EGNOS Success Story

Benefits of adopting EGNOS LPV in aerodromes: Kempen case

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Credits: Kempen airport

Kempen airport (ICAO code EHBD), also known as Budel after the nearby town, is a general aviation airport in the south-east of the Netherlands.

Kempen was an early adopter of satellite-based navigation, implementing one of the first GNSS approaches in 2011,

Mr Noud Fransen, Kempen Airport's Financial Director and pilot instructor, was contacted to discuss its newest milestone: implementing a brand-new RNP approach down to LPV200 minima, taking full advantage of EGNOS. When asked about the singular aspects of Kempen and how it had managed to grow, Mr Fransen explained "Our philosophy was to develop international traffic and to open the region to business aviation".

The results have been remarkable: "With 90 home-based aircraft, around 60,000 movements a year and 170 per day, it is amongst the largest general aviation airports in the Netherlands, and a certified international airport that is used extensively by business aircraft (BA). Almost 80% of all aircraft movements are business, training and maintenance flights".

Mr Fransen added: "the key to adopting GNSS at Kempen, and EGNOS afterwards is the simple and logical answer. The investment in ground aids, and their maintenance, is tremendous. The technical achievements of the last 20 years regarding aeronautical navigation equipment are enormous. The accuracy is beyond all expectations.

Kempen was not alone in the process "With the help from several enthusiastic PANS-OPS developers, and the enormous support from Dutch authorities, we were able to publish the change from GNSS to the LPV approach in the shortest possible time. The possibilities for our operations are eminent. Aircraft and helicopters have more accurate guidance and can use lower minimas. We improved from 540 ILENT LNVL feet to 210 feet".

A particular area where the EGNOS LPV procedure at Kempen is relevant is flight training: "We can train pilots to the latest standards. Initial IFR training, in particular LPV, is done on Garmin equipped Cessna 172's, which are LPV capable. Home-based business aircraft are all LPV equipped. Even most home-based modern private planes are. The market with LPV equipped aircraft is growing".

Mr Fransen explained his view on the main benefits of EGNOS LPV "It is mainly the greater precision and the lower minima, which are better for the pilot and FISO's feeling of comfort. If you have good positioning, then it is also good for the guys on the ground. LPV procedures are the most modern approach type, excelling in terms of safety and allowing airports to continue developing them on a tight budget".

As a final closing, ESSP asked Mr Fransen to share his thoughts on EGNOS' contribution to air navigation: "We are grateful to use EGNOS for our business development. With the technical possibilities of EGNOS and LPV and our enthusiastic team of employees, we look forward to the future.