the pilot and the Newquay APS ATCO, it was agreed that reporting action would take place by both parties and, the pilot suggested, that if they had not taken corrective action a probability of collision existed.

Summary: An aircraft inbound to Newquay under a Traffic Service avoided unknown traffic which was not evident to the Newquay controller.

Conclusion: The Newquay APS controller was not aware of the hang-glider as it did not appear on the surveillance display. Subsequently, Traffic Information was not passed to the pilot of [the DA42]. A potential collision was averted by the actions of the pilot of [the DA42]. There was a subsequent agreement between the pilot and ATCO to take reporting action.

CAA ATSI

After review of the reports and direct contact with Newquay ATC management the following was noted:

With [the hang-glider] not appearing on the radar display, the controller would not have been able to pass Traffic Information.

According to the [DA42] pilot's report, the Airprox appeared to occur 1NM to the northeast of Roche farm strip. It cannot be confirmed, as the pilot of [the hang-glider] did not report whether or not they were airborne from that location.

With regards to the presence of Roche farm strip, particularly in proximity to the RW30 approach, the Newquay MATS Pt 2 states:

> *Roche – 7 miles bearing 104 (degrees)T – is a private farm strip. It is situated close to the final approach track for runway 30. Although the strip is not busy, APP/APS should take account of its presence and be prepared to act accordingly.*

The SATCO highlighted the problem presented not only by the presence of Roche farm strip, but more importantly Bodmin airfield to the northeast. In keeping Newquay radar circuits well away from Bodmin this brings them closer to Roche. Newquay controllers maintain a heightened state of awareness when they do so and, whilst they do warn pilots about their proximity to Bodmin, the presence of Roche does not routinely demand the same consideration. The SATCO also confirmed that Roche pilots are *"normally very good at calling us on the radio".* The report from the pilot of [the hang-glider] does not mention if they were equipped with a radio.

UKAB Secretariat

An analysis of the NATS radar replay was undertaken and the DA42 was positively identified using Mode S data. The DA42 was seen deviating from their track at 1152:11 and gaining 200ft in altitude at 1152:31. The aircraft altitude and track were recovered at 1152:47. The hang-glider was not detected.

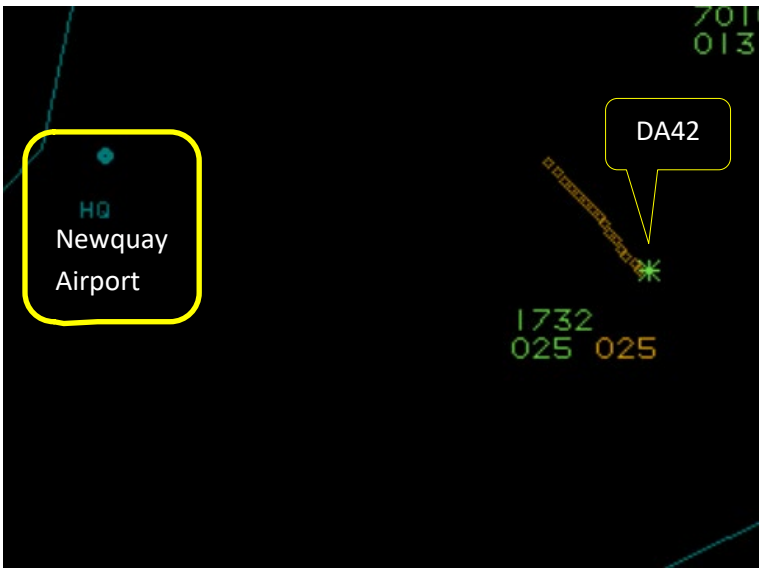


Figure 1 – Time 1152:40 after DA42 track deviation

A further analysis of third party aircraft tracking software was undertaken and the DA42 was seen on a steady heading, approximately downwind for RW30, and having made a deviation from track at approximately 1152, just prior to changing to a base-leg track for RW30 (Figure 2).

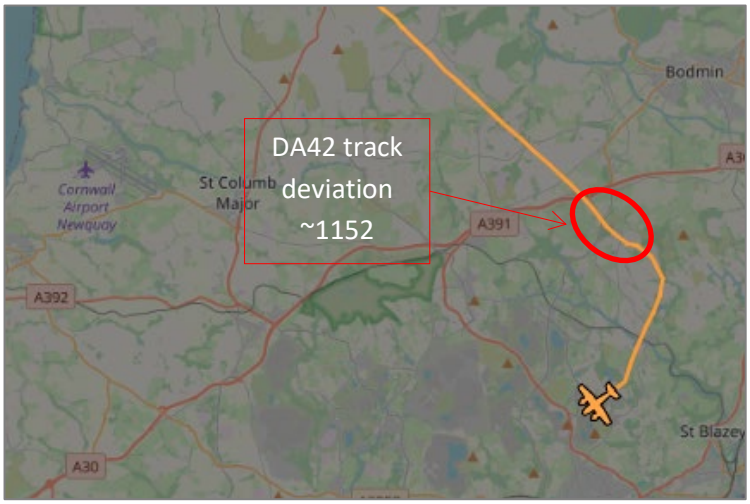


Figure 2 – Time 1154 DA42 on base-leg for RW30

CPA was estimated to have occurred at approximately 1152:07 based on the RTF call from the DA42 pilot and subsequent manoeuvring detected by radar and MLAT sources. The hang-glider could not be detected and no GPS track was available, therefore separation at CPA cannot be assessed. No other hang-gliders were known to be operating in the vicinity.

The DA42 and hang-glider 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

[1] (UK) SERA.3205 Proximity.
[2] (UK) SERA.3210 Right-of-way (c)(1) Approaching head-on.

It is heartening to see aircraft on a Traffic Service and utilising EC [equipment]. Until the Department for Transport mandates a common form of EC for aviation, events such as this one will occur. The pilot did well to spot the approaching powered hang-glider in time to take evasive action.

BHPA

It is very likely that the aircraft involved in this Airprox was a powered hang-glider as opposed to a weight-shift microlight aircraft due to numerous factors. A weight-shift microlight, even small Single-Seat Deregulated (SSDR) microlights and sub-70kg aircraft, would almost certainly be radio equipped, have basic flight instrumentation and may even be carrying a transponder and possibly another EC device. Second, a microlight has a cockpit/pod beneath the delta-shaped wing and the pilot operates the aircraft from a sitting position. Both powered hang-gliders and microlight aircraft can operate from quite small rough and ready airstrips with the powered hang-glider able to take off from quite small fields in an even shorter distance.

A weight-shift powered hang-glider is operated by a pilot in the prone position, and attached to the tail-boom of the aircraft will be a small 2-stroke engine turning a pusher propeller. These aircraft have no cockpit so any device carried by the pilot will be very small and multi-functional; i.e. a small electronic device giving altitude, GPS position, groundspeed and variometer functionality. It would appear that, in this incident, the pilot was not carrying such a device. Due to engine noise, the powered hang-glider pilot would more than likely be wearing a helmet with integral ear defenders which would negate the operation of a radio – although it is possible to acquire helmets with a built-in microphone and speakers for connection to an airband radio if the pilot is licensed to own and use one.

The BHPA commends the DA42 pilot on their excellent lookout and prompt avoiding action whilst they were busy preparing the aircraft for landing. It would appear that it was only a one-sided 'see and be seen' barrier that was effective in this Airprox, as the hang-glider pilot had no sighting or knowledge at all that they were on a head-on collision course with a faster moving aircraft. The BHPA once again reminds all pilots of the need for a good effective lookout, especially when flying in the vicinity of a large airport. Furthermore, if flying non-radio near a large regional airport, it would be considered good airmanship to telephone the ATC and inform them of your location, timings and intentions. The type of aircraft that BHPA pilots fly makes us extremely vulnerable and so it is prudent to go 'the extra mile' in order to help others to help us.

Summary

An Airprox was reported when a DA42 and a hang-glider flew into proximity in the vicinity of Roche at approximately 1152Z on Tuesday 8th July 2025. The DA42 pilot was operating under IFR in VMC in receipt of a Traffic Service from Newquay Radar, and the hang-glider pilot was operating under VFR in VMC without a FIS.

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 a report from the appropriate operating authority. 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 discussed the actions of the DA42 pilot and was pleased to note that the DA42 pilot had seen and avoided the hang-glider by disrupting their flight profile and flying away and to one side of it, albeit members agreed that the DA42 pilot had sighted the hang-glider at a late stage (**CF4**). The Board noted that the pilot had been on a Traffic Service with Newquay, but had had no information passed to them on the hang-glider. Furthermore, there had been no information or alert on the hang-glider from the electronic conspicuity (EC) equipment fitted to the DA42. Members agreed, therefore, that the DA42's EC had been unable to detect the hang-glider (**CF3**) and that the DA42 pilot had had no situational awareness of its presence (**CF2**).

The Board then considered the actions of the hang-glider pilot, and noted that the type of hang-glider described had been a foot launched hang-glider in which the pilot lies in the prone position, typically with a small engine positioned behind them. Members therefore agreed that it had, likely, not been launched from the local airstrip at Roche due to the capability to launch from relatively small areas. In their discussion, the Board mentioned that the hang-glider pilot had also been unlikely to have carried any form of instruments, radio, or EC equipment and that there are currently no licensing, insurance or training requirements for this type of operation, although the specific experience of this pilot was unknown. With this in mind, members agreed that it may have been prudent for the hang-glider pilot to have contacted Newquay ATC to inform them of their intentions prior to launching. However, the Board also considered that the pilot may not have known to do that and members agreed that, without the benefit of RT contact or EC equipment, the pilot had had no situational awareness of the presence of the DA42 (**CF2**). Members further agreed that the hang-glider pilot had not seen the DA42 (**CF5**), specifically noting its streamlined profile.

The Board then turned their attention to the actions of the Newquay Radar controller, and noted that they had had no information of activity from the airstrip at Roche or any other activity in the vicinity. Members noted that the controller had not seen any primary tracks or other identifiers and had been unable to detect the hang-glider. The Board therefore agreed that the Newquay Radar controller had had no situational awareness of the presence of the hang-glider (**CF1**).

Concluding their discussion, members turned their attention to the determination of the risk of collision. The Board noted that neither pilot had had situational awareness of the other aircraft, and that the hang-glider pilot had remained unsighted on the DA42. Members agreed that only the 'See and Avoid' barrier was left as the final protection between them, and that the DA42 pilot, having sighted the hang-glider, had taken last minute avoiding action to increase separation and avert a likely collision (**CF6**). As such, the Board assigned a Risk Category B to this event.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2025141			
CF	**Factor**	**Description**	**ECCAIRS Amplification**	**UKAB Amplification**
	Ground Elements			
	• Situational Awareness and Action			
1	Contextual	• Traffic Management Information Action	An event involving traffic management information actions	The ground element had only generic, late, no or inaccurate Situational Awareness
	Flight Elements			
	• Situational Awareness of the Conflicting Aircraft and Action			
2	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			
3	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			
4	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
5	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
	• Outcome Events			
6	Contextual	• Near Airborne Collision with Aircraft	An event involving a near collision by an aircraft with an aircraft, balloon, dirigible or other piloted air vehicles	

Degree of Risk: B.

Safety Barrier Assessment[3]

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

Ground Elements:

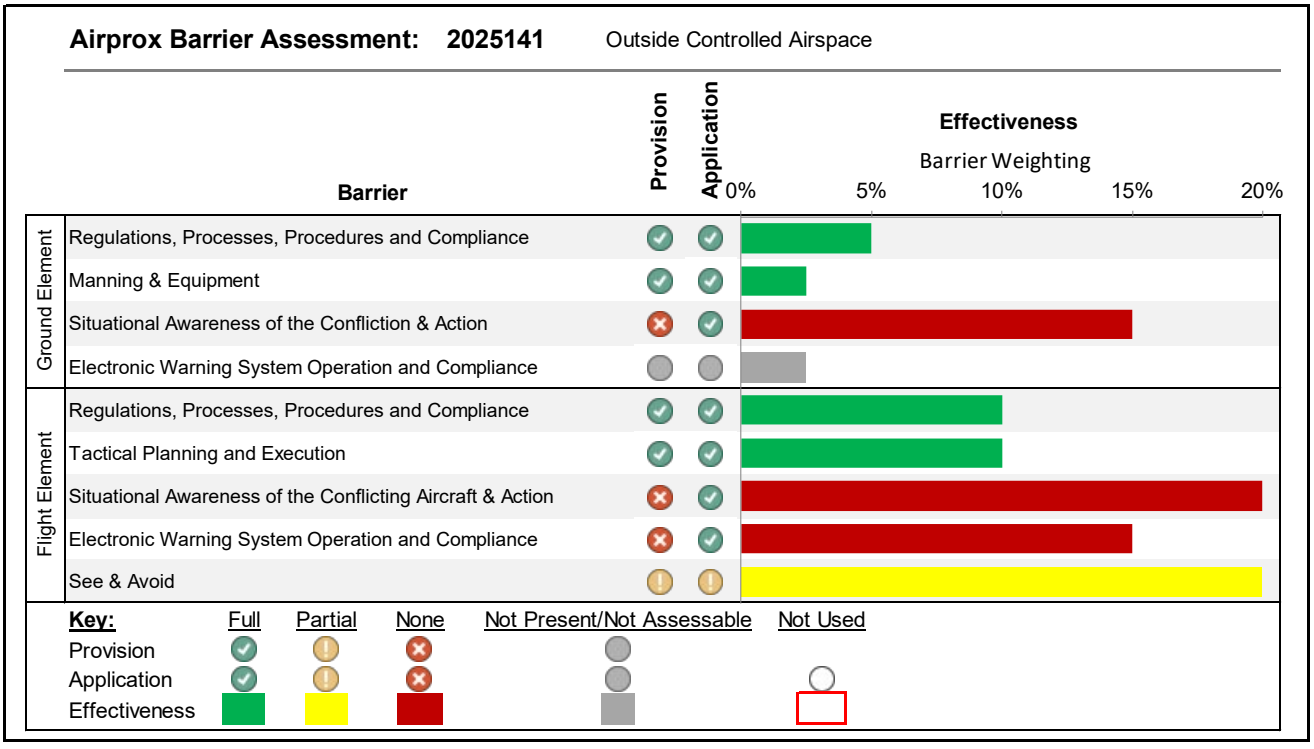
Situational Awareness of the Confliction and Action were assessed as **ineffective** because the Newquay Radar controller had no situational awareness of the presence of the hang-glider.

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither the DA42 pilot nor the hang-glider pilot had situational awareness of the other aircraft.

Electronic Warning System Operation and Compliance were assessed as **ineffective** because the EC equipment in the DA42 was unable to detect the hang-glider.

See and Avoid were assessed as **partially effective** because DA42 pilot had sighted the hang-glider at a late stage, and the hang-glider pilot had not seen the DA42.



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