

Word from Eurocontrol

Welcome to the summer edition of this EGNOS Bulletin. EUROCONTROL is coordinating efforts of stakeholders, including Air Navigation Service Providers, Airspace users and the ESSP, towards the operational implementation of PBN (Performance Based Navigation) approaches in Europe.

This is beginning to gather momentum and I would like to highlight two developments from this (not so quiet) summer:

Firstly, the publication of our PBN interactive map⁽¹⁾, that shows an increasing interest in EGNOS. Secondly, as part of our support to the EU on the regulatory side, EUROCONTROL has launched the consultation process⁽²⁾ of the draft Regulatory Approach for PBN covering en-route, terminal and approach phases of flight. This consultation will be open until the 16th November 2012.

Enjoy reading this interesting Bulletin!

Rick Farnworth / Eurocontrol Nav Team

(1) PBN map: <http://www.eurocontrol.int/news/pbn-approach-map-tool-has-gone-live>

(2) Consultation on the draft PBN Implementing Rule: <http://www.eurocontrol.int/articles/performance-based-navigation-pbn-mandate>

CONTENT	
+	Status of the EGNOS implementation in aviation
+	EGNOS System & Service news
+	EGNOS projects in aviation – ACCEPTA & SHERPA
+	Official Declaration of the EDAS service
+	EGNOS Helpdesk available 24H/7D
+	EGNOS & GNSS events
+	EGNOS Service Provision Call for Tender
+	More info on EGNOS

EGNOS IS THERE, USE IT!

Status of the EGNOS implementation in aviation

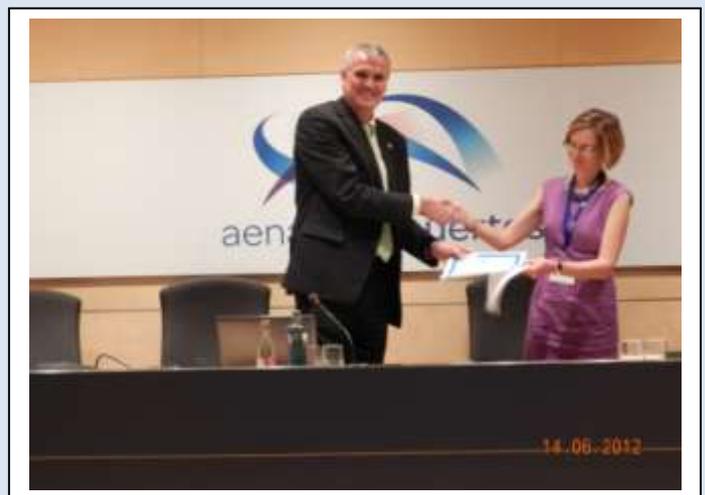
EGNOS LPV procedures already published in Europe

Country	Airports	LPV Procedures	APV baro Procedures
France	13	16	0
Switzerland	2	2	0
Guernsey	1	2	0
Germany	38	0	81
Total	54	20	81

Besides the new procedures published in France, three new EGNOS Working Agreements (EWA) have been signed with the correspondent ANSPs. The signature of an EWA formalizes the working procedures and required interfaces between ESSP and ANSPs for the publication of EGNOS based operations.

- ✓ 5th EGNOS Working Agreement signed with **ENAV** on 16/05/12
- ✓ 6th EGNOS Working Agreement signed with **Austro Control** on 14/06/12
- ✓ 7th EGNOS Working Agreement signed with **NATS** on 14/06/12

The signature of the EWA with Austro Control and NATS was completed during the EGNOS Yearly Service Provision Workshop that took place in Madrid last June 14th



ESSP President Dirk Werquin with representative from Austro Control Florian Buchman (left) and Ann Lambert from NATS (right)

EGNOS System & Service news

→ ESR 2.3.1i deployment

The new EGNOS System Release v2.3.1i has been deployed on the 7th of August with the availability of the new Signal in Space (SiS) on both operational GEO satellites (PRN120 and PRN126).

This version is bringing improvements to the current ESR2.3.1p, in particular in terms of additional robustness to better face the increase of the ionospheric activity, which is being observed since mid 2011 due to the current solar cycle (maximum expected in 2013) as well as the correction of a problem that can affect the EGNOS Central Processing Facilities (CPFs). For more information on this issue, please refer to [EGNOS Service Notice #2](#).

→ Launch of SES ASTRA GEO:

The SES-5 geostationary communications satellite (also known as Sirius 5 and Astra 4B) was successfully launched on July 9th. SES-5 is hosting a dual-frequency transponder for EGNOS. The pseudorandom noise codes (PRN) to be used by the satellite are not yet known.

→ Publication of EGNOS services roadmap

EGNOS stakeholders can consult the three EGNOS services roadmaps (Open Service, Safety-of-Life Service and EDAS) at the [ESSP website](#)

ESSP periodically publishes EGNOS Service Notices: Service Notices not only refer to system issues but in general to any system/service issue or change deviating from the nominal services conditions described in the published SDDs. You can consult these Service Notices at: www.essp-sas.eu/service_notices

EGNOS projects in aviation



The ACCEPTA (Accelerating EGNOS Adoption in Aviation) project held a workshop in London last July 10th; dedicated to UK operators and airports.

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.

As 15 different airports (mainly in Scotland) will benefit from ACCEPTA project funding, the UK CAA proactively took this initiative to review all regulatory requirements applying to LPV publication in the UK for all participating ANSPs information.

ESSP supported this initiative and presented an overview on the required EGNOS Working Agreement to be signed with all European ANSPs willing to implement EGNOS based operations.



The Aurigny Airlines Trislander, first European operator to use LPV procedures in commercial flights.

(Channel Islands, UK)



Website operational

The main goal of this project is to provide during 18 months elements to the participant States in mapping the implementation of EGNOS into their national PBN strategy in a coordinated manner with their national Regulatory Authorities.

The SHERPA consortium is led by ESSP and formed by other seven companies: PILDO Labs, the Silesian University of Technology and the ANSPs of Bulgaria, Turkey, Poland, Greece and Estonia.

To know more about this F7 project, check out its new website! <http://sherpa.essp-sas.eu>



Official Declaration of the EDAS Service

Last July 26th Commissioner Tajani launched the European Data Access Service (EDAS) – an EGNOS service more effective to use in diverse applications in difficult surroundings.

Although the EDAS Service is being provided by ESSP since 2010, the official Declaration settles the Service framework through its corresponding EDAS SDD (Service Definition Document).

EDAS ensures that users can access EGNOS information even if the EGNOS satellite signal in space is unavailable - perhaps because of signal obstruction in urban areas. EDAS provides the same information as EGNOS, with the addition of extra data, enabling the creation of new and innovative products and services.

EDAS registration form and SDD can be reached through the [EDAS website](#).



EGNOS Helpdesk 24 H/7D already available



+34 911 236 555

egnos-helpdesk@essp-sas.eu

The EGNOS Helpdesk operates from now on 365 days per year on a 24-hours basis (operating language is English), available by phone or e-mail.

With the above changes, ESSP continues improving its support services towards the EGNOS user community.

Among EGNOS users, the EDAS ones will take even more benefit from the enhanced EGNOS Helpdesk since they will now be able to get quick feedback about the EDAS service status, in case they experience any connectivity issue when trying to access EDAS data.

EGNOS and GNSS recent events

EGNOS Service Provision Event 2012

Madrid, 14 & 15 June

The magnificent Terminal 4 in Madrid Barajas Airport was the venue selected for this year's **EGNOS Service Provision Event** past June 14 & 15.

More than 100 EGNOS stakeholders got together in Madrid, enjoying Aena facilities, in order to interact and exchange information on EGNOS services and latest performance.

The event was split in two days: Day 1 was centered in presenting the latest news on EGNOS services status as well as the successful EGNOS implementation stories of different European ANSPs (DSNA; NATS; skyguide).

EGNOS for multimodal domains and the EDAS service status and evolution were as well subject of discussion.

Day 2, under the title USING EGNOS FOR IFR, was more focused on sharing actual experiences of using EGNOS with pilots and operators. This session, co-organized with the GSA and EASA, was designed to give a practical view on the EGNOS benefits for Aviation stakeholders. The operators perspective and past experiences were very much welcomed among the audience, since they served as basis for practical discussions on where to fly an EGNOS-based procedure to or how to achieve aircraft certification.

Presentations from both days are available at ESSP website.

EGNOS Service Provision Event 2012
Madrid, June 14th & 15th
Barajas Airport, T4, Press Room

EGNOS Service Provision Workshop

ESSP, the European Satellite Services Provider, kindly invites you to participate to the Yearly EGNOS Service Provision Workshop

Madrid, June 14th Preliminary Agenda

8:00 - 8:30	Registration and Coffee
9:30 - 9:45	Welcome and Introduction
9:45 - 11:00	EGNOS services status EVDPI • Overview of last 12 months performance • EGNOS services 2012-2013 roadmap
11:00 - 11:30	Coffee break
11:30 - 13:30	EGNOS for Aviation (Part One) EGNOS-based procedures implementation status and plans • Overview by EESSP/DSNA/EDAS/ GSA • TAM, LPV implementation in the US (TBC) • Successful EGNOS implementation stories, DSNA, NATS, skyguide • Overview on IFT Projects related to EGNOS implementation
13:30 - 14:30	Lunch
14:30 - 15:30	EGNOS for Aviation (Part Two) EGNOS-based procedures implementation guidelines and regulatory aspects • Overview by EESSP/DSNA/EDAS/ GSA
15:30 - 16:30	EGNOS for multimodal domains EDAS service status and evolution
16:30 - 17:00	Coffee break
17:00 - 17:30	Open House

An early evening social event will be organized in the center of Madrid for all attendees. Transport included.

Using EGNOS for IFR

A practical view for Pilots, Airlines and Operators. This Session is co-organized by the GNSS Supervisory Agency (GSA) and the European Aviation Safety Agency (EASA)

Madrid, June 15th Preliminary Agenda

8:00 - 8:15	Welcome and Introduction
9:15 - 9:45	RNAV/EGNOS benefits for pilots, airlines and operators (DSNA)
9:45 - 10:00	Where can you fly an EGNOS-based procedure for IFR (EVDPI)
10:00 - 10:15	How to certify your aircraft (EASA)
10:30 - 10:45	USA
10:45 - 11:00	Coffee break
11:00 - 11:30	LPV's IFR training (TBC)
11:30 - 12:30	Operators perspective & past experiences (TBC)
12:30 - 13:30	Round table and discussion: Challenges and opportunities for pilots
13:30 - 14:30	Lunch

Attendance confirmation is needed before May 25th: communication@essp.es
Please do confirm if you are attending both days or just one





From June 25-28 the Toulouse Space Show 2012 took place at the Pierre Baudis Congress Center, with the participation from the Commission and ESSP in order to promote the Galileo programme and the EGNOS services.

The Toulouse Space Show was completed with the debut of the “European Space Expo”, an initiative from the European GNSS Agency (GSA) oriented to the general public and which final aim is to familiarize the European citizens with the EC Space policy. The Expo will showcase the flagship programmes of Galileo, EGNOS and GMES, which are expected to create global market opportunities and help to support job creation and economic growth.



French CNES President Yannick d’Escatha (in the middle) visiting the ESSP booth at the Toulouse Space Show 2012

EC Stand on Galileo

European Space Expo at Toulouse Cité de l’Espace





Every two years, the Farnborough International Airshow concentrates Aviation fans in Europe. This year, the ESA pavilion at the Exhibition displayed information on the EGNOS system and services, with the support of ESSP. Besides, a Round Table was organized on EGNOS roll-out and operator interest within the UK.

SBAS IWG (interoperability Working Group)

Ottawa, 20 & 21 June

ESSP participated at the 23rd meeting of the SBAS Interoperability Group, presenting the EGNOS-based procedures implementation status, EDAS and NOTAM, rough EGNOS Services Roadmap (2012-2014), EGNOS new version 2.3.1p Deployment & GEO swap together with the EGNOS Performance Impact of Solar activity and Work around.

Many other different research and development activities under EGNOS and WAAS scope were presented at this meeting, which aim is to establish adequate cooperation/coordination among SBAS providers so their implementation becomes more effective and part of a seamless worldwide navigation system.

ICAO Performance Based Navigation Task Force

Paris, 2 & 3 July

This is the 7th meeting of the ICAO PBN TF. The PBN Concept aims to streamline RNAV and RNP applications on a global basis by reducing the number of navigation specifications in use worldwide and thus enhancing safety, improving interoperability and reducing costs for operators.

ESSP participated in this meeting presenting different EGNOS status and service issues, and the current status of LPV implementation in Europe.

EGNOS and GNSS up-coming events

- **ION GNSS 2012** (Sept 17-21, USA): EGNOS & Galileo stand provided by the EC. Two EGNOS papers accepted under ESSP coordination: *“The EGNOS NOTAM Proposals Service”* and *“Europe’s Progress towards a Full Scale LPV Implementation. Current Status (First Implementations), Lessons Learned and Challenges for the Future”*.
- **EGNOS Workshop on Maritime applications** (October 2nd, Brussels)
- **Galileo Project Special Panel** (October 4th, Rome)
- **European Space Solutions** (December 3-5, London)

EGNOS Service Provision Call for Tender

On the basis of a Delegation Agreement from the European Commission, the GSA has launched the procurement procedure for the EGNOS Service Provision (published last June 20th). The new contract will cover the period January 2014 to December 2021, with a total duration of 96 months.

More info on EGNOS

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

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

EGNOS applications. Developers platform. Business support.



For questions & information:
EGNOS Helpdesk

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. Aviation Users may also contact their National Supervisory Authority.

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