EGNOS Success Story

Danish Air Transport

November 2021

Credits: DAT

Based in Denmark and with more than 25 destinations, DAT is a leading European operator that connects some of the greatest hubs in continental Europe.

Considering the operational benefits LPV provides to its users, and with almost 50% of DAT's destinations currently having published LPV procedures and more expected in the future, DAT has been keen on implementing LPV capability on their fleet, as it has helped to reduce the number of delays, diversions and cancellations (DDCs) in poor weather conditions or where only conventional approach procedures are published at the destination airdrome. As a result, DAT requested LPV capability on two of their ATR 72-600s from the production line and they retrofitted 1 ATR 72-202 and 1 ATR 42-300 to implement the LPV capability via a Supplemental Type Certificate (STC). A total of four aircraft out of their 16 ATRs are currently capable of using EGNOS-based approach procedures, and they look forward to implementing it on the remaining fleet.

The process started when DAT decided to study how to provide additional operational benefits to the crew. As a system alone, it was clear that SBAS-based ADS-B Out would not provide operational improvements. Consequently, from the first design sketch, DAT's primary goal was to modify their aircraft to implement LPV capability and unify the FMSs. The design organisation selected to carry out the aircraft modifications was assigned in 2019, but it was not until February 2021 that the STC was approved, and the first prototype was finished. This lag was due to the significant delays associated with the COVID-19 crisis, which forced all parties to put a great deal of effort into developing the solution. Once the STC was approved, the remaining steps were easier.

Currently, their LPV-capable aircraft fly to Billund, Kajaani and Pantelleria airports, among others. Concerning the latter, DAT has numerous flights per year that can land thanks to the published LPV procedures, as the other available minima lines are conventional approaches, requiring adequate visibility conditions up to a higher altitude.

Furthermore, DAT confirms that EGNOS procedures are highly appreciated by pilots, who have given positive feedback and mentioned that the performance of LPV procedures resembles that of an ILS; they find it easy and very useful, especially when there are no other published precision approach procedures at the destination or the ILS CAT-I procedure is under maintenance.

Having EGNOS LPV procedures in place ensures that flights can continue to be carried out in these situations, and DAT expects to use them more frequently in the future.