

## **Marginal Climate and Air Quality Costs of Aviation Emissions - Supplementary Dataset**

**Dataset available at:** <https://doi.org/10.6084/m9.figshare.9944954>

(This dataset supports report **Development of NAS Wide and Global Rapid Aviation Air Quality Tools - 20**)

This U.S. Department of Transportation-funded dataset is preserved by the University of California, Davis in the digital repository figshare (<https://figshare.com/>), and is available at <https://doi.org/10.6084/m9.figshare.9944954>.

The related final report **Development of NAS Wide and Global Rapid Aviation Air Quality Tools - 20**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/59844>

### **Metadata from the figshare Repository record:**

#### Posting Date and Authors:

Dataset posted on 15.10.2020, 13:40 by Carla Grobler, Philip J. Wolfe, Kingshuk Dasadhikari, Irene C. Dedoussi, Florian Allroggen, Raymond L. Speth, Sebastian D. Eastham, Akshat Agarwal, Mark D. Staples, Jayant Sabnis, Steven R. H. Barrett

#### Abstract:

This dataset defines the uncertainty bounds for Tables SI.13-SI.18 in the paper, by including the full Monte Carlo simulation output data.

A CSV file is provided for each column in Table SI.13 to Table SI.18 in the paper. The CSV files include the ordered members of the Monte Carlo simulation, for instance the first row of each CSV file corresponds to the same Monte Carlo member.

For net costs including air quality costs, central estimates should be calculated using the central estimates from Table SI.13 to Table SI.18 in the paper. This is because, for air quality, the central values are not derived using Monte Carlo simulation, but rather by selecting a central VSL value as described in Section SI.1.3.1 in the paper.

This Monte Carlo dataset should be used to determine the uncertainty bounds for net costs due to changes in emissions of multiple species.

#### Categories:

Environmental Impact Assessment

#### Keywords:

Climate change; Air quality; Cost benefit analysis; Aviation

#### License:

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**Recommended citation:**

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**Dataset description:**

This dataset contains 1 .zip file collection described below.

**MonteCarloSets\_CVS.zip:**

This collection contains 46 files listed below.

- RegionalLTO\_DiscR30\_AQ\_CountSpecVSL\_dUSA.csv
- RegionalLTO\_DiscR30\_AQ\_CountSpecVSL\_cNorthAmerica.csv
- RegionalLTO\_DiscR30\_AQ\_CountSpecVSL\_bEurope.csv
- RegionalLTO\_DiscR30\_AQ\_CountSpecVSL\_aSE\_Asia.csv
- RegionalLTO\_DiscR30\_AQ\_AveVSL\_dUSA.csv
- RegionalLTO\_DiscR30\_AQ\_AveVSL\_cNorthAmerica.csv
- RegionalLTO\_DiscR30\_AQ\_AveVSL\_bEurope.csv
- RegionalLTO\_DiscR30\_AQ\_AveVSL\_aSE\_Asia.csv
- RegionalFullFlight\_DiscR30\_AQ\_CountSpecVSL\_dUSA.csv
- RegionalFullFlight\_DiscR30\_AQ\_CountSpecVSL\_cNorthAmerica.csv
- RegionalFullFlight\_DiscR30\_AQ\_CountSpecVSL\_bEurope.csv
- RegionalFullFlight\_DiscR30\_AQ\_CountSpecVSL\_aSE\_Asia.csv
- RegionalFullFlight\_DiscR30\_AQ\_AveVSL\_dUSA.csv
- RegionalFullFlight\_DiscR30\_AQ\_AveVSL\_cNorthAmerica.csv
- RegionalFullFlight\_DiscR30\_AQ\_AveVSL\_bEurope.csv
- RegionalFullFlight\_DiscR30\_AQ\_AveVSL\_aSE\_Asia.csv
- RegionalCruise\_DiscR30\_AQ\_CountSpecVSL\_dUSA.csv
- RegionalCruise\_DiscR30\_AQ\_CountSpecVSL\_cNorthAmerica.csv
- RegionalCruise\_DiscR30\_AQ\_CountSpecVSL\_bEurope.csv
- RegionalCruise\_DiscR30\_AQ\_CountSpecVSL\_aSE\_Asia.csv
- RegionalCruise\_DiscR30\_AQ\_AveVSL\_dUSA.csv
- RegionalCruise\_DiscR30\_AQ\_AveVSL\_cNorthAmerica.csv
- RegionalCruise\_DiscR30\_AQ\_AveVSL\_bEurope.csv
- RegionalCruise\_DiscR30\_AQ\_AveVSL\_aSE\_Asia.csv
- GlobalLTO\_DiscR70\_Climate.csv
- GlobalLTO\_DiscR50\_Climate.csv
- GlobalLTO\_DiscR30\_Climate.csv
- GlobalLTO\_DiscR30\_AQ\_CountSpecVSL.csv
- GlobalLTO\_DiscR30\_AQ\_AveVSL.csv
- GlobalLTO\_DiscR25\_Climate.csv
- GlobalLTO\_DiscR20\_Climate.csv
- GlobalFullFlight\_DiscR70\_Climate.csv
- GlobalFullFlight\_DiscR50\_Climate.csv
- GlobalFullFlight\_DiscR30\_Climate.csv

- GlobalFullFlight\_DiscR30\_AQ\_CountSpecVSL.csv
- GlobalFullFlight\_DiscR30\_AQ\_AveVSL.csv
- GlobalFullFlight\_DiscR25\_Climate.csv
- GlobalFullFlight\_DiscR20\_Climate.csv
- GlobalCruise\_DiscR70\_Climate.csv
- GlobalCruise\_DiscR50\_Climate.csv
- GlobalCruise\_DiscR30\_Climate.csv
- GlobalCruise\_DiscR30\_AQ\_CountSpecVSL.csv
- GlobalCruise\_DiscR30\_AQ\_AveVSL.csv
- GlobalCruise\_DiscR25\_Climate.csv
- GlobalCruise\_DiscR20\_Climate.csv
- 1README.txt

The .csv, Comma Separated Value, file is a simple format that is designed for a database table and supported by many applications. The .csv file is often used for moving tabular data between two different computer programs, due to its open format. The most common software used to open .csv files are Microsoft Excel and RecordEditor, (for more information on .csv files and software, please visit <https://www.file-extensions.org/csv-file-extension>).

The .txt file type is a common text file, which can be opened with a basic text editor. The most common software used to open .txt files are Microsoft Windows Notepad, Sublime Text, Atom, and TextEdit (for more information on .txt files and software, please visit <https://www.file-extensions.org/txt-file-extension>).

**National Transportation Library (NTL) Curation Note:**

As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (<https://doi.org/10.21949/1503647>) Section 7.4.2 Data, the NTL staff has performed *NO* additional curation actions on this dataset. NTL staff last accessed this dataset at <https://doi.org/10.6084/m9.figshare.9944954> on 2021-10-26. If, in the future, you have trouble accessing this dataset at the host repository, please email [NTLDataCurator@dot.gov](mailto:NTLDataCurator@dot.gov) describing your problem. NTL staff will do its best to assist you at that time.