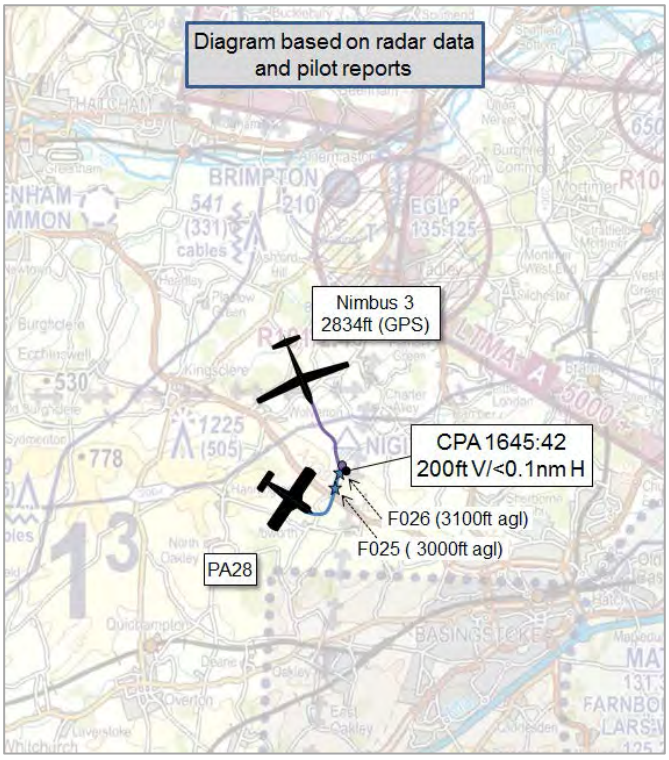
AIRPROX REPORT No 2018139

Date: 22 Jun 2018 Time: 1645Z Position: 5118N 00110W Location: 3nm NW Basingstoke

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA28	Nimbus 3
Operator	Civ FW	Civ Gld
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Listening Out	Listening Out
Provider	Farnborough	Lasham
Altitude/FL	FL26	FL24
Transponder	A, C, S	None
Reported		
Colours	Blue, White	White
Lighting	Strobe, Nav, Landing	None
Conditions	VMC	VMC
Visibility	>10km	>10km
Altitude/FL	3500ft	2300ft (QFE)
Altimeter	QNH (1029hPa)	NK
Heading	070°	150°
Speed	90kt	75kt
ACAS/TAS	Not fitted	Unknown
Alert	N/A	Unknown
Separation		
Reported	80ft V/0m H	100ft V/0m H
Recorded	200ft[1] V/<0.1nm H	



THE PA28 PILOT reports that he was conducting an instructional sortie involving slow-flight. He was setting up for deceleration to slow-flight parameters with the student flying when he saw a glider at very close range, about 150m, in the left 10 o'clock position, slightly below. It was immediately apparent that there was some vertical separation, but he took control and pulled up to try and increase the separation. The glider passed underneath so the vertical separation is estimated from the initial sighting. It was a white glider closing on a constant bearing which resulted in the late sighting.

He assessed the risk of collision as 'Medium'.

THE NIMBUS 3 PILOT reports that he was flying straight-and-level on final glide into Lasham after a long cross-country flight. He was heading approximately SSE at 75kt and 2300ft Lasham QFE, descending at about 2kts and would have probably switched to Lasham frequency by this point. He spotted the other aircraft flying directly towards him at about 400-500m range from the southwest. He was able to pull-up slightly to ensure that the other aircraft passed 50 to 100ft underneath him he recalled. He watched as the other aircraft departed straight and level to the ENE. The other aircraft had taken no

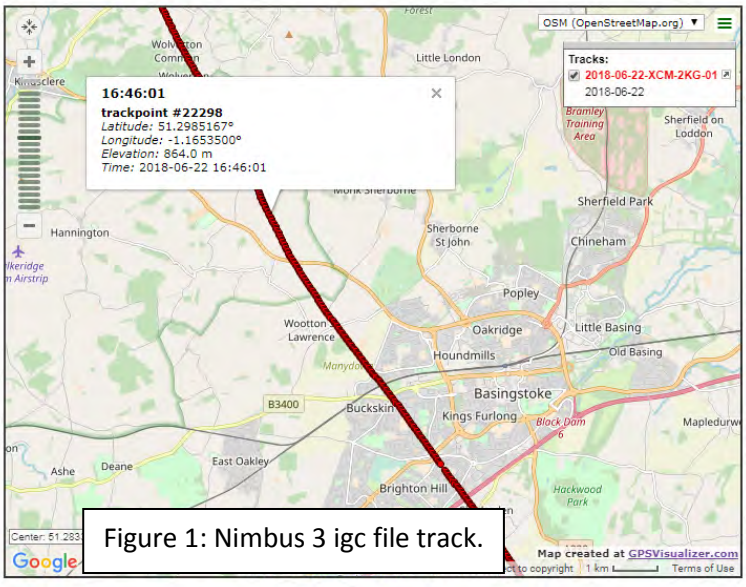


Figure 1: Nimbus 3 igc file track.

[1] Vertical height separation is based on the Nimbus 3's igc file height and the radar replay of the PA28's height.

evasive actions and he assumed he had not seen him at all. The other aircraft would have appeared below the horizon always and also into sun, although the sun would have been quite high at 16:45 in June. Figure 1 shows the igc track supplied by the Nimbus pilot.

Factual Background

The weather at Odiham was recorded as follows:

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METAR EGVO 221650Z 35007KT CAVOK 20/05 Q1029 BLU
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Analysis and Investigation

UKAB Secretariat

The PA28 and Nimbus 3 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 Nimbus 3[3].

Summary

An Airprox was reported when a PA28 and a Nimbus 3 flew into proximity at 1645hrs on Friday 22nd June 2018. Both pilots were operating under VFR in VMC, the PA28 pilot listening out on the Farnborough frequency and the Nimbus 3 pilot not in receipt of a service.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, transcripts of the relevant RT frequencies, radar photographs/video recordings, reports from the air traffic controllers involved and reports from the appropriate ATC and operating authorities.

The Board began by looking at the actions of the PA28 pilot. They noted that he was listening out on the Farnborough frequency and some members opined that he may have been better served by requesting a Traffic Service from Farnborough, especially as the Nimbus 3 was visible on radar. Others commented that the PA28 pilot was instructing and it was possible that he may have deliberately maintained only a listening watch on the frequency in order to avoid interruptions to his instruction. When contacted, the pilot confirmed this and confirmed that he had conducted the left-hand turn as a lookout turn prior to establishing in slow flight. GA members commented that the instructor's position on the right-hand side of the cockpit may have impeded his lookout as the glider approached from the left, but that the glider was there to be seen subject to difficulties in doing so due to its probable lack of contrast with the horizon. Ultimately, the PA28 instructor saw the other aircraft late, noted that they were separated in height but less than desirable, and initiated an avoiding-action climb to increase separation.

The Board then turned to the actions of the Nimbus 3 pilot. The Board were informed that tracing action had been difficult and that initially the wrong aircraft had been identified. It was only relatively recently that the Nimbus 3 pilot had been identified and so his recollection of the event was understandably hazy. Nevertheless, the availability of his igc file had been crucial in confirming that it was his aircraft involved and also in showing the geometry between the 2 aircraft. Although the Nimbus pilot recalled being above the PA28, it appeared that in fact the PA28 had been slightly above the Nimbus, as recalled by the PA28 pilot. The Board noted that the Nimbus pilot was setting up for a landing at Lasham and, because this would be challenging from that range and altitude, the gliding member commented that this would probably have resulted in him working hard to maintain height and so task focus might have accounted for his late sighting of the PA28.

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

Given that neither pilot was in receipt of an ATS, members commented that such situations would benefit greatly from use of collision warning systems. This was especially true when operating in the busy airspace in that area. Although it was unknown whether the Nimbus pilot had any electronic conspicuity systems installed, some members commented that the PA28 operator might usefully consider the installation of one of the increasingly affordable collision warning systems in order to mitigate their training activities in that area, especially if instructors chose not to obtain an ATS.

Turning to the cause, the Board quickly agreed that both pilots' attention had likely been diverted from lookout by other tasks, resulting in a late sighting by both. The Board then looked at the risk and agreed that, regardless of the late sighting, it appeared that there had been a degree of separation already in place and that both pilots had carried out effective actions to increase this separation. Some members thought that the late sightings had meant that safety had been much reduced below the norm (risk Category B). Others acknowledged that this incident was on the borderline of a Category B assessment but that both pilots' reports indicated a more controlled response rather than an emergency avoidance. After some discussion, the latter view prevailed and the risk was assessed as Category C, safety had been reduced but there had been no risk of collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by both pilots.

Degree of Risk: C.

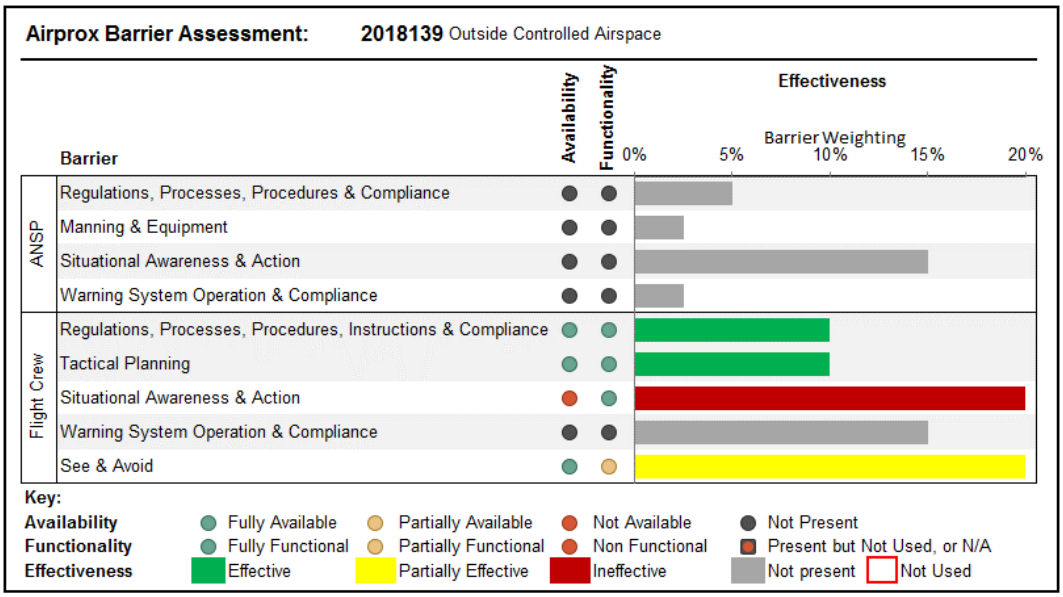
Safety Barrier Assessment[4]

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

Flight Crew:

Situational Awareness and Action were assessed as **ineffective** because neither pilot was aware of the other aircraft.

See and Avoid were assessed as **partially effective** because although both pilots saw the other aircraft late they did carry out effective avoiding action to increase separation.



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