KESTREL LAND
A bird's eye view over any terrain

SENTIENT

Over 3500 Systems deployed

Kestrel Land is an industry leading MTI software solution that automatically detects moving objects on land within electro-optical (EO) or infrared (IR) full-motion video.

With a technology readiness level of 9, it has the ability to detect moving people and vehicles over challenging terrain in real-time or forensic operations. Raw data can be quickly transformed into actionable intelligence.

For manned aircraft or UAVs, it provides:

- A 20x increase in surveillance area
- Reliable detection over extended missions
- Increased probability of detection and a reduced rate of false alarms

Kestrel Land is proven in theatre with a wide range of air platforms and has over 3,500 deployments across six continents.

The challenge

The margin for human error in a search from the air is significant. Operators can tire easily and fail to spot multiple moving objects at once. Operators will focus on the largest object they see and will miss movement in the periphery which could be significant to the success of the mission.

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Specifications

- ☐ Technology readiness level (TRL) 9
- ☐ Small object detection down to a few pixels in size
- ☐ Extractable data including size, speed and direction of detected objects
- ☐ Moving object tracking with a visible history of movements and predicted future path
- ☐ Geo-location data compliant with STANAG 4609 and MISB 0601 in MGRS and Lat/Long
- ☐ Works with ISR systems, existing mission systems, sensors, ground control stations and RVTs
- ☐ Integration options include Windows application, APIs for Windows, Linux and embedded processors

The solution

Kestrel Land automatically and autonomously detects moving objects and highlights them on a screen, reducing operator fatigue significantly and ensuring all movement is shown to the operator. It enables a wider field of view than the human eye – increasing a surveillance area by over 20 times. Its capability and efficiency increase your mission success.

"Kestrel detects any small movements in the field of view and alerts our operators to objects that are easily missed – camouflaged vehicles in tough terrains, dismounts or insurgents leaving houses. This gives our commanders a complete understanding of the situation on the ground."

WGCDR David Riddel, RAAF Deputy Director – Air Combat Capability

Sentient develops and deploys computer vision technology with a focus on the development of automated detection software for EO/IR imagery. With over 3,500 systems deployed, Sentient's solutions enhance the performance of EO/IR operations for many agencies and forces worldwide. Sentient is a trusted partner of the Australian Department of Defence.

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