

Consolidated Drone/Balloon/Model/Unknown Object Report Sheet for UKAB Meeting on 17 Jul 2019

Total	Risk A	Risk B	Risk C	Risk D	Risk E
14	4	4	5	1	0

Airprox Number	Date Time (UTC)	Aircraft (Operator)	Object	Location Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Cause/Risk Statement	ICAO Risk
2019113	22 May 19 1445	B787 (CAT)	Drone	5128N 00024W 2nm E Heathrow 650ft	London CTR (D)	<p>The B787 pilot reports that he was at 2 DME on approach to RW27R at 650ft when he saw a drone approximately 2 wingspans to the right of the aircraft at the same level. The type of drone was unknown, but it was light in colour.</p> <p>Reported Separation: 0ft V/ ~400m Reported Risk of Collision: Not reported.</p>	<p>The reported drone was probably being flown above the maximum permitted height of 400ft, within the lateral and vertical limits of an FRZ and within controlled airspace such that it was endangering other aircraft at that location.</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
2019115	28 Apr 19 1456	A320 (CAT)	Drone	5110N 00003W 5nm east Gatwick 1700ft	Gatwick CTR (D)	<p>The A320 pilot reports in the final stages of an ILS approach to RW26 at Gatwick when he saw a dark coloured drone ahead. Avoiding action of a 5-8° bank to the right was taken.</p> <p>Reported Separation: 0ft V/ 80-100ft H Reported Risk of Collision: Medium</p>	<p>The reported drone was being flown above the maximum permitted height of 400ft and within controlled airspace such that it was endangering other aircraft at that location.</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, avoiding action was able to be taken.</p>	A

Airprox Number	Date Time (UTC)	Aircraft (Operator)	Object	Location Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Cause/Risk Statement	ICAO Risk
2019120	26 May 19 1840	A319 (CAT)	Unk Obj	5128N 00016W 6.5nm E Heathrow 2200ft	London CTR (D)	<p>The A319 pilot reports that ATC had issued a drone observation reported at 13.5nm final for Heathrow RW27R, so the crew were keeping a good lookout. Approaching 6.5nm an object was observed about 50ft above the aircraft. It had two obvious circles although no discernible fan/blade, and was about 1m across, it may have been an odd shaped balloon. It was first seen 200m away, but avoiding action wasn't necessary because it's trajectory was going to keep it clear. It was reported to ATC.</p> <p>Reported Separation: 40ft V/0.1nm H Reported Risk of Collision: None</p>	<p>The Board members considered that the pilot's description was such that they could not definitively determine the nature of the 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
2019123	26 May 19 1319	B737 (CAT)	Drone	5545N 00303W 16nm SE Edinburgh 6500ft	Edinburgh TMA (A)	<p>The B737 pilot reports in the descent when he saw a drone about ¼nm ahead. It had black and white markings, possibly stripes. There was no time to take avoiding action and the drone passed below the level of the left wing. ATC were informed immediately. The pilot noted that the drone was above a near solid cloud layer and out of sight of the ground.</p> <p>Reported Separation: 100ft V/50m H Reported Risk of Collision: High</p>	<p>The reported drone was being flown above the maximum permitted height of 400ft and within controlled airspace such that it was endangering other aircraft at that location.</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
2019124	25 May 19 1450	A319 (CAT)	Unk Obj	5104N 00015E ENE MAY 8nm FL65	London TMA (A)	<p>The A319 pilot reports they had left the WILLO hold in the descent to 6500ft when the Capt spotted what was initially thought to be a bird ahead. As it came closer it was clearly metallic looking and reflecting light. It passed down the right-hand side of the aircraft. They couldn't estimate the range, but it seemed very close to the right wing. It was reported to ATC.</p> <p>Reported Separation: 20ft V/ NK H Reported Risk of Collision: Medium</p>	<p>The Board members considered that the pilot's description was such that they could not definitively determine the nature of the 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 providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A

Airprox Number	Date Time (UTC)	Aircraft (Operator)	Object	Location Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Cause/Risk Statement	ICAO Risk
2019128	31 May 19 1841	A320 (CAT)	Drone	5128N 00017W 5nm E Heathrow 1700ft	London CTR (D)	<p>The A320 pilot reports on the ILS for RW27L at Heathrow when he saw a drone at the same altitude, stationary in position. It was not possible to make an assessment of colour or manufacturer.</p> <p>Reported Separation: '<100m' Reported Risk of Collision: Not reported</p>	<p>The reported drone was being flown above the maximum permitted height of 400ft and within controlled airspace such that it was endangering other aircraft at that location.</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
2019129	2 Jun 19 1358	C152 (Civ FW)	Drone	5144N 00028E Chelmsford 2400ft	London FIR (G)	<p>The C152 pilot reports in receipt of a Traffic Service from Southend when he saw a large black drone with flashing lights. He estimated it was about 1m in diameter. The drone seemed to be travelling in the same direction, was only seen when it was very close to the aircraft and passed within 5m of the right wing. There was no time to manoeuvre away from it. He immediately reported the incident to Southend Radar.</p> <p>Reported Separation: '<5m' Reported Risk of Collision: Very High</p>	<p>The reported drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location.</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 providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A
2019134	5 Jun 19 1518	B737 (CAT)	Drone	5227N 00145W Final RW15 Birmingham 300ft	Birmingham CTR (D)	<p>The B737 pilot reports they were on short finals RW15 at Birmingham at 500ft when an object was observed left of the nose, when passing 300ft it was identified as a drone. It passed to the left of the aircraft.</p> <p>Reported Separation: 0ft V/ 100m H Reported Risk of Collision: Not reported.</p>	<p>The reported drone was being flown within the lateral and vertical limits of an FRZ and within controlled airspace such that it was endangering other aircraft at that location.</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 safety had been much reduced below the norm to the extent that safety had not been assured.</p>	B

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2019135	6 Jun 19 0832	B747 (CAT)	Drone	5128N 00008W 12nm E Heathrow 3500ft	London TMA (A)	<p>The B747 pilot reports on approach to RW27L when he clearly saw a yellow and orange quadcopter drone in the 11 o'clock which passed down the left side of the aircraft. He reported the incident to ATC and a police officer took a statement after landing.</p> <p>Reported Separation: 20ft V/ 40ft H Reported Risk of Collision: High</p>	<p>The reported drone was being flown above the maximum permitted height of 400ft and in controlled airspace such that it was endangering other aircraft at that location.</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
2019140	2 Jun 19 1238	A321 (CAT)	Unk Obj	5329N 00207W 10nm NE Manchester 8000ft	Manchester TMA (A)	<p>The A321 pilot reports departing Manchester climbing through 9000ft when he saw what he believed to be a white drone about 1000ft below. It was small with a high relative speed between it and the aircraft. A high frequency flicker of sunlight reflecting from the object led him to believe it was a drone with rotating propeller blades rather than a bird.</p> <p>Reported Separation: 1000ft V/1-2nm H Reported Risk of Collision: Low</p>	<p>The Board members considered that the pilot's description was such that they could not definitively determine the nature of the 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

Airprox Number	Date Time (UTC)	Aircraft (Operator)	Object	Location Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Cause/Risk Statement	ICAO Risk
2019141	14 May 19 1518	Eurofox (Civ FW)	Unk Obj	5353N 00047W 2nm S Pocklington 1900ft	London FIR (G)	<p>The Eurofox pilot reports that he became aware of a drone flying in formation with him, just off his left wing. It was there for a few seconds then it shot off ahead and disappeared out of sight. He described the object as 2m long, pink, shaped like a pig with 6 rotors on the back.</p> <p>Reported Separation: 0ft V/ 9m H Reported Risk of Collision: Low</p>	<p>Given the reporter's description of the object, the Board initially wondered whether this was a vexatious time-wasting report and so contacted the reporter to confirm the details. However, the reporter was adamant that he had momentarily seen a large pink object with rotors that had appeared to be in formation, and that he had perceived that it had then accelerated ahead. The reporter had stated being 2nm south of Pocklington airfield, heading 080°, and that the object had been to his left, i.e. closer to Pocklington airfield and so the Board wondered whether he had mistaken another aircraft as being closer to his than was actually the case. Other than that, perhaps the sighting was an advertising blimp that had broken its moorings, or a toy balloon of some sort that he had encountered and mis-perceived to have accelerated away. Whichever, the Board could not positively 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.</p>	D
2019145	21 Apr 19 1214	B737 (CAT)	Drone	5236N 00159W 12nm NW Birmingham FL080	Daventry CTA (A)	<p>The B737 pilot reports that he was 12nm NW Birmingham when he saw a black drone at the same level 100-200m off the left wing-tip. It appeared to be travelling in the opposite direction.</p> <p>Reported Separation: 0ft V/ 100-200m H Reported Risk of Collision: High</p>	<p>The reported drone was being flown above the maximum permitted height of 400ft and in controlled airspace such that it was endangering other aircraft at that location.</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

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2019146	9 Jun 19 1533	B787 (CAT)	Drone	5133N 00001E 18nm ENE Heathrow 6000ft	London TMA (A)	<p>The B787 pilot reports that during the intermediate descent to the Heathrow RW27L ILS the relief pilot saw a drone pass down the left side and slightly below. The Captain immediately looked and saw a large-ish white drone pass approximately 1/4 - 1/2 mile on the left side and approximately 500ft below. However, they were in a right turn at the time of sighting. Although not an immediate danger to the aircraft, the drone should not have been at that altitude within the TMA. The incident was reported to ATC and a statement given to police after landing</p> <p>Reported Separation: 500ft V/ ¼ - ½nm H Reported Risk of Collision: Medium</p>	<p>The reported drone was being flown above the maximum permitted height of 400ft and in controlled airspace such that it was endangering other aircraft at that location.</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
2019147	3 Jun 19 1335	BE76 (Civ FW)	Drone	5057N 00112W E Southampton Airport 2000ft	London FIR (G)	<p>The BE76 pilot reports he was in level flight at 2000ft, in the vicinity of Bishops Waltham VRP to the East of Southampton airport. It was good visibility beneath an overcast sky. He saw an unusual shape which at first he thought could be a bird, but soon became unmistakably a drone, level with his aircraft. It was a cylindrical disc, about the size of a steering wheel and was grey metallic. It passed down the right-hand side of the aircraft.</p> <p>Reported Separation: 0ft V/ 30m H Reported Risk of Collision: Medium</p>	<p>The reported drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location.</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

Applicable 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.