

Aviation Emissions

Strategies for Low Carbon Air Transport

Although our roots are in the aviation noise field, an extension to emissions was a logical step in our continuous endeavor to provide our customers with a full package of high quality environmental services. In the last decade it has been recognized that the interdependencies between aircraft noise and emissions require an holistic approach to resolve environmental issues. Therefore we have expanded our team of aircraft noise experts with world-class specialists in aviation emissions, which in the last decade have been participating in leading working groups and projects. With this we are able to offer a range of additional services to our customers, now also covering the field of aviation emissions.

CORSIA Implementation

In 2016 **ICAO** adopted a global market-based measure scheme to address CO₂ emissions from international aviation, to enable to meet the goal of carbon-neutral growth from 2020 onwards. The Carbon Offsetting and Reduction Scheme for International Aviation (**CORSIA**) was designed to complement other initiatives to reach this goal, such as technology and operations. This new scheme poses significant challenges to stakeholders like airlines and national aviation authorities. Anotec supports the various involved stakeholders with the CORSIA implementation.

Anotec can help airlines to define their Emissions Monitoring Plan to monitor their fuel use and calculate and report CO₂ emissions, in accordance with CORSIA guidelines. Another part of the CORSIA implementation where Anotec can support, is in the verification process and especially support national authorities in the state review of emissions reports. In the last phase of the CORSIA implementation cycle, Anotec can support stakeholders in the process of setting and meeting offsetting requirements.

Strategy Development

With our emissions experts we can support you in strategy development for CO₂ reduction. With our models we can detect opportunities for the reduction of fuel burn and hence CO₂ emissions.

Local Air Quality Studies

Anotec performs local air quality studies for airports. Our services range from modelling to emissions monitoring, the latter as an extension to our **IBANET** noise monitoring system. These studies can be used to demonstrate compliance with applicable legislation for local air quality. It is also possible to perform local air quality studies to identify the most polluting sources at an airport. Emissions monitoring can also be used to validate model results to further increase accuracy.

CO₂ Inventories

We have extended our state-of-the-art traffic models, until now only used for noise mapping, with modules to calculate fuel consumption and emissions. With this enhanced model we can determine CO₂ inventories for aviation at any scale, from local to international. Apart from CO₂ also other gaseous emissions like NO_x can be calculated.

Apart from the **ICAO LTO** method also emissions produced en-route can be determined. When combined with actual trajectory data from our **IBaTrack** flight track system, unrivaled precision can be obtained.

CORSIA