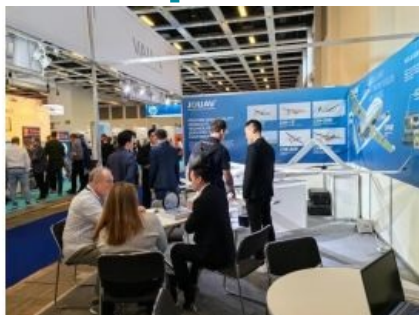


JOUAV presents VTOL Hangar to geospatial experts at Intergeo



A global audience of geospatial professionals witnessed the presentation of the JOURNAL VTOL Hangar, a groundbreaking development in the field of vertical take-off and landing (VTOL) drones, at Intergeo 2023. This innovative technology contributes to advancing drone automation, heralding a new era of precision and efficiency.


The JOURNAL VTOL Hangar is an innovative system designed to deliver intelligent, efficient, stable and reliable drone operations across diverse sectors, including powerline inspection, aerial mapping, highway monitoring, smart cities and open-pit mining. This comprehensive system comprises the JOS-C2000 hangar, the [CW-15X](#) VTOL uncrewed aerial vehicle (UAV or 'drone'), and the [Jocloud](#) cloud management platform. Together, they offer exceptional performance and a wide array of functional features.

This innovative technology stands as a testament to JOURNAL's commitment to pushing technological boundaries. The comprehensive system encompasses a range of features designed to elevate drone operations to new heights. It offers advanced endurance, with

the CW-15X VTOL drone equipped with state-of-the-art battery technology, ensuring operational longevity with flight times extending beyond 100 minutes. This extended endurance translates to more efficient and productive missions. Additionally, the system boasts remote communication mastery, with a communication radius stretching up to 30 kilometres, supporting seamless remote operation and data transmission.

Operators can effortlessly monitor and control the UAV from remote locations, enhancing the scope and flexibility of drone missions. Furthermore, the system is designed for payload versatility, catering to diverse industry needs and the ability to carry a myriad of payloads. From Lidar technology for precision mapping to RGB cameras and optoelectronic pods for detailed inspections, the VTOL Hangar System adapts to varying applications seamlessly.

"The VTOL Hangar System is a paradigm shift in how we perceive [drone](#) operations. Its adaptability and performance redefine industry standards," said Eric Lee, solutions engineer at [JOURNAL](#). "We're empowering industries with a tool that doesn't just meet expectations but exceeds them."

 The VTOL Hangar featured at JOURNAL's Intergeo booth piqued considerable interest. (Image courtesy: JOURNAL)

Smart system for smart operations

At the core of the [VTOL Hangar System](#) is its intelligence and adaptability, aimed at ensuring efficient and precise operations. This includes precision in positioning, where the integration of BeiDou and GPS positioning systems empowers the VTOL system with autonomous return and safe landing capabilities, even in the absence of GNSS signals. This precision ensures accuracy in every mission. Intelligent Hangar Management is another key feature, with the JOS-C2000 hangar featuring automatic charging functionalities. Upon mission completion, the UAV seamlessly returns to the hangar for automatic charging, minimizing manual intervention and maximizing operational efficiency.

Moreover, the system offers adaptive operation in real-time, with flexible route planning options, including linear, regional and orthogonal modes, coupled with customizable waypoints and 3D route planning, catering to the diverse needs of various applications. Additionally, the system adapts to wind conditions, ensuring stability during takeoff.

"We've engineered the VTOL Hangar System to be more than just a drone. It's a holistic solution that integrates seamlessly into industry workflows," explained Eric. "It's adaptability, coupled with intelligent features, ensures unparalleled performance."

Safety and reliability

According to the company, JOURNAL's commitment to safety is evident in every aspect of the VTOL Hangar System. This includes obstacle avoidance excellence, as the UAV is equipped with millimetre-wave radar and vision-assisted positioning systems, allowing it to

automatically detect and circumvent obstacles during landing, thus ensuring a secure landing, even in challenging environments. The system also prioritizes redundancy and uninterrupted operations, with integrated RTK positioning and visual recognition landing technology guaranteeing precise landings. In the event of power failures, a built-in UPS ensures continuous operation for over four hours, offering uninterrupted mission completion. Furthermore, the VTOL Hangar System incorporates comprehensive monitoring with a robust surveillance system, featuring cameras and various sensors that monitor weather conditions, temperature and humidity, and provide real-time tracking of the base station and UAV's operating status. These measurements collectively ensure operational safety and reliability.

"Safety is non-negotiable in the drone industry. Our VTOL Hangar System incorporates multiple layers of safety checks to ensure every mission is conducted with utmost precision and reliability," Eric told the crowd.

Versatile applications for multiple industries

Already deployed in China, the JOUAV VTOL Hangar System is a transformative asset across multiple sectors. From electrical inspections ensuring grid integrity, to detailed urban mapping, monitoring highways, creating smart cities and overseeing open-pit mining operations, the system's applications are far-reaching.

"Our system is more than a tool; it's a strategic asset transforming how industries operate. Its adaptability and value are unmatched," highlighted Blake Wang, overseas marketing director at JOUAV. "We're excited to witness the impact it will have on our customers' operations worldwide."



The JOUAV VTOL Hangar is an innovative system designed to deliver intelligent, efficient, stable, and reliable drone operations across diverse sectors. (Image courtesy: JOUAV)