

## **GSA and Thales launch the EDG<sup>2</sup>E project to further optimise aviation navigation with Galileo**

The European Union's Global Navigation Satellite Systems Agency (GSA) has officially launched the EDG<sup>2</sup>E project (Equipment for Dual frequency Galileo GPS and EGNOS) with a consortium led by Thales. This four-year project intends to develop a dual-frequency multi-constellation receiver, enabling enhanced navigation capabilities, support standardisation and certification preparation. The consortium includes Thales, Thales Alenia Space and ATR, as well as contributions from Dassault Aviation and the French Civil Aviation Authority (DGAC).

The GNSS receiver is the cornerstone of aircraft navigation systems. The system processes signals from satellite constellations and the Space Based Augmentation System (SBAS) to accurately determine aircraft position, altitude and velocity. The prototype receiver developed under the auspices of the EDG<sup>2</sup>E project will use signals from US GPS and European Galileo positioning systems, as well as from SBAS multi-constellation EGNOS. The project aims to achieve a prototype demonstration by 2021. The prototype receiver performance will be evaluated during a flight test campaign performed by ATR using one of the company's test aircraft.

Initiated by the European Commission's Global Navigation Satellite Systems Agency (GSA), the EDG<sup>2</sup>E project will support the launch of the Galileo satellite constellation.

Philippe Benquet VP R&T for Flight Avionics, Thales declared: "Leading the EDG<sup>2</sup>E project puts Thales at the forefront of the next generation receivers which will equip future aircraft by 2025, making navigation more precise and thus safer, unleashing the potential for increased air traffic".

EGNOS has been certified for use in aviation since February 2011, and is a very effective system to complement the US GPS, in order to provide better levels of performance, consequently enhancing aircraft approach capabilities. The next generation of EGNOS, called EGNOS V3, will further enhance performance by complementing both the EU Galileo and the US GPS satellite navigation constellations.

"EGNOS v3 will provide aviation users with an increased quality of services, better accuracy and extended coverage area among other key performance indicators" said Jean-Marc Pieplu (GSA Head of EGNOS Services Programme). Fundamental Element Programme is a medium that supports development of terminals and antennae fostering use of E-GNSS in all domains. In this perspective, EDG<sup>2</sup>E is an important step for GSA as it will contribute to availability of high technology products on the aviation market, taking benefit of Dual Frequency Multi Constellation feature offered by EGNOS v3".

At the end of the EDG<sup>2</sup>E project, a new standard for GPS Galileo and SBAS aviation receivers will be completed, and the first SBAS dual-frequency GPS Galileo receivers for aviation will be ready for final development and provide safer operations not only for the aviation sector but also for other safety-critical applications.

## About Thales

The people we all rely on to make the world go round – they rely on Thales. Our customers come to us with big ambitions: to make life better, to keep us safer.

Combining a unique diversity of expertise, talents and cultures, our architects design and deliver extraordinary high technology solutions. Solutions that make tomorrow possible, today. From the bottom of the oceans to the depth of space and cyberspace, we help our customers think smarter and act faster - mastering ever greater complexity and every decisive moment along the way.

With 64,000 employees in 56 countries, Thales reported sales of €15.8 billion in 2017.\*

## About the European GNSS Agency (GSA)

The European GNSS Agency (GSA) is the European Union Agency (EU) responsible for the operations and service provision for the European global navigation satellite systems (GNSS) EGNOS and Galileo. The GSA mission is to ensure that users in Europe and around the world fully benefit from the European GNSS by:

- Designing and enabling services that fully respond to user needs, while continuously improving the European GNSS services and Infrastructure;
- Managing the provision of services that ensure user satisfaction in the most cost efficient manner;
- Engaging market stakeholders to develop innovative and effective applications, value-added services and user technology that promote the achievement of full European GNSS adoption;
- Ensuring that European GNSS services and operations are thoroughly secure, safe and accessible.

## Press contacts

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