LEADING THE WAY FROM SEA TO LAND

SURVEILLANCE RADAR SOLUTIONS
A Kelvin Hughes radar is the primary tool for long range threat detection. On land and at sea we provide solutions for users who demand “real time” situational awareness. Kelvin Hughes offers coherent SharpEye™ and non-coherent radar sensors, capable of detecting the smallest targets in the most challenging environmental conditions.
Kelvin Hughes leads the way in detection for maritime surveillance, navigation and land based security applications. Where detection of potential threats is required earlier, at longer ranges and in severe weather and clutter conditions, Kelvin Hughes offers a SharpEye™ radar sensor solution providing the reliability, assurance and performance you need.

WHY KELVIN HUGHES

SharpEye™ is the core of our radar technology and provides navies, coastguards, ports, border agencies, critical national infrastructure operators, airports, militaries and security providers with an affordable, multi-purpose and highly capable sensor.

The Kelvin Hughes range of security solutions combines the advanced SharpEye™ detection capabilities with electro-optical sensors and deployment solutions for land based security and surveillance applications.

The modular and scalable design brings state-of-the-art radar processing technology in reach for the first time to almost all surveillance applications. With high reliability and the CoTS approach; the chosen solution will ensure an economic model in terms of direct and indirect costs.

A Kelvin Hughes SharpEye™ coherent radar sensor is designed to provide long life, simplicity in operation and be intuitive in every sense, ensuring target detection and display of even the smallest of targets.

A core element of our proposition focuses on the capability delivery to the end user and the support and partnership with systems integrators. We provide dedicated programme teams, ensuring lead times, costs and risks are managed. Our through life services include a spares and support team and ILS packages designed to help remove the burden of through life management, obsolescence management and also enable incremental capability acquisition at a later stage in the life of the system.

Immediately upon engaging Kelvin Hughes to deliver a solution, you will be receiving the benefits of our unique capabilities, which cannot be acquired from any other single surveillance product provider.

We will provide enhanced detection, affordably, collaborate with the best integration parties and ensure reliability in our approach, products, and services delivery.
**SharpEye™** is the world's first affordable, high-grade, fully coherent solid state radar sensor, which outperforms other sensor technologies, especially in bad weather and ground clutter conditions.

**SHARPEYE™ OUR INNOVATION**

A SharpEye™ solution, available as X-Band (I-Band) or S-Band (E/F-Band), provides a low maintenance and high reliability capability with many unique features such as low radiated power, waveform optimisation and return filter processing.

The SharpEye™ technology is the primary tool for target and threat detection up to the horizon and in short range areas of operation, in adverse weather conditions such as rain and rough seas, as well as environments with strong ground clutter.

**MEET THE TECHNOLOGY**

A SharpEye™ system will provide and increase situational awareness at sea, onshore and on land to navies, armies, special forces, airports, civil infrastructure, ports, border agencies, and security services.

SharpEye™ brings to the user enhanced and small target detection, ensuring safety at sea, ports and shipping lanes (SOLAS & IALA compliant), situational awareness on the battlefield, in security and safety missions, and land and coastal border surveillance.

Unlike other sensing technologies, a SharpEye™ radar provides enhanced threat detection and target discrimination through Doppler filter processing and unique algorithms and can provide target identification and tracking of specific target types, even in adverse weather (at sea or on land) and ground conditions.

**SHARPEYE™ vs MAGNETRON IN HEAVY RAIN CONDITIONS**

Situational intelligence, the world over.
YOUR ENVIRONMENT COVERED

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### Security Systems
- **SHARPEYE™ Long Range 360° Open Array Platforms**
- **SHARPEYE™ SxV 360° Security Radome**
- **CXEYE™ Display & Interface Software**
- **Single Mast Solution (SMS) & Electro-Optical**
- **Portable Radar Systems**
- **Deployable Radar Systems**
- **Mast Mounted Radar Systems**

### Shipbourne Systems
- **SHARPEYE™ Navigation & Surveillance Radar**
- **ATM Approved Helicopter Control Radar**
- **SHARPEYE™ SCV (Small Craft Variant)**
- **Naval MantaDigital™ Display**
- **Magnetron Navigation Radars**
- **ECDIS & WECDS**
- **Advanced Trackers**
- **Upmast & Downmast Processing**
- **Lightweight & Low RCS Turning Unit**
- **Low Profile Antennas**

### Shorebased Systems
- **SBS-700 VTS Radar (Non-Coherent)**
- **SBS-800 SHARPEYE™ VTS Radar & Coastal Surveillance Radar (Fully Coherent, Upmast System)**
- **SBS-900 SHARPEYE™ Coastal Surveillance (Fully Coherent, Mast Enclosure, Dual Redundant Optional, High Resolution System)**
WORLD LEADING SOLUTIONS
The Kelvin Hughes team provides outstanding service throughout the life of our products, and organises the business to recognise the varying service requirements needed at the different stages of a radar system acquisition.

PROJECT MANAGEMENT

All customers benefit from our project management process. This ensures a central overview of customer requirements is maintained from an early stage of the relationship through to contract award and then throughout the life of the programme. This comes as standard and is key to ensuring smooth, on-time, and to budget programme delivery.

RADAR TRIALS DELIVERY

Validating that the system performance meets and exceeds the operational specification is a key element in implementing new systems, whether at sea, onshore or on land. Kelvin Hughes recognises the need for a comprehensive trials regime and has a dedicated Trials Team that work closely with the customer in planning and executing an appropriate trials programme to support the application.

INTEGRATED LOGISTICS SUPPORT (ILS)

ILS forms a key component of any radar supply programme whether the application is for defence, government or industry. Kelvin Hughes recognises the importance of considering these requirements at the outset and invites customers to explore the options we offer; from standard support contracts to tailored support services.

SPARES & SUPPORT

In addition to ILS services we have a dedicated customer services team with out-of-hours contact facilities, and a global support network providing full life cycle assistance and support for Kelvin Hughes equipment.

TRAINING

Kelvin Hughes training is available for all products. We offer dedicated training programmes at our training school based in our HQ and also at a venue of the customer’s choice should this be required.

INCREMENTAL CAPABILITY

This concept is made possible only by SharpEye™. Due to the unique nature of the Solid State processing that takes place within the sensor itself and the continual development of unique target and tracking algorithms, Kelvin Hughes is able to provide capability enhancements, post integration of the system, to meet new emerging requirements.
The Kelvin Hughes installed base covers the globe with applications in every continent and operating around the world. We are a proven and trusted global radar supplier.
We are one of the longest established technical equipment and instrument makers with a heritage dating back to the 1700s. Kelvin Hughes Limited, as it is known today, was formed in 1947 and notably the name Kelvin is after founder Lord Kelvin, who developed the absolute thermometric scale referred to as the Kelvin scale.

Today Kelvin Hughes continues the long trend of innovation and world firsts through its supply of surveillance and navigation radars, notably the Royal Navy standard KH2007 navigation radars. Over 30 of the world’s navies are using Kelvin Hughes radars.

THE SHARPEYE™ EVOLUTION

In 2006, Kelvin Hughes unveiled to the market the world’s first affordable fully coherent solid state radar sensor SharpEye™, enabling Doppler processing techniques to be applied to radar sensor technology. The outcome is a fully coherent solid state radar providing full tactical and surveillance capabilities to the command.

Now with SharpEye™ at the heart of our solutions we can provide users with situational awareness in all theatres, whether at sea, onshore or on land.

THE KEY FACTS

Kelvin Hughes has four divisions:

- Security Systems
- Surveillance Systems
- Marine Systems
- ChartCo

Kelvin Hughes employs over 400 people worldwide and has offices and operations in:

- United Kingdom (HQ)
- Denmark
- The Netherlands
- Singapore
- United States

Over 3,500 radars installed worldwide, of which, more than 600 are SharpEye™ systems. Approximately 400 of these SharpEye™ systems are in government, defence, surveillance and security applications.

- Environmental Management Standard: ISO 14001:2004
- Military Aviation Authority: RA1027 ATM Equipment approved organisation
- Type Approval: Marine Radar Equipment

SITUATIONAL INTELLIGENCE, THE WORLD OVER