



EOS Releases New Counter Drone Product

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Electro Optic Systems Holdings Limited (“EOS” or “Company”) (ASX: EOS) has released the world’s first full-spectrum system for defence against attack from unattended aerial system (UAS) or drones. This counter-UAS system (CUAS) is named Mopoke after the native Australian bird of prey¹. CUAS are entirely defensive systems.

UAS have already been widely deployed in a series of regional conflicts, with some countries suffering significant loss of civilian life and critical infrastructure from long range UAS attacks. UAS are an asymmetric weapon in that they require defensive measures which can cost 10-100 times the cost of the UAS themselves. UAS can be effective even without being fired if they can cause defensive outlays on this scale and EOS has engaged closely with its customers over the past four years to ensure the affordability of its CUAS products.

CUAS capability can consist of a simple weapon designed to destroy a few drones in a particular tactical setting or may be required to defend an entire urban area or large industrial complexes from UAS attack. This wide range of capability has not been coherently addressed before EOS developed its Mopoke system.

A CUAS system may comprise some or all of the following ten elements:

1. Radar sensors: These must detect a wide range of UAS threats up to 5 km away.
2. UAS interference: UAS are neutralised using command interference.
3. Electronic and electro-optic sensors: These detect drones without themselves radiating signals that can trigger UAS attacks.
4. Command and control (C2) system: Controls and coordinates multiple sensors and drone kill systems to defeat “drone swarms”.
5. UAS destruction at short range: Kinetic weapon (7.62 mm machine gun) to rapidly destroy UAS threats at short ranges of 50-500 m.
6. UAS destruction medium range: Kinetic weapon (30 mm cannon) to destroy UAS threats at ranges of 100–1500 m.
7. UAS destruction long range: Kinetic weapon (30 mm high velocity cannon) to destroy UAS threats at ranges of 200–3000 m.
8. Large UAS destruction long range: Surface-to-air missile for very large UAS at ranges up to 5 km.

¹ <https://www.eos-us.com/wp-content/uploads/2020/09/Mopoke-CUAS-Brochure.pdf>

9. UAS destruction long range: Directed energy (laser) to destroy UAS of any size and at any range which might otherwise penetrate or overwhelm UAS defences.
10. Tactics and training, including safe operating procedures for energy weapons and collateral damage minimisation. This is a key element since defences must often be mounted for civilian populations and respond autonomously against sudden swarms of drones.

There is substantial market demand for a scalable CUAS system that can deploy in large scale formations with all capabilities, and also deploy on a smaller scale to defeat smaller threats. This scalability requires strict compliance with the C2 architecture implemented.

EOS is the only aerospace provider that has internally developed eight of the ten CUAS elements listed above. Only the first two elements are outsourced by EOS for Mopoke which integrates all ten elements in a coherent C2 architecture. This significantly reduces the complexity of the system integration, and delivers unprecedented scalability.

No competitor can offer more than four elements from a single source, requiring each competitor's CUAS implementation to be designed from the ground up. Furthermore, the individual elements of the Mopoke system have surpassed any competitor's corresponding elements in customer trials and testing against active UAS.

Industry market surveys and forecasts estimate the Total Addressable Market globally for CUAS products to be US\$48 billion (average of five independent market surveys) for the decade ending 2030. EOS estimates the CUAS market amongst its usual customers is around US\$21 billion over the same decade. This is consistent with the global market estimates.

Following an international tender process, EOS has recently been down selected as the preferred provider for a major international CUAS requirement and contract negotiations with that customer have commenced. The company expects these to be concluded for the first phase of this contract over the next six months. Four additional customers have initiated discussions with EOS about this important defensive technology.

Announcing the product release, Grant Sanderson, Chief Executive of EOS Defence Systems said:

“EOS customers suffered over US\$20 billion in losses of critical infrastructure due to drone attacks in 2019. Globally this figure would be higher and the inestimable cost of drone attacks in human lives adds to these high economic costs.

EOS has applied its capability to manage complex systems to fast-track to production the most capable and coherent suite of counter-drone technologies in the world. The Mopoke suite offers several unique elements including the world's first proven directed energy (laser) kill system for drones, and the first overlapping capabilities in kinetic defence.

The EOS suite of capabilities is already being recognised in key markets where scalable performance is required to meet sophisticated asymmetric threats.”

This announcement has been authorised for release to the ASX by Dr Ben Greene, Director.

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ABOUT ELECTRO OPTIC SYSTEMS (ASX: EOS; OTC: EOPSY)

EOS operates in three sectors: Defence, Space and Communications

- EOS Defence Systems specialises in technology for weapon systems optimisation and integration, as well as ISR (Intelligence, Surveillance and Reconnaissance) for land warfare. Its key products are next-generation vehicle turrets and remote weapon systems.
- EOS Space Systems specialises in applying EOS-developed optical sensors to detect, track, classify and characterise objects in space. This information has both military and commercial applications, including managing space assets to avoid collisions with space debris, missile defence and space control.
- EOS Communications Systems provides global satellite communications services and systems. It specialises in innovative optical, microwave and on-the-move radio and satellite products that help to deliver high speed, resilient and assured telecommunications anywhere in the world.

This announcement contains certain "forward-looking statements" including statements regarding EOS' intent, belief or current expectations with respect to EOS' business and operations, market conditions, results of operations, financial condition, and risk management practices. The words "likely", "expect", "aim", "should", "could", "may", "anticipate", "predict", "believe", "plan" and other similar expressions are intended to identify forward-looking statements. Indications of, and guidance on, future earnings, financial position and performance, establishment costs and capital requirements are also forward-looking statements. Forward-looking statements including projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. This announcement contains such statements that are subject to risk factors associated with an investment in EOS. Forward-looking statements involve known and unknown risks, uncertainties and assumptions and other important factors that could cause the actual results, performances or achievements of EOS to be materially different from future results, performances or achievements expressed or implied by such statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this announcement