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PRESS NOTE

Selex ES Cyber Security team successfully receives Galileo PRS IOV signal

Selex ES, a Finmeccanica company, has successfully proved itself able to work with the secure signal radiated by Galileo satellites. Just days after the European Space Agency (ESA) made available the keys to "open" the encrypted Galileo PRS (Public Regulated Service), the PRS receiver "Cartesio", fully developed by Selex ES, proved to work successfully.

Selex ES Cyber Security team achieved the first navigation solution using only the encrypted Galileo Public Regulated Service (PRS) signals, with a positioning accuracy compliant to the specification. The use of the PRS signal is restricted to EU and other authorized countries government agencies and critical infrastructures. Anti-spoofing and interference rejection capabilities are PRS main features, due to the very sophisticated signal processing and high-grade encryption techniques.

Selex ES is the first company to have developed the PRS know-how outside the ESA contracts and without the continuous support of the Galileo system architects.

This was the roadmap of the Cartesio achievements:

- Demonstration to Italian Authority representative in the Genoa Laboratory of the PRS signal acquisition and tracking on 19th July 2012;
- Successful reception and processing of the PRS Signal-in-Space on 14th June 2013, two days after the IOV keys were made available by ESA;
- Achieving the PRS-only navigation solution on 4th July 2013.

Cartesio has been approved for use under IOV testing by the National Security Agency and the Italian Competent PRS Authority asked to make it available for the "PRS Participants Trial for IOV" (PPTI) framework, including both laboratory verifications and trials with governmental users. The receiver is the first member of a product family but already integrates Galileo OS and GPS SPS capabilities, to extend the field testing windows.

Notes to the Editors:

Selex ES is also cooperating with Telespazio, another Finmeccanica Company, on the PRESAGO and the GAL-PRS projects, which aim to define the architecture and develop the technologies for the national PRS solution. Telespazio is helping the receiver development being involved in supporting the test efforts. The two companies are also jointly participating on EU tenders issued by the GNSS Supervisory Agency (GSA) with regard to the standardization of PRS.

In addition to the work of the Cyber Security team, the delivery of this milestone has been achieved thanks to the cooperation with NavSAS (the satellite navigation team of Istituto Superiore Mario Boella, Turin), whose in-depth satellite navigation knowledge helped ensure that the receiver testing was a success.