

Airprox report number 2019148

Summary of Airprox Information from UKAB

*Date: 17 June 19 Time: 0920Z Position: 5128N 00014W Location: 8NM E London Heathrow
Altitude: 2600ft Aircraft: B787 (CAT)*

The B787 pilot reports seeing a large white 'box-like' drone of 'cuboid construction' whilst on final approach to RW27L. It appeared to have an upper and lower surface propeller but this may have been an illusion. The drone was approximately 8nm from the airfield almost exactly between the 2 runways at around 2000ft agl.

Reported Separation: 200ft V/NK H

Reported Risk of Collision: Medium

UKAB Cause/ Risk Statement

Cause: The reported drone was being flown above the maximum permitted height of 400ft and within controlled airspace such that it was endangering other aircraft at that location.

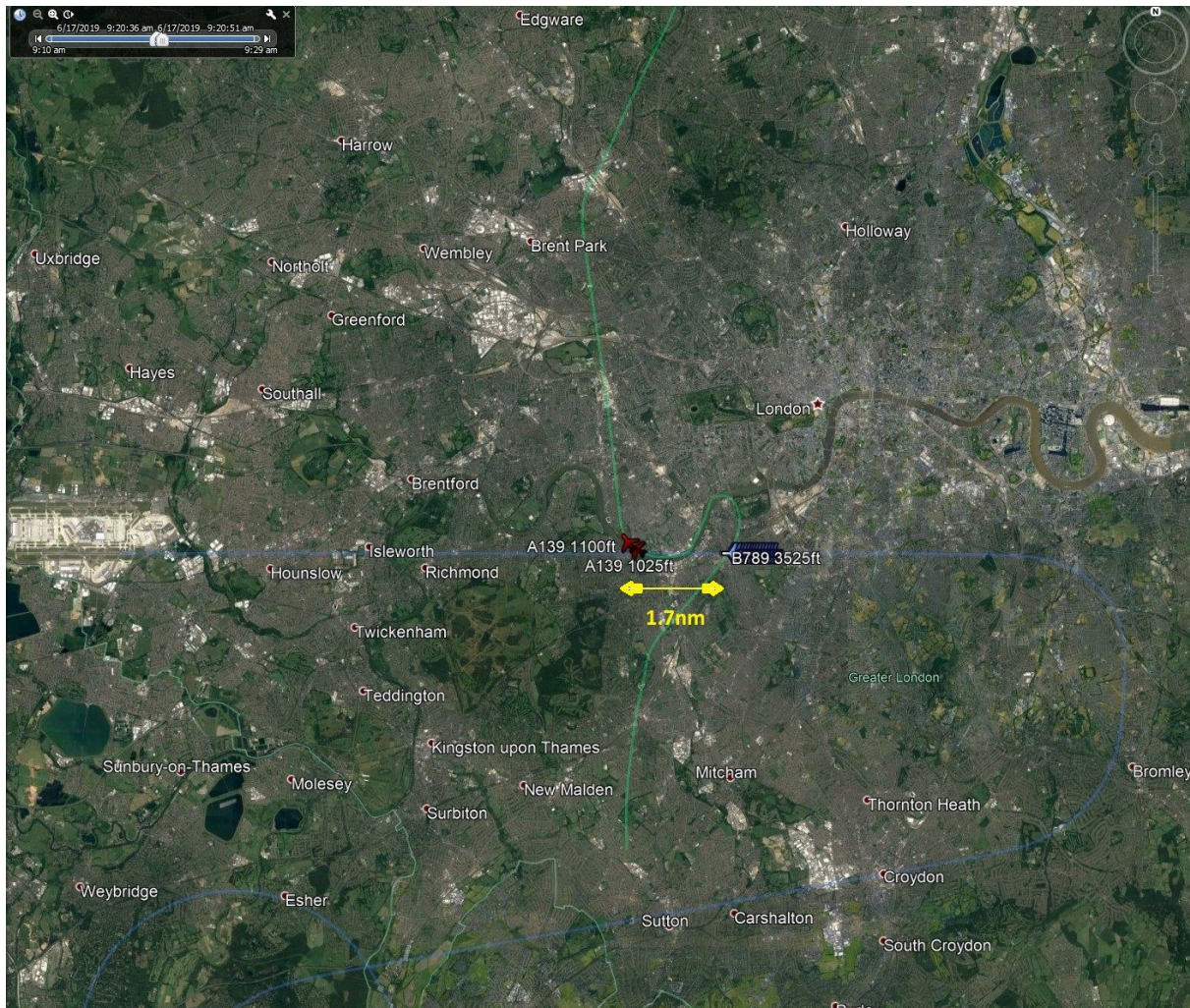
Risk: The Board considered that the pilot's overall account of the incident portrayed a situation where although safety had been reduced, there had been no risk of collision.

Airprox Reality Check ADS-B based analysis

The B787-9 (G-ZBKN) was on the ILS for RW27L whilst Augusta A139 M-SHRM (just out of London Heliport) was at 1,100ft slightly to the right of dead ahead, such that it would initially appear to have been between the two runways (27L and 27R). M-SHRM was 7.71nm from the RW27L threshold - which is almost precisely the 8nm estimated by the B787 pilot. M-SHRM is lower than the B787, and to the right, exactly as stated by the B787 pilot. (M-SHRM is lower than the B787 pilot estimated, but this is to be expected - the pilot thought he was looking at a small object close to him, rather than at a large object that was further away.)



M-SHRM could very properly be described as a 'large white box like' object, and of 'cuboid construction'. Photo: Copyright Graham Reeve.



Reporting B787-9; blue track heading West

Augusta A139 Helicopter; lifts from London Battersea heliport and follows Thames before routing North

Discussion

Given that the events shown in the ADS-B data occurred at the time stated in the UKAB report, at the location reported, and the features of how the aircraft would have appeared substantially match the narrative in the report, there is little room for doubt that this was the encounter in question.

Unfortunately, the pilot misidentified the object ahead of him as a drone in close proximity, when in fact it was a helicopter some distance away. (In the sky most of the normal cues to size and distance are absent, and human visual perception is prone to this error.)

Airprox Reality Check Conclusion

This was a classic case of a distant full-size aircraft being mistakenly identified as a nearby drone.

This was not in fact an airprox. There was absolutely no risk of collision.

In the sky, there is nothing to give scale to an object. Once the human brain leaps to the wrong conclusion about what the object is, the relative distance is 'calculated' on this 'wrong' basis.

About Airprox Reality Check

Airprox reports featuring unmanned aircraft are almost always pure eyewitness accounts, which are notoriously unreliable¹. Airprox Reality Check analyses airprox data using its 'Reality Check System'² to evaluate the likelihood of the event actually having involved a multirotor drone.

Airprox Reality Check believes that airprox data relating to drones should be an accurate and reliable indicator of the actual number of times drones come into proximity to manned aircraft, and is committed to achieving that goal.

References

¹ = There are several studies regarding eyewitness reports in the studies section on our website:

<https://www.airproxrealitycheck.org/studies/>

² = The Airprox Reality Check is explained here: <https://www.airproxrealitycheck.org/reality-check-system/>
ADS-B data sourced from The OpenSky Network: <http://www.opensky-network.org>