

► DIVISION *ELECTRONIC SOLUTIONS*

**New at DSEI 2023**

12 September 2023

## Rheinmetall Canada and Quaze to unveil revolutionary wireless charging system for drones at DSEI 2023

Rheinmetall Canada and Quaze will launch a revolutionary wireless charging solution for drones at London's Defence and Security Equipment International exhibition from 12 to 15 September 2023. Developed for the Rheinmetall Mission Master family of unmanned ground vehicles, the Drone Swarm Tactical OverWatch (DSTOW) module offers a unique solution for uninterrupted drone operations.

Though recent drone technologies have made strides in ISR operations, aerial vehicles remain limited in range and endurance. Recharging often requires heavy equipment and human intervention, and most technologies can only charge one drone at a time.

To address these issues, Rheinmetall and Quaze have developed the DSTOW module, a wireless surface charging solution that can power multiple drones at once. Using inductive charging, the technology does not require precise alignment; nor does drone size matter.



Compatible with all Mission Master configurations, DSTOW is a ground-breaking module that eliminates the need for cumbersome power cords, delivering uninterrupted power regardless of equipment or climate. Even when covered with water, sand, dust, snow, or ice, this innovative surface technology works because of its volumetric power, enabling drones to be recharged up to 4 inches above the charging surface.

### Permanent Eye in the Sky

By automating the drone rotation and relay process, the DSTOW makes sure that fully charged drones remain in the sky, providing continuous surveillance—a critical advantage on modern battlefields where real-time persistent information is essential for superior situational awareness.

The DSTOW system also includes an automated landing and take-off feature, similar to valet parking, allowing for uninterrupted operations. The system's user interface is designed to control multiple drones in an automated fashion, making it possible to operate several drones simultaneously with a single device. Rheinmetall's dedicated tablet and soldier systems are both compatible with the DSTOW system, allowing for easy control of Mission Master vehicles and their integrated payloads.

## ► Key facts

- Rheinmetall Canada and Quaze to launch wireless drone charging solution.
- DSTOW module charges multiple drones simultaneously, without interruption.
- Enables persistent drone surveillance with automated rotation and take-off/landing.
- DSTOW eliminates physical connections, increasing safety and flexibility

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### **Better Automation for Safer Operations**

By keeping human intervention to a minimum, the DSTOW module eliminates the need for physical connections and cables that pose safety and logistical challenges in the field, especially in remote and high-risk areas of operation. It revolutionizes ISR capabilities by enabling persistent surveillance of remote areas, reducing the risk of injury to human operators, and minimizing the downtime of unmanned systems.

### **Maximum Flexibility**

The DSTOW recharges all drones on the Blue UAS-Cleared List, enabling fully unmanned drone operations. It can charge as many drones as the surface's power allows, making it a highly scalable solution. For instance, if the surface capability is 500w, the DSTOW can power one 500w drone or 500 1w micro drones.

Furthermore, since the technology can deliver a high voltage charge, the types of drones that can be powered by the DSTOW are nearly endless. It can also be fitted on all unmanned Rheinmetall platforms, such as the Mission Master SP, XT or CXT and the Polaris MRZR D4.

### **The Future of Wireless is Now**

Because the DSTOW module enables autonomous remote drone operations anywhere on earth— and can recharge drones even on the go— it will be an indispensable technology for future of unmanned missions.

### **Mission Master XT – Fire Support: an innovative and reliable counter-UAS solution**

For the very first time, Rheinmetall will also be displaying its Mission Master XT – Fire Support, equipped with Dillon dual M134D miniguns. This innovative and reliable countermeasure is specially designed to defeat small unmanned aerial systems. It can fire an impressive 6,000 rounds per minute and defeat drones day and night.

With its ability to autonomously detect and track aerial and land targets, while prioritizing safe fire engagement by the operator (human in the loop), this pioneering technology is set to revolutionize counter-UAS operations. What's more, it features a wolfpack capability, meaning that one operator can manage multiple unmanned ground vehicles at the same time.

