Naval Electronic Warfare Solutions
Ensuring your mission success

www.thalesgroup.com
Thales supplies multispectral electronic warfare (EW) capabilities to the world’s navies – capabilities that enable ships to detect before they are detected, to optimise their tactical situation awareness and to gather intelligence.

Key products include:
> Radar Electronic Support Measures: R-ESM systems
> Radar Electronic Countermeasures: R-ECM systems
> Decoying systems
> Complete EW suites

**SENSE**

**R-ESM AND C-ESM**

Radar and Communications Electronic Support Measures, or R-ESM and C-ESM systems, provide early detection and immediate threat warning. They also contribute to tactical situation awareness by identifying emitters, reporting new activity and generating signals intelligence data in real time.

- Latest generation digital technology
- Amplitude and interferometric direction finder
- Multifunction or dedicated console

Real-time Probability of Intercept of 100% and high accuracy direction finding ensure enhanced situation awareness
A Thales suite comprising an active R-ECM system and decoying system offers excellent protection against incoming missiles. Such configurations can also deny a threat the use of its radars while detecting and targeting its units.

UNDERSTAND AND DECIDE
The analytical tools to understand a threat environment and take decisions to remain in control.

HOT ACTION
- Mission planning
  - Library generation
  - Database interface
  - Tactical situation display
  - Library validation
- Mission execution
  - Detection analysis
  - Identification
  - Intrapulse analysis
  - Signal analysis
  - Recording
  - Real time EOB display
- Mission analysis
  - Mission replay and analysis
  - Library validation
  - Naval EW reference database updating

COLD ACTION
Testing, evaluation and training
- Digital simulation
- Hardware-in-the-loop simulation
- Onboard/embedded training
- Computer-based training
- Post-mission data processing

Key to operational efficiency and naval superiority
EW suites provide a first line of defence against all types of radars carried by airborne, land-based, surface and subsurface platforms, as well as missiles. Specific capabilities include interception, analysis and classification.

EW suites provide vital capabilities for situation analysis and self-protection.

**ACT: JAMMING AND DECOYING***

R-ECM: the soft-kill solution to defeat hostile emitters. This active system contributes to point and wide-area defence and can also decoy and seduce incoming missiles away from their targets.

**DENY, CONFUSE, MASK**

Avoid detection during enemy search & track phases using noise and reflex jamming techniques in conjunction with passive decoying.

**DISRUPT, DISTRACT, BREAK LOCK, SEDUCE**

R-ECM’s smart jamming and centroid decoying capabilities significantly improve self-protection.

* In partnership with Lacroix for Sylena Solution

**Cost-effective self-protection solutions**
Thales provides high-performance electronic warfare (EW) solutions meeting user requirements for improved tactical situation assessment and enhanced platform survivability.

Thales develops, produces and integrates complete EW self-protection solutions integrating detection, jamming and decoying.

Leveraging systems developed for latest-generation platforms (Type 45, Horizon, FREMM, etc.), Thales offers upgrade solutions for warships already in service.

In addition to designing its EW systems for maximum reliability, long life and easy through-life support, Thales also provides world-class ILS (Integrated Logistic Support), obsolescence management, supply chain optimisation, business model innovation and rapid repair and overhaul. These services reduce life-cycle costs and ensure that each system remains efficient and effective.

**Capabilities for improved situation awareness and enhanced survivability:**

- Detection and identification of current and emerging threats
- Discrimination in multi-threat littoral environments
- Self-protection effectors
- Fully-updated Electronic Order of Battle (EOB), including emitter parameters, platform data, locations and disposition
- Integration and management of intelligence database by Naval EW Centre
- Regular updating of Naval and Joint EW Centres

**Development, simulation, validation and testing:**

- System integration and validation benches
- In situ simulation and testing
- Operational simulation environment
Our experience

- More than 200 state-of-the-art self-protection systems on ships operated by over 20 navies
- All-round expertise and flexibility as equipment supplier, partner or prime contractor.

Delivering quality on time and listening to customers are our top priorities. Through our company-wide Customer Commitment continuous improvement programme we seek to understand our customers' needs and deliver innovative, competitive solutions.

Thales is a leading international electronics and systems group serving the aerospace, defence and security markets. The group employs 68,000 people worldwide.