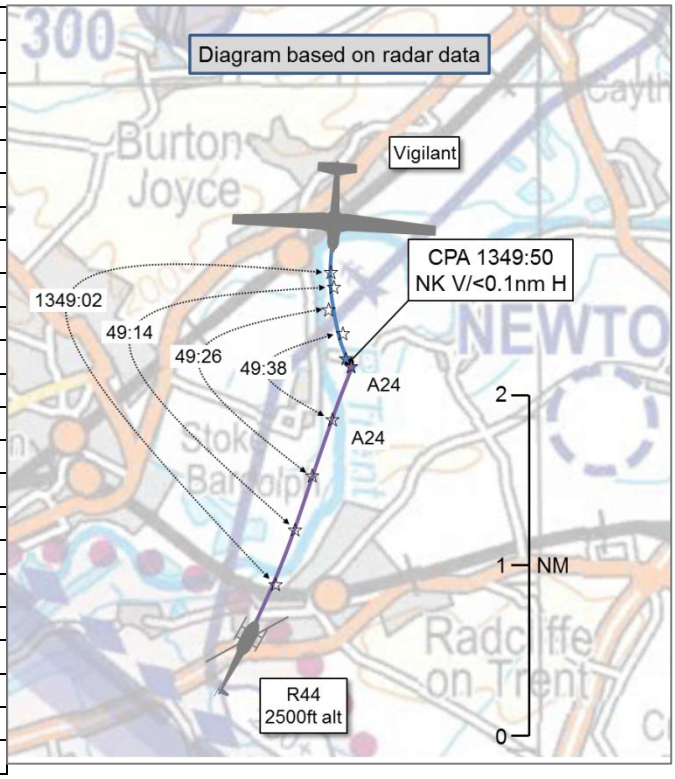
AIRPROX REPORT No 2015126

Date: 5 Aug 2015 Time: 1350Z Position: 5258N 00101W Location: 4nm SW Syerston

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	Vigilant	R44
Operator	HQ Air (Trg)	Civ Trg
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	A/G	A/G
Provider	Syerston	Nottingham
Altitude/FL	N/A	2500ft
Transponder	A	A, C
Reported		
Colours	White	White/blue
Lighting	Strobe, nav	Strobe, nav
Conditions	VMC	VMC
Visibility	20km	>10km
Altitude/FL	1800ft	3000ft
Altimeter	QFE (1000hPa)	NK (1011hPa)
Heading	220°	350°
Speed	60kt	80kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	80ft V/0m H	200ft V/0m H
Recorded	NK V/<0.1nm H	



THE VIGILANT (GROB 109) PILOT reports that, whilst descending to rejoin RW20 at RAF Syerston, he completed two descending left-hand turns at approximately 10° angle of bank. Whilst passing through a heading of approximately 220°, and descending through 1800ft, he glanced right to see an R44 helicopter pass directly overhead by approximately 80ft. He immediately reported this to the Duty Instructor by RT.

He assessed the risk of collision as 'Medium'.

THE R44 PILOT reports being in level cruise, having transited overhead Nottingham Tollerton airfield to conduct some general handling in Class G airspace. Both occupants of the helicopter became visual with a white motor glider in the 12 o'clock at a range of 500m and slightly below them. Appropriate avoiding action was taken [a climb].

He assessed the risk of collision as 'Medium'.

Factual Background

The weather at East Midlands was recorded as follows:

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METAR EGNX 051350Z 18013KT 9999 SCT039 19/11 Q1011
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Analysis and Investigation

Military ATM

An Airprox occurred between a Vigilant motor glider and a Robinson R44 on 5 Aug 15 at 1350, 3nm north of Newton-On-Trent. The Vigilant pilot was in RT contact with Syerston Radio, in receipt of a Military Air Ground Communication Service (MAGCS).

The local investigation found that the incident took place outside the Syerston ATZ, in Class G airspace. The investigation also found that the Vigilant pilot's lookout was biased to the left, as the pilot was in a descending left hand turn. The R44 should have appeared at some point in the turn but would have presented a close to head-on profile. The CPA was at 1349:50 with 0.1nm horizontal separation; height separation was unknown because the Vigilant fleet is equipped with SSR transponders which are Mode A only. PowerFLARM installation in the Vigilant fleet is being progressed, and it was felt that this may have provided an effective barrier in this case; on the transponding Mode C equipped R44. The Vigilant pilot's MAGCS would have been provided in accordance with CAP 413 & 452 as outlined in 22(Trg) Gp Orders. MAGCS is not an Air Traffic Control service but a management tool for helping to reduce the risk of mid-air collision. In this instance, the R44 pilot's visual acquisition of the Vigilant provided an effective barrier to collision.

UKAB Secretariat

The Vigilant and R44 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]. If the incident geometry is considered as converging then the Vigilant pilot was required to give way to the R44[3].

Comments

HQ Air Command

It is well known that in Glass G Airspace, where gliders are concerned, it is often the final barrier of 'see and avoid' that is the only barrier that can have an effect. This situation is no different, and whilst there is a difference of opinion on the separation at CPA, it is clear that lookout and avoiding action were used effectively.

Summary

An Airprox was reported when a Vigilant and an R44 flew into proximity at 1350 on Wednesday 5th August 2015. Both pilots were operating under VFR in VMC in receipt of an AGCS, the Vigilant pilot from Syerston and the R44 pilot from Nottingham.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the pilots of both aircraft, radar photographs/video recordings and a report from the appropriate operating authority.

Members first discussed the apparent discrepancy in reported separation and suggested that it may have been due in part to the point at which each pilot saw the other aircraft. The Vigilant pilot reported seeing the R44 as it passed overhead, and would undoubtedly have been startled by its sudden appearance in close proximity. Members noted that this 'startle reaction' was commonly associated with under-assessment of separation distance. The R44 pilot reported seeing the Vigilant

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

at a range of about 500m and had then climbed to pass overhead, a situation which members suggested indicated that he was not subject to the same startle reaction. It was noted however that the radar replay indicated that the R44 did not climb until after CPA. The reported pressure settings and reported altitude of 1800ft by the Vigilant pilot resulted in a calculated vertical separation of about 300ft; however, the Board could not determine this with any certainty given the lack of verifiable data.

After further discussion, members agreed that the R44 pilot had seen the Vigilant at a late stage, whilst the Vigilant pilot had not seen the R44 until at or very near to CPA. They determined, therefore, that the Airprox had been caused by a late sighting by the R44 pilot and, because he saw the R44 probably too late to take avoiding action, effectively a non-sighting by the Vigilant pilot. Although they could not determine for certain whether the R44 pilot's actions had been timely given that the radar did not show him climbing until after CPA, members agreed that even though safety margins had been reduced below normal, the likely vertical separation of 2-300ft meant that they were not at the level of a risk-bearing Airprox.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A late sighting by the R44 pilot and effectively a non-sighting by the Vigilant pilot.

Degree of Risk: C.