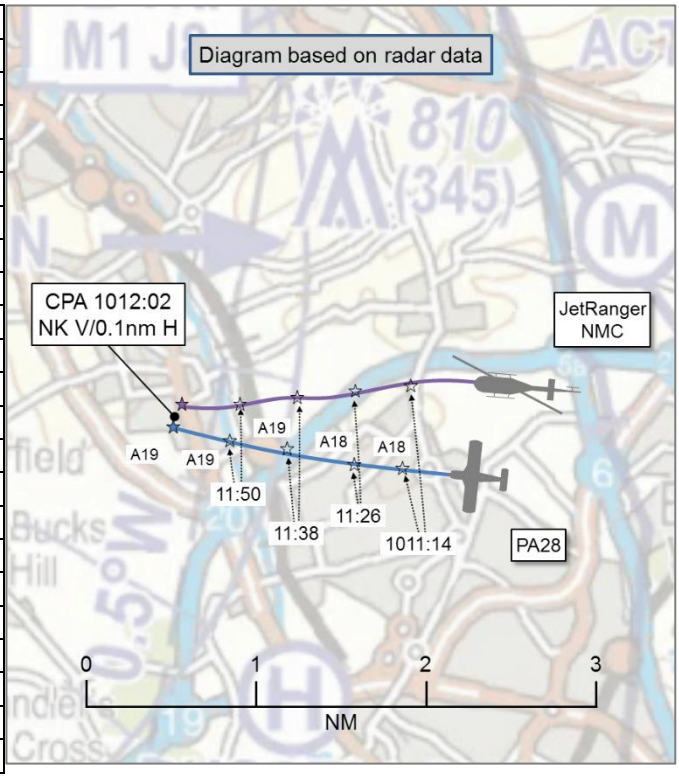
AIRPROX REPORT No 2019158

Date: 09 Jun 2019 Time: 1012Z Position: 5143N 00027W Location: Kings Langley

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	PA28	JetRanger
Operator	Civ FW	Civ Helo
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	VFR
Service	Basic	Basic
Provider	Farnborough North	Farnborough North
Altitude/FL	1900ft	NK
Transponder	A, C, S	A, S, No Mode C
Reported		
Colours	Blue, yellow	Grey, black
Lighting	Nav, strobe	Strobe, nav, HISLs
Conditions	VMC	VMC
Visibility	30NM	15km
Altitude/FL	1900ft	2000ft
Altimeter	QNH (1021hPa)	QNH (NK hPa)
Heading	288°	270°
Speed	97kt	100kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	200ft V/<1NM H	0ft V/350m H
Recorded	NK V/0.1NM H	



THE PA28 PILOT reports that he was in straight-and-level cruise maintaining a good lookout with London on his left. He became visual with a blue-and-white (or silver) Bell-type helicopter south of his position and below. He kept a good watch on the helicopter, as well as looking out for other traffic, and noticed it gradually getting closer. The helicopter then maintained the 9 o'clock position relative to him, began to climb, passed above and went out of view. He lost sight of the helicopter but became visual with it again about 4mins later on the right. The helicopter then descended to around 100-300ft above his level and remained level in the 3 o'clock position. He flew parallel with the helicopter for around 30secs trying to determine its pilot's intentions. He then initiated a left turn to cut the corner to his next leg to increase separation and remove any safety concerns. He rolled wings level and the helicopter became more distant until eventually well clear. The pilot commented that he was routing around north London airspace and the R/T frequency was busy but he only required a Basic Service as visibility was more than excellent. No traffic information was received. He commented that workload was rather low at the point of first sighting the helicopter and that due to the low workload he was highly alert and maintaining a good lookout for other traffic as he was aware of London airspace and both inbound and outbound Stapleford and Elstree traffic.

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

THE JETRANGER PILOT reports that he was in the cruise when he saw a blue, single-engine, low-wing aircraft approach from the left at a range of about 500ft. The aircraft was behind him to begin with then appeared on his southerly (left) side. They seemed not to converge and then naturally diverged. No avoiding action was required and the JetRanger pilot did not deem the event an Airprox.

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

THE FARNBOROUGH CONTROLLER reports that he was a medium-hours trainee working LARS North and East with the OJTI plugged in. Due to the length of time that had passed, he had no recollection of the incident.

THE FARNBOROUGH OJTI reports that an Airprox was not reported on frequency and that he had no recollection of the event.

Factual Background

The weather at Heathrow was recorded as follows:

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METAR COR EGLL 091020Z AUTO 26006KT 220V310 9999 BKN037 BKN047 18/06 Q1021 NOSIG=
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Analysis and Investigation

UKAB Secretariat

The PA28 and JetRanger 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 converging then the PA28 pilot was required to give way to the JetRanger[2]. If the incident geometry is considered as overtaking then the PA28 pilot had right of way and the JetRanger pilot was required to keep out of the way of the other aircraft by altering course to the right[3]. When the aircraft carries serviceable Mode C equipment, the pilot shall continuously operate this mode unless otherwise dictated by ATC[4].

Summary

An Airprox was reported when a PA28 and a JetRanger flew into proximity near Kings Langley at 1012Z on Sunday 9th June 2019. Both pilots were operating under VFR in VMC, both in receipt of a Basic Service from Farnborough LARS North.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from both pilots, radar photographs/video recordings, reports from the air traffic controllers 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.

Members first discussed the pilots' actions and agreed that in fact the situation was one of overtaking rather than converging given that the JetRanger had previously been behind the PA28, crossed over, and then flown past on its right. As such, the PA28 pilot had right of way and it was for the JetRanger pilot to keep out of the way by altering course to the right, albeit it seemed that the JetRanger pilot had been unaware of their previous track-crossing event and may have instead interpreted the geometry as having been one of a converging nature. Nevertheless, even if that was the case, the JetRanger was flying faster than the PA28 and so was still in an overtaking situation as it overhauled the PA28 on the right. Although the Board felt that 'keeping out of the way' in an overtaking situation could be interpreted differently by different pilots, in this instance members felt that the JetRanger pilot would have been better served by taking up a positively diverging track from the PA28 rather than closing to a range of 0.1nm as recorded on radar.

Neither pilot had SA on the location and track of the other aircraft until visually sighted (**CF3**), and members commented on the utility of a Traffic Service. In this case it would have afforded early SA to both pilots such that the developing situation could have been determined as either overtaking or

[1] SERA.3205 Proximity.
[2] SERA.3210 Right-of-way (c)(2) Converging.
[3] SERA.3210 Right-of-way (c)(3) Overtaking.
[4] SERA.13010 Pressure-altitude-derived information.

converging, and appropriate and timely action taken. Members agreed that had one or both pilots requested a Traffic Service then the situation could have been avoided (**CF2**) whereas with a Basic Service it was likely that SA would be low or non-existent. In this respect, the Farnborough controller did not pass Traffic Information because he was not required to do so, and was not monitoring the aircraft in question (**CF1**).

In the event, the JetRanger pilot saw the PA28 at a late stage (**CF4**) and perceived that there was not a conflict (**CF5**), whereas the PA28 pilot had been concerned by the proximity of the JetRanger (**CF6**). The Board discussed whether this situation amounted to a reduction in safety where a collision risk had been averted (risk Category C) or whether it fell within the bounds of normal day-to-day operations and the majority agreed that in this instance both pilots had recognised the potential for conflict and were monitoring each other sufficiently such that normal safety standards and procedures had pertained (risk Category E).

Noting that the controller reporting process had been limited by the delay in their receiving notification of the event, the Board emphasised the value of reporting Airprox on the frequency in use at the time so that valuable information was not lost, and controllers and other pilots who might have been involved could make notes or retain appropriate material.

PART C: ASSESSMENT OF CONTRIBUTORY FACTORS AND RISK

Contributory Factors:

	2019158		
CF	**Factor**	**Description**	**Amplification**
	Ground Elements		
	• Situational Awareness and Action		
1	Contextual	• Situational Awareness and Sensory Events	Not required to monitor the aircraft under the agreed service
	Flight Elements		
	• Tactical Planning and Execution		
2	Human Factors	• Communications by Flight Crew with ANS	Appropriate ATS not requested by pilot
	• Situational Awareness of the Conflicting Aircraft and Action		
3	Contextual	• Situational Awareness and Sensory Events	Generic, late, no or incorrect Situational Awareness
	• See and Avoid		
4	Human Factors	• Monitoring of Other Aircraft	Late-sighting by one or both pilots
5	Human Factors	• Perception of Visual Information	Pilot perceived there was no conflict
6	Human Factors	• Perception of Visual Information	Pilot was concerned by the proximity of the other aircraft

Degree of Risk: E.

Recommendation: Nil.

Safety Barrier Assessment[5]

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

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

Ground Elements:

Situational Awareness of the Confliction and Action were assessed as **not used** because neither pilot was in receipt of a service that required the controller to monitor their proximity.

Flight Elements:

Situational Awareness of the Conflicting Aircraft and Action were assessed as **ineffective** because neither pilot was aware of the proximity or track of the other aircraft until it was visually sighted.