



# Maritime surveillance

*Integrated surveillance systems monitor shipping to provide a real-time picture of movements in harbour areas and around strategic installations port authorities, maritime agencies and critical infrastructure operators.*

With the increasing importance of maritime interests and the parallel growth in risks and threats – from accidents at sea and environmental hazards to piracy, terrorism and illegal trafficking – many countries have adopted high-tech maritime safety & security (MSS) solutions to improve the surveillance of coastlines and littorals, port infrastructure and offshore facilities.

Integrated Vessel Traffic Service (VTS) systems are used to track maritime traffic in ports and their approaches, coastal shipping lanes and straits by overlaying information from various sensors and systems, including radars, surveillance cameras and Automatic Identification System (AIS) transceivers carried by commercial vessels. More sophisticated coastal surveillance systems (CSSs) are also available to cover larger areas of interest and integrate additional sensors and subsystems.

Needs vary from region to region. In Europe, the priorities are prevention of accidents at sea and the fight against trafficking and illegal immigration. Asia faces the same risks and also has to deal with the growing threat of piracy, while countries in the Middle East need enhanced surveillance capabilities and critical infrastructure protection as part of the ongoing fight against terrorism.

Signalis is a world leader in maritime safety & security. A joint subsidiary of Airbus Defence & Space and Atlas Elektronik, the company has been selected by numerous governments to provide maritime surveillance solutions and protect coastal waters, ports and harbours, and strategic installations such as onshore and offshore oil & gas facilities. The company has worked in the Strait of Malacca, the Persian Gulf and the Panama Canal. Ports around the world rely on its systems. In particular, Signalis has equipped 80% of China's seaports with VTS systems and counts the German coastguard service among its government customers in Europe.

In 2014, Signalis completed deployment of SPATIONAV V2 in France. This system is considered the most comprehensive and the most tightly integrated maritime surveillance solution in service today. Installed along the entire French coastline and in certain overseas territories, it coordinates and processes data from shore-based radars, electro-optical systems, direction finders and AIS receivers, as well as shipborne, airborne and space-based sensors, and cross-cues all this information with intelligence data. Maritime surveillance agencies and other stakeholders therefore have a complete, real-time picture of an entire area of interest. SPATIONAV V2

draws on Airbus Defence & Space's cybersecurity expertise to provide high levels of security and resilience to cyber attacks, with data access protocols governed by strict operator accreditation rules.

The latest version of the system includes a new, more intuitive human-system interface that was co-designed with users to make the system both more effective and easier to operate despite its complexity.

Importantly, SPATIONAV V2 is designed to support data exchanges on an international scale as well as nationally, the ultimate objective being to integrate data and intelligence across a wide area of interest spanning several countries.

SPATIONAV is part of the new STYRIS range of solutions developed by Signalis for VTS, CSS and critical infrastructure surveillance. In addition to its dedicated maritime surveillance software, Signalis offers a full range of sensors including radars optimised for detecting and tracking intruders such as small surface craft and low-flying aircraft. At its facility in La Ciotat in France, the company systematically tests commercially available sensors to guarantee the levels of performance its customers require and demonstrate its solutions under real-life conditions. «

