Surface ship integrated combat system

Mission

SETIS manages anti-surface, anti-air and anti-submarine warfare and is designed to perform intelligence gathering, land attack and special operations. SETIS can be fitted on all types of surface ships with heavy weapons capabilities to meet evolving navies requirements:
- defend vital interest
- guarantee homeland security
- resolve conflict and crisis
- insure naval superiority

Fully-integrated system
Scalable and evolutive
Joint-operation capability
Large range of sensors and weapons
Long-term support
Fitted for warship modernisation
**Key Points**

### Fully-integrated system
- Powerful and war-proven algorithms to detect and neutralise threats in real-time
- User-friendly man-machine interface
- Combined combat-support system to incorporate situational awareness, mission planning, air mission management, meteorological and maritime environment, electromagnetic intelligence
- Integrated command information system to manage simultaneously real and differed-time information
- On-board training capability using complete embedded training environment. This capability can be extended to a whole fleet up to a land-based training site
- Fully operated with multifunction common consoles
- Optimised physical integration to the platform

### Scalable & evolutive
SETIS combat system based on off-the-shelf components can be configured for customised solutions. SETIS open architecture and modularity guarantee that the system can be configured according to the operational requirements. SETIS can be upgraded during its lifetime to adapt to new missions and keep its operational superiority (mine warfare, UXV integration and management, asymmetric threats, etc.).

### Large range of sensors and weapons
As a leading system integrator DCNS can recommend and integrate a large set of sensors and weapons to meet navies’ requirements.

### Joint operation capability
SETIS is fully interoperable with national and international data links to allow all types of joint operations. It includes an extensive command support system with mission planning, command aids, secured messaging and recognised maritime picture.

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**Characteristics**

| Search                  | - 2D/3D, multifunction radar
|                        | - Optronics, radar and communication ESM
|                        | - Hull-mounted sonar, towed sonar
|                        | - AIS
| Countermeasures        | - R-ECM
|                        | - Decoy launching system
|                        | - Anti-torpedo decoy system
| Weapons                | - All guns from 12.7 mm to 127 mm
|                        | - Surface-air, surface-surface, and cruise missile
|                        | - EM and/or optronic fire control systems
|                        | - Torpedo launching system
| Communication          | - VLF, MF/HF, VHF, UHF, satcom
|                        | - Tactical data links: L11, L16, L22 J-SAT or non-NATO standards
|                        | - Underwater telephone
|                        | - Message handling system
|                        | - Internal communications
| Navigation             | - Navigation sensors (inertial platform, speed LOG, echo sounder, GPS) data integration, navigation aids, navigation radar
| Situation elaboration | - CMS for track or plot association and fusion, target motion analysis, system classification
| Command and decision   | - CMS for threat assessment and tactical navigation planning
| Weapon control         | - CMS for the choice, preset, launching and guidance of weapons
| System support         | - Performance monitoring and fault localisation up to LRU level
|                        | - On-board and ashore training
|                        | - Data recording replay and ashore analysis
|                        | - Ruggedised COTS computers running Linux operating system
| Technology             | - Multifunction consoles fitted with two or three high-definition colour displays
|                        | - Redundant fast Ethernet system network
|                        | - Open standards: TCP/IP, CORBA...
|                        | - C++ and Java languages
**KEY POINTS**

**Long-term support**
DCNS, as the French Navy, main prime contractor, owns all expertise, industrial means and tools to provide long-term support during system full life-cycle, including maintenance, obsolescence management, technical facts recording and analysis, databases update...).

**Fitted for warship modernisation**
SETIS can be fitted for warship modernisation programmes with solutions to improve:
- awareness capability
- system interoperability
- command & control
- implementation of operational capabilities (CSS, CI, datalinks, etc)

**Partnerships**
DCNS is open to partnerships and technology transfer with local industry, enabling local through-life support or equipment supply and software.

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**Functional architecture example**

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Satisfied customers

French Navy:
- F70-class ASW frigate
- Cassard-class AAW frigates
- Charles-de-Gaulle aircraft carrier
- Forbin-class AAW frigates in cooperation
- Mistral-class LHD
- La Fayette-class frigates
- FREMM multimission frigate
- OP3A CS modernisation project

Brasilian Navy:
- Niterói modernisation programmes

Norwegian Navy:
- Hauk modernisation programme
- Skjold-type FPB Norwegian Navy

Saudi Arabian Navy:
- SAWARI I and SAWARI II frigates

South African Navy:
- MEKO frigates

Kuwait Naval Forces:
- GAROH combatants

Asian countries Navies:
- La Fayette-class frigates