Author(s):

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1.0 Data Set Overview:

ORCAS Field Project, Project PIs Britton Stephens (NCAR Earth Observing Laboratory), Matthew Long (NCAR Climate & Global Dynamics)
Time period covered: 1/15/2016 through 2/29/2016
TOGA measurements from on board the NSF/NCAR Gulfstream-V
https://www.eol.ucar.edu/field_projects/orcas

2.0 Instrument Description:

The Trace Organic Gas Analyzer (TOGA) is a fast online Gas Chromatograph/Mass Spectrometer (GC/MS), with a measurement frequency of approximately one 35s sample every 2 minutes, capable of measuring over 50 different volatile organic compounds (VOCs), including selected C_3-C_{10} hydrocarbons, C_1-C_9 oxygenated VOCs, halogenated VOCs, DMS, HCN, and CH_3CN.
See individual data files for specific VOCs measured during ORCAS, individual VOC measurement accuracies and detection limits.

4.0 Data Format:

Data are in ICARTT format, one file per research flight.

5.0 Data Remarks:

Please contact P.I. prior to use.

6.0 References:

Recent publications:

E. C. Apel et al., Impact of the deep convection of isoprene and other reactive trace species on radicals and ozone in the upper troposphere, Atmos. Chem. Phys., 12, 1135, doi:10.5194/acp-12-1135-2012, 2012.

R. S. Hornbrook et al., Observations of nonmethane organic compounds during ARCTAS - Part 1: Biomass burning emissions and plume enhancements, Atmos. Chem. Phys. 11, 1103, doi:10.5194/acp-11-11103-2011, 2011.

E. C. Apel et al., Chemical evolution of volatile organic compounds in the outflow of the Mexico City Metropolitan area, Atmos. Chem. Phys., 10, 2353, doi:10.5194/acp-10-2353-2010, 2010.