

Consolidated Drone/Balloon/Model/Unknown Object Summary Sheet for UKAB Meeting on 17th April 2024

Total	Risk A	Risk B	Risk C	Risk D	Risk E
8	2	3	3	0	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
2024027	24 Feb 24 ~1700	C172 (Civ FW)	Drone	5436N 00540W 1NM NE Newtownards Airport 1800ft	Newtownards ATZ (G)	<p>The C172 pilot reports they were conducting a routine overhead join for RW21 when they noticed a black, blunted triangle-shape drone with red LED lighting in a zig-zag pattern around the edges and flying roughly parallel to RW21 on the live side of the circuit. It passed ahead and slightly above in dangerous proximity.</p> <p>Reported Separation: '~100ft' Reported Risk of Collision: NR</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

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
2024028	26 Feb 24 1448	B787 (CAT)	Drone	5119N 00035E 3NM N Maidstone FL105	London TMA (A)	<p>The B787 pilot reports that, approaching DET at 310kts, the FO looked up to see an object approaching dead-ahead. They were confused as it was not an aircraft or a bird, and they were startled. The object was closing rapidly, and then clearly apparent as a medium sized quadcopter with four downward facing blue lights. It approached almost head-on, slightly to the right-hand side. It was hard to estimate the distance but, given the clear definition of lights and shape detail, it was discussed to be potentially within 50ft of the FO's windscreen. ATC was informed.</p> <p>Reported Separation: 0ft V/ 50ft H Reported Risk of Collision: High</p> <p>The Swanwick controller reports that they were operating as the controller on TC SE bandboxed, when [the pilot of the B787] reported a drone with blue lights "straight down the middle". They took a note of the position, informed the Group Supervisor South and also informed the pilots of subsequent aircraft on the same track.</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
2024029	2 Mar 24 1720	A320 (CAT)	Drone	5128N 00022W 3NM E Heathrow 1100ft	London TMA (A)	<p>The A320 pilot reports that they encountered a drone when at 3NM final for Heathrow RW27L, at 1100ft. The drone passed approximately 1m above and 3m left of the left wingtip. They continued the approach with the autopilot on and landed normally. They reported the incident to ATC and the local police came to consult with the Captain when on the ground.</p> <p>Reported Separation: 3ft V/ 3m H Reported Risk of Collision: High</p> <p>The Heathrow Air Arrivals controller reports that when approximately 3NM from touchdown, the A320 pilot reported that they had seen a drone at 1000ft on the approach. When asked for further details, regarding the drone's position, the crew reported that it had nearly hit their wing. The following aircraft were warned, but no other pilot reported the presence of a drone.</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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2024030	3 Mar 24 0915	A320 (CAT)	Drone	5138N 00011W IVO Barnet, London FL080	London TMA (A)	<p>The A320 pilot reports that the Captain spotted a drone-like object at 0915 passing down the port side as the aircraft headed west around the Barnet area of London, at 8000ft and just before a turn to head east. It was a white, flat, drone shape. The aircraft was travelling at 220kts. It was just below and possibly within 30m of the port wingtip. It was hard to judge the size but must have been a large quadcopter type drone to be seen.</p> <p>Reported Separation: 30m H Reported Risk of Collision: N/R</p> <p>The Heathrow INT N controller reports that the A320 was about 10NM west of LAM at FL080 when the crew reported the sighting of a drone. This was acknowledged, the crew then described the drone as white, flat and circular shaped. They subsequently continued their approach.</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
2024032	6 Mar 24 1445	Merlin (RN)	Drone	5151N 00054W 1NM E Waddesdon 100ft	London FIR (G)	<p>The Merlin pilot reports that, while conducting low level (100-200ft AGL) navigation practice in the vicinity of Waddesdon, Buckinghamshire, the NHP called 'eyes in' as they checked their mapping. Around 20sec later, the HP alerted the crew to the presence of a drone in the 12 o'clock and called 'breaking right'. The crew then witnessed a medium-sized black drone with a red light pass around 30m to the left of the aircraft at the same height.</p> <p>Reported Separation: 0ft V/30m H Reported Risk of Collision: 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>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, due to actions of the Merlin pilot there had been no risk of collision.</p>	C
2024033	5 Mar 24 1310	Beagle Pup (Civ FW)	Unk Obj	5250N 00142W Tutbury 1300ft	London FIR (G)	<p>The Beagle Pup pilot reports that they initially thought that the object was a crow but didn't have wings. It then glinted in the sun and seemed to be dark blue. It was a very small drone or model aircraft. It may have been stationary. It was reported to Derby management.</p> <p>Reported Separation: 0ft V/20m H Reported Risk of Collision: High</p>	<p>In the Board's opinion the reported altitude and/or description of the object 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

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2024034	08 Mar 24 1930	Yuunec Typhoon H (Civ UAS)	Drone	5047N 00106W Gunwharf Quays 350ft AGL	London FIR (G)	<p>The Yuunec Typhoon operator reports that after having obtained permission from the Spinnaker Tower area owners to operate from private land, they had launched their UAS from the plaza, south of the tower and moved east over the harbour, climbing to around 350ft AGL and transitioning to the hover to do some photography work. It had been at this moment that an unknown UAS came from around the rear of the tower at similar / same altitude and flew directly at their UAS. The Typhoon operator had climbed clear of the second UAS however the UAS alarms had sounded with its proximity sensors detecting the incursion. The second UAS had then continued south past buildings out of sight. The Typhoon UAS operator highly doubted that there had been a visual line of sight between that UAS and the operator.</p> <p>Reported Separation: 0ft V/<5m H Reported Risk of Collision: 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>Applicable Contributory Factors: 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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2024040	25 Mar 24 1521	F35 (HQ Air (Ops))	Unk Obj	5234N 00115E ~5NM SW of Norwich Airfield 11,970ft AMSL	London FIR (G)	<p>The F35 pilot reports that whilst conducting a 180° turn in Line Abreast formation, a dark object passed at high speed down the right-hand side of the canopy, approximately 200-300ft from the aircraft and slightly below. The pilot reports that they did not get a clear look at it but judged it to be the wrong shape and size to be a bird. It had been behind the aircraft before avoiding action could be taken. The incident was reported to Marham Zone within 1min of occurrence. The pilot reports that they then moved away from the area to continue the sortie. From tape review, the drone had not been visible on recorded HMD and there had been no radar SA.</p> <p>Reported Separation: Slightly below/200-300ft H Reported Risk of Collision: High</p> <p>The Marham Supervisor reports that they had been the Supervisor when, [formation callsign] reported an Airprox with a drone on the Approach Controller's frequency. The Supervisor then obtained an appropriate location utilising the Lat-Long feature on the radar. They spoke with the pilot and asked if they had a description and height of the drone. They reported a small drone at 12,000ft west of Norwich. The Supervisor informed military police, Swanwick/D&D, Norwich radar, DCF and Operations. No contact of the drone had been painting on radar.</p>	<p>In the Board's opinion the reported altitude and/or description of the object 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

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)	