

Recent Measurements from the Cape Verde Atmospheric Observatory (CVAO)

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The Cape Verde Atmospheric Observatory (16,848°N, 24.871°W), a subtropical marine boundary layer atmospheric monitoring station situated on the island of São Vicente, has been in operation since October 2006. Almost continuous measurements of the trace gases O₃, CO, Non-Methane Volatile Organic Compound, NO, and NO₂ have been obtained. Other data from the CVAO, for example of greenhouse gases, aerosol, halocarbons, halogen oxides, total gaseous mercury (Global Mercury Observation System) are also available over various timescales. The observatory continues to host field campaigns with two more planned for the Oceanic Reactive Carbon project this year, which aims to better understand oceanic emissions of reactive organic compounds such as glyoxal and monoterpenes and how they might modify marine aerosol.

Measurements from the last seven years will be shown along with analysis of observed delta ozone (9am until 5pm [O₃] (ppbV)) and some investigation into NO_x emissions from shipping. We will also present some early interpretation of our three years of total gaseous mercury measurements.

The CVAO is a Global Atmosphere Watch station and so data is submitted regularly to the World Centre for the Greenhouse Gases in addition to the British Atmospheric Data Centre along with associated instrument metadata. The observatory has recently been audited by EMPA (Swiss Federal Laboratories for Materials Science and Technology) who are the World Calibration Centre for O₃, CO and the greenhouse gas species.

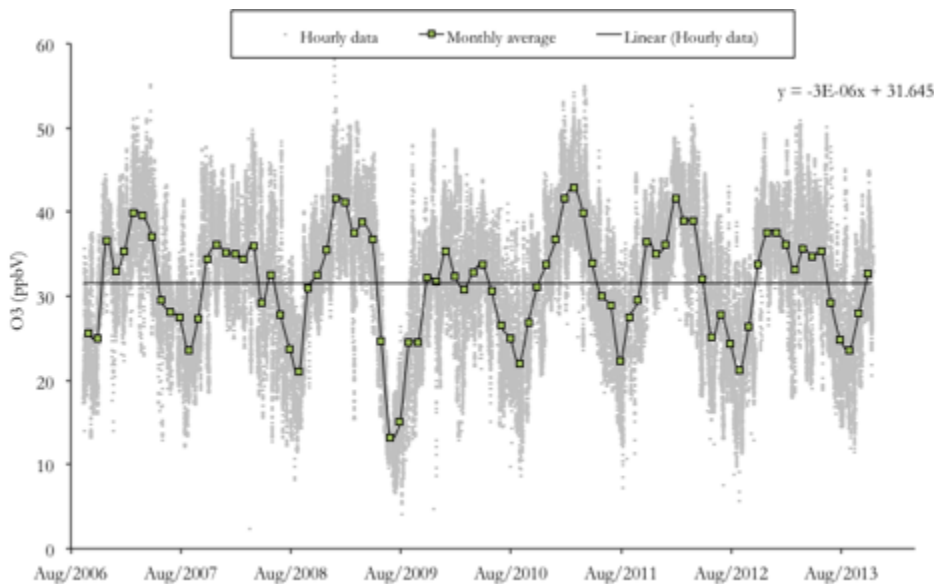


Figure 1. Time-series of surface ozone from the CVAO.