

FACT SHEET

Safety of Life for aviation



The first pan-European Satellite Navigation Service for Safety of Life users

The EGNOS Safety of Life service is dedicated to GNSS users with the most demanding safety requirements. Its introduction will support the International Civil Aviation objectives to provide all aircraft with vertical guidance (VNAV) for all landing procedures. The service has been available since March 2011.

In particular, EGNOS will provide vertical guidance in the whole of European airspace, which is an essential benefit during the landing phase. This service will make it possible to replace all Non-Precision Approach (NPA) landing procedures based solely on horizontal guidance, which are a major safety concern to the aviation community. This applies to regional and domestic airports having no Instrument Landing System (ILS) infrastructure to provide vertical guidance.

It will be particularly useful for corporate and business aviation, general aviation and helicopters. Such aircraft are not usually equipped with vertical landing capabilities such as barometric guidance, which would be too expensive.

The EGNOS system has been designed to be fully interoperable with the equivalent North American WAAS and Japanese MSAS regional augmentation systems.

General information about European Global Navigation Satellite Systems

www.satellite-navigation.eu

www.esa.int/nav

ec.europa.eu/enterprise/policies/satnav/egnos

egnos-portal.eu

www.gsa.europa.eu

www.essp-sas.eu

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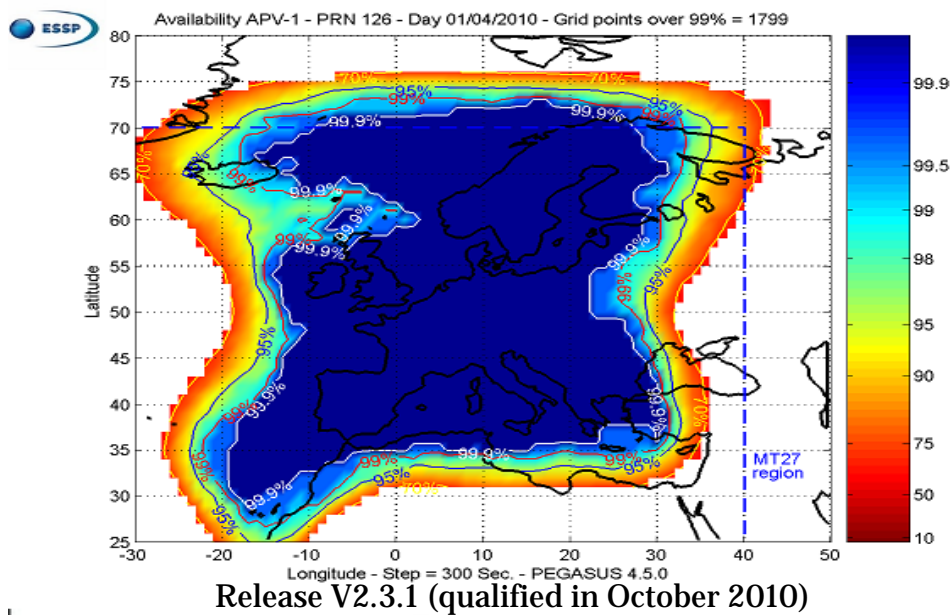


Fact and figures

Main EGNOS beneficiaries:

- Aircraft with no VNAV capability (helicopters, regional airlines, business jets, general aviation),
- Airports with no ILS infrastructure (small airfields, helipads).

EGNOS coverage area



EGNOS VNAV performance

Service Performance Level		APV-I
Accuracy (95%)	Lateral	16 m
	Vertical	20 m
Integrity	1-2·10 ⁻⁷ in any 150 s	
	TTA	10 s ¹
	Horizontal AL	40 m
	Vertical AL	50 m
Continuity	1·10 ⁻⁴ to 5·10 ⁻⁴ in any 15 s	
Availability	Global	N/A
	Local	0.99

¹The actual Time to Alarm of the EGNOS system is only 6s, an enhanced performance designed as an EGNOS built-in capability to prepare for more demanding aviation requirements in the future (e.g. Localiser Performance with Vertical Guidance LPV-200).