Supplementary Information

End-to-end operational trial of contrail avoidance on transatlantic commercial flights

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Figures S1 to S4.

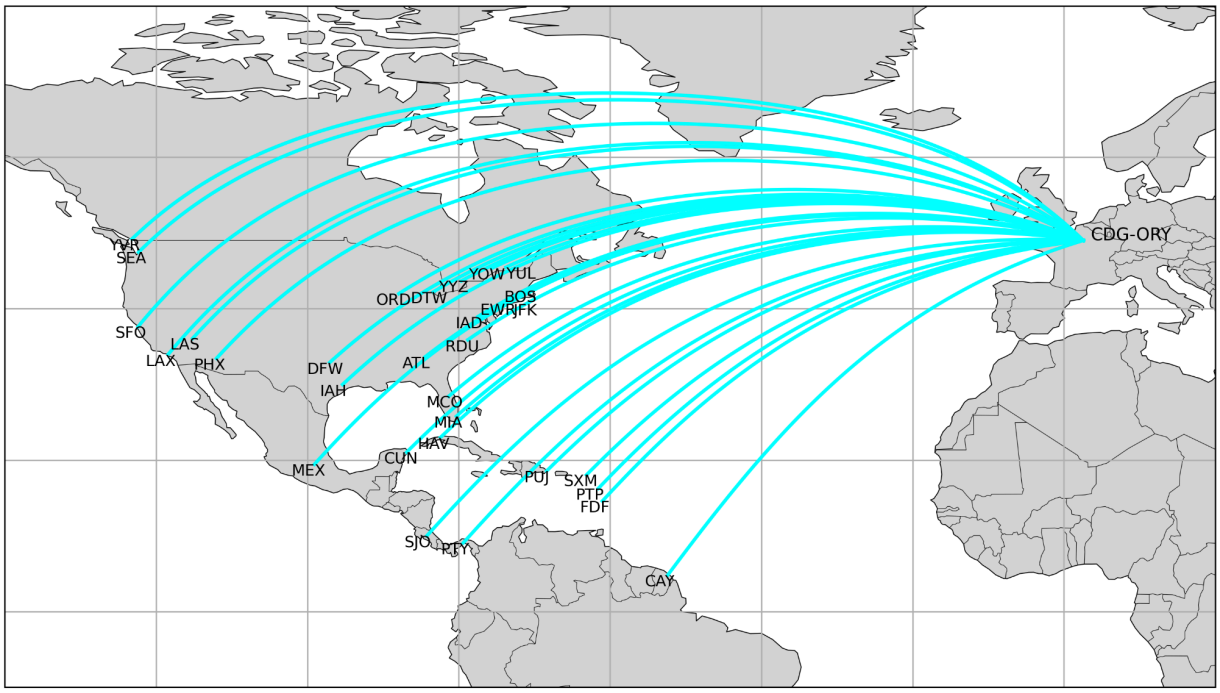


Figure S1. City pairs considered in the contrail avoidance trials. The Paris airport was CDG except for a few routes that used the ORY airport during the first part of the trial. The SJO => CDG and MEX => CDG routes were excluded from the trials due to the altitude of the origin airport.

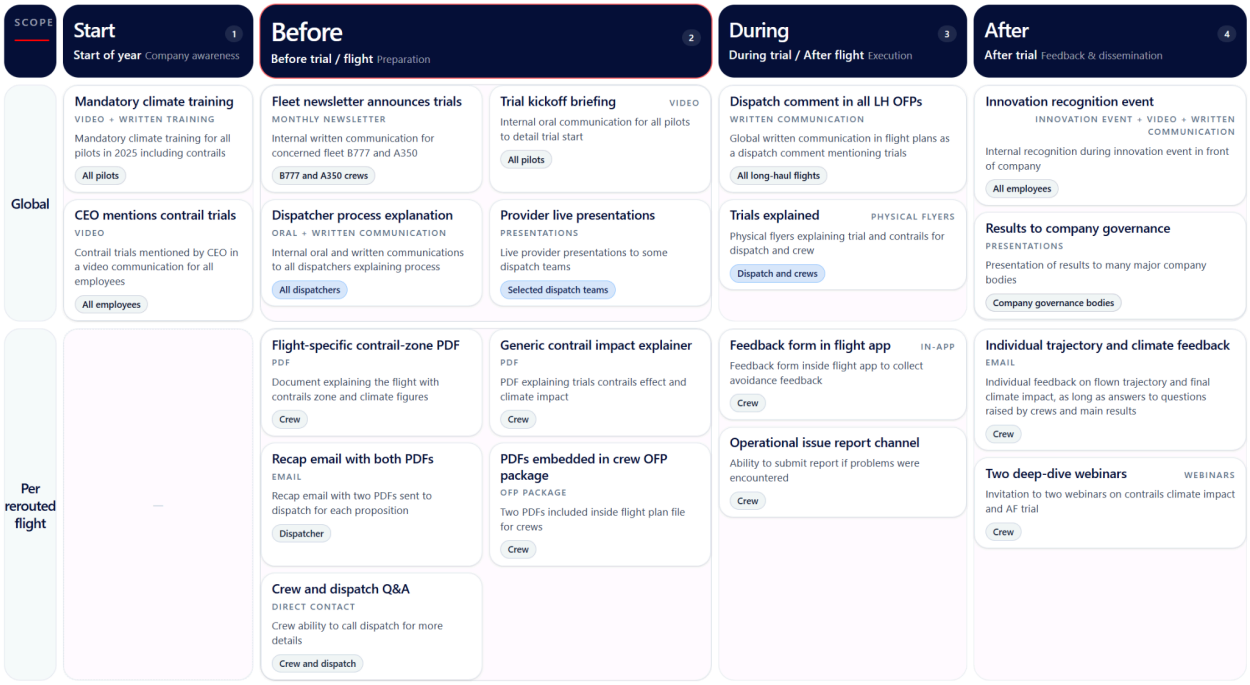


Figure S2. Detailed schematic of contrail avoidance engagement activities conducted within Air France.

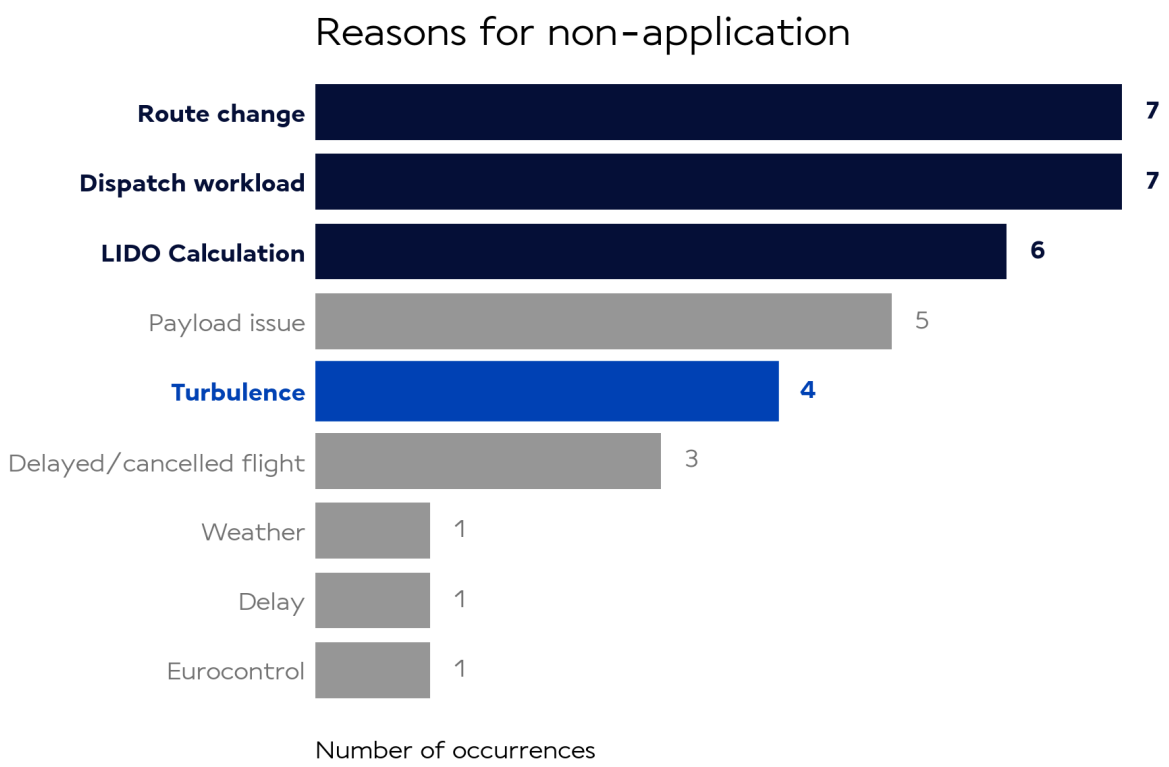


Figure S3. Analysis of dispatch feedback for proposed rerouted flights. The 35 feedbacks received were divided into different categories with the number to the right indicating the number of feedbacks for each category.



Figure S4. Time series of the contrail impacts for the selected rerouted flights for different metrics. For each rerouted flight, the contrail impacts are shown for the input Operational Flight Plan (OFP) in red, the rerouted OFP in green and the actual (flown) trajectory in purple. The contrail impacts are computed for the nominal IFS forecast (X symbols) and the ensemble members of the IFS forecast (small squares) available at the time of the flight planning, the ERA5 reanalysis (filled triangles) and the last available ICON forecast (filled circles).