

Airprox report number 2019166

Summary of Airprox Information from UKAB

Date: 17 June 19 Time: 1308Z Position: 5146N 00001W Location: Hoddesdon Altitude: 2100ft Aircraft: C180 (Civ FW)

The C180 pilot reports in level cruise in receipt of a radar control service from Essex Radar when he saw an object in his peripheral vision in the right 2 o'clock position at a range of about 100m. He initially thought it was a bird but the passenger also saw it and confirmed that it was a dark coloured drone at exactly the same level. The pilot noted that this was a very high risk encounter because a slight difference in track laterally could have resulted in a collision.

Reported Separation: 0ft V/100m H

Reported Risk of Collision: Very High

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.

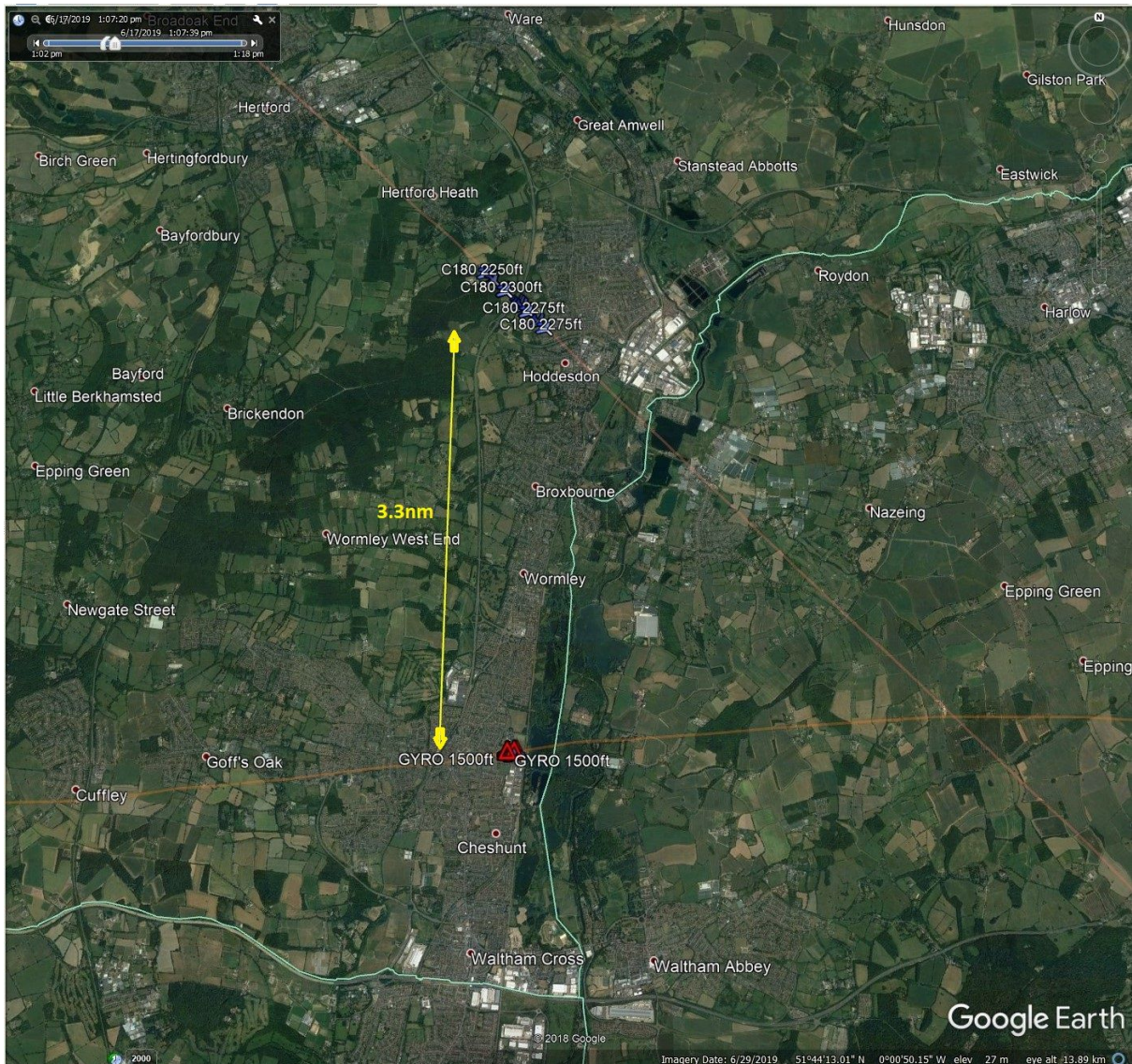
Risk: The Board considered that the pilot's overall account of the incident portrayed a situation where although safety had been reduced, there had been no risk of collision.

Airprox Reality Check ADS-B based analysis

The reporting C180 G-CIBO was cruising at 1900ft barometric, heading South East. At precisely the time and place stated in the pilot's report, 3.3nm ahead of him, RotorSport Cavalon gyrocopter G-IDYL, travelling West, had progressed from his 10'clock to his 20'clock, flying relatively slowly, at 1500ft barometric. G-IDYL is in fact white, but would have been viewed against the bright sky, being to the South of G-CIBO at 13:08Z on this sunny day in mid-June.

At 3.3nm the Cavalon Gyrocopter would appear to be approximately the same size as a Phantom sized drone at 100m.





Reporting a/c: C180, heading South East
Crossing a/c: Cavalon Gyrocopter, moving East to West

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 apparently tiny object ahead of him as a drone in close proximity, when in fact it was a Gyrocopter some 3nm away. (In the sky most of the normal cues to size and distance are absent, and human visual perception is prone to this error.)

It is noted that the pilot initially identified the object as a bird, before his passenger decided it was a drone. This illustrates the difficulties inherent in attempting to correctly identify airborne objects when they have small retinal image size.

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>

G-IDYL photo copyright Brian G Nichols