
Joining Forces against illegal Drones

Airbus DS Electronics and Border Security collaborate with Dedrone to counter the threat posed by small drones

Munich/San Francisco/CA – 27 July 2016 – Airbus DS Electronics and Border Security (EBS) and Dedrone, San Francisco, have signed a cooperation agreement and are joining forces to counter the threat posed by small drones. The partners intend to jointly offer counter-UAV systems that allow unmanned aerial vehicles (UAVs) invading critical airspace to be detected reliably so that electronic countermeasures can be initiated at an early stage.

“All over the world, incidents with universally available small drones have revealed a security gap with regards to major events or critical installations such as airports,” said Thomas Müller, Managing Director of Airbus DS Electronics and Border Security (EBS). “By pooling the capabilities of Airbus, with our long-range radar and jamming functions, and those of Dedrone, with their market-leading multi-sensor platform, we have a wide deployment range covering both urban and extra-urban areas.

Dedrone CEO Jörg Lamprecht added: “Small drones are conquering the airspace. But criminals have also discovered this technology and use it to smuggle, to spy and in the worst case to even carry out terrorist attacks. We are therefore delighted to offer, together with Airbus, an effective, complete solution for this new challenge. Our systems complement each other ideally, combining the early detection of drones at short and long range with the capability to automatically initiate effective countermeasures.

The Counter-UAV System to be jointly offered by the companies will have a modular design and will offer the capability to combine various sensors – cameras, radar systems, microphones, direction finders – with different ranges of up to 10 kilometres. The data provided by these sensors will be combined by means of the latest data fusion and signal analysis technologies. On the basis of an extensive database of UAV patterns and signatures as well as real-time analysis of control signals, a jammer then interrupts the link between drone and pilot or disrupts its navigation. As a rule, the drone then flies back to its starting point or lands at its current location. Furthermore, the direction finder tracks the position of the pilot in order to arrest him subsequently.

Thanks to the Smart Responsive Jamming Technology developed by Airbus DS EBS, the jamming signals only block the frequencies used to operate the drone while other frequencies in

Detect and Protect.

the vicinity remain operational. The Counter-UAV System has been tested extensively at Airbus Defence and Space's own facility and during customer presentations in Germany and France. Depending on the configuration required, an operational system will be available as from the end of 2016.

Dedrone developed the DroneTracker, a unique UAV warning system consisting of optimised hardware and smart software. The DroneTracker is already available and has been successfully deployed in such places as prisons and stadiums. When attached to the front of buildings, the DroneTracker detects approaching drones by means of various visual and acoustic sensors as well as frequency scanners. The signals detected such as noises, movement patterns, silhouette and frequencies are processed and evaluated by the software. In this way, the DroneTracker reliably detects drones within a radius of up to one kilometre, identifies them and alarms the security forces. Countermeasures can be automatically initiated via the interface with the Airbus jamming technology.

About Airbus DS Electronics and Border Security (EBS)

EBS is the new sensor house, a leading global provider of premium electronics in the areas of protection, reconnaissance and surveillance. The enterprise equips armed forces and security organisations around the world on the basis of a 100-year tradition and experience gained from renowned technological predecessors such as Dasa, Aérospatiale-Matra, Telefunken, Dornier and Zeiss. *EBS* employs some 4,000 employees generating revenues of approximately €1 billion per year. *EBS* is a 100% subsidiary of Airbus Defence and Space. Airbus Group has signed a share purchase agreement with the investment company KKR in order to transfer ownership of initially 74.9% of the *EBS* shares to KKR. The agreement is subject to customary closing conditions, including regulatory approvals and employee consultation, and is expected to be put into effect in the first quarter of 2017. Thereafter, the company will appear under the brand name "Hensoldt" following the tradition of a German pioneer of sensor technology whose name stands for the combination of excellence, innovation and efficiency.

About Dedrone

Dedrone has been developing technologies for detecting small civil drones since as early as 2014. The company was one of the first in the world to operate in this sector and is ranked among the innovation and technology leaders in this field. The DroneTracker that Dedrone has developed provides early warning of criminal unmanned aerial vehicles in real time and protects data centres, stadiums, prisons, airports and other critical infrastructures against smuggling, espionage and terrorist attacks. Depending on requirements, any number of sensors and countermeasure systems, such as jammers, can be integrated into the DroneTracker and triggered automatically. The company's headquarters are in San Francisco, USA, however development and production take place in Kassel, Germany.

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