

Consolidated Drone/Balloon/Model/Unknown Object Report Sheet for UKAB Meeting on 21st June 2017

Total	Risk A	Risk B	Risk C	Risk D	Risk E
15	4	6	4	0	1

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
2017021	20 Feb 17 1444	Apache (JHC)	Drone	Barmouth Beach 5243N 00404W 160ft	London FIR (G)	<p>THE DRONE PILOT reports conducting a short photo sortie. As he was lining up for an approach to land he became aware of the sound of an aircraft. This sound was quickly followed by an Apache helicopter coming into view. After 4 seconds of deciding which avoiding action/direction to take, he elected for a rapid climb eastwards to 375ft. He came to this decision due to there being more airspace to work with, whilst still remain within CAA guidelines for drone flying as a hobbyist. He also decided that should the Apache pilot become aware of the drone, he would take avoiding action to the west to avoid the built up area. His initial sighting and climb to 375ft took 19 seconds. He then remained at about this height until he was happy there was not a second aircraft following the same route, as he was aware that 3 were en-route to Valley on detachment. The drone pilot commented on the value of the assistance of an observer, especially in the landing phase.</p> <p>Reported Separation: 150ft V/75m H Reported Risk of Collision: Low</p> <p>THE APACHE PILOT reports that after conducting the sortie, an Airprox was filed from a UAS operator stating that his aircraft had passed close to his area of operation. Upon checking the NOTAMS there was nothing notified and the crew did not see the UAS.</p>	<p>The Board commended the drone pilot for his full and frank report and hoped that it might serve as an example to other drone operators, whether professional or hobbyist, that taking part in safety processes such as the UK Airprox Board was an intrinsic part of their being entitled users of UK airspace.</p> <p>Cause: The drone was entitled to operate at that location and altitude, and was not endangering other aircraft by being flown in proximity to airfield approach paths etc, so the Board agreed that the incident was therefore best described as a conflict in Class G.</p> <p>Risk: The Board considered that the drone operator's estimate of separation, allied to his 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
2017044	01 Mar 17 1300	A319 (CAT)	Unk Obj	5324N 00209W 5nm NE MCT 2000ft	Manchester CTR (D)	<p>THE A319 PILOT reports that he sighted the object between 6 and 5 miles on final approach to RW23R at MAN airport. The object was half a mile left of centreline, and slightly below the 3° glidepath. It was first noticed almost abeam the aircraft. It was white, perhaps cylindrical shaped, with blue ends. Most likely an inflatable item but this is hard to say for sure. The object had a very slow velocity. Evasive action was not required. Manchester tower was notified immediately and the approach was continued with a normal landing.</p> <p>Reported Separation: 200ft V/800m H Reported Risk of Collision: Low</p>	<p>Cause: Being an un-tethered and unmanned balloon or unknown object, the Board agreed that it was not under direct control and, given the separation, that the incident was best described as a sighting report.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his /inability to avoid the object portrayed a situation where normal procedures and/or safety standards had applied.</p>	E
2017056	10 Apr 17 1530	Twin Squirrel (Civ Pte)	Drone	5118N 00047W 2nm west of Blackbushe 2000ft	London FIR (G)	<p>THE TWIN SQUIRREL PILOT reports that he sighted a black tandem rotor drone in the 11 o'clock position at the same level at approximately 100m. Within one second of sighting he performed a rapid roll to the right, the drone passed down the left side of the aircraft within a few feet (20ft to 40ft estimated). Farnborough ATC was informed and the details passed and they continued to warn other traffic of conflict for at least 20 minutes after the event.</p> <p>Reported Separation: 0ft V/30ft H Reported Risk of Collision: High</p>	<p>Cause: The drone was being flown beyond practical VLOS limits and was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the Twin Squirrel.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his ability/inability to avoid the object portrayed a situation where providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A
2017062	6 Apr 17 1253	B777 (CAT)	Drone	5127N 00006W 13nm E Heathrow 4000ft	London TMA (A)	<p>THE B777 PILOT reports in a descending left hand turn to intercept the 27R ILS at Heathrow when he saw a black and silver multi-rotor drone in front of the aircraft at the same level. As he continued the turn the drone passed down the right side. He reported the incident to ATC and to the Police on landing.</p> <p>Reported Separation: 0ft V/100m H Reported Risk of Collision: Medium</p>	<p>Cause: The drone was being flown beyond VLOS and in the vicinity of an airfield approach path such that it was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the B777.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his 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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2017069	18 Apr 17 1545	Wildcat (RN)	Drone	5111N 00248W 3nm NW Glastonbury 2000ft	London FIR (G)	<p>THE WILDCAT PILOT reports that whilst conducting a Partial Test Flight, in level flight at 2000ft, he had to manoeuvre to avoid a UAV at the same height. The UAV passed 10m to the right of the aircraft. An Airprox was transmitted to Yeovilton Approach. 25 minutes later and approximately 1nm to the south of the first encounter, what he believed to be the same UAV passed 20m to the left of the aircraft. The pilot noted that the aircrew were engaged in a track and vibration test flight requiring one pilot to maintain a lookout with the other conducting system management tasks. The aircraft was under a Traffic Service. The right-seat handling pilot spotted the UAV in both encounters. The UAV appeared to be a black/grey coloured ducted-fan quadcopter about 60x60x10cm and either hovering or moving slowly in an undetermined direction.</p> <p>Reported Separation: 0ft V/10m H Reported Risk of Collision: Medium</p>	<p>Cause: The drone was being flown beyond practical VLOS limits and was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the Wildcat.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his inability to avoid the object portrayed a situation where providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A
2017071	22 Apr 17 1113	PA34 (Civ Pte)	Drone	5045N 00132W ENE Bournemouth 3000ft	Solent CTA (D)	<p>THE PA34 PILOT reports that he was established on the ILS localiser at approx 11nm from Bournemouth at 3000ft. He noticed what he thought was a bird, slightly right of 12 o'clock and just below the visual horizon. He realised it would pass down the right-hand-side of the aircraft and just below. It quickly approached and he noticed that it did not change shape or alters its trajectory as birds usually do when they fold their wings and duck below an approaching aircraft. He could then see that it was a regular shape, much like a cereal box lying flat on its front surface. As it passed the outboard part of his wing he saw a flash of something red and 'day-glo' on its side.</p> <p>Reported Separation: 50ft V/50m H Reported Risk of Collision: Low</p>	<p>Cause: The Board thought that the unknown object was most likely a drone. At that level the drone was being flown beyond practical VLOS limits and was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the PA34.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his ability/inability to avoid the object 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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2017076	30 Apr 17 1132	A319 (CAT)	Drone	5320N 00301W 7nm W Liverpool 2300ft	Liverpool CTR (D)	<p>THE A319 PILOT reports established on the ILS RW09 when a black and orange drone with vertical fins was sighted ahead and slightly to the left. It passed down the left side of the aircraft within 2 seconds of first being seen. The incident was reported to ATC.</p> <p>Reported Separation: 50ft V/100m H Reported Risk of Collision: High</p>	<p>Cause: The drone was being flown in the vicinity of an airfield approach path such that it was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the A319.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his inability to avoid the object portrayed a situation where safety had been much reduced below the norm to the extent that safety had not been assured.</p>	B
2017077	17 Feb 17 1625	A320 (CAT)	Drone	5232N 00149W 6nm NW of Birmingham 1700ft	Birmingham CTA (D)	<p>THE A320 PILOT reports that the drone was seen during final approach to RW15 at Birmingham, at 6nm. He was flying stabilized on the ILS at 2000ft. The drone was observed slightly right at approximately 300ft below. There was no imminent danger of collision but they reported it to ATC to alert other aircraft.</p> <p>Reported Separation: 300ft V/0.1nm H Reported Risk of Collision: Low</p>	<p>Cause: The drone was being flown on the approach path to Birmingham airport and at that location and altitude was endangering other aircraft. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the A320.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his ability/inability to avoid the object portrayed a situation where although safety had been reduced, there had been no risk of collision.</p>	C
2017079	21 Apr 17 1130	C402 (Civ Pte)	Drone	5226N 00143W 1000m SE Birmingham 1800ft	Birmingham CTR (D)	<p>THE C402 PILOT reports that he was transiting Birmingham airspace at approx 1800ft about 500-1000m south-east of the RW33 threshold when the Survey Operator mentioned that he believed a drone had passed down their right hand side, a couple of hundred feet below their altitude and a few tens of metres off the right wing, placing it between them and the airport. It was definitely not a bird. It was bright white, and approximately half a metre square, and looked to him to be a drone. While he did not see the drone personally, the pilot reported the sighting to radar.</p> <p>Reported Separation: 200-300ft V/20-40m H Reported Risk of Collision: High</p>	<p>Cause: The drone was being flown in the vicinity of an airfield approach path such that it was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the C402.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his ability/inability to avoid the object 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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2017082	05 May 17 1750	C550 (Civ Comm)	Drone	5133N 00023W 1nm NE Northolt 1500ft	London CTR (D)	<p>THE C550 PILOT reports that shortly after departure from RW07 at Northolt the aircraft came close to a drone which was close to the extended centreline. The drone was around 1.5ft wide and at a height of approximately 1500ft and cleared the aircraft port wing by 10-20m. The incident was immediately reported to the ATC unit.</p> <p>Reported Separation: 0ft V/10-20m H Reported Risk of Collision: High</p>	<p>Cause: The drone was being flown in the vicinity of an airfield departure path such that it was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the C550.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his ability/inability to avoid the object portrayed a situation where providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A
2017085	13 Apr 17 0745	A319 (CAT)	Unk Obj	5324N 00252W Liverpool 2500ft	Liverpool CTR (D)	<p>THE A319 PILOT reports that he was being vectored downwind for an ILS at Liverpool when he saw what looked like either a balloon or possibly a drone passing down the left-hand-side of the aircraft at the same altitude. It was approx 500m away from the left wing-tip. He reported it to ATC.</p> <p>Reported Separation: 0ft V/500m H Reported Risk of Collision: None</p>	<p>Cause: Being an unknown object, the Board was unable to determine whether it was under direct control and decided that the incident was best described as a conflict in Class D.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident portrayed a situation where although safety had been compromised, there had been no risk of collision.</p>	C
2017092	22 May 17 0930	Squirrel (HQ Air Trg)	Drone	5244N 00228W Telford 1500ft	London FIR (G)	<p>THE SQUIRREL PILOT reports that during a left-hand turn a drone was observed passing down the right-hand side of the aircraft at the same level, and with an estimated 100ft lateral separation, heading in the opposite direction. The drone was dark grey or black and appeared to have enclosed rotors.</p> <p>Reported Separation: 0ft V/100ft H Reported Risk of Collision: High</p>	<p>Cause: Although the drone was being flown at or near the practical VLOS limit, the Board agreed that the incident was best described as a conflict in Class G.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his 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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2017094	19 May 17 1154	SF340 (CAT)	Drone	5551N 00339W 11nm SW Edinburgh 4200ft	Edinburgh CTA (D)	<p>THE SF340 PILOT reports that he was getting vectors from Edinburgh radar to intercept the ILS LOC RW06 at Edinburgh. He started a turn to intercept the LOC and all three crew members on the flight deck saw a dark coloured drone pass down the right-hand side of the aircraft. It was perfectly level with them and passed only just beyond the wing-tip, approx 15m from the flight deck and 5m from the wing-tip. It was so close and happened so fast that avoiding action was not possible. He opined that it was only through luck that they did not hit the drone.</p> <p>Reported Separation: 0ft V/5m H Reported Risk of Collision: High</p>	<p>Cause: The drone was being flown beyond VLOS and in the vicinity of an airfield approach path such that it was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the SF340.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his inability to avoid the object portrayed a situation where providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A
2017096	25 May 17 1131	A320 (CAT)	Drone	5133N 00050W 10nm NW Heathrow 5500ft	London TMA (D)	<p>The A320 pilot reports that he was in a gentle descent on the downwind leg for an approach to Heathrow. A black drone was spotted in the 9 o'clock position, at the same height 100-200m away, it passed down the left-hand side of the aircraft. There was no time for avoiding action.</p> <p>Reported Separation: 0ft V/150m H Reported Risk of Collision: High</p>	<p>Cause: The drone was being flown beyond practical VLOS limits and was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the A320.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident and his inability to avoid the object portrayed a situation where safety had been much reduced below the norm to the extent that safety had not been assured.</p>	B
2017097	25 May 17 1149	B777 (CAT)	Drone	5133N 00053W 15nm NW Heathrow 5700ft	London TMA (A)	<p>THE B777 PILOT reports on approach to Heathrow when ATC advised them of a drone being reported by another aircraft at a position 12nm NW of Heathrow at an altitude of 6000ft. Whilst descending through 5700ft at a position about 15nm northwest of Heathrow, a drone was seen to the right of the aircraft. The pilot noted that other aircraft ahead had been similarly warned.</p> <p>Reported Separation: 0ft V/300m H Reported Risk of Collision: High</p>	<p>Cause: The drone was being flown beyond VLOS limits and was endangering other aircraft at that location and altitude. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the B777.</p> <p>Risk: The Board considered that the pilot's estimate of separation, allied to his overall account of the incident portrayed a situation where although safety had been compromised, there had been no risk of collision.</p>	C