Bath & North East Somerset ANPR Camera Survey Data

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notes.txt - this file

sites.csv - ANPR camera survey sites

vehicles.csv - vehicles observed during survey

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copert2016\_emissions.csv - vehicle / emissions lookup based on simplification of the Excel files with Emission Factor Functions.xlsx file at https://www.emisia.com/utilities/copert/documentation/

naei2016\_emissions.csv - vehicle / emissions lookup based on manual simplification of Table 3 from Fleet Weighted Road Transport Emission Factor 2016 file at http://naei.beis.gov.uk/data/ef-transport

sites.csv

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id - sequential identifier

name - original name of camera site

description - description of site location

location\_id - camera location id

direction - direction of travel

radial\_group - location relative to city centre - 1 = outer ring, 2 = inner ring, 3 = city centre car park, 4 = unclassified

in\_out - direction towards city centre or entry/exit for car park - 1 = inbound, 2 = outbound

longitude - WGS84 longitude

latitude - WGS84 latitude

Site 63 (ANPR31c) found in original list of sites but unused in observations, thus removed. \*\*Location of site 61 has been changed\*\*.

vehicles.csv

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id - identifier (UUID to anonymise vehicles)

make - make of vehicle e.g. Ford, Ferrari

type - type of vehicle e.g. CARS, PSVs

subtype - subtype of vehicle e.g. Moped, "Fare Stage Buses"

intro\_date - date vehicle was introduced

euro\_status - Euro status (see https://en.wikipedia.org/wiki/European\_emission\_standards)

engine\_capacity - engine capacity in cm3

gross\_vehicle\_weight - gross vehicle weight in kg

fuel\_type - fuel type e.g. Diesel, Petrol

co2 - CO2 emissions in g/km

fc\_combined - fuel consumption across combined conditions in L/100km

fc\_extra\_urban - fuel consumption outside urban area in L/100km

fc\_urban\_cold - fuel consumption from cold start within urban area in L/100km

Vehicle make may be "Suppressed" where 5 or less vehicles of that make were observed.

Some data values maybe null where information is not available for a vehicle.

Text values are original raw values and may require consistency improvements e.g. Petrol & PETROL may need to be converted to a single value.

observations.csv

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id - sequential identifier

t - UTC timestamp of observation

site\_id - site of observation

vehicle\_id - vehicle observed

copert2016\_emissions.csv

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type - vehicle type

fuel\_type - vehicle fuel type

euro\_status - vehicle euro status E0 - E6

nox - NOx in g/km

pm\_exhaust - PM from exhaust in g/km

voc - Volatile organic compounds in g/km

co - CO in g/km

nh3 - Ammonia in g/km

ch4 - Methane in g/km

n2o - Nitrous oxide in g/km

Values are averages across much more complex criteria for which we have no vehicle data. See original spreadsheet for details and comparison.

Vehicles should be matched using all of type, fuel\_type and euro\_status. Data not available for unmatched vehicles. Not all matches have all pollutant types.

These data are used as input data to multiple official tools and are likely to be more useful than the NAEI data.

naei2016\_emissions.csv

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type - vehicle type

subtype - vehicle subtype

fuel\_type - vehicle fuel type

nox - NOx in g/km

pm10 - PM10 in g/km

pm2\_5 - PM2.5 in g/km

co - CO in g/km

voc - Volatile organic compounds in g/km

nh3 - Ammonia in g/km

so2 - SO2 in g/km

benzene - Benzene in g/km

n2o - Nitrous oxide in g/km

Values have been manually corresponded to appropriate vehicle type / subtype / fuel type.

Vehicles should be matched using all of type, subtype and fuel\_type. Data not available for unmatched vehicles.

These data are much more generalised than the COPERT data and tend to underestimate pollutants when compared the COPERT data.

CAVEAT ABOUT POLLUTANT DATA

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The lookup tables provided here are far from rigorous and are intended to be illustrative.

Calculating pollutant values for vehicles is a very complex topic. Much more information than we have about a vehicle is required to make an accurate prediction of pollutants produced.

At best these pollutant tables should be used in an internally comparative way i.e. we can compare aspects of pollution within our own system but we should not compare our output data with data produced by other organisations using different pollutant modelling techniques. At best our results will be suggestive, at worst our results may be massively over-simplified.

In short, if your results are at odds with others', don't pick a fight with them.

Licence

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For COPERT and NAEI, the data appear to be open but please refer to the accompanying documents to be found at the URLs above.

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