



PRESS RELEASE

The SIMSART consortium develops future simulation solutions for the certification of unmanned aerial vehicles pilots

The SIMSART project, "Highly interoperable simulator for training of Remotely Piloted Aircraft Systems pilots" will develop a new generation of unmanned vehicles simulators responding to the future training needs of operators of Remotely Piloted Aircraft Systems or Remotely Piloted Aircraft Systems (RPAS), in line with the integration of these aircraft in non-segregated airspace.

The project consortium is led by the company NEXTEL AEROSPACE DEFENCE AND SECURITY SL (NADS) and integrated by the Center for Advanced Aerospace Technologies (CATEC), the company Unmanned Solutions (USOL) and the Dynamics Systems Research Group of the Polytechnic University of Madrid (UPM).

The initiative is supported by the Ministry of Economy and Competitiveness under the National Programme for Research Aimed at the Challenges of Society, within the National Plan for Scientific and Technical Research and Innovation 2013-2016.

SIMSART will allow ab-initio training, type certification and recurrent training to RPAS pilots according to the future regulations currently in development by the European Aviation Safety Agency (EASA).

SIMSART architecture is based on the simulation platform Simware, property of NADS, which provides an open architecture simulation, compatible with all major standards and Commercial Off the Shelf (COTS) market. Among the advantages of using SIMSART, it includes:

- ✓ Agile and easy deployment of training simulators thanks to the open architecture of Simware and its ability to integrate with the monitoring stations of the real system.
- ✓ "Multi-Role" Capacity. SIMSART can be also used as a test bench for UAV systems due to its ability to be integrated directly with real UAVs subsystems that use the same standards as those supported by the simulator.
- ✓ Easy scalability of the simulator, for example to add training capacities for payload operators.

About Nextel Aerospace Defence And Security SL (NADS)

NADS is a Spanish company devoted to the aerospace, defense and security sector. With headquarters in Madrid, it has also engineering centers in Cádiz.

Since 2002 NADS has been a key partner in the supply chain of the main military and aerospace projects in Europe in this century. NADS is a technology-based company focused on simulation business that exploits innovations to make the use of simulation accessible to any user, at any time and situation. It's one of the world leaders in technologies designed to facilitate interoperability of simulated and real systems in distributed environments.

Its Simware product is the first simulation platform compatible with the new simulation architecture of LSA (Layered Simulation Architecture), a SISO standard. Simware is the first existing commercial product in the world that allows building and federate simulations compatible with leading industry standards, both military and civilian.

About FADA-CATEC

The Center for Advanced Aerospace Technologies (CATEC) is a benchmark institution that works as interface among Science, Technologies and Companies, and to improve the sector competitiveness through scientific research, technology transfer and advanced services. Fostered by the Andalusian Foundation for Aerospace Development (FADA) and chaired by the Innovation and Development Agency of Andalusia (IDEA), CATEC is a unique private center in Spain by its extensive technological capabilities with a highly skilled workforce of over 65 specialists and technicians.

In its six years of experience, CATEC has become one of the most active technology centers and with greater projection in national and European R&D projects, highlighting in fields such as materials and new manufacturing processes, robotics, avionics and unmanned aerial systems (UAS/RPAS). CATEC currently works in more than 40 R&D projects, both with public research organizations and with companies.

FADA-CATEC has extensive experience in operating remotely piloted aircraft systems and also manages the ATLAS Test Flight Center in Villacarrillo (Jaén) to carry out tests with light and tactical UAVs.

About Unmanned Solutions

Unmanned Solutions is a technology based company at the Polytechnic University of Madrid dedicated to the design, engineering and manufacture of RPAS. Unmanned Solutions was created in 2008 and its founders are researchers from the School of Aeronautics and Space Engineering of the Polytechnic University of Madrid. They have more than 30 years' experience in automatic flight control and are involved in unmanned aircraft systems design since 2004.

Unmanned Solutions provides aerospace engineering, control and navigation systems and design of applications for the development of RPAS services, and has extensive experience in operating RPAS systems. The company has facilities in the aerodrome of Marugán (Segovia, Spain).

About the Polytechnic University of Madrid (UPM).

The Dynamics Systems Research Group (GISD) is a renowned research group of the Polytechnic University of Madrid. It is associated with the School of Aeronautics and Space Engineering of Madrid (Technical High School). The group also counts with researchers from the Industrial Engineering Technical High School of the same University.

The GISD was created in 2006 and has been developing research activities since then. Over the years it has become a national reference in developing flight control systems and in advanced engineering software for real-time.

Its main areas of research include:

- Aircraft control systems.
- Real time architectures.
- Disordered systems.

For more information:

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