

Consolidated Drone/Balloon/Model/Unknown Object Report Sheet for UKAB Meeting on 15th January 2020

Total	Risk A	Risk B	Risk C	Risk D	Risk E
8	1	5	1	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
2019302	21 Oct 19 1422	Wildcat (RN)	Unk Obj	5107N 00224W VLN 055R/11nm 1600ft	London FIR (G)	<p>The Wildcat pilot reports that, having departed RNAS Yeovilton MATZ to the NE on a heading of 055 at an altitude of 1600ft on the RPS, a small metallic object was seen by the crew member in the aircraft cabin. The object was seen to pass down the port side of the aircraft, at a similar height, with a lateral separation of approximately 2 rotor discs.</p> <p>Reported Separation: 0ft V/100ft H Reported Risk of Collision: Low</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 safety had been much reduced below the norm to the extent that safety had not been assured.</p>	B
2019320	14 Nov 19 1158	PA28 (Civ FW)	Drone	5627N 00252W 5nm E Dundee Airport 1700ft	Scottish FIR (G)	<p>The PA28 pilot reports that he was descending through 1700ft towards Broughty Castle VRP when a white drone with 4 props and lights came within 50m of his aircraft. He took a small avoiding action turn to the left and the drone flew beneath his right wing in the opposite direction. He reported it to Dundee Tower.</p> <p>Reported Separation: 50ft V/ 50m 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, 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

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
2019321	1 Nov 19 2215	DJI Inspire (Drone)	Drone	5135N 00007W Alexandra Palace London 400ft	London FIR (G)	<p>The DJI Inspire Operator reports he was flying a drone to assist with counter terrorism and public safety at Alexandra Palace Fireworks Festival. There was a 2nm RA(T) up to 2000ft in place for any drone use apart from those approved by the event organisers and the police. Prior to the fireworks the counter terrorism drone detection system detected a drone take-off within the RA(T), it flew over the helipad at 200ft and conducted a static hover. It then flew off. At 2100hrs the fireworks display commenced, during which he got his drone airborne. The other drone then reappeared and undertook flight manoeuvres to ram his drone. This consisted of run-ups from 50m away, then flying at high speed towards his drone. This was observed by the entire team and the Met Police Officer who was stood beside them. He took avoiding action by conducting an unplanned rapid descent for an emergency landing, without which he believed the two drones would have collided.</p> <p>Reported Separation: 0ft V/ 3-5m 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: 1, 3, 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
2019324	2 Dec 19 1000	A321 (CAT)	Drone	5153N 00032W 10nm north BNN Hold FL100	London TMA (A)	<p>The A321 pilot reports that he was on a normal departure out of Heathrow and climbing towards his cruising levels. Very good weather, with little to no cloud and very good visibility in all directions. Just after passing through the BNN hold at about FL100, the FO spotted a suspected drone, black with silver elements shaped like a top hat with a prominent central 'bump', about 200ft in front of the aircraft passing down the right-hand side. It was difficult to accurately judge the exact distance and size relative to the aircraft. His best guess was about 200-250ft laterally and roughly 50ft below the flight path of the aircraft. No avoiding action was taken because the encounter and visual sighting only lasted for a couple of seconds. The event was immediately reported on the radio frequency in use and further reported later on the day of occurrence via the company safety reporting system.</p> <p>Reported Separation: 50ft V/ 200ft H 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

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2019325	30 Nov 19 1818	A319 (CAT)	Unk Obj	5128N 00033W 3nm final LHR RW09L 1000ft	London CTR (D)	<p>The A319 pilot reports that, while approaching to land on RW09L at LHR, a drone passed underneath the aircraft at a position three miles out from the runway. Green/blue lights were observed for a fleeting moment. The sighting was reported to ATC who then passed the information on to other aircraft.</p> <p>Reported Separation: <50ft V/0ft H Reported Severity of Risk: 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 there was insufficient information to make a sound judgement of risk. The incident took place at night where visual assessment of separation of observed lights can be problematic.</p>	D
2019331	2 Dec 19 1610	A320 (CAT)	Drone	5128N 00022W 3nm final LHR RW27R 900ft	London CTR (D)	<p>The A320 pilot reports that the aircraft was on short final at 3nm, established on the ILS to RW27R. A drone was spotted off the right-hand side of aircraft at an altitude of approximately 1000ft (around 100ft above the aircraft). ATC was informed, and the approach and landing were continued normally.</p> <p>Reported Separation: 100ft V/NR H Reported Severity of Risk: 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
2019332	9 Dec 19 1400	A380 (CAT)	Unk Obj	5204N 00109W IVO Silverstone FL140	Daventry CTA (A)	<p>The A380 pilot reports that after departure from Birmingham and in the climb through FL140 for FL210 both crew members noticed a very fast-moving object, later confirmed to be a drone, at the same level. It passed very close to the left-hand side of the aircraft, within 100m, slightly below the wing, but no contact was encountered. ATC were notified. The drone was silver, 2-3m and was moving in a northerly direction.</p> <p>Reported Separation: NR V/100m H Reported Risk of Collision: NR</p> <p>The Swanwick Controller reports that the A380 pilot reported seeing a drone when passing FL150 and heading south-east. He reported the drone to be silver and 1 to 2m in diameter. The incident was reported to the police.</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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2019334	30 Dec 19 1013	AW169 (HEMS)	2 x drone	5326N 00111W Approach to SNG Hospital 1200ft	London FIR (G)	<p>The AW169 pilot reports that he was routing to Sheffield Northern General (SNG) Hospital from the east, transiting below the Doncaster CTA at 1000ft, when the paramedic spotted 2 x white drones under the right-hand side of the aircraft. The drones were in the hover.</p> <p>Reported Separation: 100ft V/30m H Reported Risk of Collision: High</p>	<p>In the Board's opinion the reported altitude and/or description of the objects were sufficient to indicate that they could have been drones.</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 safety had been much reduced below the norm to the extent that safety had not been assured.</p>	B

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.