Data Files

M### refers to the flight number. We currently only have data for M251 (although it must be noted that this data is not yet in its final format as full quality control of the data has not taken place and the reformatting of the file into NetCDF has not taken place.

**MOCCA Data**

The MOCCA data is currently created by combining the raw instrument data into a single CSV file.

**Aircraft\_Data\_M###.csv**

This is a CSV file containing the aircraft observations. The data is available on a 1 second time step. Data includes position of the aircraft (latitude, longitude, altitude, pressure), aircraft parameters (pitch, roll, TAS), meteorological parameters (wind speed and direction, temperature, relative humidity) and pollutant concentrations (NO2, O3 and SO2).

**AQUM Data**

This is data currently extracted from the archived 3-hourly operational data files. Data has been extracted for the time step closest to the flight time, although the method of selecting time slices and converting data from a rotated pole grid and then extracting flight coordinates is in need of checking and updating – the model data should only be treated as an example and no conclusions should be made based upon this data.

**AQUM\_Flight\_Track\_Data\_M###.csv**

This is a CSV file containing model data extracted along the latitude-longitude-altitude coordinates of the flight track.

**AQUM\_Flight\_Track\_Column\_Data\_M###.nc**

This is a NetCDF file containing model data for the whole column along the latitude-longitude coordinates of the flight track

**AURN Data**

This is AURN ground based measurement data for the day and time of the flight. This includes all sites which were reporting data on the flight day. For each of these sites, the data is extracted and averaged between the take-off and landing times.

The following files are currently available for the AURN sites …

**CO\_AURN\_Data\_M###.csv**

**NO\_AURN\_Data\_M###.csv**

**NO2\_AURN\_Data\_M###.csv**

**SO2\_AURN\_Data\_M###.csv**

**O3\_AURN\_Data\_M###.csv**

**PM2p5\_AURN\_Data\_M###.csv**

**PM10\_AURN\_Data\_M###.csv**

**C5H8\_AURN\_Data\_M###.csv**