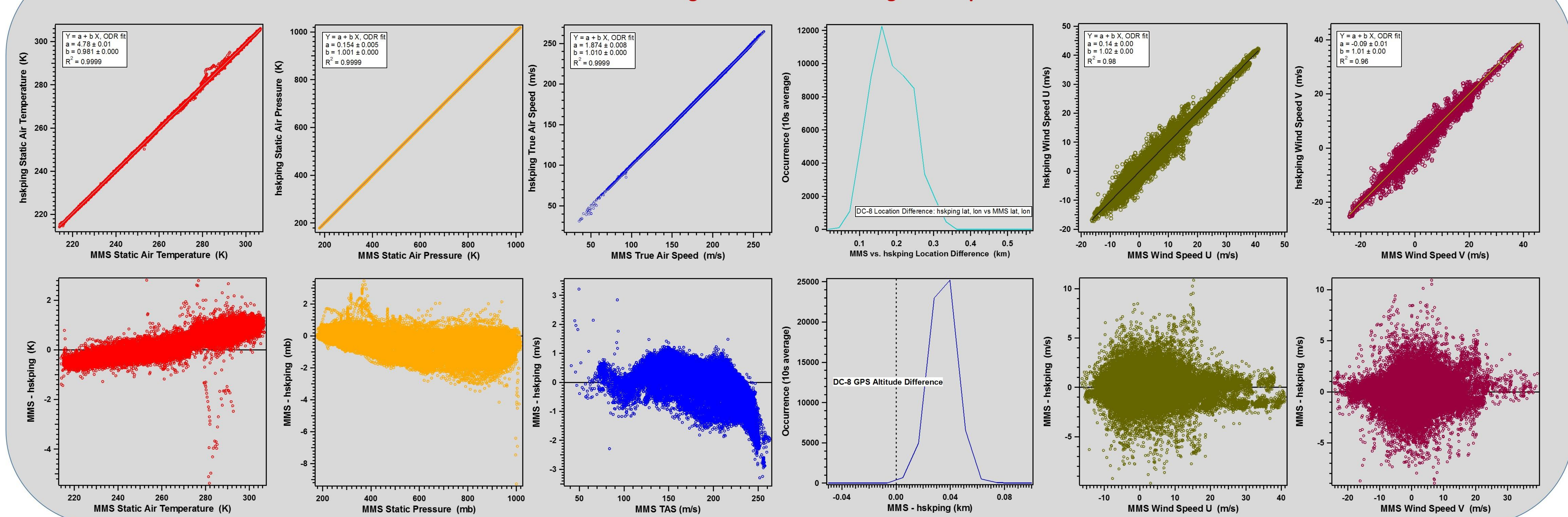


An Overview of Measurement Comparison Based on SEAC4RS Aircraft Observations

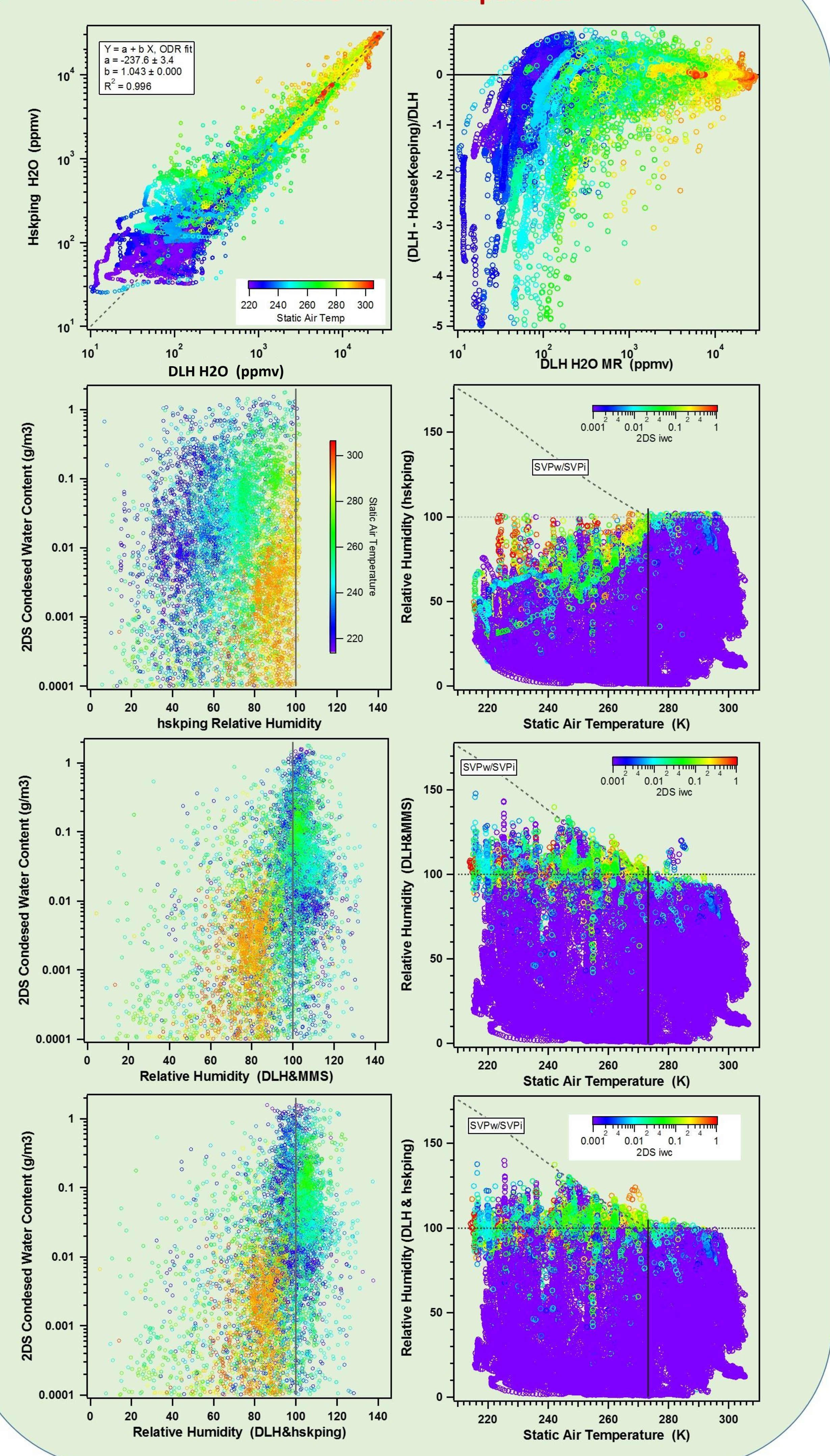
Gao Chen and Michael Shook

Introduction: Multiple instruments on either the DC-8 or ER-2 aircraft platform were deployed to provide measurements of the same parameter using different techniques. This provides us an opportunity to examine the level of the consistency between these measurements, which may have significant implications to the ongoing SEAC4RS data analysis. The comparison is to provide semi-quantitative or quantitative assessment of the measurements/instruments based on the archived data. The plots shown below are a summary of the comparison analysis of the measurements for trace gas species, aerosol properties, as well as meteorological and navigational parameters. These plots are intended to facilitate a discussion to improve the measurement quality.

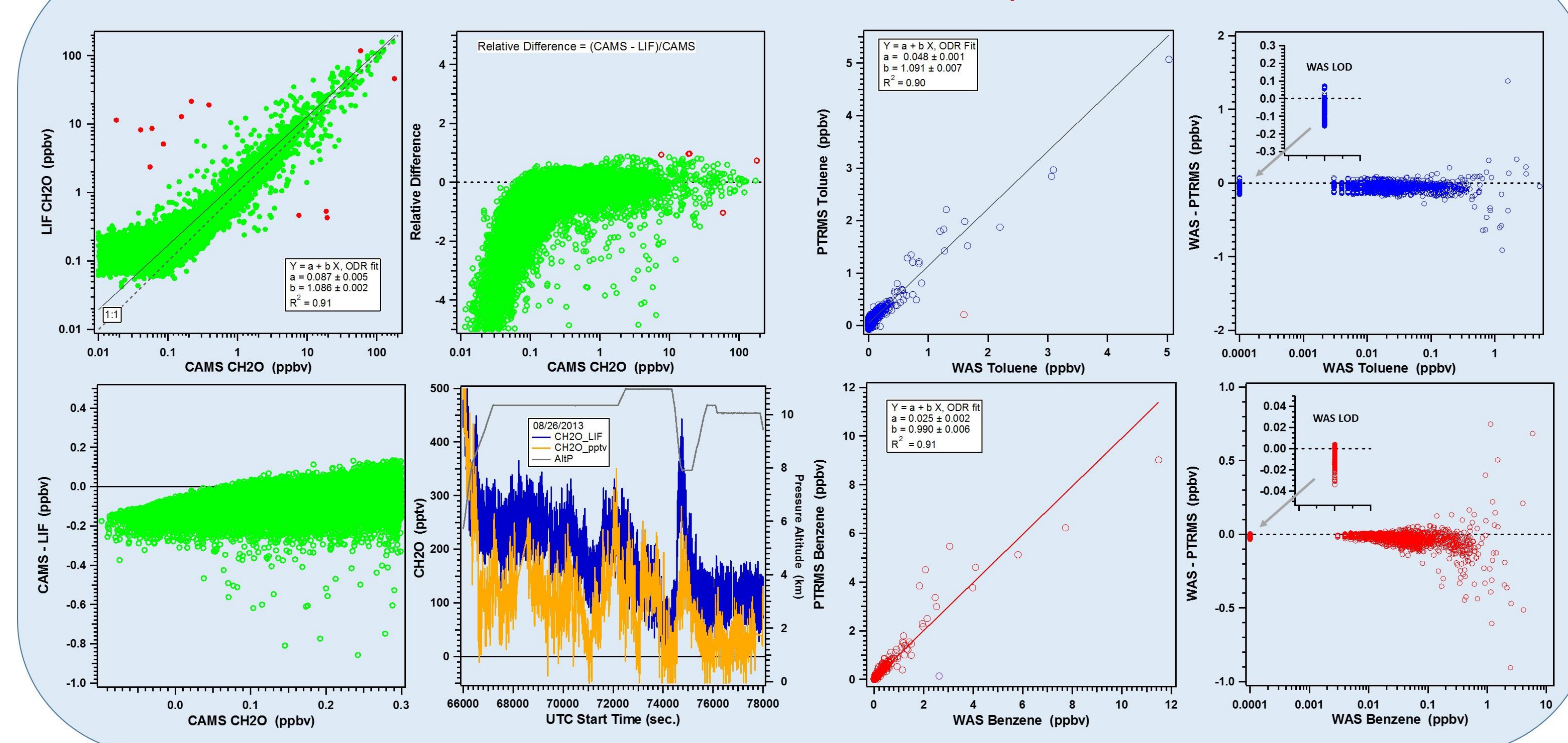
DC-8 Aircraft Navigational and Meteorological Comparison



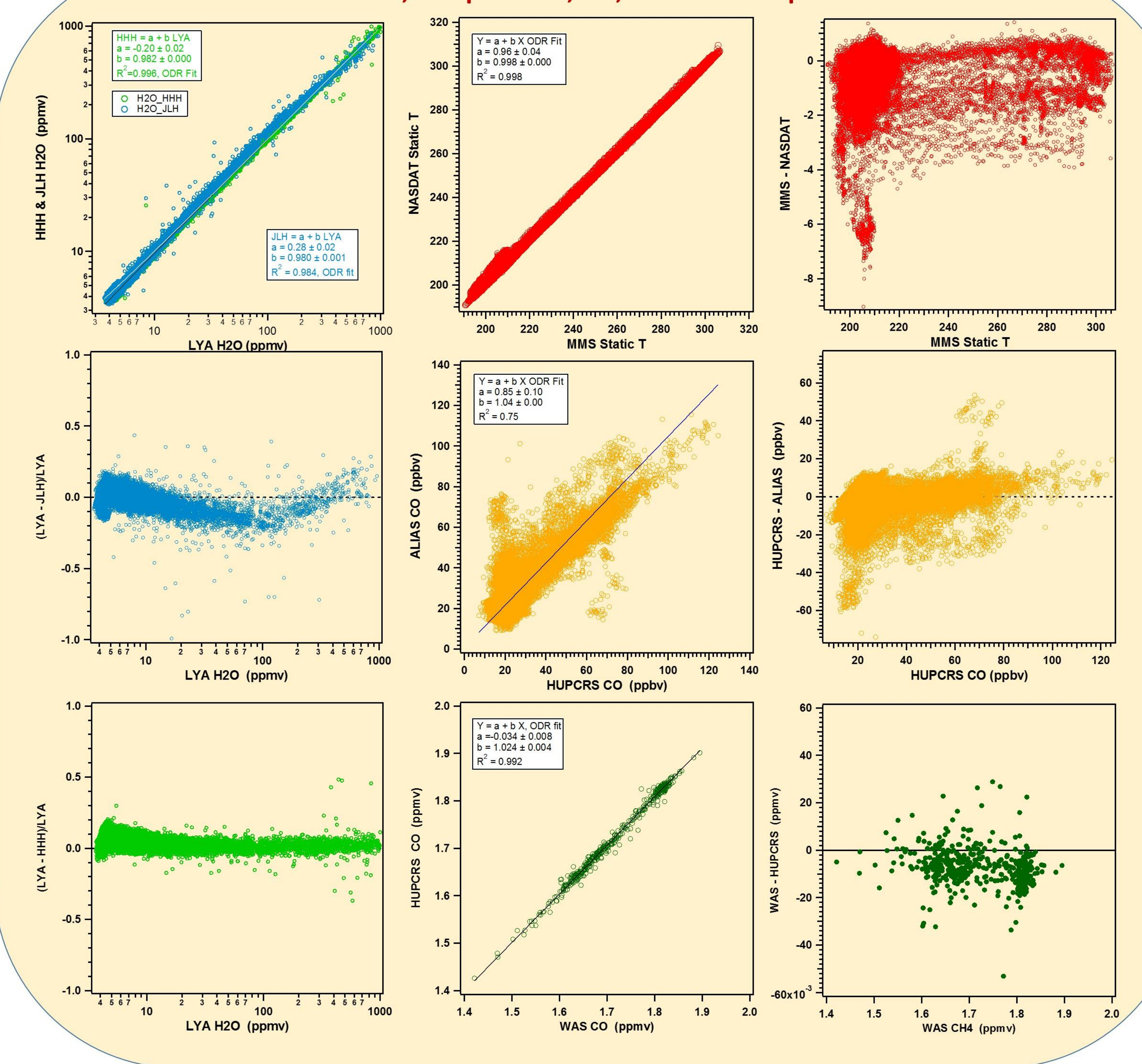
DC-8 H2O & RH Comparison



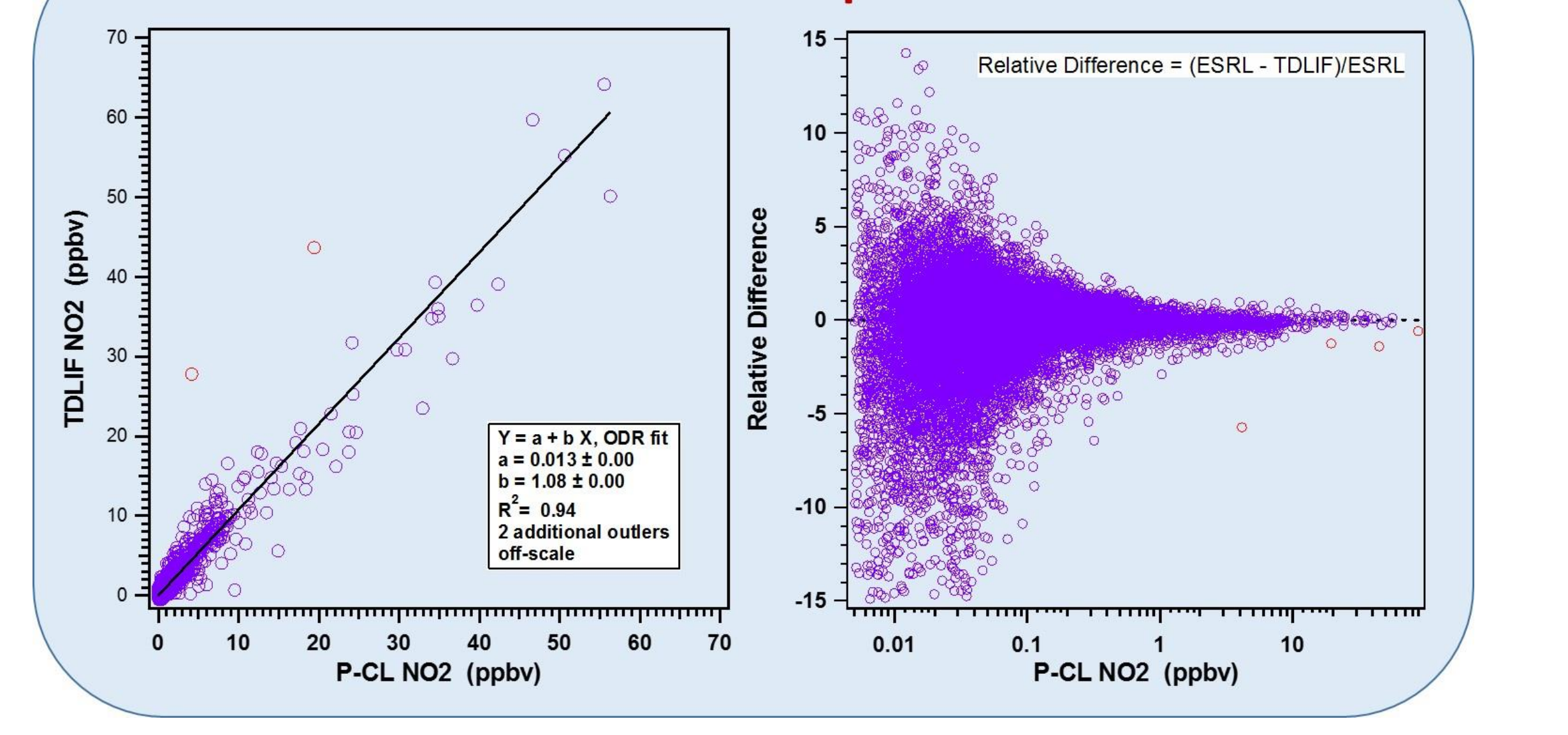
DC-8 CH2O, Benzene, and Toluene Comparison



ER-2 H2O, Temperature, CO, and CH4 Comparison



DC-8 NO2 Comparison



DC-8 HNO3 Comparison

