

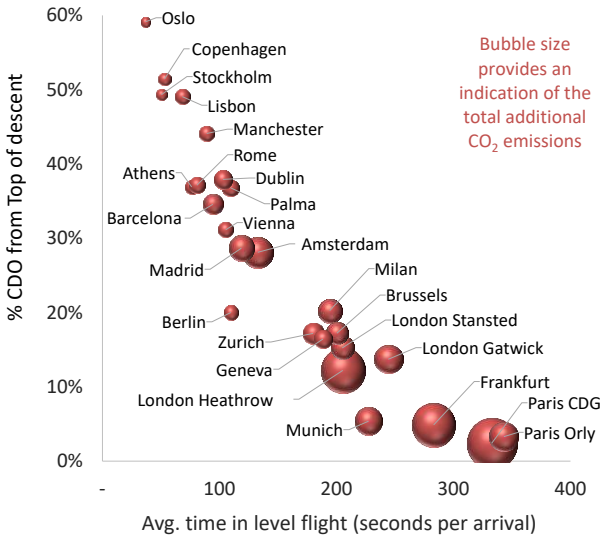
EUROCONTROL Data Snapshot

Continuous descent operations – a low hanging fruit for environmental performance improvements?

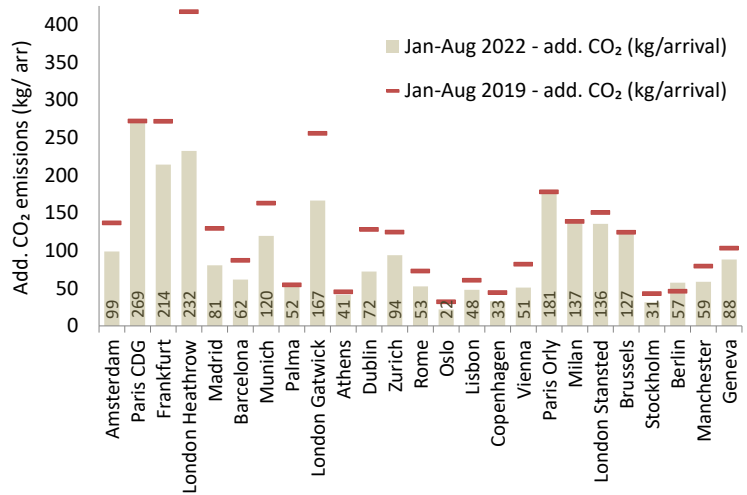


20 September 2022

Average time flown level and share of continuous descent approaches at the top 25 European airports (Jan-Aug 2022)



Additional CO₂ emissions per arrival at the top 25 airports in Europe (ordered by arrivals in 2022)



Due to data availability the Turkish airports could not be included in the analysis

Net Zero emissions in aviation will only be achievable through the introduction of new aircraft types (powered by electricity or hydrogen) and the widespread availability and adoption of Sustainable Aviation Fuel (SAF). Both of these will take many years to have a major effect.

In the meantime, efforts are being made to enhance operational efficiency as much as possible. One way in which ATM can help is to improve vertical flight efficiency through continuous descent operations (CDO). Here aircraft stay at high, efficient, altitudes as long as possible before descending continuously to their destination airport. Minimising the time spent flying level at lower altitudes can save significant amount of fuel, cut CO₂ emissions and also reduce noise levels near airports. Although vertical inefficiencies cannot be reduced to zero - depending on prevailing local conditions around airports - there may be scope for notable improvement in terms of operational concepts, navigational procedures, handover agreements, airspace design or the prioritisation of high volume traffic flows.

The graphic on the left shows, for the top 25 airports in terms of traffic from January to August in 2022, the average time spent in level flight as well as the proportion of flights that achieve CDO all the way down from the cruising altitude. The size of the bubble shows how much extra CO₂ is being generated. Oslo airport was the top performer (top left corner) while the Paris airports have the fewest flights achieving true CDO. Overall, for these 25 airports, around 220,000 tonnes of extra CO₂ (approx. 680 Paris-New York round trips) were generated in the first eight months of this year.

However, the right hand graph shows that the inefficiency (measured in CO₂/arrival and compared with 2019) of many airports has reduced, in particular at Heathrow and Gatwick.

EUROCONTROL supports stakeholders to improve operations in order to further reduce vertical inefficiencies around airports where possible and to maintain improved performance levels as traffic recovers.

The data for over 250 European airports is available for free download at: <https://ansperformance.eu>.

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