



## A word from Skyguide

The challenging Swiss terrain and frequent cloud layers over valleys require a robust and precise navigation system for all airspace users. To best support our customers, Skyguide's involvement in EGNOS started back in 1997 in the lobbying to become an active member of the predecessor of ESSP. In 2002, the RIMS station Zurich was installed and since then, Skyguide is also involved in several flight trials such as for example, in Sion, Lugano, Lausanne and Interlaken, just to name few of them.

Shortly after the declaration of the EGNOS Safety of Life service (SoL), Skyguide published its two first LPV approaches in La Chaux-de-Fonds (LSGC) and in St-Gallen (LSZR). The third LPV approach has been published this March in Bern (LSZB) and several more will follow this year.

Other applications EGNOS -enabled are Helicopter SAR operations: A first LPV approach to a hospital heliport will be published this year. In the frame of the Swiss-wide implementation programme to develop innovative applications, we also work on the implementation of helicopter procedures with the new RNP 0.3 Navigation Specification where EGNOS is a key enabler.

We appreciate the good collaboration with the ESSP and are looking forward to continue our liaison to cope with the coming challenges toward LPV CAT I operations and the further development of EGNOS.

*Marc Troller / CNS Expert Group*

*Laurent Delétraz / Instrument Flight Procedure Design*

*Thomas Buchanan / International Affairs*

Members of 

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## Status of the EGNOS implementation in aviation

### EGNOS LPV procedures already published in Europe

Country	Airports	LPV Procedures	APV Baro Procedures <sup>1</sup>
France	29	35	0
Switzerland	3	3	0
Italy	3	3	0
Guernsey	1	2	0
Germany	39	11	71
<b>Total</b>	<b>75</b>	<b>58</b>	<b>71</b>

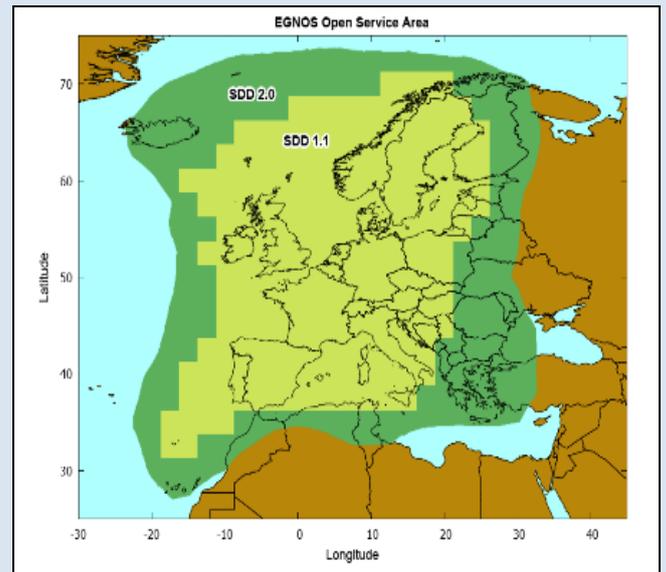
<sup>1</sup> Enabled to be flown with EGNOS vertical guidance

## New Open Service Definition Document Published

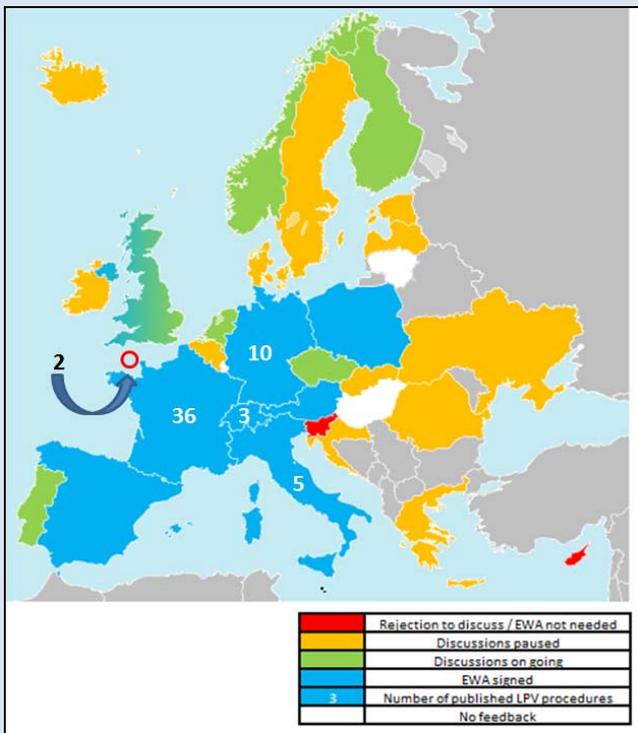
The EC has released last march a new version of the EGNOS [Open Service Definition Document](#) (OS SDD v2.0) with the aim to reflect the improvements accomplished in the EGNOS system during the last years, particularly the changes related to the extension of the service area and the accuracy provided by EGNOS. The new OS SDD is an update of v1.1, which was released in October 2009, as part of the Declaration of the EGNOS Open Service.

This update is of particular interest to receiver manufacturers, GNSS applications developers and users.

The V2.0 shows significant improvements on the service area of the EGNOS Open Service, as can be observed from this map showing the delta from SDD V1.1 to SDD V2.0.



## ANSPs from Spain, Poland and UK signed the EWA with ESSP



These last months have been very fruitful in terms of collaboration with different European ANSPs, finally materialized by the signature of new EGNOS Working Agreements (EWA); first with the Spanish ANSP, Aena, followed by PANSA, the ANSP from Poland. At the end of March, another EWA was signed with Exeter and Devon Airport Limited (EDAL), an ANSP managing and operating Exeter International Airport in the UK.

The signature of the EWA between an ANSP and the ESSP as EGNOS service provider is the first step for LPV procedures implementation at European countries within the EGNOS service area. After the signature, ANSPs are responsible for the EGNOS-based procedures publication within their territories.

The following map shows the actual status of EWAs in Europe (signed, discussions on-going, discussions paused, etc.) as well as the number of LPV procedures already in place in each country with an EWA signed.

## New EDAS Service Definition Document Published

This April 2013 the EC has released a new version of the [EDAS Service Definition Document](#) (EDAS SDD) with the aim to reflect the new services and associated added value that EDAS will provide to its users. The new EDAS SDD is the first update of the version published for the EDAS Service Declaration in July 2012, embarking also several improvements based on users feedback.

Unlike the other two EGNOS services (SoL and OS), EDAS does not provide its products to the users through the EGNOS Signal-In-Space, but through Internet. EDAS services are oriented to users in different domains of application such as Location Based Services (LBS), Assisted-GNSS (A-GNSS) concepts, a broad range of services in professional GNSS markets, and related R&D activities.

- The new services that are now available to users are:

**EDAS FTP Service:** historical data from EGNOS and EDAS can now be downloaded in a variety of standard formats and data rates

**EDAS Ntrip Service:** GNSS data (RTCM format) coming from the EGNOS network and disseminated in real-time in line with the Ntrip protocol



**EDAS SiSNet Service:** EGNOS messages can be provided in real time using the SiSNeT protocol (protocol defined by ESA)

**EDAS Data Filtering Service:** possibility to access a subset of the Service Level 0 or Level 2 data (set of predefined groups of stations available) at different data rates

This set of new EDAS services to the EDAS portfolio will bring an important added value to EDAS users:

- ✓ Possibility to download **historical EGNOS data** in different formats for multiple purposes such as the analysis of particular EGNOS scenarios or the validation of EDAS based applications
- ✓ Ability to retrieve EGNOS messages through Internet by a **mobile device**
- ✓ Direct use of GNSS data provided by EDAS in commercial receivers enabling the implementation/use of advance positioning techniques for **high precision applications**
- ✓ Possibility to select a subset of the whole set of data provided by EDAS easing the data processing and increasing the **efficiency**

## EGNOS projects



### 4<sup>th</sup> Progress Meeting

The ACCEPTA (Accelerating EGNOS Adoption in Aviation) project held its **4<sup>th</sup> Progress Meeting** last 10-11 April at NLR headquarters (Amsterdam).

ACCEPTA aims at accelerating the installation and of EGNOS enabled avionics by European operators and the design, development and publication of EGNOS LPV approach procedures at airports throughout Europe.

ESSP leads one of these proposals for promoting and supporting the EGNOS adoption in Austria, Finland, Portugal, Czech Republic and Slovak Republic. The total number of LPV procedures to be published in these five countries within the ACCEPTA project is 14 in 8 different airports.



### 2<sup>nd</sup> Management Meeting

The **2<sup>nd</sup> management** meeting of the SHERPA (Support ad-Hoc to Eastern Region with Pre-operational Actions on GNSS) project was held last 8<sup>th</sup> April at Eurocontrol premises in Brussels.

Work package leaders (ESSP and Pildo Labs) and GSA reviewed the past, current and coming activities of the project, as well as the status of all management aspects including deliverables, costs, communication actions or workshops planning.

Next table is a summary of SHERPA's progress, assessing the project "theoretical progress" versus "real progress".

WP	Theoretical progress	Real progress	Comments
WP0000 Management and Coordination	66%	66%	MNG covers the whole project life
WP1000 Analyse and Plan	100%	100%	Completed
WP2000 Design	60%	40%	Activites are progressing
WP3000 Dissemination and Awareness	80%	80%	The last Workshop and a new event "Final User Forum" pending
WP4000 Support actions	60%	75%	Only WP4200 active



The SAFIR (Satellite navigation services for AFrican Region) project under the EU-Africa Common Strategy as well as the Joint EU-Africa Partnership is holding its **first Working Session** in Dakar (Senegal) on 22-24 May 2013.

The 3-day workshop dedicated to EGNOS awareness and technical aspects will focus on:

- The EGNOS initiatives in Africa
- The set-up of the EGNOS-Africa Joint Programme Office (JPO) by SAFIR
- The other Working Sessions organised by SAFIR in 2013 and 2014
- EGNOS V3 system performances (system requirements)

# EGNOS and GNSS recent Events



**World ATM  
Congress 2013**

Operated by CANSO in association with ATCA  
12 - 14 February, 2013

Madrid, 12- 14 February

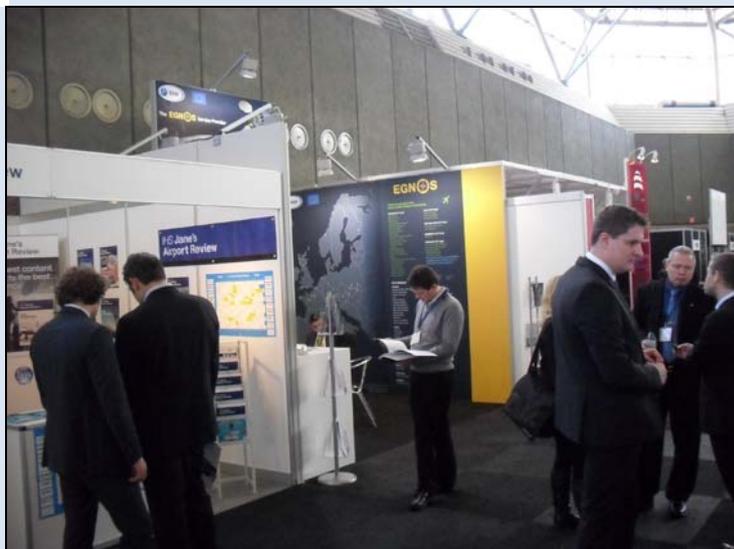
- o Organized by CANSO in collaboration with ATCA (Air Traffic Control Association)
- o First-time event oriented to Air Navigation Services Providers and industry suppliers
- o **EGNOS stand** hold by ESSP
- o Workshop "EGNOS in the European ATM system"
- o Award to Aena for the signature of the EGNOS Working Agreement (February 13<sup>th</sup>)



*ESSP President giving the EWA award to Aena Air Navigation Director Ignacio González*



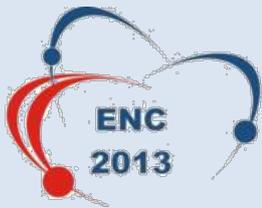
- o 22<sup>th</sup> Edition of the Air Traffic Control Event in Amsterdam
- o ESSP holding an **EGNOS stand** to present latest's EGNOS-based procedures Implementation in Europe



ACI EUROPE's  
**REGIONAL AIRPORTS'**  
**CONFERENCE & EXHIBITION**  
 15-17 April



- 6<sup>th</sup> conference and exhibition dedicated to regional airports
- **EGNOS stand** hold by ESSP
- ESSP made a presentation on “**SBAS** (*Space-Based Augmentation System*): *Saving Costs & Enhancing Flexibility and Capacity at your Airport*” in joint presentation with Eutralex



Navigation - Expanding our Horizons

- 17<sup>th</sup> European Navigation Conference (Vienna, 23-25 April)
- focusing on the present status as well as on future developments in navigation systems, with special emphasis on Galileo
- ESSP presented two Papers on the following subjects:
  - *Enhanced EGNOS Data Access Service: **EDAS V2***
  - *Europe's progress towards a full scale **LPV implementation**. Current status; lessons learnt and challenges for the future*



- Germany, 23-27 April
- One of the major Aviation shows in Europe
- EGNOS stand by the GSA with support from ESSP
- Contact with AOPA Germany - Aircraft Owners & Pilots Association



Miguel-Angel Sánchez from ESSP at ACI Lyon



Spots from Friedrichshafen

## Upcoming Events



9-11 May Králové ,CZ



EGNOS stand hold by GSA with ESSP support  
 First introduction in the Helicopter sector  
 Workshop on EGNOS for Helicopters – May 9<sup>th</sup>



**50<sup>TH</sup> INTERNATIONAL  
 PARIS AIR SHOW  
 LE BOURGET**  
**FROM 17 TO 23 JUNE 2013  
 WHERE AEROSPACE LEADERS  
 GET DOWN TO BUSINESS**



Major Aviation Air Show  
 EGNOS stand in Aerospace Valley Pavilion  
 Workshop on EGNOS for Aviation– date tbc

## EGNOS Service Provision Workshop 2013

ESSP organizes as every year the Annual meeting for EGNOS stakeholders to get together and learn about latest news, projects and improvements on the EGNOS services.

A two-day event that serves as milestone in the EGNOS service provision, where users, manufacturers, industry, institutions and regulators can network and exchange information.

**SAVE THE DATE AND JOIN US IN PRAGUE, JULY 3-4, 2013**

### EGNOS SERVICE PROVISION WORKSHOP 2013

Prague, July 3<sup>rd</sup> and 4<sup>th</sup>  
 at the European GNSS Agency premises



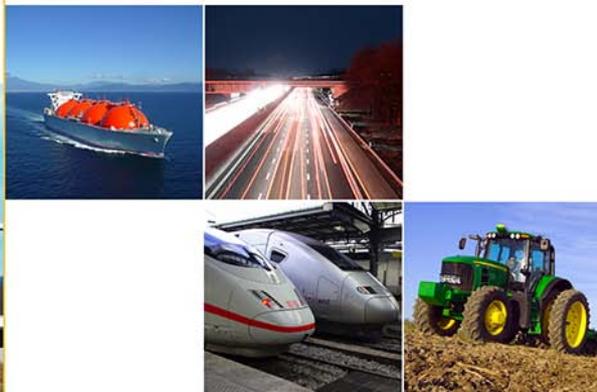
#### Wednesday, July 3<sup>rd</sup> EGNOS service Provision Workshop

- EGNOS Service Status:  
 Performance, System Evolution, Service Roadmap.
- EGNOS Safety-of-life Service for Aviation.
- Successful EGNOS implementation stories in European Aviation.
- EGNOS Open Service Highlights.
- EDAS Highlights.



#### Thursday, July 4<sup>th</sup> EDAS User Forum & EGNOS in Multimodal domains

- EDAS overview.
- Presentation of 2012 GNSS Market Report
- EGNOS applications in the different domains.



The **EGNOS** Service Provider

More Information & Early Registration: [communication@essp-sas.eu](mailto:communication@essp-sas.eu) [www.essp-sas.eu](http://www.essp-sas.eu)

# More info on **EGNOS**

[www.essp-sas.eu](http://www.essp-sas.eu)

EGNOS Service Provider Website. Info on the EGNOS system, news on the service. Status on EGNOS implementation in Aviation. Projects. Events. Others.

[egnos-user-support.essp-sas.eu](http://egnos-user-support.essp-sas.eu)

Information on past and current EGNOS performances. Signal in Space (SIS) status. Forecast on SIS availability. EDAS information and registration.

[egnos-portal.gsa.europa.eu](http://egnos-portal.gsa.europa.eu)

EGNOS applications. Developers platform. Business support.

For questions & Information  
EGNOS HELPDESK

**+ 34 911 236 555**

[egnos-helpdesk@essp-sas.eu](mailto:egnos-helpdesk@essp-sas.eu)



**Disclaimer:** EGNOS is a complex technical system and the users have certain obligations to exercise due care in using the EGNOS services. Before any use of the EGNOS services, all users should review the EGNOS SoL Service Definition Document ("SDD") and/or EGNOS Open Service SDD (both available on the ESSP SAS website <http://www.essp-sas.eu/>) in order to understand if and how they can use these EGNOS services, as well as to familiarise themselves with their respective performance level and other aspects the services may offer. Use of an EGNOS service implies acceptance of its corresponding SDD specific terms and conditions of use, including liability.

In case of doubt the users and other parties should contact the ESSP SAS helpdesk at [egnos-helpdesk@essp-sas.eu](mailto:egnos-helpdesk@essp-sas.eu). Aviation Users may also contact their National Supervisory Authority.

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