Press Release

For Immediate Release

Revolutionizing wind turbine lightning inspection with drone technology

Bilbao, Spain, March 20th, 2024 – SupAirVision, a leader in drone-based wind turbine inspection, is excited to showcase Volta at Wind Europe Bilbao 2024. Since its market launch at the end of 2021, Volta has revolutionized the maintenance of wind turbines by providing an innovative solution to inspect Lightning Protection Systems (LPS). Volta stands alone in the market, offering the unique capability to conduct precise resistance measurements by the utilization of a drone technology. This pioneering approach eliminates human risk by efficiently executing inspections that surpass traditional methods in both safety and accuracy. Volta also significantly reduces inspection costs. SupAirVision is setting a new standard for LPS inspections, ensuring optimal performance and longevity for wind turbines worldwide.

Using advanced drone technology, Volta measures the resistance of lightning paths to ensure the integrity and continuity of the circuit from receptor to ground. This not only confirms that the energy from a potential strike will be efficiently directed away from vital turbine components but also identifies any deviations that may require preventative maintenance.

Since its introduction in late 2021, SupAirVision has revolutionized operational performance in LPS inspections. The core aim of Volta is to evaluate the LPS circuit's integrity, ensuring the circuit's continuity and condition are maintained for efficient energy redirection to the ground. High resistance levels indicate potential deviations necessitating preventive maintenance to avoid component damage. Our systems, compatible with DJI's Matrice 300 and 350 drones, include a pole-mounted probe with a contact sensor and cushioning system for safe receptor contact, and a ground station equipped with a specialized ohmmeter and our Volta Mission software for comprehensive mission management.
The process begins by positioning the wind turbine with its blade facing downward, allowing our system to establish a closed circuit from the receptor to the ground of the turbine, with a 150m cable. Once the contact is established, the ohmmeter measures the resistance, with all data captured directly by our software, managed on-site by our technicians. Our pilots methodically inspect each receptor before moving on to the tip and different blades, completing an inspection in less than 30 minutes. This efficiency enables the inspection of over 10 turbines daily: SupAirVision proudly stands as a pioneer and operational leader, having measured the resistance of more LPS circuits worldwide with a drone than any other entity.

Volta's impact on the industry is substantial. About 18% of the inspected circuits have been identified as completely open, while nearly 20% showed some deviation from the ideal path. The analysis of such findings is essential – timely and tailored maintenance can significantly reduce costly repairs and avert operational disruptions.

The risks associated with lightning strikes on wind turbines can’t be minimized. Industry expert Jérémy Hellot from Engie Green reports that approximately 2% of turbines risk lightning damage annually, with repair costs ranging from €10,000 to €200,000. Volta addresses this pressing challenge by allowing for precise, efficient, and autonomous inspections of the LPS on wind turbine blades.

This year, SupAirVision will enhance Volta's capabilities by introducing autonomous flight operations. This represents a significant leap forward in inspection efficiency and safety. Volta's features have been put to the test across nearly 50 types of blades and more than 15,000 receptors. With a patented technology in France and pending international patents, Volta stands as a benchmark for reliability and

precision. See our system overcoming the complexities of wind turbine inspections in our demonstration video: click here.

"The future of wind turbine maintenance is here, and it's Volta." said Sébastien Arnould, CEO. "We've made it possible to conduct comprehensive inspections with a level of detail and efficiency that was previously unattainable."

SupAirVision invites attendees of Wind Europe Bilbao 2024 to visit their booth 3-C110-C, to experience in person how Volta is setting new standards in wind turbine LPS inspections.

For those unable to attend the event or for more information about Volta, we invite you to schedule a personalized demonstration or to contact our experts. Contact us at www.supairvision.com or by email at contact@supairvision.com.

About SupAirVision

SupAirVision is a pioneering company specializing in the inspection of wind turbine blades and towers through advanced drone technology. Our range of products, including Sherlock, Volta, and Clarity, along with our SaaS cloud solution VisionAir, empower wind energy operators to ensure the longevity and safety of their turbines through data-driven maintenance strategies.

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