

## Consolidated Drone/Balloon/Model/Unknown Object Report Sheet for UKAB Meeting on 16<sup>th</sup> Jan 2019

Total	Risk A	Risk B	Risk C	Risk D	Risk E
11	3	4	3	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
2018288	03 Oct 18 1453	A320 CAT	Drone	5325N 00250W 5nm N Liverpool Airport 2600ft	Liverpool CTA (D)	<p><b>The A320 pilot</b> reports that they had requested a visual approach from Liverpool Approach when the Captain saw an object ahead and right of the aircraft. He informed the FO and instructed the FO to make no turns and maintain heading. It was difficult to assess if the drone maintained its altitude, but it appeared to. It appeared to be moving east to west relative to the A320 but might have been in a constant position. They reported it to Liverpool ATC.</p> <p><b>Reported Separation:</b> 0ft V/ 400-600m H <b>Reported Risk of Collision:</b> None</p>	<p><b>Cause:</b> The drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the A320.</p> <p><b>Risk:</b> 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
2018291	27 Oct 18 1645	B787 CAT	Drone	5119N 00022W 10nm S Heathrow FL090	London TMA (A)	<p><b>The B787 pilot</b> reports that they were on a Detling departure and had been placed on a radar heading. When passing through FL090, the First Officer saw a drone and the Capt saw it shortly afterwards, when it was in the 11-12 o'clock and a little ahead. It appeared to move left and passed down the left-hand-side of the aircraft. It was fractionally above and was dark in colour, at least 2ft in diameter and appeared to be crucifix shaped in planform. Despite craning his head, the Capt could not see the wingtip from his seat, but he estimated the drone passed just above the height of the wingtip and about 15m beyond it, however because they were relatively light, the flex of the 787's wing could well have meant it was at the same height as the wingtip. Avoiding action was not possible and he reported it to ATC.</p> <p><b>Reported Separation:</b> 10ft V/ 15m H <b>Reported Risk of Collision:</b> High</p>	<p><b>Cause:</b> The drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the B787.</p> <p><b>Risk:</b> 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
2018295	1 Nov 18 1622	A320 CAT	Unk Obj	5425N 00520W E Belfast FL111	P600 (D)	<p><b>The A320 pilot</b> reports he was descending into Belfast and passing FL111 when the FO spotted an object at 12 o'clock, low and appearing to move quickly towards them. They checked TCAS to see whether it was a military fast jet, but nothing was showing. As it got closer the Capt had his hands on the controls ready to disconnect auto-pilot and take avoiding action and the FO covered the sidestick. The object passed down the right-hand-side of the aircraft and details were passed to ATC. The Capt suspected it was a weather balloon, thought he saw a tethering line and described it as silver in colour. The FO thought it was a drone, and described it as dark silvery blue, spherical with two small circular mechanisms on the top of the object, like drone rotors, although thought that on reflection a drone at that altitude was unlikely. He noted that it was difficult to assess the size or the proximity to the aircraft, certainly it was very close to the wing-tip and within 75m of the cockpit. As it got closer they could see that it would pass clear although the time from first sighting to passing was only about 6 seconds.</p> <p><b>Reported Separation:</b> 50ftV/ 75m H <b>Reported Risk of Collision:</b> Medium</p>	<p><b>Cause:</b> The Board were unable to determine the nature of the object reported and so agreed that the incident was therefore best described as a conflict in Class D.</p> <p><b>Risk:</b> 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
2018296	28 Oct 18 1555	A320 CAT	Drone	5125N 00256W 9.5nm N from Bristol 3800ft	Bristol CTA (D)	<p><b>The A320 pilot</b> reports that they were heading south, preparing for an approach when they saw the drone. The drone appeared level as they descended through its level. It passed down the right-hand side, less than one wing span away. There was no time to take any avoiding action as the drone was so close. They informed Bristol ATC immediately.</p> <p><b>Reported Separation:</b> 0ft V/ &lt;30m H <b>Reported Risk of Collision:</b> High</p>	<p><b>Cause:</b> The drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the A320.</p> <p><b>Risk:</b> 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
2018297	4 Nov 18 1340	PA18 Civ FW	Drone	5626N 00324W Perth 1200ft	Perth ATZ (G)	<p><b>The PA18 pilot</b> reports that he departed from Perth RW21, with a climbing right turn to the west. When about 2nm east of Perth racecourse, just within the boundary of the ATZ he saw an object in the 10 o'clock position, slightly lower than his altitude and about 25m south of his position. He initially thought it was a large black bird, or a plastic bag, but as he passed it he saw it was a small black drone with coloured lights on top. When he saw the object, he started a climb and on passing initiated a climbing left turn to maintain visual contact with it. After one orbit he lost visual contact and continued the climb to 2000ft.</p> <p><b>Reported Separation:</b> 20ft V/25m H <b>Reported Risk of Collision:</b> Medium</p>	<p><b>Cause:</b> The drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the PA18.</p> <p><b>Risk:</b> 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
2018298	28 Oct 18 1745	EMB135 Civ Com	Unk Obj	5115N 00049W Farnborough 1200ft	Farnborough ATZ (G)	<p><b>The EMB135 pilot</b> reports that whilst flying the Farnborough ILS RW06, at 3.4DME he observed a white light pass below the aircraft from front to back at very high speed. It was dark, so he was unable to positively identify the object but suspected it was some sort of drone. It was reported to ATC.</p> <p><b>Reported Separation:</b> NR <b>Reported Risk of Collision:</b> NR</p>	<p><b>Cause:</b> The Board were unable to determine the nature of the object reported and agreed that there was insufficient information to come to an assessment of the cause.</p> <p><b>Risk:</b> 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
2018299	1 Sep 18 1825	A340 CAT	Drone	5128N 00023W Heathrow 950ft	London CTR (D)	<p><b>The A340 pilot</b> reports that he was on a radar heading for intercept of the RW27R ILS at Heathrow. ATC advised that a previous pilot had reported seeing a drone at 10nm final, they flew past that position with no sighting of a drone. However, at 2.5 DME when established on the ILS and passing 950ft they encountered a drone slightly to the right and 100ft below. They reported it to ATC and subsequently to the Met police. The drone was black, of an elongated rectangular shape and about half a metre in size, possibly a DJI model.</p> <p><b>Reported Separation:</b> 100ft V/ 'Slightly right'</p>	<p><b>Cause:</b> The drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the A340.</p> <p><b>Risk:</b> 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

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
2018307	24 Nov 18 1313	Saab 2000 CAT	Drone	5545N 00438W 9nm SW Glasgow 3000ft	Glasgow CTR (D)	<p><b>The SAAB 2000 pilot</b> reports that he was on the localiser for Glasgow RW05 at 9nm when he saw a large commercial drone, about 1m wide. It was dark or black in colour and flying 5m above the Captain's window, moving in a straight line and at high speed. Both pilots saw it, and independently described the same size, colour and height above the aircraft. It was reported to ATC and the Police met them on the ground to file a report. Ops were informed, and an inspection of the tail was requested because the crew thought it may have been hit, however no damage was found.</p> <p><b>Reported Separation:</b> 5m V/ 0m H <b>Reported Risk of Collision:</b> High</p>	<p><b>Cause:</b> The drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the SAAB 2000.</p> <p><b>Risk:</b> 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
2018308	7 Nov 18 1050	A388 CAT	Unk Obj	5114N 00103E 14nm E Gatwick FL100	London TMA (A)	<p><b>The A388 pilot</b> reports that he saw an object ahead and slightly right of the aircraft in the 1230 position. It appeared stationary. It was black in colour and was clearly not a bird, it looked more like a drone than a weather balloon, although they could not rule out that it was a balloon.</p> <p><b>Reported Separation:</b> 500ft V/ 1.5nm H <b>Reported Risk of Collision:</b> None</p>	<p><b>Cause:</b> The Board were unable to determine the nature of the unknown object and agreed that the incident was best described as a sighting report.</p> <p><b>Risk:</b> 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
2018309	21 Nov 18 1510	Squirrel Civ Com	Drone	5019N 00457W Ladock, Cornwall 1500ft	London FIR (G)	<p><b>The Squirrel pilot</b> reports that he was returning from the Roseland Peninsula, and had called Newquay radar to inform them of his return at 1500ft. ATC informed him of two in the visual circuit, and the Instructor confirmed one of the aircraft in the circuit was sighted ahead. However, this aircraft/object then appeared much closer than originally thought, and was re-identified as a UAV, which continued to pass down the right-hand-side of the aircraft at the same height and within 100m. It departed to the south, whilst the Squirrel continued north. The UAV was elliptically shaped, black and white in colour and about 2ft in length.</p> <p><b>Reported Separation:</b> 0ft V/ &lt;100m H <b>Reported Risk of Collision:</b> Medium</p>	<p><b>Cause:</b> The drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the Squirrel</p> <p><b>Risk:</b> 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
2018311	4 Dec 18 1025	EMB 190 CAT	Drone	5130N 00000W 3nm NW London City 3000ft	London TMA (A)	<p><b>The EMB 190 pilot</b> reports that he was departing from London city and had been cleared direct to SODVU at 3000ft. Abeam waypoint LCN06 the Capt and Co-pilot simultaneously recognised a small airborne object slightly below their flightpath and approaching their position. A few seconds later it was identifiable as a drone and passed exactly below them with a separation of 200ft or less. Against the sunlight it appeared black and they could see the detailed structure of the quadcopter. Although they could not define the size, it was larger than the usual 'pleasure' drones. He reported it to ATC.</p> <p><b>Reported Separation:</b> &lt;200ft V/ 0m H</p>	<p><b>Cause:</b> The drone was being flown above the maximum permitted height of 400ft such that it was endangering other aircraft at that location. The Board agreed that the incident was therefore best described as the drone was flown into conflict with the EMB 190.</p> <p><b>Risk:</b> 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