

## SELEX SISTEMI INTEGRATI AT FARNBOROUGH 2010

*Displayed in the static area the NEXOS system, a surveillance unit on a Quad, equipped with the LYRA10 radar, and the deployable air defence radar RAT31DL/M.*

*Within the Finmeccanica stand an operational room is reproduced: the "Integrated Capabilities Area" for the management of different civil and military Homeland Protection mission critical situations. State of the art products for Security, Defence and Integrated Logistic Support are also on show along the stand.*

Again this year, SELEX Sistemi Integrati, a Finmeccanica company, world leader in the design and manufacturing of systems and sensors for defence and security, and in the air traffic, maritime and airport management systems, takes part to Farnborough air show, from 19<sup>th</sup> to 25<sup>th</sup> July 2010.

The company, within the Finmeccanica exhibition area, displays its most significant products in the radar domain and in the design and manufacturing of integrated Large Systems for Homeland Protection.

In fact, the Large Systems are a priority into SELEX Sistemi Integrati's business strategy and at the same time, an activity of increasing social interest for territory, people, institutions and critical infrastructure protection from terroristic and criminal threats and from natural disasters.

### Finmeccanica stand – Integrated Capabilities Area

The utmost expression of the company competences in the Security and Defence domains is represented into an **Integrated Capabilities Area**, set into the Finmeccanica stand. Within the mentioned area, SELEX Sistemi Integrati shows its skills as system integrator of its own and the other Finmeccanica Group companies' products.

The management of three different Security and Defence operational missions is shown. The first area is dedicated to the coast and harbor protection and includes the **Archimede** and **VTMS** (Vessel Traffic Management System) systems. Another area, where a system for the **Management of Major Events** and an **ATM** (Air Traffic management) demonstrator are displayed, is in charge of illustrating the security management during a major event deployment, such as a sports event. The third area is, then, devoted to a demonstration of the operational capabilities of the **Forza NEC** system for the digitalization of the Italian Armed Forces.

#### Archimede System

Archimede is an integrated tactical harbour protection and surveillance system, which is modular, transportable, fast to set up, configure and deploy.

Archimede integrates heterogeneous sensors, such as radars, electro-optical systems, sonars, sound buoys as well as unmanned vehicles (surface, underwater and air), able to exchange data and information within a challenging environment (above water, underwater, sea surface, air) and to supply a complete picture of the areas to be controlled.

#### Vessel Traffic Management System

SELEX Sistemi Integrati's Vessel Traffic Management System offers advanced solutions for the control and management of safe vessel traffic, maritime environment monitoring, sea Search & Rescue (SAR) operations support on wide areas. The system architecture is based on a national network which connects the local, area and central control centres, allowing them to interact at different operational levels.

### **Forza NEC Demonstrator**

The technological demonstrator of the Forza NEC for the land units digitalization, has the scope of improving the operational efficiency in out-of-area missions, in particular in peace-keeping and peace-enforcing operations.

Through a simulation, the demonstrator displayed at Farnborough is able to support the analysis of the critical aspects of the architecture referred to the Integrated Land Brigade (BIT). The main components are a scenario generator and animator, a simulation environment for the communications, platforms simulators (vans and UAV), weapon sensors and systems.

### **C2 Major Events Management System**

The major events management system is able to gather, analyze, coordinate and integrate all data coming from the positions of the several resources deployment and sensors installed to guarantee security. The system is composed by a Coordination Centre, a Decisional Room provided with sophisticated software devices, able to integrate all data to manage the possible events through the resources available on the field. The system is also composed by different Command and Control local centres which interact with the Central Direction. During the last G8, SELEX Sistemi Integrati was the prime contractor for the design and the implementation of the new integrated system which allowed the Italian Civil Protection Department to manage the event.

### **ATM (Air Traffic Management) Demonstrator**

The ATM demonstrator displays SELEX Sistemi Integrati systems SAIL, A-SMGCS (Advanced Surface Movement Guidance and Control System) and ADAM a multilateration system. SAIL allows the complete surveillance and control of ground movements into the airport area and the surrounding airspace, also in low visibility conditions, while ADAM provides en-route, approach and airport area accurate surveillance in all meteorological conditions.

## **Finmeccanica Stand**

Again into the Finmeccanica stand, just outside the *Integrated Capabilities Area*, SELEX Sistemi Integrati has settled its products into the several thematic areas dedicated to *Security and Resilience*, where the company shows the **Civil Protection Information System (SIPC)**, the **Blue Border Protection** and **Anteo Security** systems; to the *Joint Operations* where SELEX Sistemi Integrati displays its **SIACCON-Forza NEC** system and the naval **Combat Management System**, besides the **Blue Shield** air defence system.

Finally, into the area dedicated to *Training & Support*, the capabilities on maintenance and training, relevant to an **Integrated Logistic Support** are demonstrated.

The fifty year experience of SELEX Sistemi Integrati is witnessed by an historical radar, the **AN/TPS-1e** designed in 1960. The AN/TPS-1e is a medium power L band radar designed for air target search and acquisition. This system was developed to meet the stringent specifications of the United States Marine Corps, and for years it was considered the search and acquisition standard radar for many NATO countries, representing their air defence backbone.

## **Finmeccanica Static exhibition**

Into the Finmeccanica area dedicated to the static exhibition, SELEX Sistemi Integrati displays **NEXOS**, a surveillance unit mounted on a Quad which is equipped with the LYRA 10 sensor, a laptop and a communications system for Homeland Protection missions. Alongside a **RAT31DL/M** is also set (DADR Deployable Air Defence Radar). It is a tactical 3D radar for air defence, which has been the most sold long range system within the NATO area in the last years.

### **NEXOS**

NEXOS is a Quad-mounted surveillance unit equipped with a LYRA 10 radar, a laptop and a communications kit. NEXOS is a part of the MANDRA system, realised for border and area protection

and based on high mobility all-terrain units easily deployable, modular and network connected in full compliance with the NEC/NCO doctrines. It can be available for special operations Forces and non-military authorities, for area surveillance and reconnaissance missions. Depending on the landscape characteristics, NEXOS is able to cover an area up to 50 km side for a depth of 10/15 km.

The MANDRA system is made of eight similar units, with different functions, according to the mission assigned to the system.

#### **RAT31DL/M (DADR)**

The RAT31DL/M is the mobile version of RT31DL, an advanced 3D, solid state, air defence radar system in L band (NATO band), specifically designed to support NATO troops. It has a range of over 500 kilometres. The whole tactical system can be transported in two containers mounted on commercial trucks. Two mobile and twelve fixed versions were recently acquired by the Italian Defence Administration, out of 34 systems sold up to date.