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ENTERPRISE AND INDUSTRY DIRECTORATE-GENERAL

Consumer Goods and EU Satellite navigation programmes
EU Satellite navigation programmes - Infrastructure
Programme Manager

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The following is a joint statement on cooperation between the U.S. Global Positioning System (GPS) and Europe's planned Galileo space-based navigation system issued by representatives of the United States of America and the European Union and its Member States on 29 July 2010:

U.S. and EU Announce Improved Performance from Receivers Using both GPS and Galileo Combined Performance

On 29 July 2010, the Government of the United States, the European Union (EU) and its Member States announced the conclusion of an initial phase of consultations affirming user interoperability and enhanced performance of combined GPS and Galileo receivers performance under the auspices of their 2004 *agreement on the Promotion, Provision and Use of Galileo and GPS Satellite-Based Navigation Systems and Related Applications*. Consultations under this agreement discuss matters regarding bilateral cooperation in the use of Global Navigation Satellite Systems (GNSS).

A working group designed to enhance cooperation for the next generation GPS and Galileo completed an assessment of the global, combined performance for GPS Space-Based Augmentation System (SBAS) receivers using the European Geostationary Navigation Overlay Service (EGNOS) and the GPS Wide Area Augmentation System (WAAS) supporting safety-of-life applications. The results confirmed improved availability for a wide range of aviation services in both hemispheres and significantly improved robustness to GPS satellite outages.

The working group also completed an assessment of receivers integrating planned interoperable GPS III and Galileo open civil services. The study compares GPS, Galileo, and GPS/Galileo combined performance for three receiver types using four study cases. The combination of GPS and Galileo services provided noteworthy performance improvements particularly in partially obscured environments, where buildings, trees or terrain block large portions of the sky. Dual-frequency receivers provide additional improvements in most environments. This study illustrates benefits expected from future broadband signals on GPS and Galileo and other future GNSS systems.

The result of these consultations is the public release of two papers:

1. *Combined Performances for SBAS Receivers Using WAAS and EGNOS*; and
2. *Combined Performances for Open GPS/Galileo Receivers*.

The papers are available at: <http://pnt.gov/public/docs/#studies> and at:
http://ec.europa.eu/enterprise/policies/satnav/documents/index_en.htm

These papers will be presented at the fifth meeting of the International Committee on Global Navigation Satellite Systems (ICG), jointly organized by the European Union and Italy in Turin, Italy on 18 - 22 October 2010, (www.icg2010.org/) and distributed to industry and international standards bodies.

The United States and European Union are starting a new phase of coordination focused on improving safety-of-life services, through the evolution of SBAS and ultimately using GPS and Galileo open signals with advanced receiver techniques for integrity monitoring. These activities may lead to new capabilities on future satellites in order to enable the best approach to achieve integrated integrity.

These activities demonstrate the close United States and the European cooperation since 2004 to ensure that GPS and Galileo are compatible and interoperable at the user level and support a joint outreach effort intended to improve the general public's understanding of the complementary nature of civil GPS and Galileo, which are designed to be compatible and interoperable for the benefit of end users around the world.

Both the United States of America and the European Union are members of the International Committee on GNSS (ICG) and advocate that compatibility and civil interoperability, not only between GPS and Galileo, but also with other global satellite navigation systems, to promote global economic growth and strengthen international cooperation. The participants expressed strong support for continued close cooperation, which has the potential to significantly improve services related to GNSS navigation positioning, and timing services.

The United States and the European Union will continue to work together on GPS-Galileo compatibility and interoperability issues in order to raise the state-of-the-art in navigation positioning, and timing services for users worldwide.

For more information, on GPS and its augmentation systems please visit:
www.gps.gov

For more information on Galileo and EGNOS, please visit:
http://ec.europa.eu/enterprise/policies/space/galileo/index_en.htm

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