



# Core<sup>3</sup> Security

Yacht security is of concern to the owners of all yachts, irrespective of their size.

When it comes to security, size doesn't matter. Compulsory compliance is necessary with the International Ship and Port Security (ISPS) system only if a yacht is over 500 tons. As far as a pirate or thief is concerned, a super yacht is no less attractive if it is less than 500 tons gross.

The only electronic products that are compulsory fit on ISPS compliant vessels are Automatic Identification System (AIS) and a Ship Security Alert System (SSAS).

Our Core<sup>3</sup> Security portfolio includes surface and underwater detection, access control, non-lethal defence and tracking systems. All these systems must be combined with trained crew who know how and when to use them.

## Surface Detection

### Radar and Thermal Imaging

The key point is to detect the intruder when it is approaching, day or night and in restricted visibility. The most conventional and traditional surface detection technology is radar.

Thermal imaging is a more recent technology which can be interfaced with radar, providing it with eyes to enable identification. Thermal imagers combined with Ultra Low Light and Daylight cameras will enable the crew to see in the dark and in restricted visibility.

A major enhancement is the ability to interface with the yacht's radar and/or AIS and to lock onto an "unknown" MARPA/ARPA/AIS target and visually track day or night in most light conditions.

Using our Core<sup>3</sup> Technologies the video can be distributed throughout the vessel and with broadband, worldwide IP control is available.

## Underwater Detection

### Marine Intruder Detection Sonar & Diver Tracking

The reliable detection of underwater intruders – and discrimination from marine fauna, harbour seals or a terrorist diver – is a notoriously difficult problem.

A solution is a new state of the art, small, lightweight (35kg), low power and easy to use Intruder Detection Sonar called Sentinel. It has a 360° detection range up to 900m from the yacht.

It has been designed to automatically detect and track a number of underwater threats; including open- (Scuba) and closed-circuit (rebreather) divers and Swimmer Delivery Vehicles.

Individual "friendly diver" transponders with unique IDs plus a panic facility are available so that the system can also be used to track the yacht's own divers.



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**HEAD OFFICE**  
Palma de Mallorca, Spain

**T** +34 971 404 208  
[www.e3s.com](http://www.e3s.com)  
[www.e3connect.tv](http://www.e3connect.tv)

**F** +34 971 404 431  
**E** [info@e3s.com](mailto:info@e3s.com)



### Yacht Access Control and Surveillance

An access control system can be implemented on a yacht. All the users and doors on the yacht are recorded and controlled, allowing user's access only through certain doors at pre determined time and/or based on security levels.

Closed Circuit TV surveillance is a standard feature of most yachts above and below decks and when combined with underwater lights below the waterline. As part of our Core<sup>3</sup> Network plan we recommend IP based solutions for both the CCTV and Yacht Access systems to enable the distribution of images and data around and off the yacht.

### Non Lethal Defence: The Long Range Acoustic Device

Attacks on yachts have increased in various parts of the world.

Beating off such attacks and deterring assailants is not easy without proper training and the right equipment. One such non-lethal device is a long range acoustic device.

It is used to communicate from a safe, standoff distance to gain compliance and determine intent, and has the capability of following up with powerful attention getting and highly irritating deterrent tones to influence behaviour to support any appropriate response.

### Tracking

If in a case where the detection and deterrent systems have not worked a Ship Security Alert System (SSAS) can be used to covertly send an alert message requesting help with the facility to track the yacht wherever it is taken worldwide.

**Our Core<sup>3</sup> Security Tracking portfolio also includes tracking systems for jet skis and tenders.**

**Other Core<sup>3</sup> Technologies** | Communications – VSAT, Fleet Broadband, GSM/3G/HSDPA, Wi Fi, SeaCell | Networks – IT | Integrated Navigation Systems | Music and Movies | Security and Monitoring

### e<sup>3</sup> Connect

#### 2007 Award Winners for Inmarsat and GSM services to yachts.

Provide itinerary tailored connections for communications, sat TV and premium services. GSM, GPRS, 3G, HSDPA, INMARSAT, VSAT, IRIDIUM, EMAIL, HOSTING, GSM SEACELL, SKY, NOVA, DIRECTV, RUSSIAN, NEWSPAPERS, WEATHER, IPTV, CHART UPDATES



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