Belgium

Delivering data for safer air traffic in Belgium

Belgium's National Geographic Institute (NGI) has built on a history of providing air traffic obstacle data by updating its datasets to meet new International Civil Aviation Organisation (ICAO) specifications.

Evolving ICAO rules for safe air traffic require digital terrain models and air traffic obstacle data. The NGI was asked to adapt the datasets to meet the electronic Terrain and Obstacle Data (eTOD) specifications by the Ministry of Defence and the Federal Public Service Mobility and Transport in charge of aerial navigation. This task started in 2014 with a study of the new legal and technical framework, and the eTOD project itself started at the end of 2016.

The NGI is responsible for the implementation of the electronic Terrain and Obstacle Database, with the Ministry of Defence, the Directorate-General for Aviation and skeyes (previously known as Belgocontrol) as stakeholders.

The main adaptations in the NGI datasets have been twofold. For the digital terrain model, the change in coordinate system from Lambert 2008 + Ostend height to WGS 84 + EGM 2008 was necessary. For the air traffic obstacles, the addition of semantic information and a new classification as well as an improved accuracy had to be organised.

The database now counts around 6,000 obstacles spread across the whole country, which have a height of 60 metres or more above ground level. The newly structured dataset went into production in September 2019.

The process of adaptation and compliance to new standard specifications gave the NGI the opportunity to simultaneously rethink the process and workflow for capturing and maintaining this air traffic obstacle dataset. As a result, the NGI now collects and maintains the air obstacle data completely in accordance with the ICAO specifications. The expected update cycle is 3 years.

The team is now working on a platform where information of new air obstacles being planned or built can be directly uploaded, an approach that the Ministry of Transport strongly recommends and even wants to oblige in the near future.



