

Consolidated Drone/Balloon/Model/Unknown Object Summary Sheet for UKAB Meeting on 19th July 2023

Total	Risk A	Risk B	Risk C	Risk D	Risk E
8	2	3	2	1	0

Airprox Number	Date Time (UTC)	Aircraft (Operator)	Object	Location ¹ Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Comments/Risk Statement	ICAO Risk
2023091	27 May 23 1400	C42 (Civ FW)	Drone	5208N 00237W 6NM NE Hereford 2900ft	London FIR (G)	<p>The C42 pilot reports that during the second leg of their flight, they were flying at 2900ft on 1027hPa QNH. They saw a shining object on the port side, underneath their wing, 400ft below. Four rotors of the drone were visible. They reported [the incident] to the FISO and an instructor at Shobdon on their return.</p> <p>Reported Separation: 400ft V/ 0m H Reported Risk of Collision: Medium</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>Applicable Contributory Factors: 1, 2, 4, 5</p> <p>Risk: 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
2023100	28 May 23 1610	B787 (CAT)	Unk Obj	5129N 00038W 6NM W Heathrow 1800ft	London CTR (D)	<p>The B787 pilot reports that at approximately 6 mile final RW09L in the vicinity of Dedworth at 1800ft agl what appeared to be a drone passed down the left-hand side of the aircraft. It was luminous green in colour and although it was difficult to tell was perhaps 1-2ft long. It passed what appeared to be less than 100m down the left-hand side of the aircraft. Almost by the time it had been recognised it had passed clear.</p> <p>Reported Separation: NK V/ 100m H Reported Risk of Collision: High</p> <p>The Heathrow controller reports that when at on final approach for RW09L at 6DME, the B787 pilot reported a drone over the river at Windsor at 2000ft altitude, they reported that the drone passed down the left-hand side of the aircraft.</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>Applicable Contributory Factors: 4, 5</p> <p>Risk: 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

¹ 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 ¹ Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Comments/Risk Statement	ICAO Risk
2023102	25 May 23 1935	A330 (CAT)	Unk Obj	5129N 00042W 9.5NM W Heathrow 3100ft	London TMA (A)	<p>The A330 pilot reports that a parachute, [initially reported on RT as a balloon], passed down the RHS of their aircraft on approach to [their destination] at 3500ft. The parachute, of approximately 2m diameter, had an item hanging below and it passed from the nose to the RHS of aircraft. It did not look like a toy item.</p> <p>NATS Safety Investigations report that analysis of the radar indicated that there were no associated primary or secondary contacts visible on radar at the approximate time of the event and in the vicinity of Heathrow. Safety Investigations have also confirmed that there were no balloon releases or rocket launches published in NOTAMs on the date of the sighting, nor further reported sightings by subsequent aircraft. In lieu of any further evidence as to the nature of the object, it is not possible for Safety Investigations to confirm the object type or any further details.</p> <p>Reported Separation: NK V/ NK H Reported Risk of Collision: Medium</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>Applicable Contributory Factors: 4, 5</p> <p>Risk: The Board considered that the pilot's overall account of the incident portrayed a situation where there was insufficient information to make a sound judgement of risk.</p>	D
2023117	4 Jun 23 1951	A320 (CAT)	Drone	5128N 00024W LON 3.5D waypoint on MODMI3J 1700ft	London CTR (D)	<p>The A320 pilot reports that shortly after lift-off a large rectangular-body drone with solid multiple arms supporting 4+ rotors passed directly overhead the cockpit. The incident was reported by radio.</p> <p>Reported Separation: 200ft V/0m H Reported Risk of Collision: High</p> <p>The Heathrow controller reports the A320 pilot reported to Air Departures that they had come into proximity with a drone just above them when at about 2000ft. The Police and airfield authorities were informed and a message included on ATIS for subsequent aircraft for 30min. There were no further reported sightings.</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>Applicable Contributory Factors: 1, 2, 3, 4, 7</p> <p>Risk: 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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2023118	14 May 23 1257	B787 (CAT)	Drone	5129N 00000W 1NM WSW of LCY 5200ft	London TMA (A)	<p>The B787 pilot reports that when on heading 180°, just north of London City at 5200ft descending on a base leg to LHR RW27R, they contacted Heathrow Director and reported via VHF, that a drone passed within a wing's length off the left-hand side of the aircraft. There was visual contact from the captain's window. Drone was white in colour and professional sized.</p> <p>Reported Separation: 20ft V/ 30m H Reported Risk of Collision: High</p> <p>A NATS Investigation reports that the B787 was at 5200ft on the London QNH of 1020hPa when the pilot reported the drone had passed them on the left-hand side. When asked if the drone was at their level, the pilot responded, "Yes. I literally thought it was going to hit the windscreen". The LL FIN controller informed subsequent aircraft traversing the area of the sighting. There were no further reports made to ATC.</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>Applicable Contributory Factors: 1, 2, 3, 4, 7</p> <p>Risk: 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

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2023122	15 Jun 23 1000	Chinook (HQ JHC)	Drone	5100N 00007W Haywards Heath 2000ft	London FIR (G)	<p>The Chinook pilot reports that when in level transit a crewman spotted a white 4-propeller drone just outside the rotor disc and slightly below. The drone was judged to be within 50m of the aircraft laterally and about 20-40ft below. The drone was in a hover at about 1950ft on the western edge of Haywards Heath. The drone was reported to London Info by the aircraft captain. No avoiding action was required.</p> <p>Reported Separation: 30ft V/<50m H Reported Risk of Collision: High</p> <p>The London Information FISO reports the Chinook pilot reported they had been at Haywards Heath at 0940Z at 1.8A and that a drone had passed close to them down their left-hand side.</p> <p>NATS Ltd Investigation Conclusion stated, the pilot of [Chinook C/S] reported a drone encounter to the LFIS frequency, stating the drone had passed down the left-hand side of the aircraft at 1800 feet agl, abeam Haywards Heath. It has been estimated that the UAS was at altitude 2000 feet. Safety Investigations reviewed the radar at the time the pilot of [Chinook C/S] reported the sighting, however, no radar contacts were visible.</p>	<p>In the Board's opinion the reported description of the object was sufficient to indicate that it could have been a drone.</p> <p>Applicable Contributory Factors: 1, 2, 4, 7</p> <p>Risk: 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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2023126	17 Jun 23 1133	B737 (CAT)	Unk Obj	5245N 00136W 2NM SW Swadlincote 3300ft	East Midlands CTA (D)	<p>The B737 pilot reports that an Airprox occurred with a drone at 3300ft during their turn to 360°. The drone passed around 50m to their right-hand-side, right-to-left. The drone comprised 2 parts. The main drone was white and appeared to be dragging a camera behind it. ATC was notified in-flight and, as requested, a phone call was made to the tower on the ground to pass on further details.</p> <p>The East Midlands controller reports that, in response to the pilot reporting the drone, they asked what direction the drone had been flying. The response was 'southeast'. At no time did the controller observe anything on the radar that appeared to be moving that gave any indication that it was a possible drone. The pilot was vectored onto the ILS and subsequent traffic was routed further to the west to ensure that they were clear of any possible interaction with the drone.</p> <p>The East Midlands Airport Unit Investigation concluded that the radar returns, whilst present, could have been indicative of normal weather clutter seen on a daily basis. There was nothing on the radar which might have indicated to the controller that an unauthorised drone was present. Correct ATC actions were followed throughout.</p> <p>Reported Separation: 0m V/ 50m H Reported Risk of Collision: 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>Applicable Contributory Factors: 4, 6</p> <p>Risk: 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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2023136	21 Jun 23 1800	Envoy IV (HQ Air Ops)	Drone	5140N 00249W 17NM N Bristol FL097	London FIR (G)	<p>The Envoy pilot reports that at FL97, inbound to Bristol airport, when 17NM on the 353° radial (hdg 173°), a drone was sighted at the same level and passed at what appeared to be approximately 10m down the left-hand side. The co-pilot spotted the drone first, followed by the Captain shortly afterwards. The drone was a quadcopter type, silver/white with red flashes and reported to Bristol Radar immediately.</p> <p>Reported Separation: 10m H Reported Risk of Collision: Medium</p> <p>The Bristol controller reports that at approximately 1800, the pilot of the F900 reported that "a drone" had just passed close to the aircraft at 9700ft. The object was reported to be red and silver in colour and was either a drone or a weather balloon. The object was reported to be approximately 30ft away from the aircraft. The pilot indicated that they would like to file an Airprox. No other aircraft reported observing the object in the vicinity within the next 30min.</p>	<p>In the Board's opinion the reported description of the object was sufficient to indicate that it could have been a drone.</p> <p>Applicable Contributory Factors: 1,2,4,7</p> <p>Risk: 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
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
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
• Tactical Planning and Execution				
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.
• Situational Awareness of the Conflicting Aircraft and Action				
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
• See and Avoid				
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
• Outcome Events				
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)	