

# EGNOS SERVICE NOTICE

**Number: 010**

**Revision: 1.1**

**To:** EGNOS SoL and Open Service Users

**Date:** 16/04/2014

**Subject:** Updated status of EGNOS performances – North and South West of Service Area

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This Service Notice updates the information on the evolution of the EGNOS APV-I (availability and continuity) and Open Service performances in the North and South West of Europe which have shown some degradation with respect to the corresponding EGNOS [OS](#) and [SoL](#) Service Definition Documents (SDDs).

This revision updates and replaces the previous version (v1.0), with information about the current status of this degradation and the mitigation activities that will be put in place.

## **1 DESCRIPTION OF THE ISSUE**

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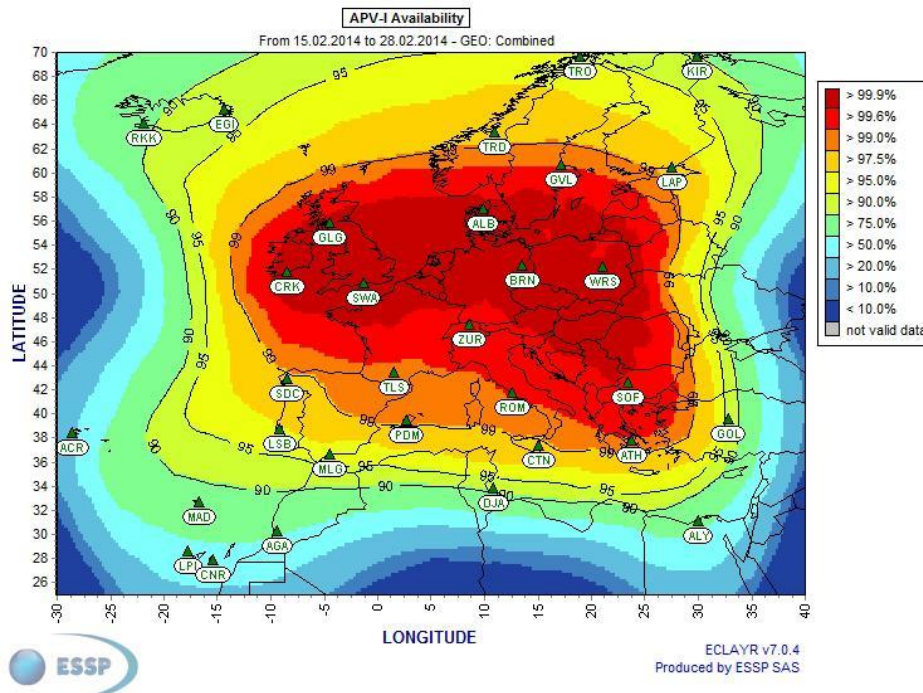
From the first week of February 2014, APV-I and OS performances over the North and South West of the respective EGNOS SoL and OS Service Areas (as defined in the corresponding EGNOS SDDs) presented, during some periods, progressive degraded values, with daily APV-I and OS Availability values lower than 99% and daily APV-I Continuity risk figures above  $5 \times 10^{-4}/15\text{sec}$ . Several periods of loss of APV-I and OS service have occurred during some days of this period (most frequently during the night) over the Northern and South Western part of Europe.

As an example, next maps show the APV-I Availability performances in the period 15<sup>th</sup> – 28<sup>th</sup> February.

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APV-I availability map (15<sup>th</sup> – 28<sup>th</sup> February)

The analyses performed confirmed that the main causes of the performance degradations in the North and South West have been directly caused by two main issues related to the behavior of the ionosphere over this period:

- The degraded performance observed in the North corresponds to periods with very high geomagnetic activity. This problem, which also affects other SBAS systems, is closely related to the increase of the solar activity during this period.
- The degradation observed in the South West is mainly located over (Atlantic) oceanic regions, with some impact in the landmasses of Spain and Portugal. This degradation is also linked to the high variability of the ionosphere in this area.

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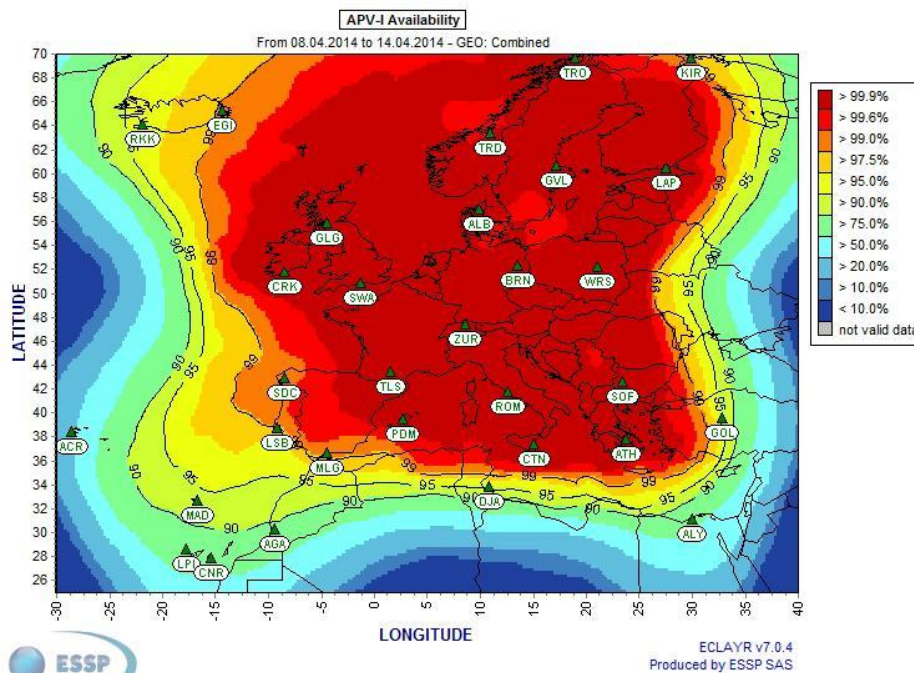
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## 2 STATUS ON THE EGNOS SERVICE AND MITIGATION ACTIONS

The abnormal behaviour of the ionosphere during the last weeks has decreased and, as a result, the EGNOS service performance indicators that triggered the degraded status reporting have, for weeks, remained within the normal levels. However and due to the nature causing the degradations, users should be aware that limited periods (most frequently around late evening) of APV-I and/or OS unavailability could still be observed in North and South West of the EGNOS Service Area.

Next map shows the APV-I Availability performances in the period 8th – 14th April.



APV-I availability map (8<sup>th</sup> – 14<sup>th</sup> April)

Since the identification of this degradation in February 2014, ESSP has been actively working on this issue with the GSA and ESA to mitigate the impact for the EGNOS users. In the short-term, ESSP, GSA and ESA are collaborating to characterize these SoL and OS performance degradations and develop a detailed plan to improve the EGNOS system robustness accordingly. This information will be published as soon as available and is expected by mid-2014.

Additional information, including the improvement plans, will be provided in future Service Notices.



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## 2.1 CONTACT US

Should you have any question related to this Service Notice or EGNOS Service Provision, please, contact [egnos-helpdesk@essp-sas.eu](mailto:egnos-helpdesk@essp-sas.eu) or +34 911 236 555 (H24/7)

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

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