EGNOS SERVICE NOTICE

Number: 003 **Revision: 1.0**

To: EGNOS SoL Service and Open Service users

Date: 03/02/2012

Subject: Upcoming EGNOS upgrades expected for the first quarter of 2012

This Service Notice describes the upcoming EGNOS upgrades expected for the first quarter of 2012. These changes include:

1. EGNOS will use more GPS satellites
2. Improved EGNOS Services coverage area and use by receivers.
3. EGNOS Geostationary satellite swap.

During the activities related to these EGNOS upgrades, the EGNOS Service performances will be guaranteed, except for approximately two days in which only one Geostationary satellite will be available for the SoL Service. The following sections provide additional details for each of these changes.

These upgrades will improve the performance of EGNOS Services at user-level, without requiring changes to the receivers.

1 EGNOS WILL USE MORE GPS SATELLITES

Target date: Mid-February 2012.

Currently, the two new GPS satellites corresponding to the Block IIF, with PRN codes 1 and 25, are not part of the EGNOS satellites mask, and so, no corrections are being sent by EGNOS for these satellites.

From Mid-February onwards, these new GPS satellites will be fully usable by EGNOS, providing the users with more satellites to compute their position and thus, improving SoL and Open Service performances.

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2 IMPROVED EGNOS SERVICES COVERAGE AREA AND USE BY RECEIVERS

Target date: Mid-March 2012

During the months of February and March, the EGNOS System Release 2.3.1P will be deployed. This version includes the following main features:

- EGNOS GEO MT9 and MT17 coherent fixed content.

  Following the agreement reached by aviation standardisation committees to resolve the discrepancy existing in previous version of the standards, EGNOS has been modified such that it will be fully available for the receivers implementing the MT9/MT17 consistency check. This evolution consists in setting the GEO satellite position broadcast in both MT9 and MT17 to the same fixed position (x,y,z). The GEO position rate of change in MT9 & MT17, GEO acceleration in MT 9, along with a_{Gf0} & a_{Gf1} parameters will be permanently set to zero. Therefore the geostationary position information contained in MT 9 and MT17 will permanently differ less than 200 km (MOPS RTCA DO229 C and D, Section 2.1.1.3.1). The GEO tracking problems detected in some EGNOS receives and explained in Service Notice #1[1] will disappear.

- Improvement of ionosphere monitoring, increasing the number of monitored Ionospheric Grid Points, especially of those located at the ECAC border providing an enhanced of APV-I performances.

- Deployment of 3 new Reference Stations, which are La Palma (Spain), Athens (Greece), Alexandria (Egypt).

  The inclusion of these ground stations will support a larger EGNOS SoL and OS Services volume, improving the availability, continuity and accuracy mainly over the South of EGNOS Service areas.

[1] Service Notice #1 describes the EGNOS situation on current release v2.2ext regarding the broadcast of GEO orbit information in messages MT9 and MT17, including the impact on certified EGNOS receivers. Once this release v2.3.1p is deployed, this SN#1 will be removed.

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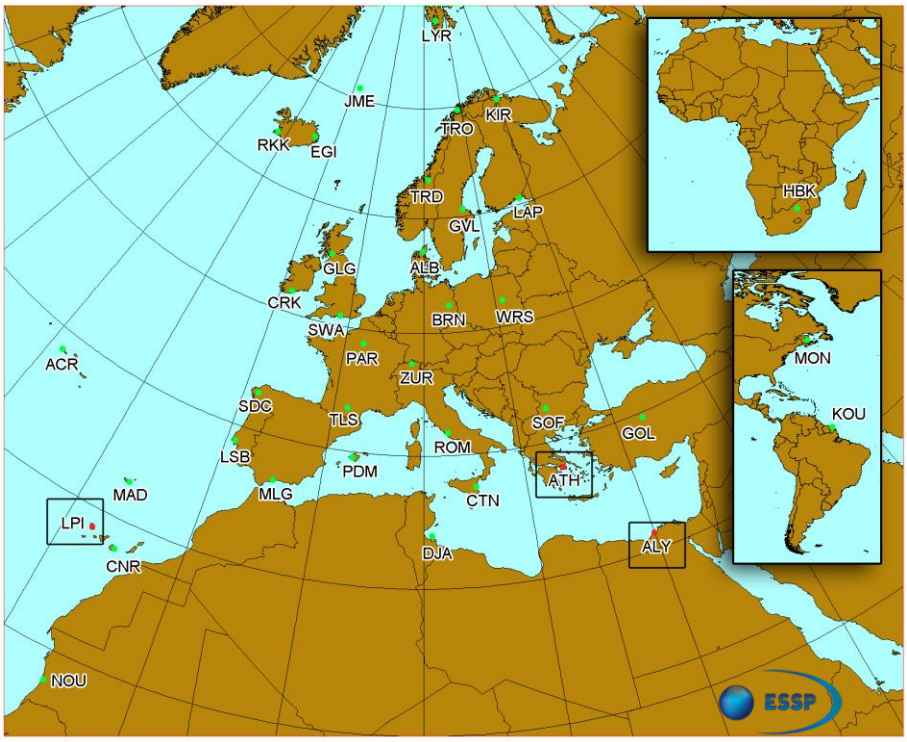

Figure 1 – EGNOS Reference Stations *(3 new Reference Stations highlighted with a frame)*

3 EGNOS GEOSTATIONARY SATELLITE SWAP

Target date: End of March 2012

Due to the aging state of the ARTEMIS satellite, it will be removed from the Operational platform.

By the end of March 2012, INMARSAT satellite 4F2 (PRN 126) will replace ARTEMIS satellite (PRN 124), thus improving the visibility over the North ECAC area. The two EGNOS Geostationary satellites providing the EGNOS SoL Service will be PRN 126 and PRN120.

After this GEO satellite swap, the EGNOS Space Segment will be composed as follows:

Geostationary Satellite Name	PRN	Orbital Location	Status
INMARSAT-3F2 AOR-E	120	15.5º W	Operational
INMARSAT-4F2 IND-W	126	25.0°E	Operational
ARTEMIS	124	21.5º E	Test

Table 1: EGNOS Geostationary satellites

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with the following footprint for EGNOS Services:

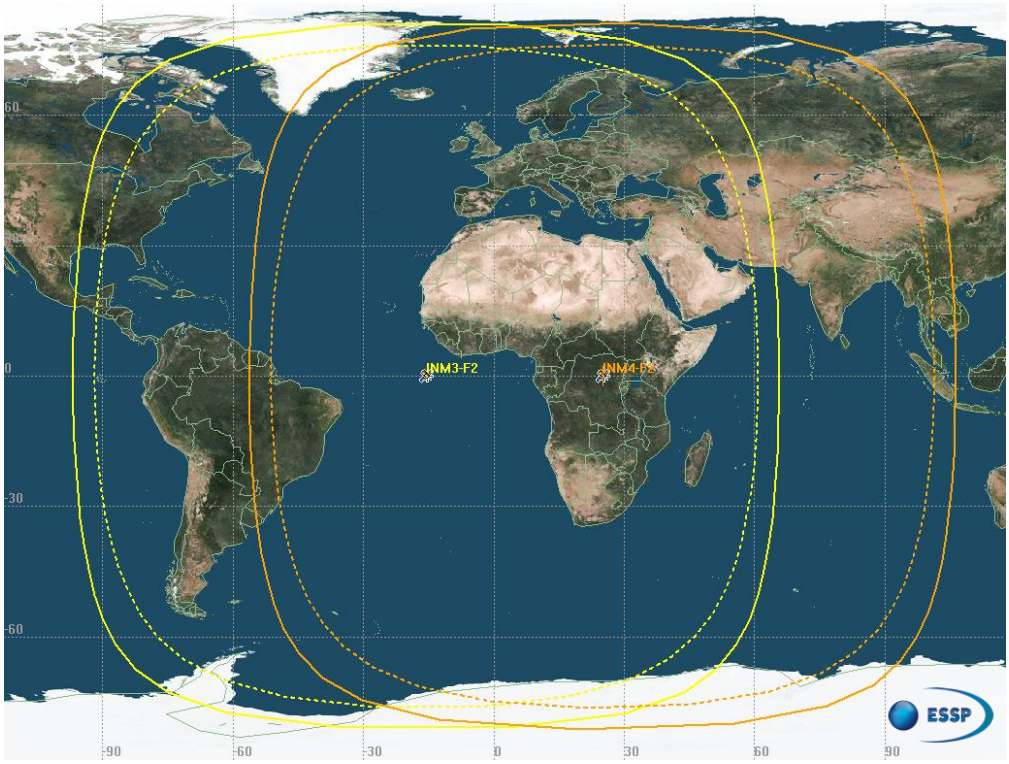

Figure 2 – Yellow INMARSAT 3F2 (PRN 120) and Orange INMARSAT 4F2 (PRN 126) current footprint
Solid line = 0° elevation, dotted line =5° elevation

CONTACT US

Should you have any question related to this Service Notice or EGNOS Service Provision, please, contact Egnos-helpdesk@essp-sas.eu

For more information about EGNOS Service Provision, please, visit ESSP website at www.essp-sas.eu and user support website at http://egnos-user-support.essp-sas.eu