Cloud Century Launches City-Scale Autonomous UAV System with Next-Generation U3+ Drone Dock for DJI M400

Qingdao, Shandong May 6, 2026 (Issuewire.com) - Qingdao Cloud Century Information Technology Co., Ltd. (www.cloudcentury.net) is a leading developer of UAV cloud platforms and low-altitude infrastructure in China. The company specialises in city-scale autonomous UAV systems, providing end-to-end solutions for precision landing, mission planning, and safe flight operations. Cloud Century has

successfully deployed multiple autonomous UAV networks across Chinese cities, demonstrating reliable and scalable low-altitude operations.

China's low-altitude autonomous systems are transitioning from pilot programs to sustained, city-scale deployments. As an industry innovator, Cloud Century has successfully implemented a city-wide autonomous UAV network in Qingdao's Laoshan District, supporting intelligent airspace management and urban monitoring.

The system consists of 44 drone dock units integrated with a cloud-based control platform and AI-enabled perception capabilities, forming a coordinated low-altitude operational network. In 2025 alone, the network completed over 10,000 flight missions, covering more than 34,000 kilometers and accumulating over 1,800 flight hours. Notably, the system has operated continuously for more than four years without on-site human supervision, demonstrating the reliability and feasibility of long-term autonomous operations in complex urban environments.

"Designing this system required addressing multiple technical challenges," said Meng Xu, Chief Architect and R&D Manager at Cloud Century. "With docking units ranging from 80×80 cm to 110×110 cm, precision landing is critical. In addition, dynamic mission planning, obstacle avoidance, and low-battery return mechanisms must be highly reliable." Under Meng Xu's technical leadership, the team implemented vision-based precision landing, dynamic mission planning, and real-time flight control modules, achieving an approximate 99.5% landing success rate in real-world conditions.

The system incorporates a multi-layer safety framework, including dynamic geo-fencing, restricted airspace avoidance, and fail-safe recovery mechanisms, ensuring UAV operations comply with complex urban regulations. A multi-vendor integration architecture allows interoperability across different UAV and drone dock platforms, enabling cross-site deployment. Following the initial launch in Qingdao, similar architectures have been deployed in multiple cities, with over 200 drone dock units now in operation, demonstrating the potential of infrastructure-level systems in the low-altitude economy and smart city development.

To continue advancing its technology, Cloud Century is developing the next-generation U3+ drone dock, specifically adapted for DJI M400 UAVs. The U3+ features a smaller footprint and enhanced structural stability, designed to improve precision landing performance and long-term reliability. "Through U3+, we aim to provide a stable and safe docking solution for more types of UAVs while maintaining flexibility and scalability for city-wide deployment," added Meng Xu.

The platform's achievements include multiple granted patents covering precision landing, safety control, and dynamic routing, all implemented in operational deployments. Related research has been presented at international IEEE conferences and received Best Oral Presentation awards. As the project's technical lead, Meng Xu has been recognized as an IEEE Senior Member, an honor held by roughly the top 10% of engineering professionals worldwide, reflecting Cloud Century's technical leadership in autonomous UAV systems.

Through continuous innovation and large-scale deployment, Cloud Century is driving the evolution of UAV infrastructure from experimental applications to sustainable, city-level operations, providing reliable low-altitude solutions for smart city management, industrial monitoring, and public safety.

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