

Consolidated Drone/Balloon/Model/Unknown Object Summary Sheet for UKAB Meeting on 17th January 2024

Total	Risk A	Risk B	Risk C	Risk D	Risk E
6	1	3	1	0	1

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
2023256	30 Oct 23 1335	EMB 190 (CAT)	Drone	5135N 00013E 9.5NM N London City 3000ft	London TMA (A)	<p>The EMB 190 pilot reports that when north of London City, a blue coloured drone passed down the right-hand-side, a maximum of 30-40m away. They informed ATC.</p> <p>Reported Separation: 0ft V/40m H Reported Risk of Collision: High</p> <p>A NATS Investigation reports that the pilot reported to the Thames controller: "We want to report a drone here at this altitude. It was something blue. It was definitely a drone". The controller requested confirmation that the drone was at 3000ft, and the pilot replied that it was. In their Airprox report, the pilot detailed that the object was a blue drone, at 3000ft and that it had passed a maximum of 40m from the right-hand side of their aircraft. The controller immediately informed the Group Supervisor of the sighting who disseminated the information.</p> <p>Analysis of the radar by Safety Investigations indicated that there were no associated primary or secondary contacts associated with the drone report, 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 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 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
2023259	23 Nov 23 2129	A320 (CAT)	Unk Obj	5558N 00316W 2NM NE Edinburgh Airport 780ft	Edinburgh CTR (D)	<p>The A320 pilot reports a near miss with a drone, within 30ft on approach. Illuminated and looked yellow-ish in colour. Passed underneath the aircraft in line with engine no.1. Within 30 feet of the aircraft.</p> <p>Reported Separation: 30ft Reported Risk of Collision: NR</p> <p>The Edinburgh Aerodrome Controller reports that on a 2NM final for RW24, [callsign] reported a 'drone encounter'. The controller asked that they pass the details after landing and they described seeing a drone between 2.1 and 2.2NM at 780ft, to their left and below and described it as 'very close'. The details were passed to INT to help inform subsequent inbound and a report made to the Police Duty Sgt. The details were also passed to AOCC and Airside Ops. There were no further reports of drone activity in the area.</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, 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
2023262	30 Nov 23 1630	A320 (CAT)	Unk Obj	5134N 00045W Marlow 5500ft	London TMA (A)	<p>The A320 pilot reports that they were downwind for RW09L at LHR. Descending through approximately 5500ft, the F/O saw an airborne object about 1m long, blue in colour, in close to proximity to the aircraft moving rapidly horizontally.</p> <p>Reported Separation: NR Reported Risk of Collision: NR</p> <p>A NATS Investigation reports that the pilot of the A320 reported at 1629:27 that they had "...just had an object, possibly a drone, pass us at about 5500 feet." The controller asked for further information and the pilot responded that the object was around 1m in length. The controller reported the drone sighting to the Group Supervisor, and then passed Traffic Information to following aircraft in the vicinity of the drone report for the next 30mins. No further pilot reports were received.</p> <p>Safety Investigations viewed the radar replay of the event, however there were no radar returns which matched the pilot report at 5500ft in close proximity to [the A320].</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, 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

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
2023263	12 Dec 23 1700 (Night)	Merlin (RN)	Drone	5005N 00532W Mousehole 400ft	London FIR (G)	<p>The Merlin pilot reports that during a Low-Level Landfall Approach (LLLA) into Mousehole, at about 3NM from the coast, a light was seen ahead by the Captain. Initially the crew believed this to be a strobe or a mast, however, when closing further a crew member standing between the front seats saw anti-collision lights and called it as a drone. The crew elected to curtail the LLLA and conduct an overshoot. Heading east, the crew member contacted Culdrose Radar, stating that a drone had been sighted and asked if it was expected in that operating area. Culdrose Radar replied, stating it had been authorised up to 400ft at Mousehole. Having landed back at Culdrose, some investigation took place as to why the crew was unaware of the drone activity and it was explained the drone had been booked through a website not currently in use at Culdrose. It was suggested that this website be incorporated into the Briefing App in use at Culdrose.</p> <p>Reported Separation: NK 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: 4, 5</p> <p>Risk: The Board considered that the pilot's overall account of the incident portrayed a situation where normal procedures and/or safety standards had applied. Additionally, the Board was further informed that the website referred to in the pilot's report was in fact in use at Culdrose and available to the crew prior to the flight. The Board was heartened that the Culdrose investigation had identified this salient fact and hoped it could be used in future to mitigate risk arising from drone encounters.</p>	E
2023264	13 Dec 23 1240	Chinook (JAC)	Drone	5124N 00108W Aldermaston Wharf 1300ft	London FIR (G)	<p>The Chinook pilot reports that whilst transiting in the Aldermaston area, a drone was seen passing down the right-hand-side of the aircraft at a similar altitude (1300ft on the London QNH), approximately 50m away. The late sighting meant that there was no time to take avoiding action. The drone was small, white and square-shaped. Details were passed to Odiham Radar at the time of the event.</p> <p>Reported Separation: ~ 50m Reported Risk of Collision: Low</p> <p>The Odiham controller reports that they were providing a Basic Service to the Chinook in transit from Odiham to Shobdon when the pilot reported an Airprox on frequency at 1240Z. The aircraft was at 1300ft London QNH 1003hPa. The crew reported a drone passed 50m down their right-hand side co-altitude. Nothing was seen on the radar screen.</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, 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 ¹ Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Comments/Risk Statement	ICAO Risk
2023265	2 Dec 23 1308	A320 (CAT)	Drone	5128N 00021W 3NM E Heathrow 1000ft	London CTR (D)	<p>The A320 pilot reports they were assigned an ILS approach to RW27R. The cloud was overcast at 200ft but with uniform cloud tops at about 900ft. At 1000ft both crew saw a drone at the same altitude, very slightly left of the final approach track. The drone passed down the left-hand side of the aircraft at approximately 50m. Both crew recognised the object as unmistakably being a drone due to its proximity, its 'crab-like' shape and metallic black colour. The drone was reported to ATC. A normal landing followed.</p> <p>Reported Separation: 0ft V/50m H Reported Risk of Collision: NR</p> <p>The Heathrow Controller reports that [the A320] on short final was cleared to land. They reported a drone in their proximity and accepted landing clearance. They later clarified the drone to be at 1000ft just left of the approach. They landed and vacated without further incident.</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 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	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
1	Human Factors	• Flight Crew ATM Procedure Deviation	An event involving the drone operator deviating from applicable Air Traffic Management procedures	The drone operator did not comply with regulations by flying above 400ft and/or in controlled airspace/FRZ without clearance
• Tactical Planning and Execution				
2	Human Factors	• Action Performed Incorrectly	Events involving the drone operator performing the selected action incorrectly	The drone operator was flying above 400ft without clearance.
3	Human Factors	• Airspace Infringement	An event involving an infringement / unauthorized penetration of a controlled or restricted airspace	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	Events involving a flight crew's awareness and perception of situations	Pilot had no, generic, or late Situational Awareness
• See and Avoid				
5	Human Factors	• Perception of Visual Information	Events involving flight crew incorrectly perceiving a situation visually and then taking the wrong course of action or path of movement	Pilot was concerned by the proximity of the other aircraft
• Outcome Events				
6	Contextual	• Near Airborne Collision with Other Airborne Object	An event involving a near collision by an aircraft with an unpiloted airborne object (unknown object or balloon)	
7	Contextual	• Near Airborne Collision with RPAS	An event involving a near collision with a remotely piloted air vehicle (drone or model aircraft)	