

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

Total	Risk A	Risk B	Risk C	Risk D	Risk E
9	2	4	3	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
2024102	25 May 24 1211	ArcusT (Civ Gld)	Drone	5216N 00056W 1NM south of Althorp 3600ft	London FIR (G)	<p>The Arcus pilot reports that, whilst thermalling on a cross country task between Althorp and Harleston, the crew spotted two drones approximately 500ft below. As they were at roughly 3000ft they were somewhat surprised to find drones at that height and could only assume that they were attempting to get video footage of them while thermalling. The crew kept a watching brief on the drones which eventually disappeared from their view toward Northampton (New Duston). Neither crew felt that there was a risk of collision while the drones were below but were very aware that had they encountered sink or the drones had climbed higher, there would have been a high risk of collision as the drone operator(s) would have very little indication as to height separation. The drone was described as white with 4 motors.</p> <p>Reported Separation: 500ft V/0ft H Reported Risk of Collision: Medium</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 although safety had been reduced, there had been no risk of collision.</p>	C
2024103	11 May 24 1035	C42 (Civ FW)	Unk Obj	5144N 00414W Ffos Las Racecourse 3700ft	London FIR (G)	<p>The C42 instructor reports conducting a dual navigation and land-away flight from Swansea. On the return flight they saw a cylindrical black/silver object, 'angled forward approx 45°', that appeared to be a drone. It passed from the 10 o'clock to 7 o'clock position, same altitude, opposite direction, no conflict, about 10m to port. The object was reported to Swansea Radio and the flight continued as normal.</p> <p>Reported Separation: 0ft V/10m H Reported Risk of Collision: High</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 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.

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2024110	12 May 24 1039	A321 (CAT)	Drone	5205N 00010W 3NM E Biggleswade 6000ft	London TMA (A)	<p>The A321 pilot reports that, during descent around 5900ft, a drone flew over the top of the aircraft clearing it by about 100ft. It was reported to ATC.</p> <p>Reported Separation: 100ft V/ 20m H Reported Risk of Collision: High</p> <p>The Luton controller reports that [the A321] was being positioned towards downwind-left RW07 at Luton, descending from 6000ft to 5000ft passing 5800ft when the pilot reported a drone at approximately 6000ft. On further questioning, the pilot reported that the object was "shiny" and had been approximately 100ft directly above them. The aircraft landed without further incident and subsequent aircraft were vectored clear of the area. At no point was any unknown return observed on radar in the vicinity.</p> <p>NATS Safety Investigations reports that the controller informed the pilot that no other sightings had been reported and that they would keep subsequent inbounds clear of the vicinity. There were no further reported sightings.</p> <p>Analysis of the radar by Safety Investigations indicated that there were no associated primary or secondary contacts associated with the 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 safety had been much reduced below the norm to the extent that safety had not been assured.</p>	B

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2024116	01 Jun 24 1209	A321 (CAT)	Unk Obj	5108N 00015W IVO London Gatwick 800ft	Gatwick CTR (D)	<p>The A321 pilot reports a possible drone sighting encountered on short finals. The drone appeared shiny and was to the right of the aircraft and was at the same altitude, approximately 800ft. No evasive action had been required as it appeared to remain to the right (south) of the centreline. Reported to ATC and interviewed by police.</p> <p>Reported Separation: 0ft V/<1.0NM Reported Risk of Collision: Medium</p> <p>NATS Unit Investigation reports that following the Air Controller clearing [the A321] to land, the aircraft reported a drone on their right-hand side at 'less than a mile'.</p> <p>In accordance with published procedures, the Air Controller informed the Tower Supervisor who, in turn, informed both Gatwick Control Centre (GCC) and the Police of the drone report.</p> <p>Following the transfer of [the A321] to GMC, the Air Controller stated that they had passed Traffic Information to the following 2 landing aircraft, both of whom reported no contact; with GCC also confirming that the Drone Detection Equipment had not detected any contact relating to the pilot's report, it was decided that no further Traffic Information needed to be passed to subsequent aircraft and normal operations had been resumed.</p> <p>No change of drone state was issued by GCC, and the police interviewed the pilot of [the A321]; no additional information was forthcoming in this regard.</p>	<p>In the Board's opinion the reported altitude and/or description of the object, combined with the absence of any indication of a drone's presence from drone detection data, 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 although safety had been reduced, there had been no risk of collision.</p>	C

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2024118	3 Jun 24 1606	A320 (CAT)	Unk Obj	5118N 00013W 10NM W BIG FL090	London TMA (A)	<p>The A320 pilot reports that they were outbound on heading 275° from BIG. When approximately 2.5NM west of BIG a potential drone flew overhead the left side of the aircraft. They were at 9000ft. Normal flight continued with radar vectors and no change to their flight path. They reported the incident to ATC.</p> <p>Reported Separation: NR Reported Risk of Collision: NR</p> <p>A NATS Investigation reports that the pilot reported that the drone flew over the left-hand side of the cockpit, only a few feet away from the top of the aircraft. The controller alerted the Group Supervisor Airports and passed information on the sighting to following aircraft.</p> <p>The A320 pilot submitted an Airprox report in response to the sighting of drone whilst approximately 9.9NM on a bearing of 262° from BIG. It has been estimated that the UAS was at FL90. Safety Investigations reviewed the radar at the time the pilot reported the sighting, however, no radar contacts associated with the drone were visible.</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 providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A

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2024123	16 Jun 24 1412	Pioneer 300 (Civ FW)	Drone	5202N 00049W 1NM W Milton Keynes 3400ft	London FIR (G)	<p>The Pioneer 300 pilot reports that a drone appeared off their wing from below their aircraft to come alongside the starboard wing. The drone appeared to have been expertly controlled and was hovering when passed. It was in reasonably close proximity to HMP Woodville but seemed too high for a drugs-drop. More likely, the drone operator had tracked [the Pioneer 300] with the intention of coming alongside from below for a photo opportunity. They contacted Luton Radar to notify of a drone operating in the area and Luton filed the Airprox.</p> <p>Reported Separation: 0ft V/ 30ft H Reported Risk of Collision: High</p> <p>The Luton Controller reports that [the pilot of the Pioneer 300] was in receipt of a Basic Service when they reported being in close proximity with a drone in the vicinity of HMP Woodhill, some 8NM north-east of WCO. They asked [the pilot] if they would like to make it an Airprox report and they stated they would. They stated the drone was operating at approximately altitude 3000ft, 50ft away, and was in the vicinity of the prison. They advised the Group Supervisor, and they, in turn, advised D&D and the Watch Supervisor.</p> <p>NATS Safety Investigations reviewed the radar at the time the pilot of [the Pioneer 300] reported the sighting, however, no radar contacts associated with the drone were visible.</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 providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	B

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2024127	11 Jun 24 1949	B737 (CAT)	Balloon	5249N 00202W 3NM E Stafford FL180	Daventry CTA (A)	<p>The B737 pilot reports that, during a climb between FL170 and FL200 on course to position WELIN, they observed an object in the 11-12 o'clock position and closing. They prompted the F/O who confirmed their observation. The object passed so closely that they could determine that it was a white weather balloon with electronics attached. They informed ATC and they replied that they had noted the coordinates. The rest of the flight continued normally.</p> <p>Reported Separation: 0ft V/ 20m H Reported Risk of Collision: High</p> <p>NATS London Area controller reports that [the pilot of the B737] checked-in on DTY South passing FL180 in the climb-out. They reported narrowly missing a weather balloon at FL180 near STAFA. Group Supervisor North advised.</p> <p>Factual information: A NOTAM for the release of a meteorological balloon approximately 15NM to the northeast of the B737:</p> <p>H3474/24 NOTAMN Q) EGTT/QWLLW/IV/NBO/W /000/999/5301N00145W002 A) EGTT B) 2406100800 C) 2406141300 D) 0800-1300 E) MET BALLOON RELEASES WI 1NM RADIUS: 530058N 0014431W (ASHBOURNE). THIS ACTIVITY WILL NOT BE WHOLLY CONTAINED WI LATERAL DIMENSION AS NOTIFIED. ASSOCIATED EQUIPMENT WILL SUBSEQUENTLY DESCEND BY PARACHUTE. FOR INFO 01142 131050. AR-2023-1101/AU5. F) SFC G) UNL</p> <p>NATS Safety Investigations reports that the pilot of [the B737] submitted an Airprox report in response to the sighting of a weather balloon whilst approximately 8.4NM south-east of position STAFA, whilst climbing through FL181. It has been estimated that the weather balloon was at FL180. Safety Investigations reviewed the radar for the time the pilot of [the B737] reported the sighting, however, no radar contacts associated with the reported weather balloon were visible.</p>	<p>In the Board's opinion the reported altitude or description of the object were sufficient to indicate that it was probably a balloon.</p> <p>Applicable Contributory Factors: 4, 6</p> <p>Risk: The Board considered that providence had played a major part in the incident and/or a definite risk of collision had existed.</p>	A

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2024133	19 Jun 24 1538	Voyager (HQ Air Ops)	Drone	5143N 00146W Fairford Park 2200ft	Brize Norton CTR (D)	<p>The Voyager pilot reports at 6.5NM from touchdown on an NDB 07 approach when the crew spotted a grey drone pass above, heading in the opposite direction. The drone was close enough for the crew to see LED lights. The crew immediately made a report to ATC over the radio and the approach and landing was completed without further incident.</p> <p>Reported Separation: 100ft V/0m H Reported Risk of Collision: High</p> <p>The Brize Norton ATC Supervisor reports that the approach controller informed them of the incident as it happened. They rang Fairford to see if they had approved a drone, as it was over their ATZ, but they confirmed that they had no knowledge of any drone activity.</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 safety had been much reduced below the norm to the extent that safety had not been assured.</p>	B

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2024135	15 Jun 24 1505	B737 (CAT)	Drone	5557N 00426W 5NM N Glasgow 3500ft	Glasgow CTR (D)	<p>The B737 pilot reports that during the first turn on departure from RW05 at Glasgow, they observed what they believed to be a quadcopter-type drone to the left and below the aircraft. The potential drone was several hundred feet below the aircraft, and this increased as they were climbing, and they were unable to accurately say what the distance was horizontally. They informed Scottish Control that they thought that they had seen a drone, and the police met the aircraft when they arrived back at Glasgow. They informed the pilot that no other pilot had reported seeing a drone after they had departed.</p> <p>Reported Separation: 300ft V/ 200m H Reported Risk of Collision: Low</p> <p>A NATS Safety Investigation reports that the B737 pilot reported a quadcopter drone 100ft off their left-hand side when they were passing 3500ft on departure from Glasgow. The Group Supervisor, Glasgow ATC and the Police were informed. The pilot reported <i>"I'm fairly certain we just passed a quadcopter-like drone on our left side about one hundred feet or so below us as we started the left turn"</i>. The pilot did not report the event as an Airprox on frequency, and NATS Safety Investigations were informed via UKAB. 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, 5</p> <p>Risk: The Board considered that although safety had been reduced, there had been no risk of collision.</p>	C

Relevant Contributory Factor (CF) Table

CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification
Flight Elements				
• Regulations, Processes, Procedures and Compliance				
1	Human Factors	<ul style="list-style-type: none"> Flight Crew ATM Procedure Deviation 	An event involving the drone operator deviating from applicable Air Traffic Management procedures	If the reported object was a drone, then 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	<ul style="list-style-type: none"> Action Performed Incorrectly 	Events involving the drone operator performing the selected action incorrectly	If the reported object was a drone, then the drone operator was flying above 400ft without clearance.
3	Human Factors	<ul style="list-style-type: none"> Airspace Infringement 	An event involving an infringement / unauthorized penetration of a controlled or restricted airspace	If the reported object was a drone, then the drone pilot was flying in controlled airspace/FRZ without clearance.
• Situational Awareness of the Conflicting Aircraft and Action				
4	Contextual	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Near Airborne Collision with RPAS 	An event involving a near collision with a remotely piloted air vehicle (drone or model aircraft)	