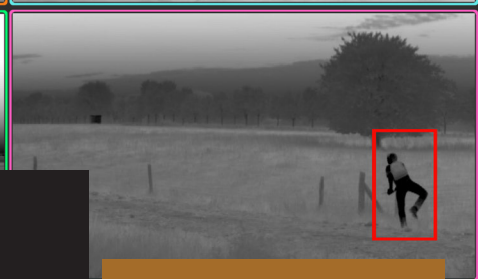




CYCLOPE

→ Automatic detection of all targets



# CYCLOPE

AUTOMATIC INTRUSION DETECTION & TRACKING SOFTWARE

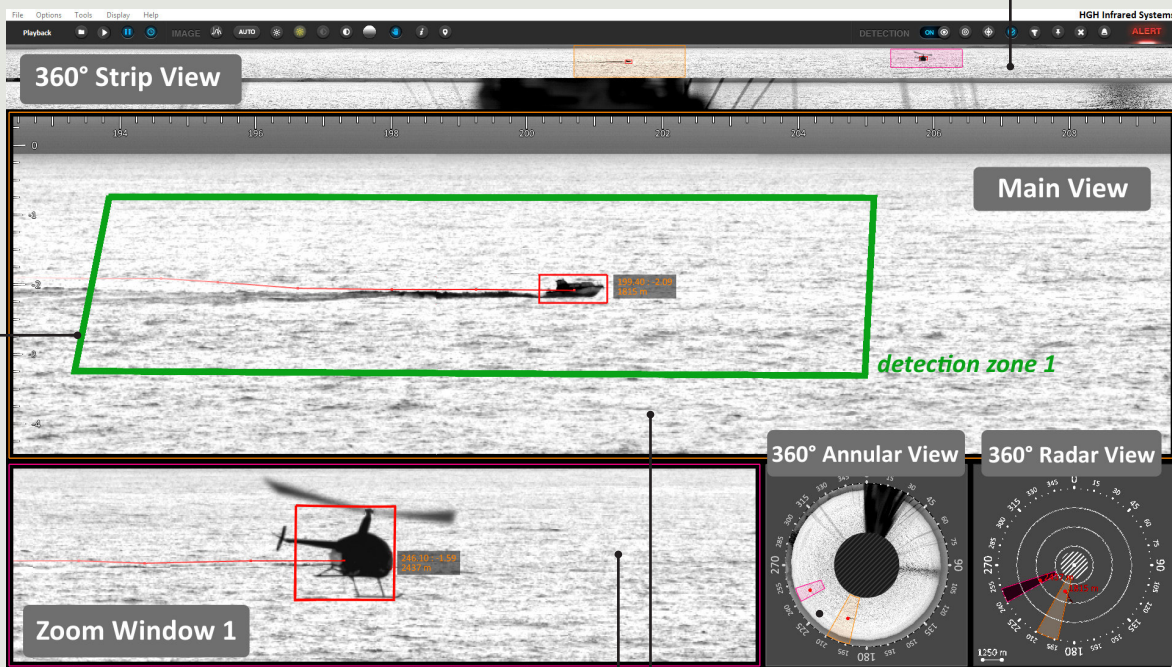
## UNLIMITED NUMBER OF INTRUSIONS DETECTED OVER 360°

CYCLOPE is an advanced image processing software analysing panoramic images captured by the SPYNEL Wide Area Surveillance sensors in real-time. CYCLOPE automatically detects, tracks and classifies an unlimited number of ground/air/maritime targets simultaneously, including hardly detectable threats, such as crawling men, RHIBs, jet-skis, stealth or low altitude air targets (like UAVs). CYCLOPE's latest version takes advantage of 15 years of experience in data processing applied to critical infrastructure protection and InfraRed Search & Track applications, with the development of unique detection, tracking and classification algorithms with ultra-low FAR (False Alarm Rate).

## POWERFUL, FLEXIBLE AND EASY TO USE

Embedded in an indoor or ruggedized processing unit, CYCLOPE provides unsurpassed real-time 360-degree surveillance with unparalleled ease-of-use. The Graphical User Interface is fully customizable: preset or user-defined layouts of an unlimited number of zoom windows, panoramic, annular or radar views can be displayed on multiple screens. Cyclope features an automatic **detection & tracking mode** for fully autonomous surveillance. It delivers a comprehensive threat **identification and classification**. In addition, Cyclope includes an integrated sensor calibration assistant and hardware diagnostic utilities to aid in system installation and preventive maintenance.

Real-time panoramic display



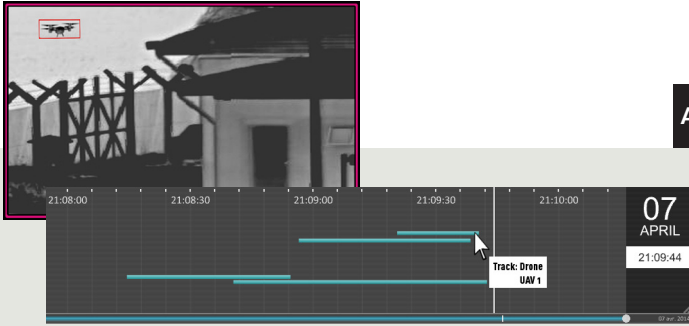
User-defined detection zones according to the missions and potential threats

Unlimited number of windows to display multiple targets simultaneously

Radar view with 2-D map overlay and geolocation of detected targets

# CYCLOPE

## AUTOMATIC INTRUSION DETECTION & TRACKING SOFTWARE



→ Time shifting: replay of events spotted by classification bookmarks



→ Unlimited number of zoom windows for threat recognition

## FEATURES

### Ease of Use

- Real time panoramic display with unlimited number of views (strips, zooms, annular)
- Compatible with multiple screens/consoles/joystick
- Ability to recognize several threats simultaneously
- Advanced image enhancement algorithms
- Recording & replay of panoramic videos, timeshift function
- Visual, sound or pre-recorded message alerts

### Detection & Tracking

- 360° Search & Track refreshed within a second
- Unique algorithm and data processing for very low False Alarm Rate
- Full automatic mode with no operator adjustment required
- Automatic detection and tracking of all ground/air/maritime targets
- 3D detection capabilities in polygonal zones defined by the user

### Analysis & Classification

- Unlimited number of zoom windows, for target identification
- Bookmarks for automatic classification of threats and post-analysis
- Easy timeshift function to replay a recent event
- Site map with GPS position of detected targets
- Advanced alarm management module to customize the intrusion confirmation

### Communication

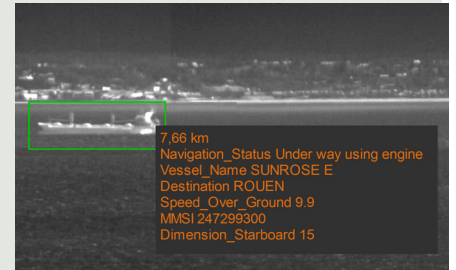
- Fully ONVIF compliant for easy integration into Video Management Systems
- Relay outputs or email notification in case of alarms
- Transmission of metadata and compressed videos to external hypervisor (VMS, CMS)
- PTZ camera video display in Cyclope GUI with automatic slew-to-cue function
- Infrared and other Sensors Data Fusion (acoustic gunshot detection, radars, AIS, ADS-B, seismic/magnetic sensors, fence vibration sensors...) and display into thermal video to tag and filter threats
- Interface with ECDIS (Electronic Charts Display Information System)
- Control of effectors for immediate reaction (search lights, long range acoustic devices, laser glaring systems...)

### Cyclope Hypervisor

- Automatic connection to all Spynel sensors on a private network
- Geolocation of all threats and sensors on one or more situation maps
- Global monitoring of threats, alarms and videos

### Special features

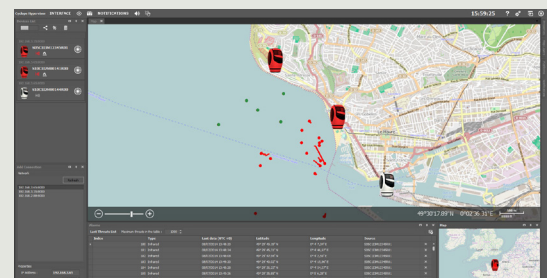
- 3D target position with passive triangulation or Digital Elevation Model
- Advanced image processing for fire detection, counter UAV application, naval onboard installations
- Management of integrated or external panoramic visible camera



→ Fusion and display of AIS and radar data



→ Automatic slew-to-cue of identification camera



→ Multiple sensors/site monitoring on Cyclope Hypervisor



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