

Consolidated Drone/Balloon/Model/Unknown Object Summary Sheet for UKAB Meeting on 11th October 2023

Total	Risk A	Risk B	Risk C	Risk D	Risk E
7	3	0	3	0	1

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
2023192	25 Jul 23 1902	B787 (CAT)	Drone	5127N 00037W IVO Windsor 3000ft	London TMA (A)	<p>The B787 pilot reports that they were on a CPT departure from Heathrow, passing 3000ft in the climb, when they saw a drone. It was apparent that whilst it was very close, the drone would pass below and to their left. The drone was white, with multiple props but no lights.</p> <p>Reported Separation: 20ft V /20m H Reported Risk of Collision: High</p> <p>A NATS Investigation reports that the pilot reported on frequency that they had passed a drone very close on the left-hand side, when passing 3000ft. The TC South-West Deps controller confirmed the information with the pilot and relayed this to Heathrow Tower in order that subsequent departures could be made aware of the sighting.</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

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.

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2023195	25 Aug 23 1244	A320 (CAT)	Balloon	5154N 00017W 3NM ENE Luton FL380	London UIR (C)	<p>The A320 pilot reports that, at the top of descent point (overhead LTN), a white weather balloon with red equipment suspended from it, was first observed approximately 2sec before it passed to the left and just above the aircraft.</p> <p>Reported Separation: 10ft V/ 30ft H Reported Risk of Collision: Medium</p> <p>The Swanwick Area controller reports that [the pilot of the A320] reported an Airprox with a Met balloon, passing 20ft down their port-side. No other pilots reported sighting the balloon.</p> <p>NATS Safety Investigations reports that, at the time of the Airprox, [the A320 pilot] was in contact with the Sector 28/34 controller, who was operating the sectors in a bandboxed configuration.</p> <p>At 1244:20, the pilot reported, <i>"We just had an Airprox with a weather balloon, passed about twenty feet, just on our port side"</i>. At the time of the report, the A320 was descending through FL379, at 2.8NM on a bearing of 050° from Luton Airport (in Class C airspace), routeing northbound.</p> <p>Analysis of the radar by Safety Investigations indicated that there were no associated primary or secondary contacts visible on radar, reference the sighting, at the approximate time of the event. Following the pilot's report, the controller broadcast details of the sighting to other aircraft on frequency in the vicinity, but there were no further reported sightings.</p> <p>Safety Investigations have not been able to identify any NOTAM'd balloon launches, or any other published activity, which could correlate with this sighting.</p>	<p>In the Board's opinion the reported altitude or description of the object were sufficient to indicate that it was probably a balloon.</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 providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A

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2023207	9 Aug 23 2305 (night)	EC135 (NPAS)	Drone	5334N 00211W 1NM N Middleton 1800ft	London FIR (G)	<p>The EC135 pilot reports that whilst in transit, passing near junction 19 of the M62, they saw the green and red flashing lights of a drone slightly below their aircraft in the 11 o'clock position. They estimated it to be about 300-500m away at a height of about 1600ft. After taking avoiding action and keeping clear of the drone, they managed to position the aircraft to watch what it was doing. It then became apparent the drone was starting to move south and descend towards a housing estate 1 mile away. The drone was seen to land in a lit back garden where a person was seen controlling it.</p> <p>When back at base they spoke to Manchester air traffic control by phone. Using [drone detection equipment] they were aware of the drone's altitude and location. Manchester Airport is conducting its own investigation with Airport Police.</p> <p>Reported Separation: ~200ft V/~400m H Reported Risk of Collision: NR</p>	<p>In the Board's opinion the reported altitude and/or description of the object, combined with drone detection data, 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

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2023210	6 Sep 23 1045	Typhoon (HQ Air)	Balloon	5410N 00108W 5NM E Sutton Bank FL113	London FIR (G)	<p>The Typhoon pilot reports that following completion of [their exercise], they conducted a positioning left-hand turn at 11,000ft to a heading of 030°. Prior to rolling out, an object caught their eye, slightly high, right of the aircraft nose and 2-3000ft [away]. Assessing no immediate conflict, they passed approximately 500-1000ft from what appeared to have been a large red balloon. The balloon appeared to have 2 small boxes suspended below it. They reported their position to Swanwick Mil and the location was avoided for the remainder of the sortie.</p> <p>Reported Separation: "500-1000ft" Reported Risk of Collision: Low</p> <p>The Swanwick Military controller reports that they were controlling [a military flight] of three and [a further military] flight of two in the Vale-of-York (VOY) general-handling area. During this time, they were free-called by [the Typhoon pilot] to see if they could provide a service to help deconflict the formations in the VOY. A service was provided, and [the Typhoon pilot] tracked north. [The Typhoon pilot] later passed a message to ask [the controller] if they could mark their previous position as they had seen a 'balloon or parachute' with items tethered beneath. The Lat/Long was marked and they spoke with their Supervisor. They tried to get a description of the object from [the Typhoon pilot] before passing this to D&D.</p> <p>They believe they then passed information of this object to all other [military pilots] in the VOY. There were no further reported interactions with the object for the remainder of general handling sortie. As they had no radar returns from this object, they could not have passed [specific] Traffic Information.</p>	<p>In the Board's opinion the reported altitude or description of the object were sufficient to indicate that it was probably a balloon.</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 normal procedures and/or safety standards had applied.</p>	E

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2023212	08 Sep 23 1807	B737 (CAT)	Unk Obj	5330N 00153W IVO Crowden Derbyshire 4500ft	Manchester CTR (D)	<p>The B737 pilot reports that when on vectors (heading 360) for ILS RW23R, and passing around 4500ft descending, a red drone was spotted by the F/O at about 100M distance and passing about 100M below their right wing. They note that the distance and altitude were difficult to determine accurately as the object was small and it all happened very quickly. During turnaround, a police officer went to the aircraft and asked for further details.</p> <p>Reported Separation: 300ft V/100M H Reported Risk of Collision: NR</p> <p>The NATS (Manchester) Controller reports that the B737 was vectored for a left base to RW23R. As the aircraft was passing east abeam Glossop they issued a closing turn onto the LLZ. The pilot readback the instruction and informed them that a possible red drone had passed down their right-hand side in their approximate 3 o'clock, range 1NM and 500ft below.</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
2023220	24 Aug 23 1834	A320 (CAT)	Drone	5128N 00019W 4NM E Heathrow 1400ft	London CTR (D)	<p>The A320 pilot reports that ATC had advised of reports of a drone at 1400ft and 4NM on final approach to RW27R. They had estimated that it had missed their left-hand side by about 20ft maximum.</p> <p>Reported Separation: NK V/20ft H Reported Risk of Collision: NR</p> <p>The NATS (London Heathrow) Controller reports that when they had been acting as air north arrivals, [another aircraft aircrew] and the [A320 pilot] had reported a drone at 1400ft on the approach to RW27R.</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, 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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2023221	28 Aug 23 1251	B737 (CAT)	Unk Obj	5341N 00126W 1.5NM NE Wakefield 4000ft	Leeds Bradford CTA (D)	<p>The B737 pilot reports that they were being vectored on an ILS approach into LBA. At approximately 4000ft QNH as they were making a left turn for final intercept onto the ILS, they observed a dark, solid looking object which was assumed to be a drone out of the F/O's window. The object passed from left to right and moved away from them as they were in the left turn, turning away from it. The F/O did not see the object. It was reported to ATC at the time. The object was estimated to be around 50m away at first sighting and around the same level. Risk of impact was stated as low because they were turning away from it but had they been given a right turn, they would have been closer. No further action was taken and the approach was continued to a safe landing.</p> <p>Reported Separation: 0ft V/ 50m H Reported Risk of Collision: Low</p> <p>The LBA controller reports that the B737 was being vectored for an ILS RW32. The pilot reported a man-made object passing down their right-hand side when the aircraft was established on base-leg at altitude 4000ft in the descent. The range of the 'UAS' from the aircraft was unknown. There were no primary returns on the radar screen.</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)	