

The Surveillance Management System for the Australian Customs Coastwatch

The Surveillance Information Management (SIM) developed by SELEX Galileo and Surveillance Australia Pty Ltd (SAPL) is composed by an air segment- the SIM-A, and a ground segment - SIM G.

The Surveillance Information Management SIM-A is derived from the Airborne Tactical Observation and Surveillance System – ATOS, already installed on a wide range of platforms and in operation with different customers. For the Australian customer, SIM will be installed on 10 Dash-8 aircraft and 2 helicopters.

The value of the contract for SELEX Galileo is 20 million euro.

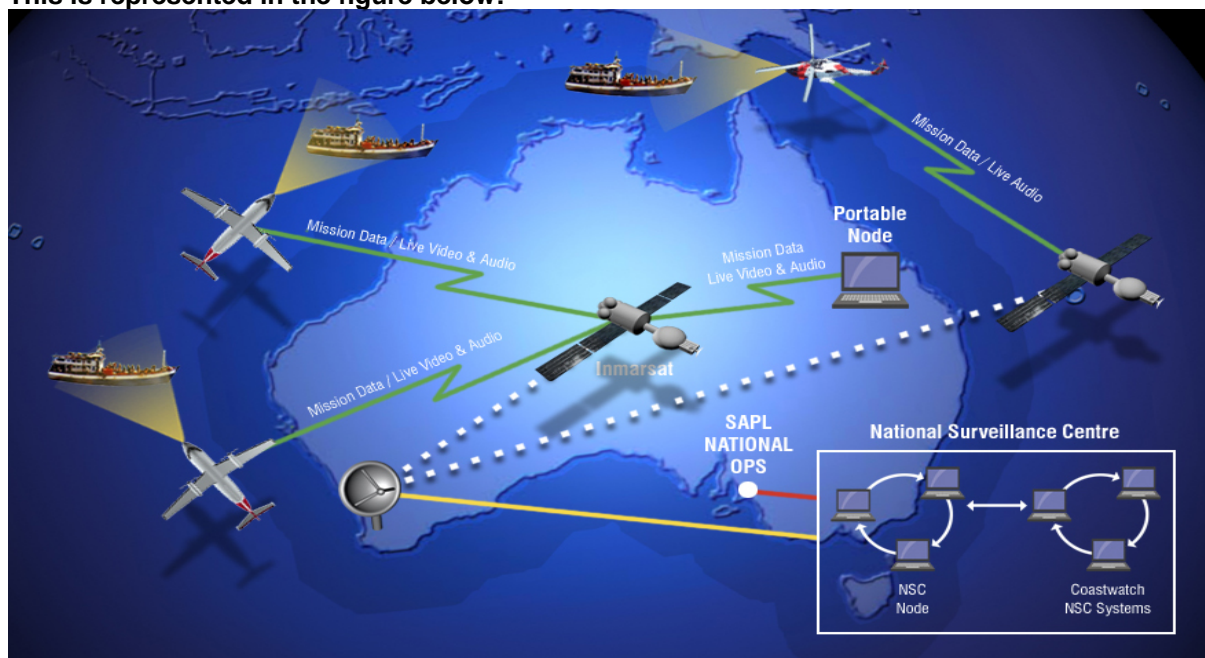
Some highlights about the Coastwatch Tasks: Maritime Patrol Operations 24 hours per day, 20.000 hours per year, 37.000 km of coast to be monitored, flights up to 900 NM offshore. Operations include a variety of tasks, such as: detection, classification and identification of illegal immigration, illegal traffic, illegal fishing, quarantine threats, anti-smuggling, people under covers, camouflaged vessels.

The Surveillance Information Management (Air Asset Segment) (SIM-A) includes fixed wing and rotary wing configurations. The Surveillance Information Management (Ground Segment) (SIM-G) includes the National Surveillance Centre (NSC) Node and the Portable Remote Nodes (PRNs). The System meets the requirements of the Civil Maritime Surveillance 2004 (CMS04) System Project of the Australian Customs Coastwatch.

SIM-A integrates and handles the information coming from different airborne sensors such as Surveillance Radar, EO including day & night sensors, communication and data link and is responsible for the Correlation, Management, and Capture of the Surveillance Information.

SIM-G is responsible for planning, monitoring and evaluation of Surveillance tasks.

This is represented in the figure below:



The system will be used to develop and maintain a tactical database of target and track information within the aircraft. All the information acquired by the aircraft fleet will be communicated to the Border Protection Command National Surveillance Centre (NSC), on a regular basis through a satellite communications link. The information will be used to maintain a current surface picture of Border Protection Command's area of interest so as to achieve Maritime Zone Awareness (MZA). In addition, the system will upload tasking and planning information from the NSC before missions, so that each mission begins with the latest intelligence and data available.

Surveillance Australia will rely on the system vendor for through life support, so the availability, cost, and responsiveness of the support system will be most important.

Surveillance Australia, with support of SELEX Galileo will have the capability to carry directly in Australia repair activities at intermediate level.

About SELEX Galileo's ATOS

ATOS - Airborne Tactical Observation and Surveillance System

The ATOS is an advanced and flexible airborne integrated observation and surveillance mission management system. The system's modular open architecture easily supports the integration of multiples sensors and workstations.

- ATOS has been designed with significant growth capability for added roles/missions
- Best performance and configurability ensured by the use of COTS components.
- ATOS can be easily installed and removed and multiple configurations are available to fit various size aircraft
- Carefully designed Man-Machine interface and sensor integration to minimize workload and stress increasing operator's situational awareness
- Based on MIL STD-1553B data bus and Ethernet LAN for data communication

- Redundancy for mission critical subsystems and backup functions for other equipment
- Use of multifunction consoles

About the ATOS family:

The ATOS U: includes one mini or mobile ground console and covers EEZ protection (Fishery control, anti-smuggling, immigration control) and Search and Rescue. It can be installed on UAVs, and small helicopters and aircraft.

The ATOS LW:

Developed for small aircraft and helicopters. Tailored for the Piaggio 166 and for the smaller Vulcanair P68 turboprop aircraft, ATOS LW can be easily adapted to any rotary or fixed wing platform.

The ATOS C (COMPACT):

ATOS - C provides a modern solution to the Operators Console Concept. Featuring an extreme modularity ATOS - C can be configured for single or multiple operators adding identical modules. ATOS - C can have two to four consoles.

The ATOS E: Includes four or more consoles and covers extensively all EEZ missions and Anti Surface Ship Warfare, Anti Submarine Warfare. It can be installed on large aircraft.

