Serious Incident

Aircraft Type and Registration: UAS Uvify IFO multirotor

No & Type of Engines: 4 Uvify brushless electric motors

Year of Manufacture: 2020 (Serial no: 203382IFOD0150100085)

Date & Time (UTC): 29 March 2025 at 1926 hrs

Location: Durham

Type of Flight: Commercial Operations (UAS)

Persons on Board: Crew - None Passengers - None

Injuries: Crew - N/A Passengers - N/A

Nature of Damage: None

Commander's Licence: Other

Commander's Age: 38 years

Commander's Flying Experience: 52 hours (of which 51 were on type)

Last 90 days - 6 hours Last 28 days - 0 hours

Information Source: Aircraft Accident Report Form submitted by the

pilot

The unmanned aircraft (UA) was one of a swarm of 540 being flown within an area, about 50 m in diameter. A sterile flight area extended a further 60 m out in all directions.

During the flight, the UA began to climb, deviating from its intended flightpath to a height of 196 m, which was outside of the defined geofence. At this point, the motors automatically cut, and the UA fell to the ground, landing in a hedge 50 m beyond the sterile flight area boundary.

Investigations by the operator, UA control software developers and the UA manufacturer agreed that vibrations on the z-axis, possibly due a worn motor, led to incorrect GNSS and altitude estimations. The UA erroneously believed it was descending and so applied thrust to climb, resulting in it climbing out of formation with the other UAs.

Safety actions identified by the operator were to:

- 1. Inspect the motors on all of their UAs for signs of wear, and replace where necessary.
- 2. Collaborate with the hardware and software manufacturers to develop a fix that stops GNSS errors from causing the UA to go outside the geofence.
- 3. Increase the size of the sterile flight area until the above measures have been completed.