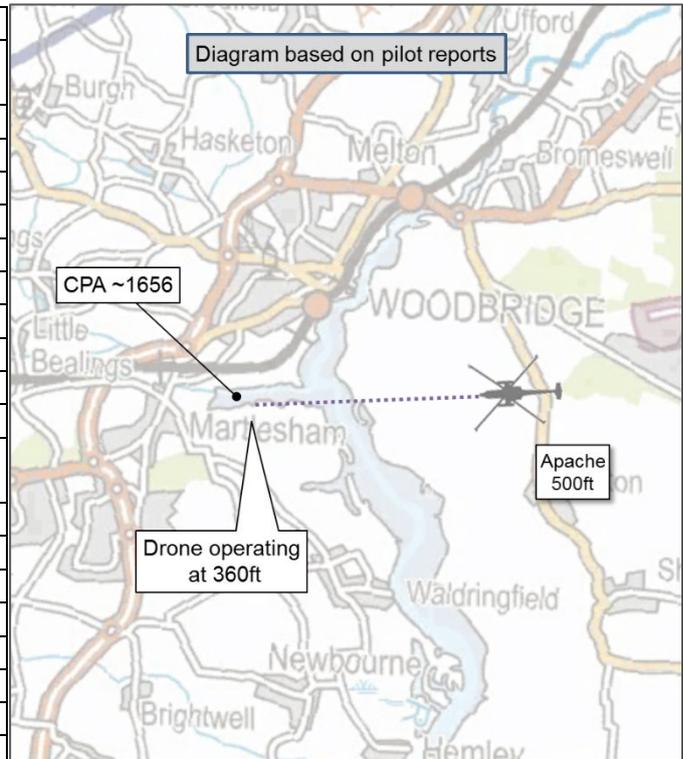


AIRPROX REPORT No 2018277

Date: 08 Oct 2018 Time: 1656Z Position: 5204N 00118E Location: Martlesham Creek, Suffolk

PART A: SUMMARY OF INFORMATION REPORTED TO UKAB

Recorded	Aircraft 1	Aircraft 2
Aircraft	DJI Phantom (Drone)	Apache
Operator	Civ UAS	HQ JHC
Airspace	London FIR	London FIR
Class	G	G
Rules		VFR
Service	None	Basic
Provider		Wattisham
Altitude/FL		
Transponder	Not fitted	A, C, S
Reported		
Colours	White	Green
Lighting	Position lights	Strobe, Nav, Landing
Conditions	VMC	VMC
Visibility	>10km	
Altitude/FL	360ft	500ft
Altimeter	Rad Alt	QNH (1019hPa)
Heading	090°	270°
Speed	14kt	110kt
ACAS/TAS	Not fitted	Not fitted
Separation		
Reported	1-200ft V/150m H	Not Seen
Recorded	NK	



THE DRONE OPERATOR reports that he was using his drone to conduct environmental monitoring in Martlesham Creek. The drone was at 360ft, on a grid-pattern flight path and he was within VLOS at all times. The Apache flew up the creek, from east to west, at about 200ft he thought. The low-level of the Apache meant that the drone operator had little warning of its approach, and so he decided to maintain the height of his drone because he deemed it unsafe to descend in case it brought the drone into the Apache’s flightpath. ‘Clear sky’ was maintained between the drone and the helicopter when observed from the ground. Although there is no requirement to do so, his normal operating procedures include notifying ATC before commencing flights; however, on this occasion, time constraints and failing light meant that the drone operator did not call Wattisham ATC.

He assessed the risk of collision as ‘Medium’.

THE APACHE PILOT reports that he conducted a general handling sortie at Woodbridge airfield between 1530-1710z. The sortie was completed without incident. The next day he was informed that a drone operator had called Wattisham ATC to inform them that he considered an Airprox had taken place between the Apache and a drone. The Apache crew were unaware of the incident until it was reported by the drone operator.

He perceived the severity of the incident as ‘High’.

THE WATTISHAM CONTROLLER reports that he took over the ATCO position at 1610hrs. He was not aware of any drone activity in the Martlesham Creek area, there had been no telephone call from the drone operator, nor did any of pilots operating in the area report seeing a drone, including the Apache pilot. There were also no primary radar contacts observed in the area. It was only later that evening when the drone operator rang ATC that he learnt that an Airprox had taken place.

Factual Background

The weather at Wattisham was recorded as follows:

METAR EGUW 081650Z 25007KT 9999 BKN031 14/10 Q1019 BLU NOSIG=

Analysis and Investigation

UKAB Secretariat

The drone operator and Apache pilot shared an equal responsibility for collision avoidance and not to operate in such proximity to other aircraft as to create a collision hazard¹.

Comments

JHC

The Apache crew were returning from a GH sortie at Woodbridge Airfield at 500' and returning to Homeplate. The sortie was planned and executed in accordance with current SOPs. They did not hear about the incident until the next morning. In accordance with the RA [military regulations] they submitted their own Airprox report. It is not known if the drone operator was aware of the potential of aircraft activity at Woodbridge airfield. In this instance some sort of notification to the airfield may have been useful for the Apache crews awareness.

Summary

An Airprox was reported when a drone and an Apache flew into proximity near Woodbridge at 1656hrs on Monday 8th October 2018. The drone operator reported that he was flying the drone at about 360ft. The Apache pilot was VFR in VMC, in receipt of a Basic Service from Wattisham, and reported flying at about 500ft.

PART B: SUMMARY OF THE BOARD'S DISCUSSIONS

Information available consisted of reports from the drone operator and the Apache pilot.

The Board first looked at the actions of the drone operator. At 360ft, he was flying his drone within the CAA guidelines and legal requirements when he saw the Apache routing overhead. Members noted that the drone operator had perceived that the Apache was below the drone, but the Apache pilot reported flying at 500ft. Without any independent radar or track information, the Board could come to no conclusions as to the relative heights of the aircraft but some members wondered whether this was a situation where the perspective from the ground may have made it appear to the drone operator that the Apache was below his drone when it might have simply been further away and therefore appear to be lower. Nevertheless, the Board noted that the drone operator saw the Apache in good time and was able to take a timely decision to keep his drone in position.

Noting the operator's comments about informing Wattisham, the Board noted that Martlesham creek was some way from Wattisham and might not necessarily be thought of as a factor. Members agreed that the drone operator's comments demonstrated a good understanding of the Apache operations, and good awareness of the potential for conflict. Although unfortunate that on that day he hadn't had time to make a call to Wattisham, they commended his overall awareness and pro-active approach to sharing the airspace. In this respect, members recalled that a recommendation had been made in a previous Airprox (2018160) that the military should pursue the use of a system for notification of commercial drone operations to military pilots operating in the UK Low-Flying System. Ideally, such a system would link to drone apps such as DroneAssist and transfer information to the military's CADS deconfliction tool. Although the military acknowledged the value such a system, they had responded

¹ SERA.3205 Proximity.

that the Government had taken a decision not to mandate the use of a drone flight information notification system (FINS) but instead continue to develop a future unmanned traffic management system (UTMS). As a result, the military were still reliant on drone operators telephoning either the low-flying operations cell (0800 515 544) or adjacent airfields to notify their flights on a voluntary basis.

For his part, the Apache pilot did not see the drone, and because ATC had no knowledge of the drone operation, they could not give him any situational awareness either. Therefore without any knowledge that the drone was operating at that location, members agreed that there was little more he could have done to prevent the Airprox.

In determining the cause of the Airprox the Board quickly agreed that this incident was best described as a conflict in Class G airspace, resolved by the drone operator. Noting the drone operator had acted in a timely and effective manner, they assessed the risk as Category C; although safety had been degraded, there had been no risk of collision.

PART C: ASSESSMENT OF CAUSE AND RISK

Cause: A conflict in Class G resolved by the drone operator.

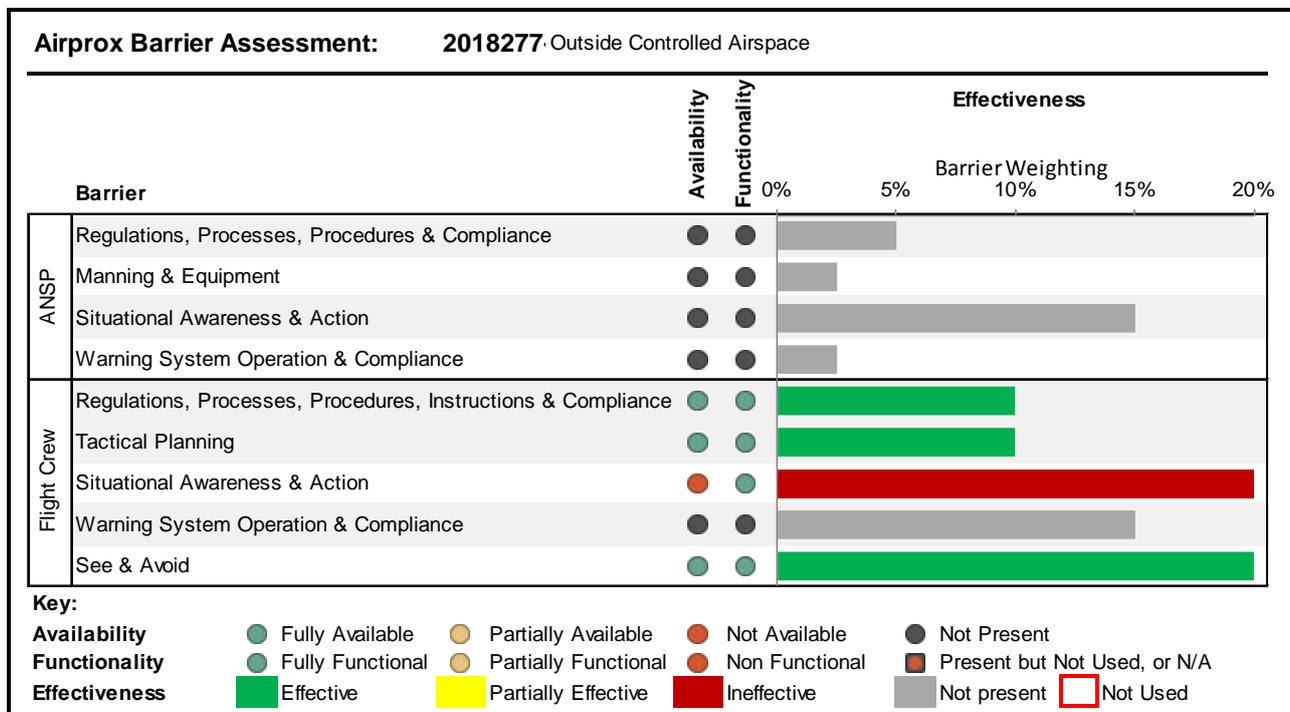
Degree of Risk: C.

Safety Barrier Assessment²

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

Flight Crew:

Situational Awareness and Action were assessed as **ineffective** because neither the drone operator, nor the Apache pilot had any knowledge about each other.



² The UK Airprox Board scheme for assessing the Availability, Functionality and Effectiveness of safety barriers can be found on the [UKAB Website](#).