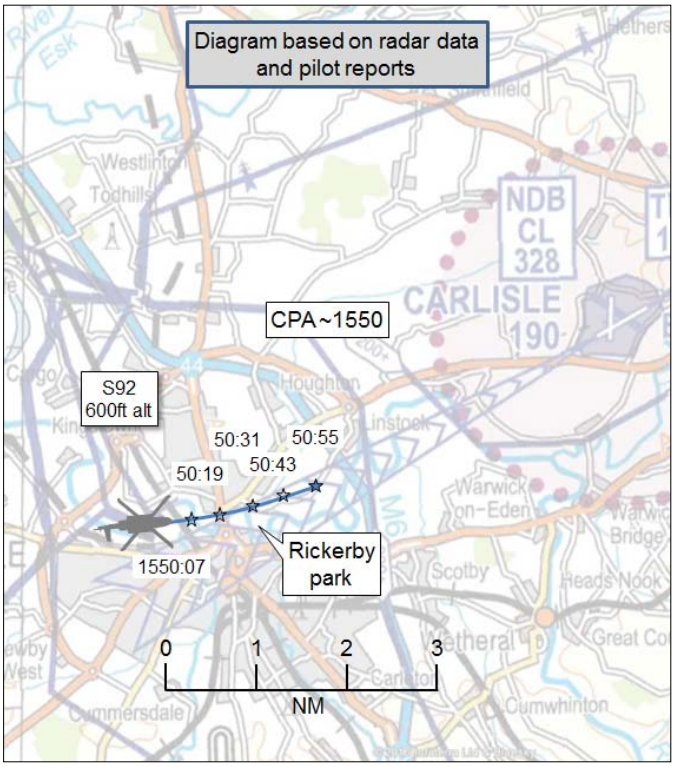
AIRPROX REPORT No 2016063

Date: 26 Apr 2016 Time: 1550Z Position: 5454N 00254W Location: Carlisle

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	S92	Drone
Operator	SAR	Unknown
Airspace	London FIR	London FIR
Class	G	G
Rules	VFR	
Service	Basic	
Provider	Carlisle	
Altitude/FL	600ft	
Transponder	A, C, S	
Reported		Not reported
Colours	White, red	
Lighting	HISL, nav, landing	
Conditions	Choose an item.	
Visibility	>10km	
Altitude/FL	500ft	
Altimeter	QNH (NK hPa)	
Heading	070°	
Speed	120kt	
ACAS/TAS	TCAS II	
Alert	None	
Separation		
Reported	100ft V/100m H	NK
Recorded	NK	



THE S92 PILOT reports transiting to Carlisle Airport for refuel when a white 'quadcopter' drone was seen to pass down the right side of his aircraft in the vicinity of Rickerby Park. It initially appeared to be in the hover, but then flew away as they passed, he presumed because the drone operator saw the helicopter and took evasive action.

He assessed the risk of collision as 'Medium'.

THE DRONE OPERATOR: The drone operator did not file an Airprox report and could not be traced.

Factual Background

The weather at Carlisle was recorded as follows:

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METAR EGNC 261450Z NIL=
METAR EGNC 261420Z 35013KT 320V020 9999 VCSH SCT028CB BKN036 05/00 Q1009=
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Analysis and Investigation

UKAB Secretariat

The Air Navigation Order 2009 (as amended), Article 138[1] states:

> 'A person must not recklessly or negligently cause or permit an aircraft to endanger any person or property.'

Article 166, paragraphs 2, 3 and 4 state:

> '(2) The person in charge of a small unmanned aircraft may only fly the aircraft if reasonably satisfied that the flight can safely be made.
> (3) The person in charge of a small unmanned aircraft must maintain direct, unaided visual contact with the aircraft sufficient to monitor its flight path in relation to other aircraft, persons, vehicles, vessels and structures for the purpose of avoiding collisions.'
> (4) The person in charge of a small unmanned aircraft which has a mass of more than 7kg excluding its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight, must not fly the aircraft
> (a) in Class A, C, D or E airspace unless the permission of the appropriate air traffic control unit has been obtained;
> (b) within an aerodrome traffic zone …; or
> (c) at a height of more than 400 feet above the surface unless it is flying in airspace described in sub-paragraph (a) or (b) and in accordance with the requirements for that airspace.'

A CAA web site[2] provides information and guidance associated with the operation of Unmanned Aircraft Systems (UASs) and Unmanned Aerial Vehicles (UAVs).

Additionally, the CAA has published a UAV Safety Notice[3] which states the responsibilities for flying unmanned aircraft. This includes:

> 'You are responsible for avoiding collisions with other people or objects - including aircraft.
> Do not fly your unmanned aircraft in any way that could endanger people or property.
> It is illegal to fly your unmanned aircraft over a congested area (streets, towns and cities).
> …, stay well clear of airports and airfields'.

Summary

An Airprox was reported when an S92 and a drone flew into proximity at about 1550 on Tuesday 26th April 2016. The S92 pilot was operating under VFR in VMC, in receipt of a Basic Service from Carlisle Radio. The drone operator could not be traced.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of a report from the S92 pilot and radar photographs/video recordings.

Members agreed that both the S92 pilot and drone operator both appeared to be operating in accordance with extant regulation, both were entitled to fly in that area, and both had an equal obligation not to endanger any person or property. It was felt that, on the balance of probability in this circumstance, the drone operator would likely have had the opportunity to hear or see the S92 before the S92 pilot saw the drone. A debate was held over who should avoid who as a result but, because the Board had no information regarding the drone operator's perception of the event, members could not come to a conclusive statement of cause in this respect. Nevertheless, members noted from the

[1] Article 253 of the ANO details which Articles apply to small unmanned aircraft. Article 255 defines 'small unmanned aircraft'. The ANO is available to view at http://www.legislation.gov.uk.
[2] www.caa.co.uk/uas
[3] CAP 1202

S92 pilot's report that it appeared that the drone operator had taken action to increase separation, albeit not until the 2 aircraft were in proximity. Members agreed that the proximity of the drone had clearly caused the S92 pilot concern, but they concluded that the reported separation and apparent manoeuvre by the drone operator was such that there had been no risk of collision. Given the recent proliferation of consumer drones, members also remarked that, subject to local conditions and task requirements, pilots would be well-advised to transit well above 500ft in order to significantly reduce the mid-air collision risk with drones that were operating quite legally up to 400ft in general, and as high as 1000ft if using FPV. Not only would this help increase separation in its own right, it would also help drone operators to visually sight and avoid approaching aircraft.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: The S92 pilot was concerned by the proximity of the drone.

Degree of Risk: C.