



FACT SHEET

Trials and Developmental Activities in the Drone Estate

Under the drone estate initiative, approved operators and research users can carry out their trials and operations at one-north. CAAS will be working with the following companies which intend to conduct trials and other development activities in the drone estate for a variety of potential use cases:

- (a) Airbus is already at its advanced stage of an experimental project 'Skyways', to develop a safe and economically viable aerial unmanned parcel delivery system for use in dense urban environment. With the commencement of the trial phase at the National University of Singapore campus from 2018, Airbus is also keen to extend its urban air delivery service to other areas of Singapore.
- (b) Nanyang Technological University's Air Traffic Management Research Institute plans to conduct test flights on site to validate design concepts, algorithms, technology and systems on the traffic management of multiple-drone operations in low-altitude airspace for various applications, in different conditions and requirements.
- (c) Singtel (with NCS and HopeTechnik) intends to explore and trial a host of technologies to enable the use of delivery drones and drone stations for Drone-as-a-Service last mile deliveries. The trials will include working closely with the authorities to ensure conformance to regulatory standards.
- (d) ST Aerospace plans to trial and evaluate key enabling technologies for its DroNet system, which is designed for remote (beyond visual line of sight) and autonomous deployment of drones within an urban environment. The DroNet

aims to be a force multiplier to improve the efficiency of work and reduce the safety hazards associated with tasks normally performed by humans. For example, it can be used to assist a security team to perform perimeter patrols or respond to an emergency call by being the first on site to provide early situational awareness, help a surveyor to perform building façade inspections at heights with automatic detection, or provide faster movement of items within a large facility to reduce waiting time and ground logistic traffic.

(e) JTC and H3 Dynamics are collaborating to enhance the quality and productivity of building inspections, by automating the current manual process with an autonomous drone data collection and analytics solution for building facades and vertical surfaces in one-north. The process of defect identification is made faster and safer as the need for heavy equipment such as scaffolding and gondolas, along with the associated work-at-height risks, are eliminated. H3 Dynamics' solution is able to scan buildings for anomalies or defects. The data is stored in the cloud and then analysed, following which a report with a list of associated defects can be generated to show the exact locations of the anomalies and how they rank against each other in terms of severity across a large amount of building assets. Hence, this end-to-end system will provide key actionable insights to the facilities management team and enable efficient allocation of resources.

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Singapore
7 February 2018

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