PRESS RELEASE

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First EGNOS LPV-200 Approach Implemented at Charles de Gaulle Airport

The European GNSS Agency (GSA) announces that on 3 May, the first LPV-200 approaches were implemented at Paris Charles de Gaulle Airport (LFPG) – the first such approaches to be implemented in Europe. This announcement follows the publication of the EGNOS-based procedures on 28 April.

LPV-200 enables aircraft approach procedures that are operationally equivalent to a CAT I instrument landing system (ILS) procedures. This allows for lateral and angular vertical guidance during the Final Approach Segment (FAS) without requiring visual contact with the ground until a Decision Height (DH) down to only 200 feet above the runway (LPV minima as low as 200 feet).

These EGNOS - European Geostationary Navigation Overlay Service - based approaches are considered ILS look-alike, as the LPV-200 service level is compliant with International Civil Aviation Organization (ICAO) Annex 10 Category I precision approach performance requirements, but without the need for the expensive ground infrastructure required for ILS.

"EGNOS LPV-200 is now the most cost effective and safest solution for airports requiring CAT I approach procedures," says GSA Executive Director Carlo des Dorides. "The involvement of major aircraft manufacturers confirms that this service is a real added-value for civil aviation setting the basis for a better rationalization of nav-aids in European airports."

The publication of LPV-200 procedures provides numerous benefits, including:

- Reduced delays, diversions and cancellations thanks, to the lower minima, potentially reducing the operational costs for flying to this destination.
- Increased continuity of airport operations in case of ILS outage or maintenance.
- Enhanced safety levels, as the LPV-200 procedures can serve effectively as a CAT I approach procedures and can also be used as a back-up to ILS based procedures.
- Improved efficiency of operations, lowering fuel consumption, CO2 emissions and decreasing aviation's environmental impact.

The LPV200 Service provides European Airports with the means to implement the most demanding PBN operations as defined by ICAO," explained ESSP CEO Thierry Racaud. "We congratulate the efforts of those involved in achieving this important milestone for the European aviation community".

DSNA, the French Air Navigation Service Provider, pioneered these procedures as an outcome of the work co-financed by the European Union and carried out since the GSA declared the EGNOS



LPV-200 service operational on 29 September 2015.

Maurice Georges, DSNA CEO, added, "The new LPV-200 approach procedures now implemented at Paris-CDG aim to demonstrate that the SBAS technology, EGNOS in Europe, is a Category I performance approach solution that is reliable. We are convinced that SBAS is a fundamental technology to modernize our navigation infrastructure. Following this first implementation, LPV-200 approach procedures will be progressively deployed over our IFR runway-ends network."

The approach was been flown by ATR 42-600, Dassault Falcon 2000 aircraft and Airbus A350, with positive pilot feedback. "The LPV system is much more stable and more reliable in terms of safety, but also more efficient than the ILS approach. It really makes a difference," remarked Eric Delesalle, ATR Chief Pilot, after the first LPV 200 landing on runway 26L at CDG airport.

Airbus Experimental Test Pilot, Jean- Christophe Lair, landing with the A350 said, "Airbus is pleased to have demonstrated that the A350 XWB complies with the new RNAV(GNSS) approaches with satellite-based augmentation, as implemented at Paris Charles de Gaulle. These approaches will be a valuable backup to the airport's traditional ILS approaches and will maximise runway availability for the A350 by maintaining CAT1 capability, down to 200ft decision height, even when the ILS ground station is not available."

"The accuracy and stability of the LPV guidance is really amazing, much better than with ILS. Lowering the LPV minima down to 200ft in Europe is a great improvement enabled by EGNOS, and is very valuable for business aviation operations," confirmed Jean-Louis Dumas, Dassault Flight Test Pilot.

Paving the way for future implementation

The GSA expects that by launching the first LPV-200 procedure at such an international hub as Charles de Gaulle, it will pave the way for the publication of additional LPV-200 service level procedures at other European airports. In fact, it is already confirmed that Vienna International (LOWW) is set to be the next airport to publish LPV 200 procedures.

Note: The GSA manages EGNOS on behalf of the European Commission. ESSP SAS is the EGNOS Service Provider, under contract with the GSA.

1st EGNOS LPV-200 Flight images are available in the GSA Image Gallery:

Dassault FALCON 2000 approach with EGNOS LPV-200 at CDG

FALCON 2000 cockpit

1st EGNOS LPV-200 landing in EUROPE by ATR 42 -600

ATR 42 -600 landing EGNOS LPV-200 at CDG

AIRBUS A350 approach with EGNOS LPV-200 at CDG

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About the European GNSS Agency (GSA)

As an official European Union Agency (EU), the European GNSS Agency's (GSA) mission is to support EU objectives and achieve the highest return on Europe's investment in global navigation satellite systems (GNSS), in terms of benefits to users and economic growth and competitiveness, by:

- Designing and enabling services that fully respond to user needs, while continuously improving the European GNSS services and Infrastructure;
- Managing the provision of quality services that ensure user satisfaction in the most costefficient manner;
- Engaging market stakeholders to develop innovative and effective applications, value-added services and user technology that promote the achievement of full European GNSS adoption;
- Ensuring that European GNSS services and operations are thoroughly secure, safe and accessible.

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