

AIRPROX REPORT No 2013131

Date/Time: 1 Sep 2013 1545Z (Sunday)

Position: 5133N 00159W
(4nm SE Kemble)

Airspace: London FIR (Class: G)

Reporting Ac Reported Ac

Type: MD902 CASA 1.131
(Jungmann)

Operator: NPAS Civ Pte

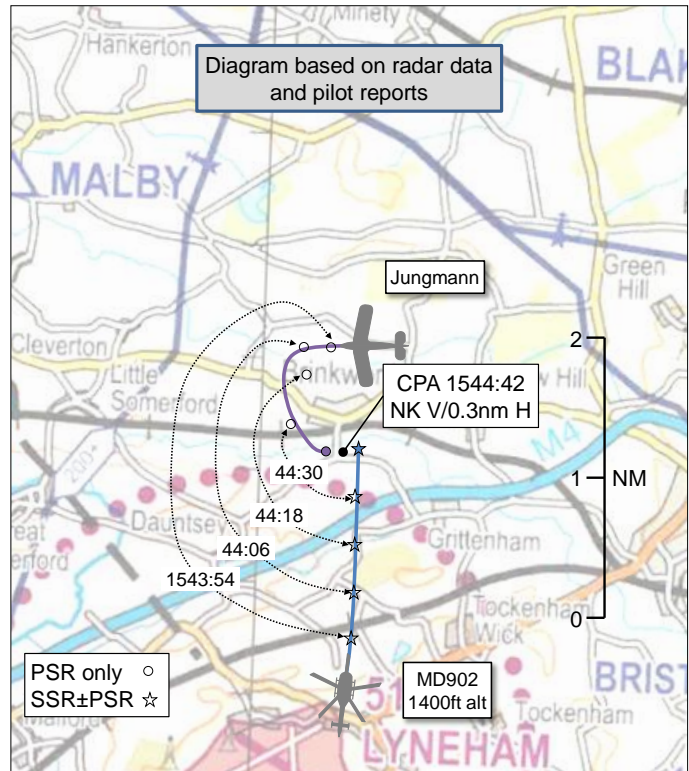
Alt/FL: 1400ft 1750ft
QNH (1023hPa) QNH (NK hPa)

Conditions: VMC VMC

Visibility: >10km 20km

Reported Separation:
0ft V/500m H 100ft V/500ft H

Recorded Separation:
NK V/0.3nm H



PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

THE MD902 PILOT reports transiting to a task in a yellow and dark blue helicopter. The SSR transponder was on with Modes A, C and S selected. The aircraft was fitted with TCAS II. The pilot was operating under VFR in VMC, not in receipt of an ATS. Whilst in level cruise, heading north at 120kt and altitude 1400ft, a grey-coloured biplane 'popped up' on the left-hand side in about the 11 o'clock position, crossing from left to right across the nose in level or slightly climbing flight. Avoiding action had to be taken (a break to the left), and he passed behind the biplane, which was not displayed on or alerted by the TCAS.

He assessed the risk of collision as 'High'.

THE JUNGSMANN PILOT reports in a descending turn to the left, around the village of Brinkworth. The grey-coloured aircraft was not fitted with an SSR transponder; the lighting state was not reported. The pilot was operating under VFR in VMC, not in receipt of an ATS but listening out on SAFETYCOM (135.475MHz). Whilst turning through south onto east in a descending left-hand orbit (from 2300ft to not less than 1500ft), he saw a helicopter in about the one o'clock position, about 100ft below and 500ft away, heading north. The potential for collision had passed so no avoiding action was taken. He stated that he had not seen the helicopter in his 'area lookout' prior to making the descending turn. He did not make an assessment of the collision risk.

Factual Background

The weather at Bristol and RAF Brize Norton was recorded as follows:

METAR EGGD 011550Z 26015KT 9999 FEW021 16/11 Q1030
METAR EGVN 011550Z 24008KT CAVOK 20/09 Q1028 BLU NOSIG

Analysis and Investigation

UKAB Secretariat

Both pilots were operating under VFR in VMC in Class G airspace and had an equal responsibility for collision avoidance. Neither pilot was in receipt of an ATS. The Jungmann pilot was required to give way to the MD902¹ and to avoid passing over or under the other aircraft, or cross ahead of it, unless passing well clear of it².

Summary

An MD902 helicopter and Casa Jungmann biplane flew into conflict at 1545 on 1st September 2013. Both pilots were operating under VFR in VMC in Class G airspace and without an ATS.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available included reports from the pilots of both aircraft and radar video recordings.

The Board first considered the Jungmann pilot's actions. He was in a descending left turn, possibly unsighted on the MD902, and did not see the helicopter until about the time of the CPA. The Board speculated that his attention could have been focused to his left, on the village he was turning around, and away from the MD902's track; furthermore, in his initial 'area lookout' the helicopter would have presented below him, against the backdrop of terrain. In any event, the Board agreed that it was the Jungmann pilot's responsibility to give way.

Turning to the MD902 pilot, the Board opined that the Jungmann was there to be seen, albeit descending towards the helicopter from above. Anecdotal evidence suggests that many lookout scans are biased to within a small distance above and below the horizon and, without prejudice to the MD902 pilot's lookout scan, the Board felt this incident served as a timely reminder of the need for an effective all-round scan technique. The Board discussed strategies for mid-air collision mitigation and noted that the majority of Airprox occur below 3000ft. Helicopter members also opined that the MD902 pilot would have been better served with a radar based ATS, which may have alerted him to the Jungmann's presence (and which his TCAS was not capable of doing due to the Jungmann's lack of IFF). In this respect, Board members regretted that the nearest LARS service, at RAF Brize Norton, would not have been available due to planned maintenance periods being undertaken at the weekend, just at the time when it would be most useful to the GA community.

Notwithstanding the Jungmann pilot's responsibility to give way, both pilots were equally responsible for collision avoidance. The Board were unable to correlate fully the pilots' reported encounter geometry with the radar picture but, from their reports, were content that timely actions had been taken to prevent the aircraft colliding.

PART C: ASSESSMENT OF CAUSE AND RISK

<u>Cause:</u>	A late sighting by the MD902 pilot and effectively a non-sighting by the Jungmann pilot.
<u>Degree of Risk:</u>	C.
<u>ERC Score</u> ³ :	20

¹ Rules of the Air 2007 (as amended), Rule 9 (Converging)

² *ibid.*, Rule 8 (Avoiding aerial collisions)

³ Although the Event Risk Classification (ERC) trial had been formally terminated for future development at the time of the Board, for data continuity and consistency purposes, Director UKAB and the UKAB Secretariat provided a shadow assessment of ERC.