

## A UNIQUE FULL STARE THREE SENSOR HEADS CONFIGURATION NO ROTATING HEAD

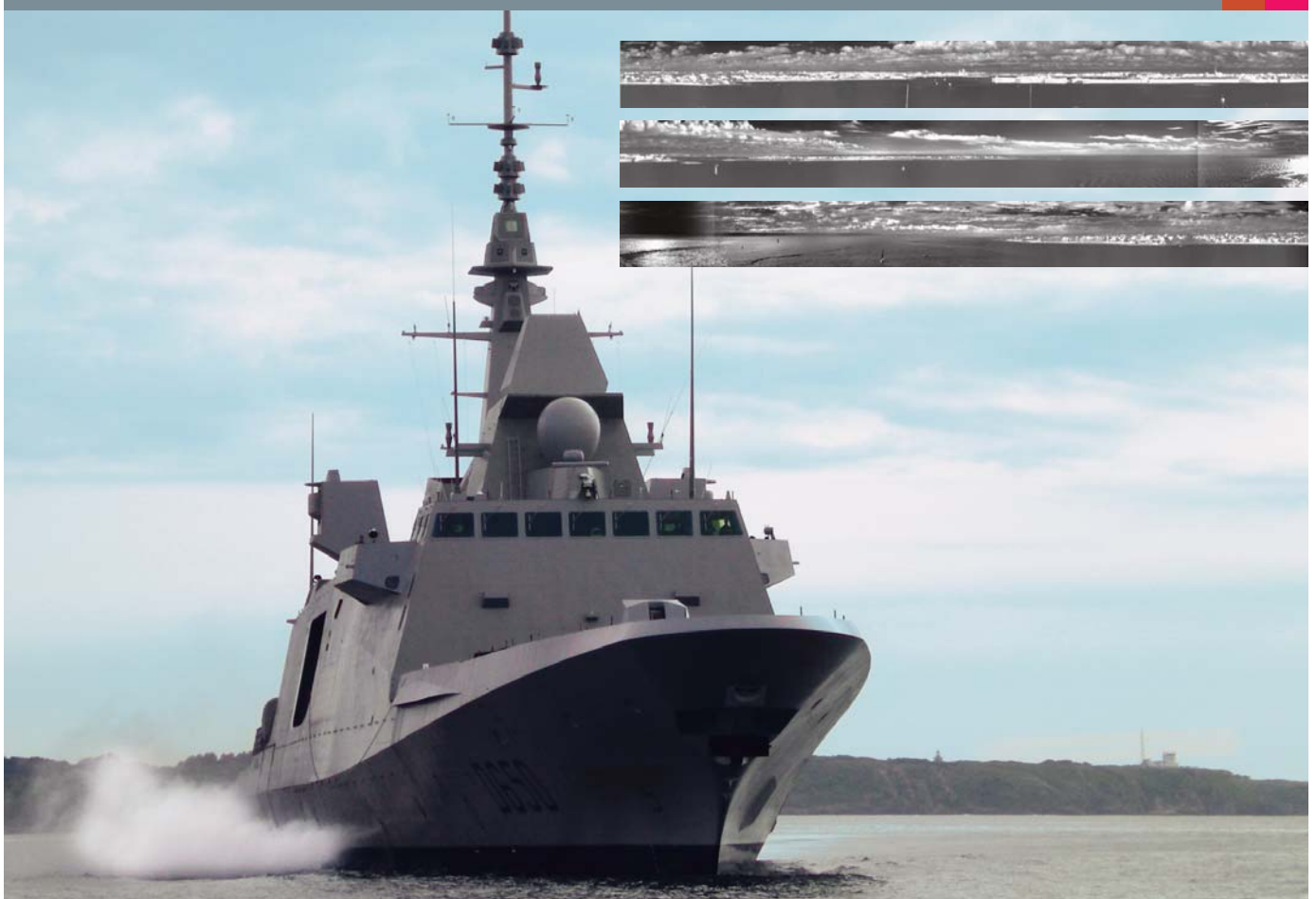
- ▷ Day-night situation awareness
- ▷ Automatically detects, tracks and classifies all "above water" types of threats, from sea-skimming missiles to small crafts
- ▷ Full 360° azimuth: no blind sector
- ▷ Very high refresh rate: 10 Hz
- ▷ IRST: passive detection and tracking of the IR signal emitted by targets
- ▷ Spectral band: MWIR (3-5  $\mu\text{m}$ )
- ▷ Electronic stabilisation



NEW GENERATION NAVAL IRST

# ARTEMIS

DEFENCE  
HOMELAND





# ARTEMIS

## New Generation Naval IRST

Artemis is a fully passive infrared surveillance system able to automatically detect, track and classify both air and surface targets simultaneously. Artemis is able to detect and track maneuvering and stealthy threats as well as surface asymmetric threats. The distributed sensor architecture allows Artemis to perform a full panoramic and wide elevation coverage without any blind sector. Artemis was selected to equip the French and Moroccan Navies's version of the European FREMM multi-mission frigate. Artemis can be integrated on any type of ships or in shore-based surveillance systems.

### SYSTEM DESCRIPTION

Artemis is a fully passive infrared surveillance system able to automatically detect and track both air and surface targets simultaneously.

Artemis is able to detect and track maneuvering and stealthy new threats (fighter aircraft, sea-skimming anti-ship missile) as well as surface asymmetric threats (fast attack ship, small craft, jet ski).

The distributed sensor architecture allows Artemis to perform a full panoramic and wide elevation coverage without any blind sector. The Artemis system consists of a set of independent sensor heads directly mounted on the vessel's masts or superstructure. Each sensor head incorporates state-of-the-art thermal imaging sensors electronic image stabilization, allowing long range detection at a very high surveillance rate. The electronic cabinet includes real time algorithms thus achieving a very low false alarm rate while providing data and IR video images to combat systems. Artemis's design provides a high level of availability and an easy integration on board.

Artemis can be controlled and operated either from a dedicated console or from a multi-function console through the combat system. A simple comprehensive Man-Machine Interface allows the command team to gain complete situational awareness.

### KEY FEATURES

#### High Performance Sensors

- Distributed sensor architecture
- State of the art imaging sensor
- Low weight and small size
- Electronic stabilization
- High surveillance rate

#### Image Processing

- Real time image processing
- Advanced algorithms:
  - Automatic detection & tracking on 360° x 12° (useful coverage on FREMM)
  - Adaptative tracking
  - Clutter rejection

#### Platform Benefits

- Flexible installation
- Reduced maintenance

#### Stealth Features

- Reduced visual, radar and thermal signatures

#### System Elements based on Proven Technology

- Optimized reliability / availability
- High MTBF

### SYSTEM FUNCTIONALITY

- Combat interface system
- Advanced MMI
- Autonomous mode
- Threat assessments and situation awareness
- Navigation aid