



# COASTAL SURVEILLANCE

## SPYNEL® Infrared Radar



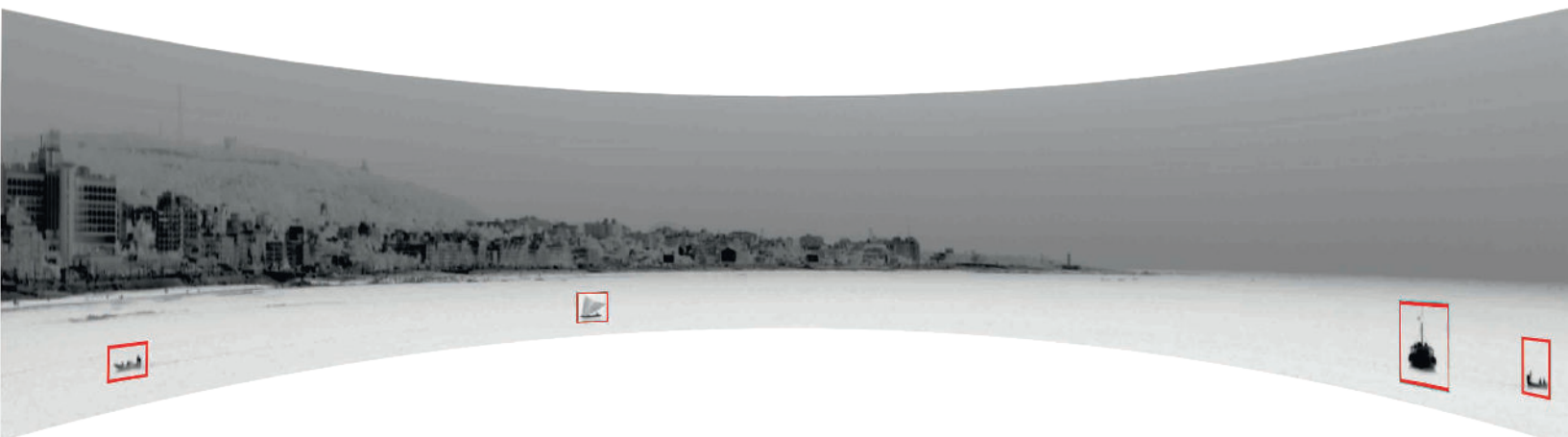
### DETECT AND PROTECT COASTLINES AND MARITIME DOMAIN

Piracy, illegal and irregular immigration, drug trafficking, smuggling... Protecting one's own coastline is becoming increasingly challenging. From Navies who want to set virtual fences and monitor traffic around their Naval bases, to Coast Guards and Customs who want to strengthen surveillance of sensitive areas and to Islands cities or countries who want to protect their inner waters: Coastal surveillance organisations thus need state of the art, reliable sensors that operate in all weather conditions.

With 15 years of experience in optronics wide area surveillance, HGH SPYNEL® surveillance cameras deliver astonishing performance in coastal surveillance. The systems enable full day/night maritime and coastal domain awareness with real-time 360-degree thermal videos, together with automatic detection, tracking and classification of any types of intrusions. The most difficult threats to detect by radars such as swimmers, RHIBs, skiffs, wooden boats and jet-skis are easily detected by SPYNEL.

### BENEFITS

- All-in-one cost-effective solution with low integration cost
- Full maritime / coastal domain awareness with 360° real-time thermal video
- Early detection & tracking of multiple threats simultaneously
- Improved detection of small wooden and rubber boats, jet-skis
- Friend / Foe discrimination with AIS integration
- Automatic classification with
  - • A.I. module (categories: buoy, RHIB, boat, sailing ship and tanker)
  - • Cyclope Alarm Editor (filtering criteria: trajectory, size & shape, speed, AIS...)
- Easy integration with VMS (ONVIF Compliant) or with identification PTZ camera
- Detection capability of people on the coast or UAVs in the air if needed.



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With its extra long-range detection capabilities, SPYNEL is the most adapted solution for coastal sensitive sites monitoring like coastal enclaves or straits. Covering up to 700km<sup>2</sup> for RHIB detection, Spynel can automatically distinguish between a sailing boat, a commercial boat and a smuggling RHIB day and night.

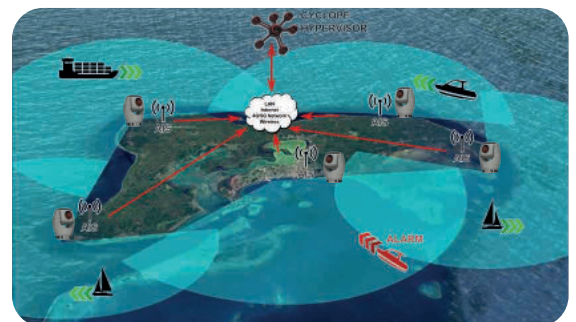
An alert raised about an unwanted or ambiguous presence can then be transmitted to a centralized monitoring and control room. Every video can be used for forensics analysis and maritime law enforcement.



### ISLAND COASTAL SURVEILLANCE

Monitoring the coasts of an island can be difficult due to various installation configurations and distances. Network integration is possible with Spynel, using reduced bandwidth consumption and various communication technologies.

This provides a 360° overview around the full island that can be displayed in a single monitoring and control room.



### NAVAL BASE PROTECTION

Even when a large variety and number of vessels are travelling around a naval base or a strategic port, Spynel provides efficient and early detection of threats. With Artificial Intelligence and smart alerts criteria, Cyclope software provides friend/foe discrimination.

Integration into existing VMS (ONVIF compliant) eases the monitoring and communication with base security crews.



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