
To: Business, Economy and Enterprise Scrutiny Board (3)

Date: 19th February 2025

Subject: Drone Technology

1 Purpose of the Note

- 1.1 To brief the Business, Economy and Enterprise Scrutiny Board (3) on the projects that the City Council is currently involved with that relate to the use of drone technology.

2 Recommendations

- 2.1 The Business, Economy and Enterprise Scrutiny Board (3) is recommended to:
 - 1) Consider the content of the briefing note.
 - 2) Identify any recommendations for the Cabinet Member for Jobs, Regeneration and Climate Change.

3 Background and Information

- 3.1 Drones are unmanned aerial vehicles (UAV) that are increasingly being used for a range of activities within both the military and civilian environments. The use of drones is regulated by Government, through the Civil Aviation Authority (CAA), and typically use is only permitted within the visual line of sight from the position of the operator. Operation beyond line of sight is only permissible for military and police led operations.
- 3.2 The City Council has been a partner in a range of projects relating to the use of drone technology. These including the first-of-a-kind demonstration of the Urban Air Port (UAP) on the Westminster Road Car Park in the city centre, which showcased the construction and operation of a facility from which passenger and freight carrying drones could potentially operate. This demonstration ran in May 2022, and attracted international attention to Coventry.
- 3.3 The UAP demonstration also highlighted some of the current limitations on drone use, as traffic management measures were required during drone operations to ensure that drones were not operating over live traffic. This, combined with the restrictions over operating drones beyond the visual line of sight, does restrict the capability for using drones for more mainstream activities such as undertaking parcel deliveries, moving light freight around cities, and moving essential items such as medical supplies.

- 3.4 Since the UAP demonstration, the Council has been a partner in other projects relating to drone technology, and this report summarises these projects, highlighting the relevance for the delivery of Council services.
- 3.5 One project has been to examine the regulatory framework that controls the operation of drones in the UK to identify how this needs to be adapted to support the safe operation of drones for mainstream activities. This project, Project Skyway, has been led by the Connected Places Catapult, with the City Council being amongst several partners, including other local authorities, that have been exploring how the legislative framework needs to be updated to allow for the development of drone “superhighways” connecting towns and cities in the same way that the road network provides strategic links for traffic.
- 3.6 Project Skyway is coming to an end in Spring 2025 with a report to the CAA setting out the issues that need to be considered when developing the legislative framework further, including interaction with conventional aircraft and flight paths, environmental impact including interaction with birds, cybersecurity, liability in the event of accidents, public safety, privacy if over-flying private land, and disruption through noise and visual impact. This project forms one step in the process of integrating drones into the national transport system.
- 3.7 The Drone Ready City project, led by Midlands Air Alliance with grant funding of £285,000 from the Department for Science, Innovation and Technology, is focussed upon leading the development of processes aimed at supporting local authorities in the integration of drones into their everyday activities. The City Council has been an active partner, helping to road test the processes involved in streamlining CAA approvals for drone flights being made within a local authority area, and producing licensing systems that make the process easier to administer for authorities.
- 3.8 Examples of the uses that the City Council is making of drone technology, in partnership with Skyfarer (a spin off company from Coventry University), include:
- Traffic surveys – drones have been employed to undertake aerial surveys allowing traffic monitoring associated with the University Hospital of Coventry and Warwickshire, the CBS Arena, and junction counts. The field of view possible from the drone can cover several kilometres of highway network, and several junctions, which, using conventional survey techniques, would require significant numbers of staff, deployment of cameras, and would typically cost several thousand pounds.
 - Bridge and Building inspections – drones have been used to undertake surveys of bridges and buildings, enabling a non-invasive survey to be undertaken and eliminating the need for traffic management, road closures, or specialist working at height or in confined spaces. Whilst drones will not fully eliminate the need for detailed, hands-on, surveys, being able to easily view inaccessible locations such as the underside of bridges or the roofs of buildings provides major advantages for the Council’s Highways and Facilities teams.
 - Building surveys – drones have also been used to gather data on the heat loss from the city’s housing stock, allowing poorly insulated buildings to be easily identified, and allowing the Council’s teams to then refine their strategy and identify the areas of the city where the building retrofit programme would have greatest impact in reducing energy and heat loss.

- 3.9 Other potential uses include the ability to send a drone to investigate causes of congestion, delivering goods between Council buildings, supporting security patrols by covering larger areas more quickly than a ground patrol, and undertaking surveys of highway condition.
- 3.10 In addition, Skyfarer have been involved in another project that has seen the transportation of medical supplies between the Hospital sites at Rugby and Walsgrave. This has saved time in transporting those supplies, which is of interest in terms of supporting better medical outcomes in emergency situations.
- 3.11 The outputs from the Drone Ready City project have been shared with other local authorities through a series of demonstrations and events, including attendance at the Local Government Association annual meeting. Involvement with the project has further enhanced Coventry's reputation as a City Council that is at the cutting edge of transport technology, embracing projects such as Coventry Very Light Rail as well as the testing of autonomous vehicles on the Council's highway network.
- 3.12 In summary, the involvement of the City Council in these projects has also demonstrated the potential value that drone technology can have in reducing costs, reducing emissions, and increasing efficiency associated with a range of Council activities, and as these initial projects draw to a close there will be a review on how these technologies can be integrated with the Council's "business as usual" to maximise these benefits.

4 Health Inequalities Impact

- 4.1 There are potential direct and indirect health benefits from the integration of drone technology into the transport system, including the improved efficiency of delivery systems for general goods, medical supplies and Council services, reduced emissions through reduced reliance on road transport, and by reducing the exposure of Council staff to risks associated with activities such as bridge and building inspections where working at height or within confined spaces might otherwise be required.

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