

Author(s):

Eric C. Apel
ACD/NCAR, 3450 Mitchell Lane, Boulder, CO 80301 US, 303-497-1452
apel@ucar.edu, <http://staff.ucar.edu/browse/people/10885>

1.0 Data Set Overview:

CONTRAST Field Project, Project P.I.s Laura Pan, Eliot Atlas, Ross Salawitch
Time period covered: 1/15/2014 through 2/28/2014
TOGA measurements from on board the NSF/NCAR Gulfstream-V
https://www.eol.ucar.edu/field_projects/contrast

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 C₃-C₁₀ hydrocarbons, C₁-C₉ oxygenated VOCs, halogenated VOCs, DMS, HCN, and CH₃CN.
See individual data files for specific VOCs measured during TORERO, 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-11-1103-2011, 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.