John Cockerill **Defense Sécurité**

Cockerill® Stereovision

Multipurpose Intelligent Detection

JCDS Stereovision

JCDS Stereovision is a unique technology that combines stereoscopic vision, thermal sensors, and advanced algorithms for the detection of suspicious behaviors and segmentation based on the type of threat.

More than just a motion detector, **JCDS Stereovision** can detect, identify, track, and monitor multiple predefined target types, collecting real-time data on their location, size, distance, speed, and direction. Unlike radars, Stereo-Vision is a completely passive solution.

JCDS Stereovision is particularly well-suited for creating virtual barriers for perimeter protection. Its technology allows it to adapt to unlimited safety and security scenarios.

The combination of visible and infrared cameras enables operation day and night, in all weather conditions.

It provides automatic alerts 24/7 with a detection probability of over 99%, while ensuring a negligible rate of false alarms.

This field-proven product has successfully passed strict certification tests and is currently used by public authorities and private industries for numerous sensitive sites.

Applications for safety and security

- Critical infrastructures
- Sensitive sites
- Intrusion detection
- Industrial security (fuel storage,nuclear plants…)
- Border protection
- Airport surveillance
- Coastal surveillance
- Tunnels surveillance
- Smart City applications

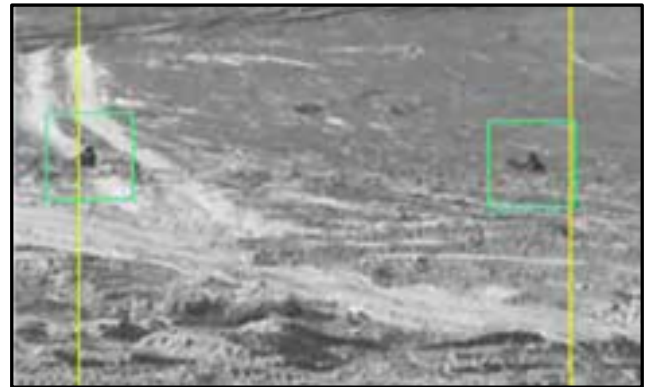**99% probability of detection**
Negligible false alarm rate

Extreme versatility by combining complex filters with multi-scenario capabilities

▸ **Virtual barrier**

Where a physical barrier is impossible to install

▸ **Extended detection zone**

Where a detection is needed in a wide area

▸ **Objects filtering**

Segmentation of humans, animals, vehicles, etc.

▸ **Pre-alarm**

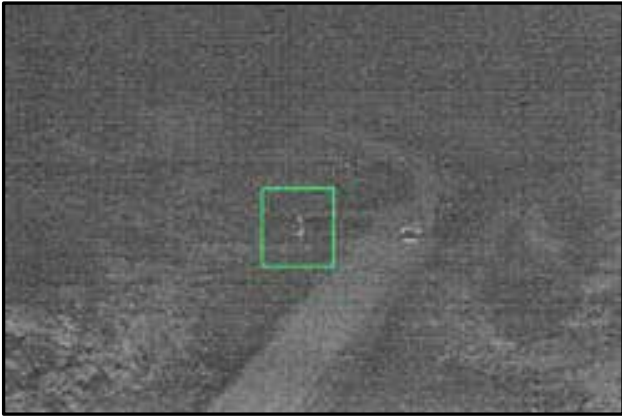Identifying security events before their occurrence

▸ **Multiple and complex zones**

Definition of several zones of detection for complex scenarios

▸ **Dense vegetation environment**
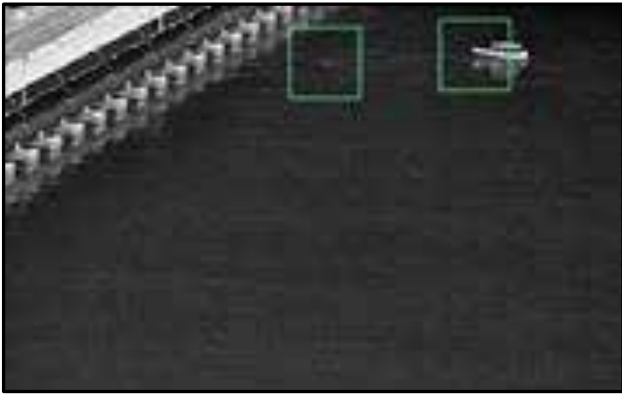
Robust even in case of dense background

▸ **Adverse weather conditions**
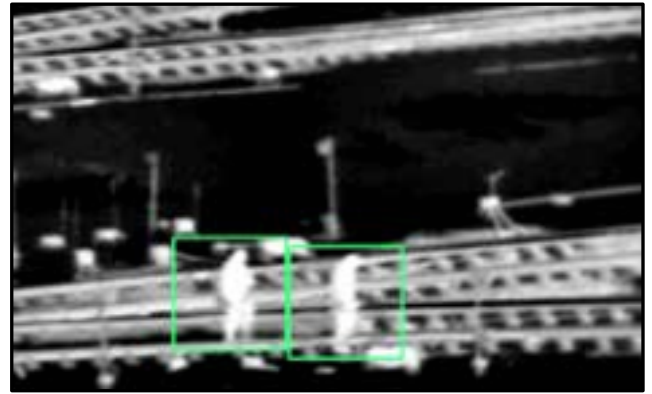
Robust even in case of fog or heavy rain

▸ **Behavior detection**

Vehicle stop detection, unattended objects detection, group loitering detection, etc.

▸ **Marine environment**

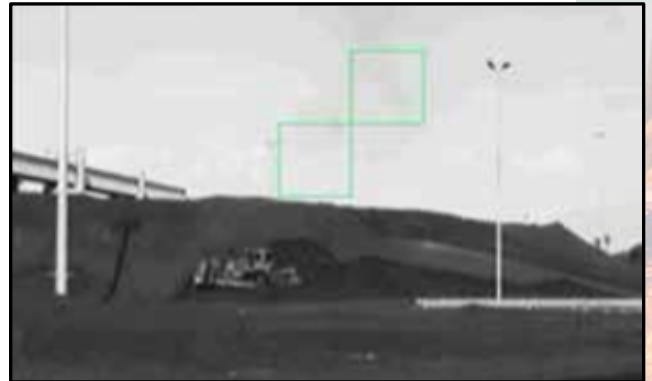Detection of swimmers or any intrusion by the sea (small boats)

▸ **Railway safety**

Detection of obstacles on railroad or stoppage on railway crossing

▸ **Airport safety**

Runway incident prevent such as FOD, bird strike, runway incursion, etc.

▸ **Industrial safety**

Detection of smoke, explosions, sparks and fire

Main features

- 3D detection based on human vision principle
- 99% probability of detection, negligible false alarm rate
- Passive automatic video surveillance
- Provides automatic machine-to-human interface
- Advanced algorithm allowing segmentation of detected threats and filtering of natural movements and nuisances
- Simultaneous multiple target detection
- Combines day and IR spectral ranges
- Operates day and night in any weather conditions
- Can be used as a stand-alone system or integrated in a global solution

Technology

Unlike a conventional camera that generates a simple 2D image, **JCDS Stereovision** is based on the principle of human stereoscopic vision and combines the images from two cameras to achieve a 3D vision.

Stereoscopic vision enables intelligent control and command to characterize the detected threat by analyzing its distance, size, elevation, and speed. In addition to enhanced detection, it enables better segmentation of threats, eliminating false alarms.

A second pair of infrared cameras enhances the system's predictions in all weather and environmental conditions. Redundant information obtained from both pairs of cameras (visible and infrared) reinforces the reliability of the results.

The equipment is backed by an intelligent C2 to improve the interface between detection and decision-making.

Cost-effective, easy to install, operate and maintain.

Automatic alerts on any predefined device.

JCDS Stereovision can be deployed in multiple critical and sensitive infrastructures worldwide

'The new frontiers of safety, Security & sovereignty'