

Simulation and training capabilities

Introduction

SELEX Galileo supply simulation simulation and training systems ranging from computer-based training and virtual cockpits to full mission systems for some of the most advanced aeronautical programmes such as the Eurofighter Typhoon, the Tornado and the M346.

The systems can provide certification for crews and train them on how to execute normal and emergency procedures for typical missions in areas such as aerial firefighting, surveillance and law enforcement.

SELEX Galileo's simulation and training systems help reduce armed forces' costs and ensure greater standardisation of crew training.

Product Capability

The systems consist of an accurate simulation of an aircraft's cockpit instruments within a 3D synthetic environment that mimics the aircraft's operational environment. Pilots in training are able to perform all of the procedures they would in an actual aircraft while operating a realistic model of the aircraft's controls. A separate mobile instructor console controls all phases of the simulated mission, checking that procedures are followed and monitoring the effects of the pilot's actions.

The systems have been developed in-house without recourse to external tools that some other simulators use, allowing for high performance and maximum customisability. Modules such as the new image generator VIR3X enhance simulated missions with realistic details, allowing for an experience that closely mimics real life to make training more effective. Another key module is the Multimode Airborne Radar Simulator (MARS) that simulates the principal Air-to-Surface non-coherent modes of airborne radars.

These tools are integrated with SELEX Galileo's Simulation Studio, a data-centric, modular and fully integrated real-time environment that provides an efficient and user-friendly simulation framework for distributed training.

To ensure the maximum flexibility of all of the Company's training systems, SELEX Galileo has designed the basic 'building blocks' that form a simulation system. The Company has also developed a modular architecture to tie these building blocks together, enabling the provision of scalable systems to cover a broad spectrum of needs.

For example, both the new Aerial Firefighting Virtual Cockpit Trainer (AFVCT) and SF260 Flight Training Device (FTD) can be adapted to simulate several different models of aircraft due to their modularity.

All of these capabilities are built upon a solid foundation of experience obtained from working on major collaborative European programmes such as the Eurofighter full mission simulator (ASTA), Tornado full mission simulator, and the simulator for the M346 aircraft which is currently under development with CAE.

The successful concepts and learning are now applied to all simulation programs in which SELEX Galileo is currently involved both for aerial and ground applications.

Future Developments

With the “building block” concept as a base, SELEX Galileo can develop a wide range of training systems to suit customer’s needs, and can add value by providing training to familiarise crews with the platform as well as full mission training.

In the future, SELEX Galileo intends to build on its successful foundations in the simulation and training market by expanding the range of systems available and enhancing the performance of existing modules. SELEX Galileo also plans to enhance its competitive position by focusing on the accuracy and realism of the behaviour of simulated vehicles, and the environments in which they operate.

Conclusion

SELEX Galileo has more than 20 years of simulation and training experience, playing a leading role in such high-profile programmes as the Eurofighter Typhoon, Tornado and M346. The company can provide flexible systems to meet the precise needs of customers, providing an effective, realistic training environment. Continuous research and development has kept SELEX Galileo at the forefront of the market, and this looks set to continue in the future.

For additional information on SELEX Galileo’s offer, please visit www.selexgalileo.com

Press Office Contacts

Solange Distefano Pozzuoli
Responsible for Press Office

Tel: +39 06 41883710

Mob. +39 335 7499374

email: solange.distefanopozzuoli@selexgalileo.com

John Stevenson
Press Office Coordinator

Tel: +44 (0) 1268 883013

Mob. +44 (0) 7540 628691

email: john.stevenson@selexgalileo.com