

Consolidated Drone/Balloon/Model/Unknown Object Report Sheet for UKAB Meeting on 13th November 2019

Total	Risk A	Risk B	Risk C	Risk D	Risk E
12	7	2	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
2019247	12 Jul 19 1256	B757 (CAT)	Drone	5350N 00137W 1nm SE Leeds/Bradford 900ft	LBA CTR (D)	<p>The B757 pilot reports at approximately 1.2nm prior to landing at LBA RW32, a suspected drone was spotted. It was in the hover, in the 11 o'clock, 100ft below their level. As their closure rate increased the object dropped rapidly before darting off laterally, passing below and to the port side of the aircraft.</p> <p>Reported Separation: 100ft V</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, 3, 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
2019249	23 Aug 19 1701	A319 (CAT)	Drone	5603N 00304W 10nm Edinburgh 3400ft	Edinburgh CTA (D)	<p>The A319 pilot reports he was on the approach to Edinburgh when he saw a black drone with 4 rotors pass 50 to 100m away. It passed by rapidly and no action was possible.</p> <p>Reported Separation: 0ft V/ 50-100m H Reported Risk of Collision: Very High</p> <p>The Edinburgh Controller reports he was vectoring a number of aircraft including the A319. At 1701 the pilot reported that he had seen a drone on his right at 3400ft. the controller asked how close and was told '1 wingspan'. No further details were passed, and the drone was not seen by any other pilots.</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, 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

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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2019250	26 Aug 19 1257	DA40 (Civ FW)	Drone	5210N 00042W OLNEY VRP 2200ft	London FIR (G)	<p>The DA40 pilot reports in straight and level cruise when he saw a silver and black quadcopter drone ahead and below them. He turned left to avoid and the drone passed under the right wing.</p> <p>Reported Separation: 300ft 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, 6</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
2019251	26 Aug 19 1207	GL6000S (Civ Comm)	Unk Obj	5149N 00040W Luton 4000ft	Luton CTA (D)	<p>The GL6000S pilot reports he was inbound to Luton when he saw a drone moving west to east at around 4000ft on 12nm final RW08. The drone was black and appeared to have some sort of light source at the front. The size was difficult to judge but best estimate was 50cm by 50cm. It was estimated to pass within 10ft of the aircraft. An inspection after landing did not find any evidence of a strike.</p> <p>Reported Separation: 0ft V/ 10ft H Reported Risk of Collision: NR</p> <p>The Swanwick Controller reports that the GL6000S pilot reported that he had seen a drone at 4000ft and almost hit it. He was 12nm final for RW08 Luton. The following aircraft did not report seeing it.</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: 5</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
2019258	28 Aug 19 1839	DHC-8 (CAT)	Unk Obj	5125N 00007W Croydon 4400ft	London TMA (A)	<p>The DHC-8 pilot reports that he was following radar vectors when the crew saw a white oval shape which did not look like a bird. The object did not have any lights nor were any propellers noticeable or visible at the height/speed at which the object passed. However, a marking was just noticeable on each end of the oval object, believed to be black in colour.</p> <p>Reported Separation: ~200ft/0m H Reported Risk of Collision: Medium</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: 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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2019259	01 Sep 19 1605	PA15 (Civ FW)	Drone	5126N 00209W 1nm N Corsham 2300ft	London FIR (G)	<p>The PA15 pilot reports he was beginning his descent towards his destination airfield and as he passed though 2300ft he saw a white drone with 4 rotor arms pass down the left-hand-side of the aircraft, at a similar altitude. It was about 200m from the port wingtip of the aircraft.</p> <p>Reported Separation: 0ft V/ 200m 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, 3, 4, 6</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
2019260	12 Aug 19 1255	CL605 (Civ FW)	Unk Obj	5156N 00006W Ardeley 3000ft	London FIR (G)	<p>The CL605 pilot reports that he was being vectored for the approach at Luton when they saw a large red/orange drone 'at the end of the left wingtip'. The pilot commented that the only reason a collision did not occur was because the aircraft had begun to turn left on to the base leg. Had this not been the case it was believed that the drone would have impacted the front of the aircraft or the left wing.</p> <p>Reported Separation: 0ft V/<50yd 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: 5</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
2019261	01 Sep 19 1830	EMB170 (CAT)	Drone	5135N 00008E Romford 3000ft	London TMA (A)	<p>The EMB 170 pilot reports he was conducting a SID when he visually acquired a small drone half a mile ahead and 100ft below. The drone was difficult to distinguish against the urban background and the apparent high closure rate left little time for avoiding action. It was a small consumer drone white with black or dark extremities and 4 rotors. It appeared to be either in a hover, or in slow level flight aligned with their track.</p> <p>Reported Separation: 100ft V/ 0m H Reported Risk of Collision: 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>Applicable Contributory Factors: 1, 2, 3, 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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2019262	29 Aug 19 0957	EMB175 (CAT)	Drone	5233N 00140W Marston 5500ft	Daventry CTA (A)	<p>The EMB175 pilot reports descending from 6000ft to 5000ft when he saw something flying towards them. Anticipating a bird strike, he followed the flying object visually when he noticed it was a red and white drone flying opposite track. He reported it to ATC control.</p> <p>Reported Separation: ~200ft V/<1NM 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: 1, 2, 3, 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
2019266	1 Sep 19 1705	B777 (CAT)	Drone	5127N 00047W Binfield 6000ft	London TMA (A)	<p>The B777 pilot reports departing LHR 27L on a Compton 3G. As they were levelling at 6000ft he observed a large grey drone pass slightly to the left and below. It was square in appearance and quite close; there was no time to avoid it.</p> <p>Reported Separation: 200-300ft Reported Risk of Collision: Not reported.</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, 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
2019267	05 Sep 19 1818	A320 (CAT)	Drone	5119N 00003E 3-4nm W BIG VOR FL70	London TMA (A)	<p>The A320 pilot reports that they left the BIG hold on heading 270° at FL70, suddenly the FO spotted a drone at the 11 o'clock position. He immediately reported it to the CMD, who also saw the drone just a second later on his left. It was approximately 50m from the left wing and 20m below. The colour was difficult to describe in the sunset, but it seemed to be sliver-grey with a red 'spot' (which could have been a reflection) on top. The CMD had the impression that there were four landing aids attached to the underside of the drone. The FO reported the incident to ATC.</p> <p>Reported Separation: 20mV/ 50m 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: 1, 2, 3, 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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2019275	14 Sep 19 0643	EMB145 (CAT)	Unk Obj	Dovestone Reservoir 5332N 00159W 4300ft	Manchester CTR (D)	<p>The EMB170 pilot reports he was on final for the Manchester ILS RW23 when a drone, or object, came within 5m of striking the aircraft. It passed to the front right, slightly above 4300ft (approx. 2500agl). The object was dark in colour, and thought to be a medium to large drone, there were no obvious lights and it appeared to be stationary at the time. The sun was low at the time and the Capt had the sun visor down, the FO spotted it first and both crew members saw it as it went past.</p> <p>Reported Separation: 5m H</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: 5</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	Amplification	Notes
	Flight Elements			
	• Regulations, Processes, Procedures and Compliance			
1	Human Factors	• Flight Crew ATM Procedure Deviation	Regulations/procedures not complied with	The drone operator did not comply with regulations due to flying above 400ft and/or in controlled airspace/FRZ without clearance
	• Tactical Planning and Execution			
2	Human Factors	• Action Performed Incorrectly	Incorrect or ineffective execution	The drone operator was flying above 400ft without clearance.
3	Human Factors	• Airspace Infringement		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	Pilot had no, or only generic, or late Situational Awareness	The pilot and drone operator had no, or only generic, situational awareness about each other.
	• See and Avoid			
5	Contextual	• Near Airborne Collision with Other Airborne Object	A conflict in the FIR	An Airprox involving an unknown object or balloon.
6	Contextual	• Near Airborne Collision with RPAS	A conflict in the FIR	An Airprox involving a drone or model aircraft.