

GALILEO SPECIAL PANEL

Thursday, October 4th, 2012

On the 4th of October 2012 during the Estel Conference, in the splendid setting of the Fontana di Trevi congress center in Rome, the Galileo Special Panel took place, gathering the best of the technological know-how on the new European navigation system. Preceded by an exciting speech by Prof. Vidal Ashkenazi, who reconstructed the stages and the main objectives of the project, the Special Panel was officially launched by Mr. Calini (Head of the Market Development Dept., European GNSS Agency); he chaired the first half of the session which was dedicated to an analysis of the various application fields.

After highlighting the key role of Galileo in the European space industry, and defining the main orientation of the project, Mr. Calini yielded the floor to Mr. Guarino (project manager for Thales Alenia Space), who described Inclusion, an application using EGNOS to improve mobility for the motor-impaired. This project, involving a consortium at European level, anticipates development of a personal navigation system (also for pedestrians) allowing users to: avoid obstacles, precisely identify their location and use services dedicated to motor-impaired people.

In the speech that followed, Mr. Bleeker (European R&D Director - Rockwell Collins) explained how EGNOS can now improve aircraft landing capability, reducing the so-called “decision height”. In the USA WAAS is already a success and in Europe the use of EGNOS has been growing remarkably just a year and a half since its certification.

Mr. Campostrini (Managing director of Corila) then introduced the Nereus association, which coordinates the space industry programs in various European regions, and described maritime activities related to the Galileo and EGNOS technologies: off-shore navigation, support during rescue operations and the paradigm case of the Venice lagoon, where the new technology will play a crucial role in safeguarding the environment.

Mr. Rispoli (Head of satellite systems at Ansaldo STS) discussed the impact satellite navigation can have on railway transportation, both thanks to a more reliable positioning system and to the potential savings. Two pilot projects by Ansaldo (implemented in Australia and Sardinia) are aimed at proving the effectiveness of an approach which is no longer exclusively based on GPS and GLONASS, but is also integrated through EGNOS and Galileo.

Mr. Di Fazio (Program Manager at Telespazio) pointed out the key role EGNOS plays in the current “road sector” market and the importance of developing applications which are also based on Galileo, particularly due to the extremely high precision which can be achieved by integrating both systems. The FP7 Scutum project is already on the market and it has been adopted by ENI motor vehicles in Italy. Expansion to other European countries has also begun.

Precision farming was the subject addressed by Dr. Rolf (Marketing Manager at CLAAS Agrosystems), who ranked EGNOS and Galileo among the decisive technologies to beat the food crisis, in synergy with the Earth Observing Systems: more precise land and crop mapping, a deeper analysis and the optimization of transport routes will pave the way for an overall increase in farming production, and not only in Europe.

Mr. Engelke (chief engineer at GeoSAT) talked about the technical features of Galileo, introducing its added value in terms of performance compared to other GNSS systems.

Mr. Maurizio Fagnoli (ASAS President) then outlined the activities the space division agencies have been promoting within the big European projects.

At that point, Mr. Calini yielded the floor to the coordinator of the second half of the panel which was dedicated to applications already in operation: Mr. Lisi (GNSS Services Engineering Manager at ESA) introduced the subject by providing an overview of the next Galileo developments, and emphasized the need for the involved parties to “systematize” around this great opportunity, in particular regarding the definition and the development of services.

Mr. Capua (GNSS Systems Engineer at SOGEI) addressed the issue of the relationship with the public administrations, thoroughly exploring the institutions’ requirements and how GNSS SDR applications can fulfill them.

The Project Manager of Qascom, Mr. Alessandro Pozzobon, introduced his GNSS Security Testbed, a tool which increases the security of civil satellite navigation applications by assessing their security levels and providing appropriate authentication and mitigation solutions.

More safety, but this time in the automotive sector, was the topic presented by Mr. Liberto, Project Coordinator at Centro Ricerche FIAT for the COVEL project, aiming at integrating a high-precision software based location system and low cost solutions in the most common vehicles.

Mr. Cantore (Managing Director at Blue Thread) described Space Compass, a top-performance compass based on GNSS technologies, Marine Telepass, for a remote management of boats entering sheltered waters, and Blue Shell, a product which can analyze the sea’s health directly from boat hulls, therefore cutting down surveillance costs.

Selex Galileo’s speaker was Mr. Genisio (Head of EU and International Projects), who presented SMAT, an environmental monitoring project which uses UAVs piloted thanks in part to GNSS technologies: Genisio assured that the implementation of Galileo will boost performance of the detectors in terms of efficiency and precision.

Then it was Mr. Marinelli’s turn (Head of navigation system department in Thales Alenia Space), who explained Galileo’s complex architecture, defining its tasks and technical features.

The session concluded with an exchange of ideas between the two coordinators: Mr. Calini and Mr. Lisi agreed on the excellent level of the projects presented and on the need to properly emphasize the results obtained through the adoption of EGNOS by the user communities in the various markets. The purpose is to allow this budding industry to produce benefits for the European citizens more quickly. They both pointed out the importance of integration between EGNOS, Galileo and the other GNSS systems, highlighting the need for a holistic approach.