



A NOTE FROM OUR MANAGING DIRECTOR, CHRIS DOWN

### REACTING TO THE BIGGEST DRONE DISRUPTION EVER SEEN

OpenWorks is already preparing for the most successful year to date with an exponentially growing SkyWall100 end-user community and the first operational deployment of the SkyWall300 system. The business continues to grow with additions to the OpenWorks team, focussed on production, quality, training and services delivery. A team effort was essential in the first few days of 2019 as the company reacted to an immediate demand for SkyWall systems.

The development of SkyWall300 continues with the addition of an auto-reload system, offering a step change in operational capability when dealing with multiple fast-moving threats.

*“The well-publicised Gatwick incident has proven the need for SkyWall protection and we are working harder than ever with our partners and customers to deliver systems where operational security demands.”*

CHRIS DOWN, MANAGING DIRECTOR



THE DRONE PROBLEM IS NOW VERY REAL

### GATWICK UNDERSCORES THE NEED FOR COUNTER DRONE SYSTEMS

OpenWorks is already working with several airports around the world, supporting them as they look to physically neutralise the drone threat. SkyWall100 and SkyWall300 both offer proportionate and predictable outcomes with minimal collateral damage, essential requirements when operating in an airport environment.

Physical capture also provides the ability to forensically examine the captured drone and be operated in spectrum sensitive environments, without affecting other airport systems. When used in conjunction with detection, identification and tracking technology, SkyWall systems provide the final counter drone solution in a fully layered airport defense system.

Gatwick airport was thrown into chaos at the end of 2018 when over 1000 flights were cancelled and approximately 140,000 passengers were affected over a two-day period amid multiple sightings of drones.

The authorities appeared to be powerless to act as multiple drone sightings suspended flights for two days running. In all, it has been estimated that the total economic costs could have been as much as £50m, EasyJet alone said the shutdown cost them £15 million as a result of grounding some 400 of its flights. Since then, drones have suspended operations at Heathrow and Newark airport.

These incidents have been a wakeup call to airport authorities, underlining the need for effective counter drone systems with the specific need to neutralise a drone to prevent repeated disruption.

TESTING WITH OUR TECHNOLOGY PARTNER, ANTMICRO

### NEXT GENERATION AI TRACKING IS HERE

Successful testing of the next generation AI drone tracking system from Antmicro has been completed in the latest SkyWall300 testing at OpenWorks' facilities in the UK.

SkyWall's latest tracking technology update by Antmicro has brought new features to improve the already highly capable performance in terms of tracking against complex backgrounds and following fixed-winged targets – all of this thanks to new, deep learning based methods making use of the latest generation of NVIDIA GPU-enabled computing platforms that offer exceptional performance for AI inference.

Developed in close partnership between OpenWorks and Antmicro, SkyWall300 has already proven its ability to physically capture drones in front of US military and government agencies during recent high-profile tests held in Indiana and New Mexico, capturing more drones than ever before. SkyWall300 captured and successfully engaged multi-rotor and fixed-wing targets at both the Black Dart and JIDO Hard Kill test events during a range of test scenarios.



OpenWorks and Antmicro believe that combining SkyWall with Antmicro's edge AI and computer vision expertise will provide the most capable solutions in a range of scenarios. While this is currently being proven through the automatic tracking and capture of nefarious drones, the opportunities to exploit the capabilities for other security missions is clear.

## SKYWALL300 PROVEN AGAINST REAL WORLD DRONE THREAT SIMULATIONS

OpenWorks and Liteye Systems Inc successfully demonstrated SkyWall300 against real-world drone threats at the Jido Hard Kill challenge 2 at the White Sands Missile Range, New Mexico.

During the event SkyWall300 successfully captured a large number of multi-rotor drones before they were able to complete their mission at greater ranges than have been previously tested. A fixed wing drone traveling at high speed was also successfully captured, demonstrating to the audience of military and government agencies that SkyWall300 is a highly capable counter drone solution.



The OpenWorks production team has recently expanded to fulfil demand for SkyWall100 systems, due to be delivered to customers throughout Europe and North America in the coming months.

The SkyWall training team has seen further expansion to deliver training to the growing number of new users and further support our existing customers worldwide.

### SKYWALL100 AT NATO NNTEX-18C - DECEMBER

## COMMANDANT OF US MARINES SHOWN THE UNIQUE SKYWALL CAPABILITY

SkyWall100 demonstrated physical capture capability, with low collateral damage, in several “drone threat” scenarios at the Marine Corps Base Quantico for the Non-Lethal Technology Exercise NNTEX-18C.

SkyWall100 successfully engaged several moving and static drone targets, demonstrating SkyWall’s ability to physically capture and neutralise a drone threat. The system defeated multiple drones including the large DJI S1000 octocopter, that was captured in a simulated live mission when it was armed with an inert payload. The demonstrations were set to show existing deployed systems such as SkyWall, alongside emerging non-lethal capabilities in countering Low, Slow, Small Unmanned Aerial System (LSS sUAS) threats. A large number of military officers, analysts and observers from NATO nations around the world attended, gaining an appreciation of the complexities associated with drone threats and the challenges faced by the military when operating in a range of environments.



### LATEST NEWS

## INTEGRATED C-UAS CAPABILITY DEMONSTRATED IN THE UAE

SkyWall100 was demonstrated as part of the first fully integrated anti-drone system developed by CS Systems, known as “Boreades”. The system detects, identifies and tracks drones as well as the location of the drone pilot.

SkyWall100 net capture offers the final physical neutralisation of the drone as part of this fully layered drone defence solution. Several delegates, including the Chief of Security in the MOI and the head of Aviation Security witnessed SkyWall100 successful capture and recover simulated attacking drones. The focus of attention was the protection of Airports and the demonstration highlighted the need for a physical drone capture with low collateral damage, appropriate for an airport environment.



### UPCOMING EVENT:



## SKYWALL100 ON DISPLAY AT SECURITY & POLICING 5TH - 7TH MARCH 2019

Security & Policing is held at Farnborough International Exhibition and Conference Centre, Hampshire. Security & Policing provides the opportunity to view the latest developments in the UK security market

Please come and visit us on stand D35