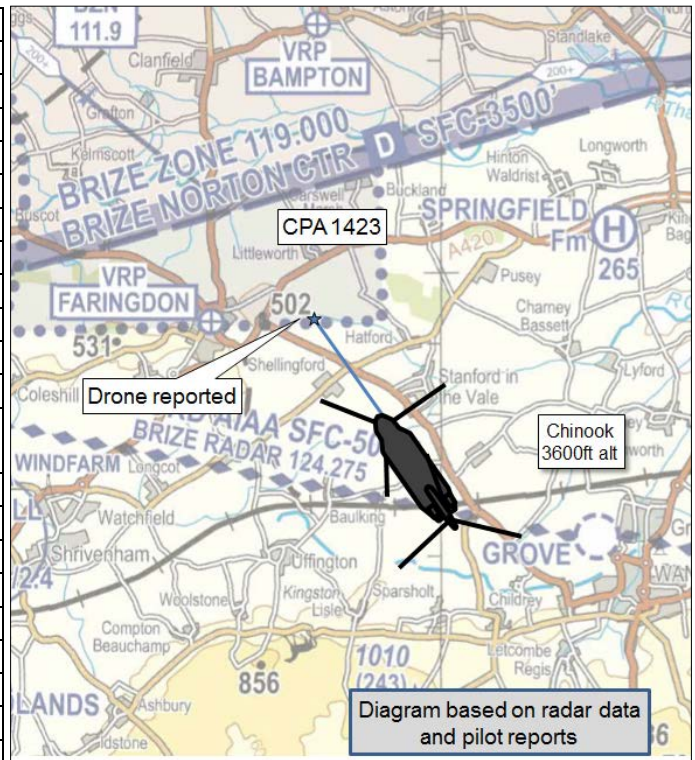


**AIRPROX REPORT No 2016249**

Date: 28 Nov 2016 Time: 1423Z Position: 5139N 00132W Location: 2nm SE Faringdon

**PART A: SUMMARY OF INFORMATION REPORTED TO UKAB**

Recorded	Aircraft 1	Aircraft 2
Aircraft	Chinook	Drone
Operator	HQ JHC	Unknown
Airspace	London FIR	London FIR
Class	G	G
Rules	IFR	
Service	Traffic	
Provider	Brize	
Altitude/FL	FL036	
Transponder	A, C, S	
<b>Reported</b>		
Colours	Green	Black
Lighting	HISLs, Nav, Landing	
Conditions	VMC	
Visibility	40km	
Altitude/FL	4000ft	
Altimeter	QNH (1031hPa)	
Heading	330°	
Speed	120kt	
ACAS/TAS	Not fitted	
<b>Separation</b>		
Reported	0ft V/300m H	
Recorded	NK	



**THE CHINOOK PILOT** reports he was transiting at 4000ft towards RAF Brize Norton, when a fast-moving object was seen by the NHP in the 12 o'clock moving from left to right across the aircraft's nose. It then passed down the right-hand-side of the aircraft and was observed to be a black UAV with at least one light on it. Nothing had been seen on the TCAS, and once the UAV was seen there was no need for avoiding action because it was already passing down the side of the aircraft. The incident was reported to the Brize controller, who commented that they could not see anything on the radar. The sortie continued without further incident.

He assessed the risk of collision as 'Medium'.

**THE DRONE OPERATOR could not be traced.**

**Factual Background**

The weather at Brize was recorded as follows:

METAR EGVN 281350Z 09009KT 9999 FEW040 08/M03 Q1030 BLU NOSIG

**Analysis and Investigation**

**UKAB Secretariat**

There are no specific ANO regulations limiting the maximum height for the operation of drones that weigh 7kg or less other than if flown using FPV (with a maximum weight of 3.5kg) when 1000ft is the maximum height. Drones weighing between 7kg and 20kg are limited to 400ft unless in accordance with airspace requirements. Notwithstanding, there remains a requirement to

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. CAP 722 gives guidance that, within the UK, visual line of sight (VLOS) operations are normally accepted to mean a maximum distance of 500m [1640ft] horizontally and 400ft [122m] vertically from the Remote Pilot.

All drone operators are also required to observe ANO 2016 Article 94(2) which requires that the person in charge of a small unmanned aircraft may only fly the aircraft if reasonably satisfied that the flight can safely be made, and the ANO 2016 Article 241 requirement not to recklessly or negligently cause or permit an aircraft to endanger any person or property. Allowing that the term 'endanger' might be open to interpretation, drones of any size that are operated in close proximity to airfield approach, pattern of traffic or departure lanes, or above 1000ft agl (i.e. beyond VLOS (visual line of sight) and FPV (first-person-view) heights), can be considered to have endangered any aircraft that come into proximity. In such circumstances, or if other specific regulations have not been complied with as appropriate above, the drone operator will be judged to have caused the Airprox by having flown their drone into conflict with the aircraft.

A CAA web site<sup>1</sup> 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<sup>2</sup> 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'.

## Comments

### JHC

This is another surprising Drone Airprox, specifically due to the operating altitudes. It would appear that the drone operator is unaware of the regulations published in the ANO pertaining to use of his UAV- specifically the max altitude allowed. This yet again demonstrates a complete lack of awareness or regard to legitimate air users, namely the extremely large helicopter. Given its proximity it raises the additional question as to whether the UAV operator was in line-of-sight of the drone at all times and whether they were in complete control of it. In sum this is sadly a further example of manned and unmanned aircraft coming into close proximity where you would not expect such an event to occur, caused by the ignoring of the ANO.

## Summary

An Airprox was reported when a Chinook and a drone flew into proximity at 1423 on Monday 28<sup>th</sup> November 2016. The Chinook pilot was operating under IFR in VMC, and in receipt of a Traffic Service from Brize. The Drone operator could not be traced.

## **PART B: SUMMARY OF THE BOARD'S DISCUSSIONS**

Information available consisted of reports from the Chinook pilot and radar photographs/video recordings.

Members noted that the drone was operating at 4000ft and therefore beyond practical VLOS conditions. Therefore, in assessing the cause, the Board agreed that the drone had been flown into conflict with the Chinook. Turning to the risk, although the incident did not show on the NATS radars,

<sup>1</sup> [www.caa.co.uk/uas](http://www.caa.co.uk/uas)

<sup>2</sup> CAP 1202

the Board noted that the pilot had estimated the separation to be 300m horizontally and at the same level. Acknowledging the difficulties in judging separation visually without external references, the Board considered that the pilot's estimate of separation, allied to his overall account of the incident, portrayed a situation where although safety had been degraded, a collision was unlikely; they therefore determined the risk to be Category C.

### **PART C: ASSESSMENT OF CAUSE AND RISK**

Cause: The drone was flown into conflict with the Chinook.

Degree of Risk: C.