Supplement of Atmos. Chem. Phys., 19, 8967–8977, 2019
https://doi.org/10.5194/acp-19-8967-2019-supplement

Atmospheric Chemistry and Physics
Open Access
EGU

Supplement of

Trends in N_2O and SF_6 mole fractions in archived air samples from Cape Meares, Oregon (USA), 1978–1996

Terry C. Rolfe and Andrew L. Rice

Correspondence to: Terry C. Rolfe (trolfe@pdx.edu)

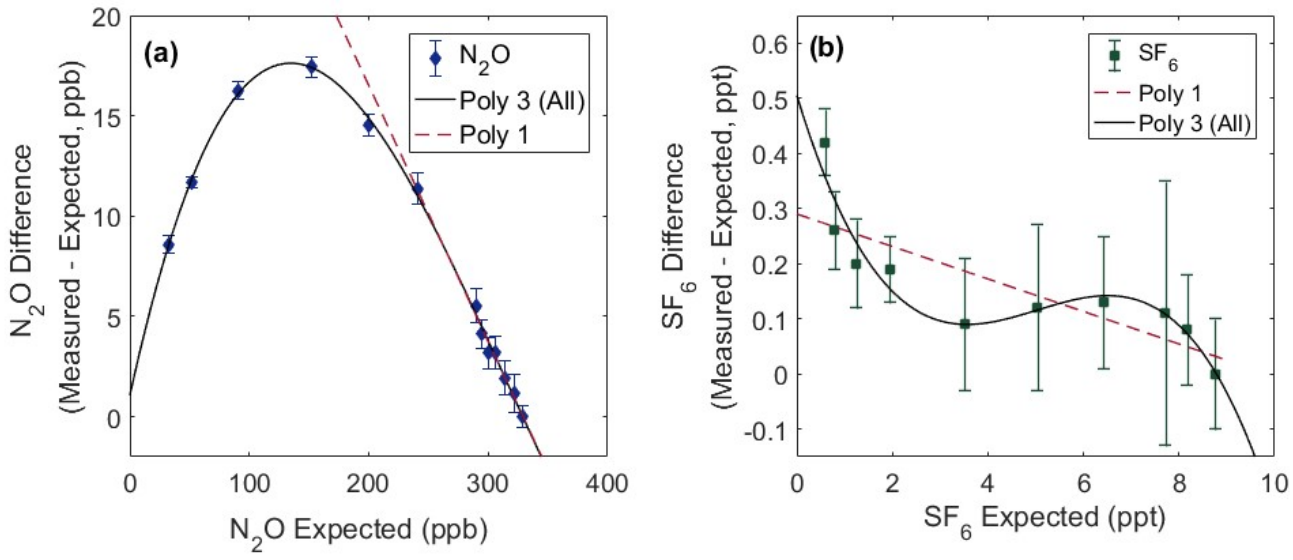

Figure S1. Mole fraction difference from expected plots for N_2O (a) and SF_6 (b) detector response calibration measurements. Solid black lines are 3rd-degree polynomials fit to the whole data range. For N_2O, 1st-degree polynomial fit (red-dashed line) is only fit to data with mole fractions expected to be greater than 295 ppb. For SF_6, 1st-degree polynomial fit spans the entire data range.

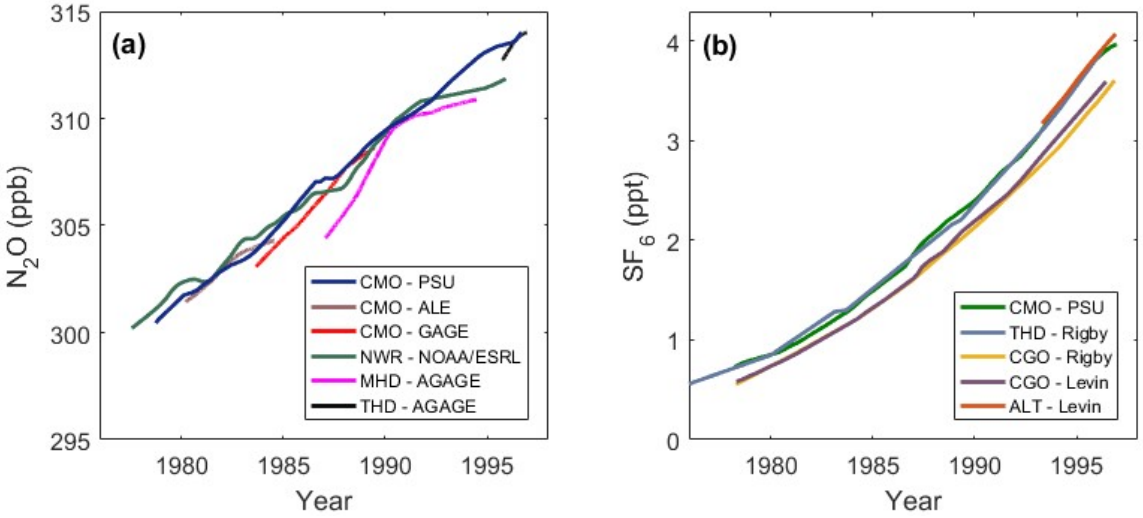

Figure S2. 3-year LOWESS regressions of measurements of mole fraction versus date of collection, N_2O (a) and SF_6 (b). Station codes: CMO = Cape Meares, Oregon, USA, NWR = Niwot Ridge, Colorado, USA, MHD = Mace Head, Ireland, THD = Trinidad Head, California, USA, CGO = Cape Grim, Tasmania, ALT = Alert, Canada. N_2O data sources:

Atmospheric Lifetime Experiment (ALE, now AGAGE), Massachusetts Institute of Technology, Building 54-1312 Cambridge, MA 02139-2307, https://agage.mit.edu/; Global Atmospheric Gases Experiment (GAGE, now AGAGE), Massachusetts Institute of Technology, Building 54-1312 Cambridge, MA 02139-2307, https://agage.mit.edu/; National Oceanic and Atmospheric Association / Earth System Research Laboratory (NOAA/ESRL), 325 Broadway Boulder, CO 80305-3337, http://www.cmdl.noaa.gov/index.html; Advanced Global Atmospheric Gases Experiment Science Team (AGAGE), Massachusetts Institute of Technology, Building 54-1312 Cambridge, MA 02139-2307, https://agage.mit.edu/. N_2O data collected from World Data Center for Greenhouse Gases (WDCGG) https://gaw.kishou.go.jp/. SF_6 data is digitized from plots in Rigby et al. 2010 and Levin et al. 2010.