An assessment of the likelihood of contrail formation

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Air transport has for a long time been linked to environmental issues like pollution, noise and climate change. Aviation emissions, such as carbon dioxide (CO2), water vapour (H2O), nitrogen oxides (NOx), soot and sulphate aerosols, alter the concentration of atmospheric greenhouse gases and trigger the formation of contrails and cirrus clouds. The ClimOP collaboration, an Horizon 2020 project, aims to identify, evaluate and support the implementation of mitigation strategies to initiate and foster operational improvements which reduce the climate impact of the aviation sector. To this end, we present a study that assesses the likelihood of contrail formation as a function of key atmospheric variables, at different altitudes.