

Consolidated Drone/Balloon/Model/Unknown Object Summary Sheet for UKAB Meeting on 11th Nov 2020

Total	Risk A	Risk B	Risk C	Risk D	Risk E
6	2	0	4	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
2020135	24 Sep 20 0800	A321 (CAT)	Drone	5127N 0004W 15NM E Heathrow 4500ft	London TMA (A)	<p>The A321 pilot reports that they were on final to Heathrow RW27L, when at 4500ft a drone was spotted. It was to the right of the aircraft, at the same altitude and about 50-100m away. It was reported as medium sized, dark in colour (black or blue) and had something below the drone, perhaps a camera. It was reported to Tower.</p> <p>Reported Separation: 0ft V/50-100m H Reported Risk of Collision: Low</p> <p>The Heathrow controller reports that on first contact with the A321 pilot, they reported seeing a drone at 4500ft, to the right of the aircraft about 100m away. Subsequent aircraft were informed, as were the police.</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, 7</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
2020140	25 Sep 20 0942	Tutor (RN)	Drone	5100N 00221W 10NM E Yeovilton 2000ft agl	London FIR (G)	<p>The Tutor pilot reports that they were in the right-hand seat acting as safety pilot for another QFI conducting a PAR approach under the hood in VMC. At 2000ft QFE (1004hPa), 10.7NM east of Yeovilton, heading about 280°, they were briefly visual with a UAV which unmasked to the right of the coming and rapidly disappeared underneath down the right-hand side of the aircraft. The UAV a possible quadcopter, about 1m across, coloured blue and yellow; it passed approximately 100ft below them displaced right (north) by around 50m. Brief details of the event were passed to Yeovilton Radar for logging and an Airprox report initiated post landing to minimise disruption to the sortie flow.</p> <p>Reported Separation: 100ft 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, 7</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

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
2020142	16 Sep 20 1300	Hawk (MoD ATEC)	Model ac	5028N 00413W 8NM NNW Plymouth 300ft agl	London FIR (G)	<p>The Hawk pilot reports conducting a low-level currency sortie, routing between 2 microlight sites. The front seat handling pilot saw a small model aircraft (estimated as having a 2-3' wingspan) directly ahead at the same level. A 5g break was conducted away from the model aircraft which was estimated to pass 200-300ft down the right-hand side of the now belly-up, Hawk. A useful lesson learnt was that it took the pilot 2-3secs to realise that the observed aircraft was indeed a model and was therefore much smaller and much closer than initially estimated. With more UASs/model aircraft around, it is a worthwhile reminder to "create the miss" immediately and then observe later.</p> <p>Reported Separation: 0ft V/2-300ft 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 was probably a model aircraft.</p> <p>Applicable Contributory Factors: 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
2020144	11 Oct 20 1509	SR22 (Civ Fw)	Drone	5118N 00001E 2.5NM SW Biggin Hill 1600ft	London FIR (G)	<p>The SR22 pilot reports that they were on an extended left base for RW03 at Biggin Hill, level and reducing speed, when a drone was sighted as it whizzed past the right-hand-side just above the wingtip. The Airprox occurred above a paraglider site, the site is normally dormant, but on this day, there were many colourful canopies on the ground and there had been a promulgated NOTAM about parachute/paraglider activity for a festival there two days prior (9th Oct). The pilot opined that the drone was filming the festival. Biggin Hill Ops and the police were informed. The drone was about 50cm square and 30cm deep, dark in colour and was probably stationary.</p> <p>Reported Separation: 5ft V/ 15M H Reported Risk of Collision: None</p> <p>The Biggin Hill controller reports that the SR22 was joining left base for RW03 when the pilot reported a drone about 2.6NM southwest of Biggin Hill, operating at 1700ft. The pilot thought that the drone was operating from the same area as the Warringham paragliders. The police were informed.</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. The Board also considered it unlikely that the drone would have been associated with the paragliders because the reported altitude of the drone was well above any paragliding activity and hence not amenable to filming.</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

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
2020148	10 Oct 20 1527	C510 (Civ Comm)	Unk Obj	5129N 00035E 2NM S Canvey Island 4000ft	London TMA (A)	<p>The C510 pilot reports that they were flying on vectors for an ILS approach to Biggin Hill. They were at 4000ft on the QNH of 1022hPa when they suddenly saw a flying object at their 11 o'clock position. It was not on their flightpath, but they passed it at a distance of about 50m from their left wing. They advised Thames Radar about the sighting and filed an Airprox report.</p> <p>Reported Separation: NK V/50m H Reported Risk of Collision: NR</p> <p>The NATS Safety Investigation reports that the pilot described the encounter as "<i>it looked like a drone, it was quite stable, we overtook it and we had it with our left wing.</i>" Analysis of the radar indicated that there were no associated primary or secondary contacts visible on radar at the approximate time of the event.</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: 4, 7</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
2020150	16 Oct 20 1126	A321 (CAT)	Unk Obj	5128N 00024W 1NM E LHR 1700ft	London CTR (D)	<p>The A321 pilot reports that during the take-off roll RW09R LHR on DET 1J departure an ATC broadcast was made of a drone sighting 2NM east of the airfield. This information was repeated directly to the aircraft pilot once airborne. Autopilot was engaged and lookout maintained. Upon passing 3000ft at LON 3NM during a right-turn a bright red object was observed passing down the left-hand side of the aircraft about 20ft off the left wing. Due to the speed of passing they were unable to ascertain whether it was a helium balloon or a drone. ATC were informed.</p> <p>Reported Separation: NR V/20ft H Reported Risk of Collision: NR</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: 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

Relevant Contributory Factor (CF) Table

CF	Factor	Description	Amplification
Flight Elements			
• Regulations, Processes, Procedures and Compliance			
1	Human Factors	• Flight Crew ATM Procedure Deviation	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	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 generic, or late Situational Awareness.
• See and Avoid			
5	Contextual	• Near Airborne Collision with Other Airborne Object	An Airprox involving an unknown object or balloon.
6	Contextual	• Near Airborne Collision with RPAS	An Airprox involving a drone or model aircraft.
7	Human Factors	• Perception of Visual Information	Pilot was concerned by the proximity of the other aircraft.
8	Human Factors	• Monitoring of Other Aircraft	Sighting report.