## Consolidated Drone/Balloon/Model/Unknown Object Summary Sheet for UKAB Meeting on 28th April 2021

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

Airprox Number	Date Time (UTC)	Aircraft (Operator)	Object	Location <sup>1</sup> Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Comments/Risk Statement	ICAO Risk
2021011	2 Mar 21 1603	Wildcat (RN)	Drone	5124N 00305W 2NM NE Flat Holm Lighthouse 400ft	London FIR (G)	The Wildcat pilot reports that they were operating at 400ft RADALT, setting up for a Helicopter Controlled Approach (HCA) to a ship. The pilot spotted a large drone at about 100yds, 2 o'clock, similar height. They called it to the crew, and the Observer in the LHS reported a large silver or white quadcopter drone, the pilot maintained visual contact and altered course to the NE. The drone passed down their right-hand side. Initially the crew did not report the incident to Cardiff ATC because they did not consider it an Airprox because it was a drone. An HCA is usually flown on instruments by the pilot, with the Observer also heads-in. Due to poor visibility and the proximity of another Wildcat the pilot was far more eyes-out than usual, which may have contributed to the spot of the drone. Prior to this the aircraft was about to be turned right onto 060°, which would have potentially reduced the separation and increased the MAC risk. <b>Reported Separation:</b> 0ft V / 100yds H <b>Reported Risk of Collision:</b> Medium <b>The Cardiff controller</b> reports that they were working 2 Navy Wildcat Helicopters on a Basic Service and other aircraft. Because the Wildcat pilot did not report the drone on frequency the controller only became aware of the Wildcat's incident with a drone 22 days after it took place.	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. Applicable Contributory Factors: 4, 5 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.	С

<sup>&</sup>lt;sup>1</sup> 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 <sup>1</sup> Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Comments/Risk Statement	ICAO Risk
2021017	26 Mar 21 1800	BAE 146 (HQ Air Ops)	Unk Obj	5137N 00007W Wood Green 4000ft	London TMA (A)	The BAE146 pilot reports that they were on the localiser at 12NM DME on the ILS for RW25 at RAF Northolt, level at 4000ft, when both pilots sighted a large drone extremely close to the aircraft. The drone appeared to be within 50 to 100ft above their altitude and passed just to the starboard side of the aircraft, it appeared to be as close laterally as it was vertically. The drone was black and was quite wide and bulky in shape, it was difficult to determine its size without references, but was estimated to be quite large, around 3ft across. The sighting occurred during daylight hours and in clear air and was immediately reported to Northolt Radar. Reported Separation: 50-100ftV/ 15-30m H Reported Risk of Collision: Medium The Northolt Radar Controller reports they were bandboxing the Approach/Deps/Director positions at RAF Northolt, RW25RH was in operation. They were controlling a BAE146 inbound from LAM and the aircraft established on the localiser at 15NM. Whilst level at 4000ft the pilot reported a drone sighting. When asked for further details the pilot reported that the drone was approximately 50ft above the aircraft. On receiving that information, the controller informed the TC Group Supervisor (GS) that a drone had been sighted, giving them the position and conditions of the sighting. The GS advised that they would contact the Met Police with details and also inform the other relevant TC controllers in the room at the time. The controller observed no radar returns relating to the position of the drone report. The next inbound aircraft, also from LAM, was informed of the drone sighting and did not report a sighting themselves.	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. Applicable Contributory Factors: 4, 5 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.	С

Airprox Number	Date Time (UTC)	Aircraft (Operator)	Object	Location <sup>1</sup> Description Altitude	Airspace (Class)	Pilot/Controller Report Reported Separation Reported Risk	Comments/Risk Statement	ICAO Risk
2021019	28 Feb 21 1243	B787 (CAT)	Drone	5131N 00050W LHR 280°/15NM 4300ft	London TMA (A)	The B787 pilot reports descending through 4300ft to LHR ILS RW09L, around 13NM west of the RW threshold and on a base heading of 180°, 1.5NM north of the centreline, when a drone was visually detected passing the right-hand side of the aircraft. The drone was of the multi-propellor type with 4 legs, black in colour, and the body appeared to be at least 18in across, possibly up to 2ft. The drone was well clear of the aircraft and stood out clearly against the hazy white background, between 100m and 200m away, and 50ft above, and was spotted by the non- handling pilot about 3sec before it passed abeam the aircraft. <b>Reported Separation:</b> 50ft V/100-200m H <b>Reported Risk of Collision:</b> NR <b>The Heathrow INT N Controller</b> reports that the B787 pilot reported passing a drone whilst the aircraft was heading south approximately 15NM NW of the airport. The drone was reported to be 1-1.5ft across with 4 rotors, tracking north at approximately 4500ft.	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. Applicable Contributory Factors: 1, 2, 3, 4, 5 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.	С

## Relevant Contributory Factor (CF) Table

CF	Factor	Description	ECCAIRS Amplification	UKAB Amplification							
	Flight Elements										
	Regulations, P	Regulations, Processes, Procedures and Compliance									
1	Human Factors	<ul> <li>Flight Crew ATM Procedure</li> </ul>	An event involving the drone operator deviating from applicable Air	The drone operator did not comply with regulations by flying							
	Trainan Factors	Deviation	Traffic Management procedures	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	<ul> <li>Near Airborne Collision with Other</li> </ul>	An event involving a near collision by an aircraft with an unpiloted								
Ŭ	contextual	Airborne Object	airborne object (unknown object or balloon)								
7	7 Contextual • Near Airborne Collision with RPAS		An event involving a near collision with a remotely piloted air vehicle (drone or model aircraft)								