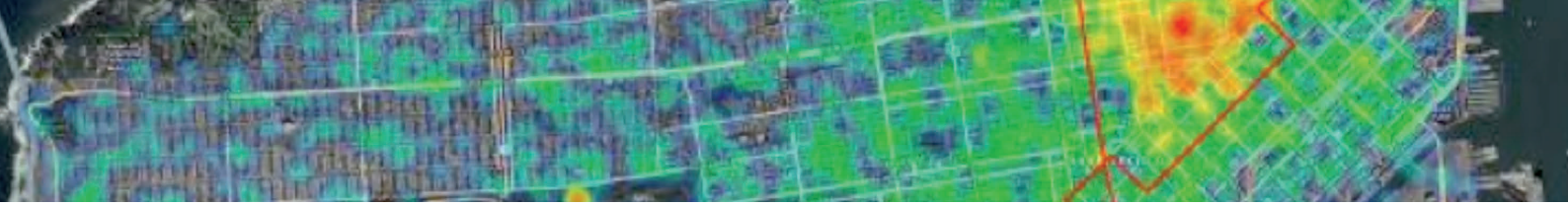
EGNOS FOR MAPPING

GALILEO

FREE ACCURACY, WIDELY AVAILABLE

European
Global Navigation
Satellite Systems
Agency

Precise navigation,
powered by Europe



EGNOS and Mapping

Global Navigation Satellite Systems (GNSS) provide an efficient technology for mapping and are widely used by organisations such as utility companies as well as regional and local authorities.

The use of GNSS in mapping often means services with centimetre level accuracy and substantial costs. It can also imply significant investment in infrastructure for service providers or regional authorities as well as complex and costly equipment and software solutions for professionals. Now EGNOS, the European Geostationary Overlay Service, can contribute in growing the use of GNSS in real time mapping solutions by providing free accuracy that is widely available.

Free accuracy ...

For many mapping applications the meter level accuracy provided by EGNOS is sufficient. Applications such as thematic mapping for small and medium municipalities forestry and park management as well as surveying of utility infrastructures (e.g. electrical power lines) can benefit from EGNOS.

Most of the location devices used for mapping are now EGNOS-ready and the EGNOS signal is free of charge. Besides the professional users, EGNOS also allows more and more non-professionals to access GNSS mapping technologies, thanks to the affordable and simple solutions enabled by EGNOS.

... widely available

The EGNOS signal provides a constant level of position accuracy throughout the EGNOS compliance area which covers most of Europe.

The EGNOS corrections can be received via different means:

- directly via EGNOS satellites, with a normal GPS receiver that is EGNOS-enabled, without any communication cost.
- via terrestrial communication means such as internet or cellular networks, thanks to EDAS, the EGNOS Data Access Service.

EDAS is the single point of access for the data generated and collected by EGNOS and as such provides a new opportunity for high precision service providers to enlarge their offer.

EDAS is freely available and currently in a test service phase.

Why EGNOS

1/ EGNOS is an effective option for a wide range of mapping applications where meter accuracy is adequate.
2/ EGNOS is free; it does not require installation of hardware nor ongoing subscriptions.
3/ Today, most new GNSS devices are EGNOS-enabled.
4/ EGNOS covers the majority of Europe, with no white spots.
5/ EGNOS permits real time positioning.
6/ EGNOS corrections, thanks to EDAS, can also be received by terrestrial communication means, such as internet or cellular networks.
7/ EGNOS provides system integrity, supplying information on the reliability of GPS signals.

How does EGNOS work?

EGNOS, the European Geostationary Navigation Overlay Service, improves the accuracy of position measurements, transmitting signals that correct GPS data and provide information on its reliability. The EGNOS network includes about 40 reference stations in more than 20 countries. These reference stations pick up signals from GPS satellites, which are processed in Master Control Centres (MCC). The accuracy of the original signals is determined and confounding factors, such as electrical disturbances in the atmosphere, are corrected.

A new EGNOS signal is generated, containing the GPS correction information, and then relayed via three geostationary satellites back to users on the ground, thus providing far greater positioning accuracy than would be achieved through GPS alone.

EGNOS is Europe's first venture into the field of GNSS and a precursor to Galileo, Europe's global satellite navigation system, currently under development. EGNOS is an open system, now operational and available for use.

For more information, please visit:
www.egnos-portal.eu

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