

## Consolidated Drone/Balloon/Model/Unknown Object Summary Sheet for UKAB Meeting on 21<sup>st</sup> June 2023

Total	Risk A	Risk B	Risk C	Risk D	Risk E
5	2	2	1	0	0

Airprox Number	Date Time (UTC)	Aircraft (Operator)	Object	Location <sup>1</sup> Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Comments/Risk Statement	ICAO Risk
2023074	13 May 23 1236	B737 (CAT)	Drone	5328N 00203W 1NM N Hyde 3500ft	Manchester TMA (A)	<p><b>The B737 pilot</b> reports that at 10.7 DME RW23R Manchester and at approximately 3700ft, the captain (PM) noticed an object reflecting the sun to the left of the aircraft. The FO (PF) also observed the object on indication from the captain. As the object passed, they agreed that it was a large black coloured drone with no lighting. This occurred during a read back to ATC and caused a distraction and spike in workload. The report of the drone and its position was relayed to ATC. ATC relayed the information [to the pilot of the aircraft behind]. The flight concluded with an otherwise uneventful approach and landing. Before handover to the next frequency the controller advised that the police would be informed.</p> <p><b>Reported Separation:</b> 0ft V/300ft H <b>Reported Risk of Collision:</b> High</p>	<p>In the Board's opinion the reported altitude and/or description of the object were sufficient to indicate that it could have been a drone.</p> <p><b>Applicable Contributory Factors:</b> 1, 2, 3, 4, 5</p> <p><b>Risk:</b> The Board considered that the pilot's overall account of the incident portrayed a situation where although safety had been reduced, there had been no risk of collision.</p>	C

<sup>1</sup> Latitude and Longitude are usually only estimates that are based on the reported time of occurrence mapped against any available radar data for the aircraft's position at that time. Because such reported times may be inaccurate, the associated latitudes and longitudes should therefore not be relied upon as precise locations of the event.

Airprox Number	Date Time (UTC)	Aircraft (Operator)	Object	Location <sup>1</sup> Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Comments/Risk Statement	ICAO Risk
2023078	3 May 23 1800	Chinook (HQ JHC)	Drone	5130N 00003W Rotherhithe 1100ft	London CTR (D)	<p><b>The Chinook pilot</b> reports that an Airprox was reported by a passenger, an experienced aviator, during the debrief. The Chinook was returning to base on Helicopter Route H4. The passenger was at the rear of the cabin, owing to poor into-sun visibility and haze from the cockpit. They were cleared to not above 1300ft on the Heathrow QNH and the minimum was 1000ft in that section. The passenger reported that a quadcopter of 50cm-1m size passed 30ft below and 30ft to the left of the aircraft. They reported seeing a flash of red colouring. It was not clear whether the drone was stationary or moving. No other member of the operating crew saw the UAS. Heathrow Radar had made no mention of UAS ops. After the debrief, the mission file was checked for NOTAMs, none referring to UAS operations were present.</p> <p><b>Reported Separation:</b> 30ft V/30ft H <b>Reported Risk of Collision:</b> High</p>	<p>In the Board's opinion the description of the object was sufficient to indicate that it could have been a drone.</p> <p><b>Applicable Contributory Factors:</b> 1, 2, 3, 4, 7</p> <p><b>Risk:</b> The Board considered that the pilot's overall account of the incident portrayed a situation where providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A
2023080	17 May 23 1040	Falcon 20 (Civ Comm)	Unk obj	5434N 00120W Stockton-on-Tees 1700ft AGL	Teesside CTR (D)	<p><b>The Falcon 20 pilot</b> reports that they were PF in the LHS and [part of a two aircraft formation] cleared by Teesside ATC for a left-hand 'run-in and break' to RW23. [They were on the rightmost side of the pair] and on the RW23 extended centreline, descending to 1500ft. Whilst descending past 1700ft and at a range of 4.8NM from Teesside, they observed a black drone pass co-altitude down the left-hand side of [the other formation aircraft]. The range was estimated to be about 50ft. The formation landed without incident and the drone sighting was reported to ATC.</p> <p><b>Reported Separation:</b> 0ft V/50ft H <b>Reported Risk of Collision:</b> High</p>	<p>In the Board's opinion the reported altitude and/or description of the object, combined with the absence of any indication of a drone's presence from drone detection data, were such that they were unable to determine the nature of the unknown object.</p> <p><b>Applicable Contributory Factors:</b> 4, 6</p> <p><b>Risk:</b> The Board considered that the pilot's overall account of the incident portrayed a situation where safety had been much reduced below the norm to the extent that safety had not been assured.</p>	B

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2023084	18 May 23 1816	B737 (CAT)	Drone	5326N 00206W 8NM NE Manchester 2400ft	Manchester CTR (D)	<p><b>The B737 pilot</b> reports that they were configured at F5 and at F5 speed, fully established on ILS approach to RW23R at MAN. At 8.4 ILS DME, both pilots saw an object moving towards the aircraft close to them, on the starboard side. As it passed, it was clearly identifiable as a drone. It was blue in colour, disc shaped and approx. 1ft diameter. It passed by at the same level, travelling in a reciprocal direction. Both pilots estimate at the closest point, the drone was approx. 50ft laterally displaced from the flight deck. The Tower was informed immediately. They continued to uneventful landing. ATC reported the incident immediately to the police.</p> <p><b>Reported Separation:</b> 0ft V/ 50ft H  <b>Reported Risk of Collision:</b> Low</p>	<p>In the Board's opinion the reported altitude and/or description of the object were sufficient to indicate that it could have been a drone.</p> <p><b>Applicable Contributory Factors:</b> 1, 2 ,3 ,4, 7</p> <p><b>Risk:</b> The Board considered that the pilot's overall account of the incident portrayed a situation where safety had been much reduced below the norm to the extent that safety had not been assured.</p>	B

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2023085	20 May 23 1002	EuroFox (Civ FW)	Drone	5134N 00253W 2.5NM E Newport 2600ft	London FIR (G)	<p><b>The EuroFox pilot</b> reports they were on a VFR flight. The weather was fine, with a little haze, but good visibility. They were flying straight and level at 2800ft close to the M4 junction 24, almost exactly at reporting point LEKCI when what they assume had to be a drone appeared out of nowhere and flew over the port wing, close to the main body of the aircraft, with approximately 15ft vertical and hardly any horizontal separation. The object was black, round or slightly elliptical, approx. 50cm diameter and made a whirring or whooshing noise. It had passed before they were properly aware what was happening and constituted a very near miss. They were totally shocked because they realised that had this object flown just a tiny bit closer, they would probably not be here to file this report. They were monitoring [their EC equipment] at the time with the audio warning turned on, but there was no sign of this object on the screen and no warning was issued. They reported the incident to Bristol Radar at the time who acknowledged the call.</p> <p><b>Reported Separation:</b> 15ft V / 1m H <b>Reported Risk of Collision:</b> High</p> <p><b>The Bristol controller</b> reports that the pilot of the Eurofox reported a drone 30ft above them at the M4 junction. No further action was taken by ATC. They assumed the pilot would report the Airprox when on the ground. ATC workload was moderate to high and there was insufficient time to take any further details.</p>	<p>In the Board's opinion the reported altitude and/or description of the object were sufficient to indicate that it could have been a drone.</p> <p><b>Applicable Contributory Factors:</b> 1, 2, 4, 7</p> <p><b>Risk:</b> The Board considered that the pilot's overall account of the incident portrayed a situation where providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A

## Relevant Contributory Factor (CF) Table

CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
<b>Flight Elements</b>				
<b>• Regulations, Processes, Procedures and Compliance</b>				
1	Human Factors	• Flight Crew ATM Procedure Deviation	An event involving the drone operator deviating from applicable Air Traffic Management procedures	The drone operator did not comply with regulations by flying above 400ft and/or in controlled airspace/FRZ without clearance
<b>• Tactical Planning and Execution</b>				
2	Human Factors	• Action Performed Incorrectly	Events involving the drone operator performing the selected action incorrectly	The drone operator was flying above 400ft without clearance.
3	Human Factors	• Airspace Infringement	An event involving an infringement / unauthorized penetration of a controlled or restricted airspace	The drone pilot was flying in controlled airspace/FRZ without clearance.
<b>• Situational Awareness of the Conflicting Aircraft and Action</b>				
4	Contextual	• Situational Awareness and Sensory Events	Events involving a flight crew's awareness and perception of situations	Pilot had no, generic, or late Situational Awareness
<b>• See and Avoid</b>				
5	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft
<b>• Outcome Events</b>				
6	Contextual	• Near Airborne Collision with Other Airborne Object	An event involving a near collision by an aircraft with an unpiloted airborne object (unknown object or balloon)	
7	Contextual	• Near Airborne Collision with RPAS	An event involving a near collision with a remotely piloted air vehicle (drone or model aircraft)	