



## APPLICATION STORY



*Continuously illuminating a marina for security reasons at night is not always the best solution.*

## Thermal imaging cameras: a new tool for securing marinas

*Providing secure facilities, and keeping marinas a safe environment, should be a basic responsibility of marina management. Protection can be achieved through a combination of security policies, controlled access, observation and user awareness. Although it has not reached epidemic proportions yet, crime is a growing threat to recreational boating. Modern boats are equipped with state-of-the-art electronic systems for navigation and other items. They often also have a state-of-the-art video and sound systems, jet-skis and a lot of other expensive equipment that any robber would love to steal on board.*

Marina crime prevention, just like home or business crime prevention, is a matter of detecting potential risks and eliminating them. Most crimes occur when criminals find a safe and easy opportunity to strike. Most of the time, this happens in full darkness, under cover of the night.

Continuously, fully lighting up a marina during night-time is not always the best solution. Installing supplementary lighting is often expensive. Powering and maintaining it can be very costly. In some sensitive locations it is also considered too intrusive. Furthermore, lighting essentially lays out a route of attack for intruders, creating shadows in which they can hide and gain access undetected.

### **Thermal imaging: an effective solution to see in total darkness, in all kinds of weather conditions**

A perfect solution for monitoring a marina during night time, but also during other parts of the day, is thermal imaging. Thermal imaging is the use of a thermal imaging camera to "see" thermal energy emitted from an object. Thermal, or infrared energy, is light that is not visible to the human eye because its wavelength is too long to be detected. It's the part of the electromagnetic spectrum that we perceive as heat. Thermal imaging cameras produce images of invisible infrared or "heat" radiation. Based on temperature differences between objects, thermal imaging produces a clear image.



*Easily spot trespassers*



*Detecting threats, in total darkness, up to several kilometers away, is an easy task for thermal imaging cameras.*



In contrast with other technologies, such as light amplification, thermal imaging needs no light whatsoever to produce an image on which the smallest of details can be seen. Thermal imaging provides full visibility irrespective of the prevailing light level and weather conditions. It can see in total darkness, through light fog, in the far distance, through smoke and is able to detect anyone hiding in the shadows. It is an excellent tool for security and surveillance applications in marinas.

### Affordable technology

Recent evolutions in detector technology have made thermal imaging much more accessible and affordable. A typical example is the use of thermal imaging in cars to facilitate night-time driving.

With its latest generation of thermal imaging cameras FLIR Systems, the world leader for thermal imaging technology, has opened up the wide potential of this versatile technology to all.

Typical of this new breed is the FLIR Systems SR-19 security camera that provides a brand new weapon for intruder detection and for which there simply is no competitor. It is primarily designed for perimeter surveillance and asset protection. It is a great tool for marina surveillance during any part of day, in all weather conditions. The SR-19 provides reliable round-the-clock awareness without the need for supplementary equipment.

### A full range of thermal imaging cameras, all easy-to-install

FLIR Systems markets a full range of thermal imaging cameras which can be used for security and surveillance applications. All cameras can see in total darkness. Some can detect potential threats up to 400 meters, others can cover a distance of several kilometers. Depending on the user's preference and needs, they can be fixed mounted or installed on a "pan and tilt" system. This way the user can direct the camera, to have it look wherever he wants, from a distance.

Various options exist to connect FLIR Systems thermal imaging cameras and to integrate them in already existing security systems in marinas. They can be configured for stand alone use, as part of a network or in a hybrid configuration with local and network based control.

Most FLIR Systems thermal imaging cameras can be integrated in any existing CCTV infrastructure providing early detection and visibility 24/7 all the year round. They can be integrated in a TCP/IP network and controlled over a PC. No need to put extra cables. This way, you can monitor all activity in a marina over the internet. Even when you are thousands of kilometers away.

### Automatic threat detection software

Putting someone behind a screen to monitor activities during the night is not always the preferred solution. For threat detection in marinas and monitoring if no-one is accessing them, powerful autonomous threat detection software exists.

Operators can define a variety of triggers based on movement in the scene. It can easily be programmed that certain lights switch on if suspect motion is detected or that a security guard is warned to have a look at the scene. This intelligent video decision making software coupled with the thermal imaging power of a FLIR Systems thermal imaging camera presents an extremely reliable automatic threat detection package.



*Yachts contain a lot of expensive material that any robber would love to steal.*



### PTZ-35x140 MS

*The PTZ-35x140 MS is equipped with two thermal imaging cameras and a low-light camera.*



### SR-19

*The SR-19 is a low cost thermal imaging camera which allows for easy threat detection.*

More information about thermal imaging cameras and how to install them in marinas can be obtained from:

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