EOS

TITANIS

COUNTER-DRONE DEFENCE SYSTEM

THE TITANIS SYSTEM

A fully integrated counter-drone system with soft, hard and directed energy kill capabilities.

Countering the threat caused by drones is now a global issue and an increasing concern for militaries, governments and homeland security forces across every continent.

Using robust, battle-proven technology from best-in-class sensor and defeat system providers, EOS' Titanis CUAS capability can counter single drones within 8 seconds of detection to a range of up to 4,000 metres.

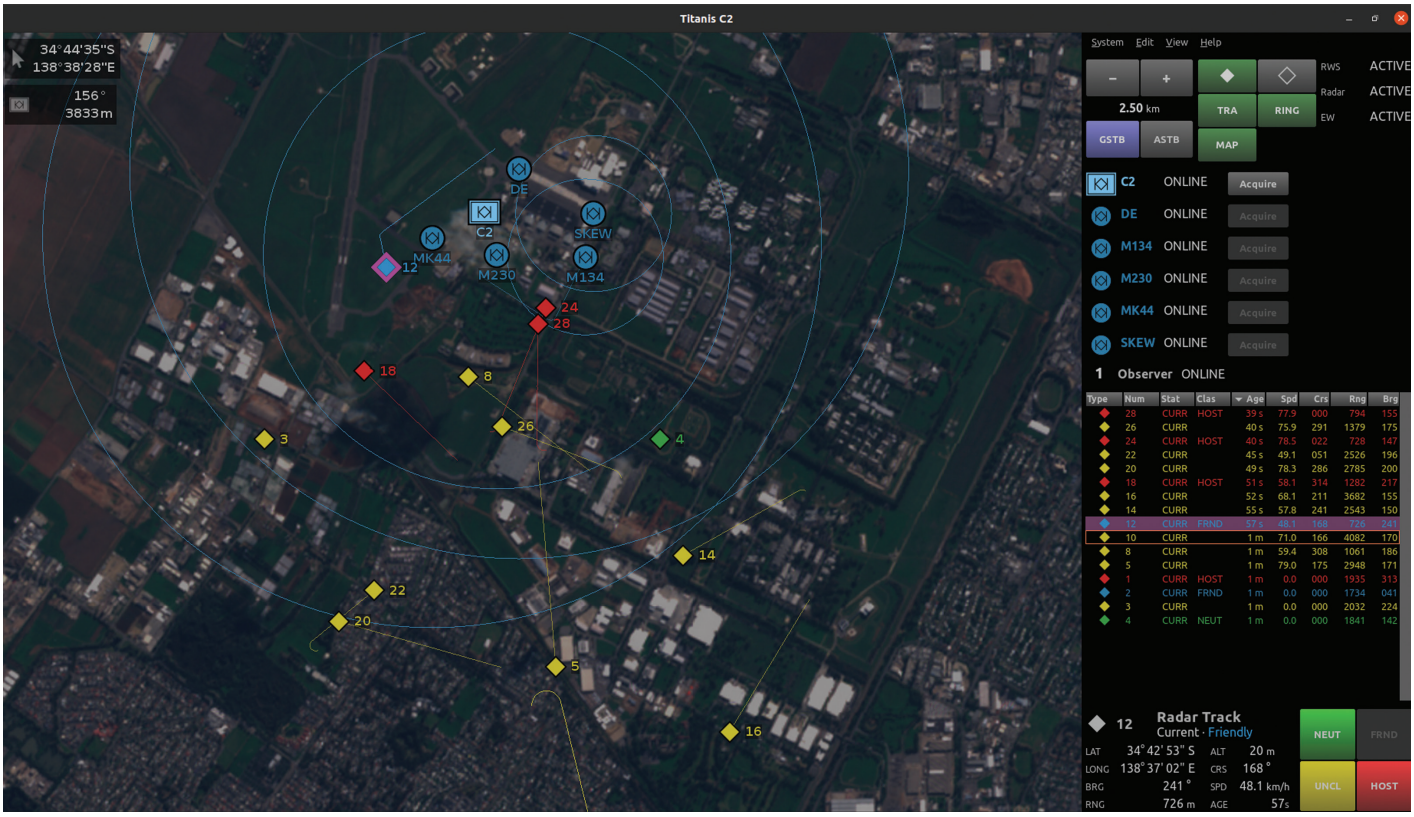
The Titanis system is designed to defeat not only single drone threats but also swarm drone tactics recently observed in operational theatres across the Middle East.

It detects the drone using state-of-the-art software and a defined, multi-mission, 4D AESA pulse Doppler radar. It tracks the threat using high-precision infrared and daylight cameras and advanced video tracking software, before using a non-kinetic radio frequency (RF) inhibitor to defeat the drone. Should the RF inhibitor not be effective, Titanis switches to hard kill to destroy the drone.

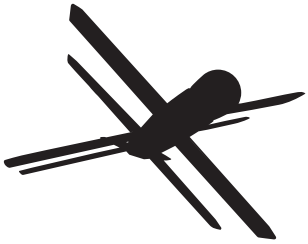
Titanis is built upon field-proven sub-systems that can detect all types of drones, including fixed wing and quadcopters up to 600 kg (Group 3).

KEY FEATURES

- High precision weapon platform weighing less than 400 kg
- Fully stabilised for on-the-move operation
- Exquisite pointing technology for extreme accuracy
- Fourth-axis sighting system with sensor unit that moves independently of the gun in both elevation and azimuth
- Bushmaster M230LF 30 x 113 mm cannon
- Lightweight 30mm Proximity Sensing Ammunition with radio frequency proximity-fused, high explosive, fragmentation round
- Echodyne ultra-low size, weight, and power (SWaP) 4D targeting radar with active beamsteering ESA
- Wind sensor



Titanis is specifically designed to mitigate the risks caused by weaponised drones



THE LAYERED SOLUTION TO COUNTER UAS

The Titanis CUAS capability is based on EOS' proven R-Series engagement systems and features Directed Energy and soft kill capabilities to provide layered protection against UAS threats.

The solution enables the identification and defeat of UAS targets with both soft and hard kill capabilities, as well as the ability to operate under protection.

The Titanis capability is based on the in-service Slinger, meaning the cost of introducing the CUAS capability is reduced, since training, support and operation are all based on the legacy RWS.

The system also features hard kill solutions that offer options to reduce fratricide.

HIGH ENERGY LASER WEAPON SYSTEM

EOS has long been a world leader in the field of lasers. The Space division of the business has been producing precision laser tracking systems for satellite tracking and space debris cataloguing for nearly 40 years.

This technology has now been applied to the CUAS role with our recently developed 36 - 100 kw Directed Energy system. Currently the system consists of a precision Beam Director mounted on a 6 metre shipping container.

This provides highly accurate CUAS capability beyond 2,000 metres with zero noise, low collateral damage and an endless magazine. Work is underway to condense this system and increase output power with the objective of a 50+ kw system in a Boxer 8 x 8 size vehicle in the next few years.

KINETIC ENGAGEMENT SYSTEMS THAT SUPPORT TITANIS

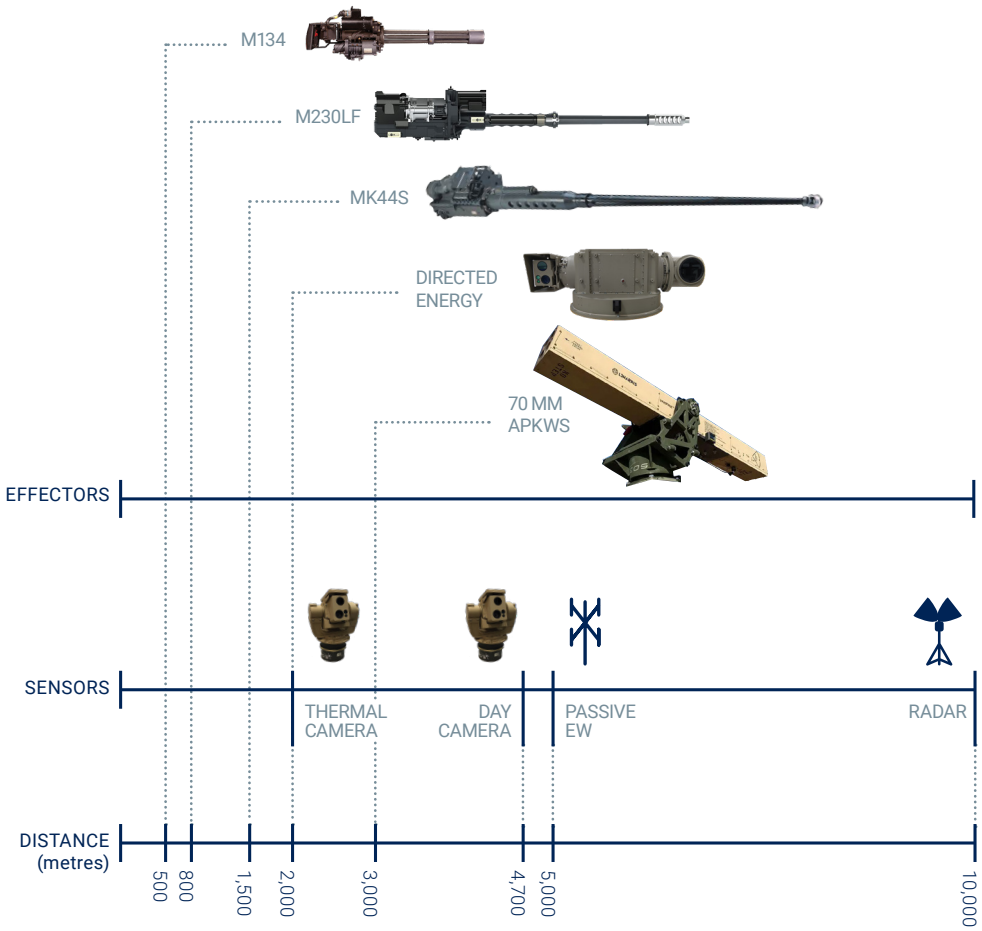
SLINGER

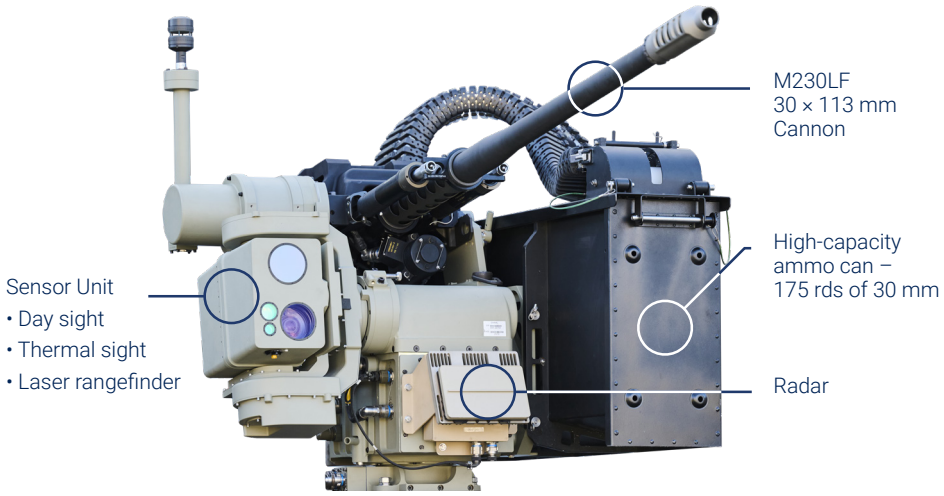
- Lightweight (sub 500 kg)
- Dual weapon and missile capable
- 30 x 113 mm cannon capable
- Precision auto-cannon capability for light platforms

R800

- Heavy duty RWS (800-1000 kg)
- Dual weapon and missile capable
- 30 x 173 mm cannon capable
- Heavy AFV firepower for light and medium platforms

TITANIS DRONE DEFEAT CAPABILITIES





The Slinger can be used standalone or as part of EOS' end-to-end counter UAS solutions

RADAR

- Pulse Doppler; software-defined radars
- AESA (active electronically scanned array) antenna; GaN technology
- Extremely high elevation coverage
- Non-rotating, solid state radars
- Digital: beam forming, receivers, pulse compression
- Compact and mobile
- High reliability

RF DETECTION

- Fully compatible with dense urban environments
- High accuracy and long range detection
- Passive detection
- High probability on intercept and zero false alarm rates
- Small footprint and form factor
- Fixed and portable deployments
- Large area coverage
- Swarm target tracking
- Identify UAS operator location

HARD KILL EFFECTOR

- Concentrated point defence; R400 mounting 7.62 mm Dillon Aero mini-gun
- Slinger mounting M230LF with proximity airbursts
- Titanis mounting MK44S with programmable airburst munitions
- APKWS mounting with effective range out to 3,000 m
- Effective range out to 1,500 m
- Low collateral damage ammunition options
- Defeat drone swarm tactics

SOFT KILL EFFECTOR

- Defeats C2, video and/or navigation system
- Effect – land immediately or return to launch point

DIRECTED ENERGY EFFECTOR

- 35 kW high-power laser
- Minimal collateral damage
- Effective range out to 2,000 m + against Group 1, 2 and 3 drone threats
- Swarm defeat capable with high rates of target engagement
- Transferable technology

CAMERA

- Powerful optic and thermal drone detection and tracking
- Swarm target detection and tracking
- Passive system

EOS
Phone +61 2 6222 7900
Email enquiry@eos-aus.com
Web eos-aus.com