Public flight debut for Volocopter's VoloDrone

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Volocopter and strategic investor DB Schenker have conducted the first public flight of Volocopter's electric heavy-lift drone VoloDrone.

The VoloDrone is an uncrewed, fully electric utility drone designed to carry any of the six International Organization for Standardization (ISO) pallet sizes, weighing up to 200 kg, over a 40-km range.

The three-minute test flight took off at homePORT Hamburg and reached a maximum altitude of 22 meters. For this delivery simulation, the electric heavy-lift utility drone was equipped with a load-box in between its landing gear.

First, the demonstration teams secured a Euro-pallet sized load to the box under the VoloDrone, followed by a smooth take-off. After this, the aircraft brought the payload to a DB Schenker Cargo Bike and landed safely.

Once the payload was transferred successfully, the Cargo Bike delivered its cargo to the final destination under the area's park deck, marking the completion of the entirely electric, multimodal last-mile delivery.

Said Florian Reuter, Volocopter chief executive: "This first public VoloDrone flight is a strong sign for Volocopter´s leading position in the UAM industry. We are the only UAM company offering solutions for passengers and goods that are flying fully scaled and publicly around the world.

"Our VoloDrone will make existing logistics processes more robust, efficient, and sustainable. DB Schenker is an invaluable partner in our endeavor to untap the massive potential of our VoloDrone's logistics use cases."

Erik Wirsing, Vice President Global Innovation at DB Schenker, commented: "With the VoloDrone flight today, we were able to publicly demonstrate our successful collaboration and the impressive progress on DB Schenker's innovation and sustainability roadmap for cleaner logistics.

"Volocopter has proven again that they are the ideal partner for DB Schenker's ambition to rethink global supply chains and bring transport logistics to the next dimension for our customers while saving emissions."

The demonstration in Hamburg builds upon the foundations of the static proof of concept (PoC) the partners conducted in July this year in Stuttgart. It laid out a blueprint of how to implement VoloDrone operations in logistics facilities globally.

With the first public flight of the VoloDrone, in Hamburg, Volocopter and DB Schenker demonstrated how drone operations can extend the existing logistics infrastructure for land or sea transport to create entirely new supply chains and transport routes.

The electric vertical take-off and landing (eVTOL) aircraft is aimed to serve challenging missions across diverse industries.

As one member of Volocopter's robust UAM aircraft portfolio for transporting passengers (VoloCity and VoloConnect) and goods in cities, the VoloDrone is positioned to be deployed where conventional transport options reach their limits.

In addition to developing the aircraft, Volocopter is organizing the physical (VoloPorts) and digital (VoloIQ) infrastructure to support these services, which are set to launch in the next 2-3 years. VoloIQ serves as the digital backbone for operations.

This platform will support ecosystem aspects like Approved Maintenance Organisation (AMO), Continuing Airworthiness Management Organisation (CAMO), Flight Analytics, Vehicle Connectivity, Autonomous Operations, and more.

The VoloDrone's first flight took place in 2019. Since then, regular flight tests have been conducted at various airfields in Germany. The drone itself is 9.15 meters in diameter, 2.15 meters tall, and has a 600-kilogram maximum take-off weight (MTOW).

Future VoloDrone operations will be fully electric with autonomous beyond visual line of sight (BVLOS) capabilities.