Reactive Nitrogen in the Global Upper Troposphere from NASA DC8 Aircraft Campaigns

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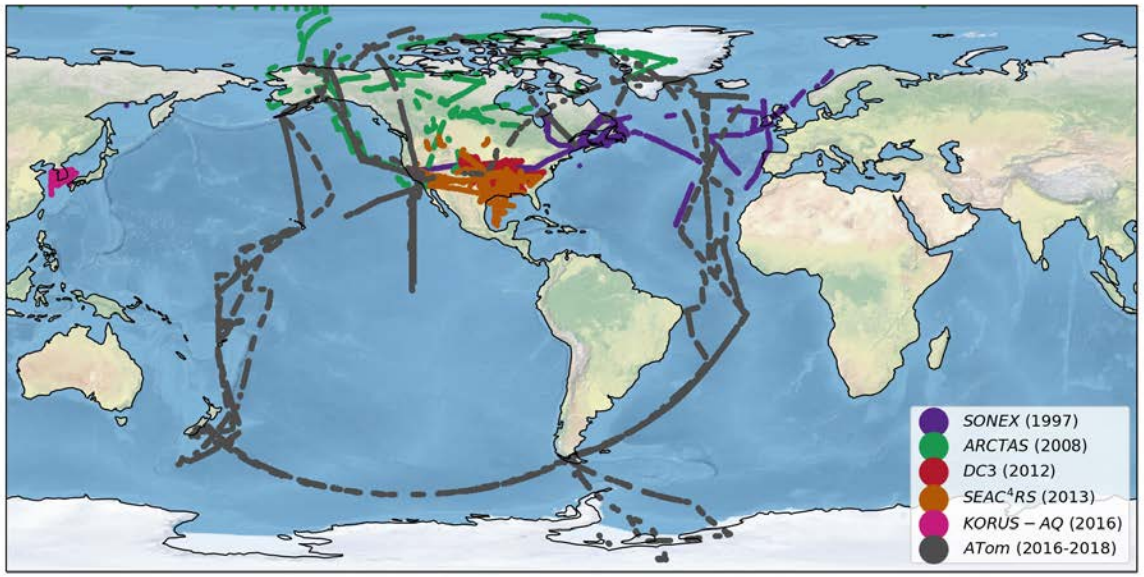
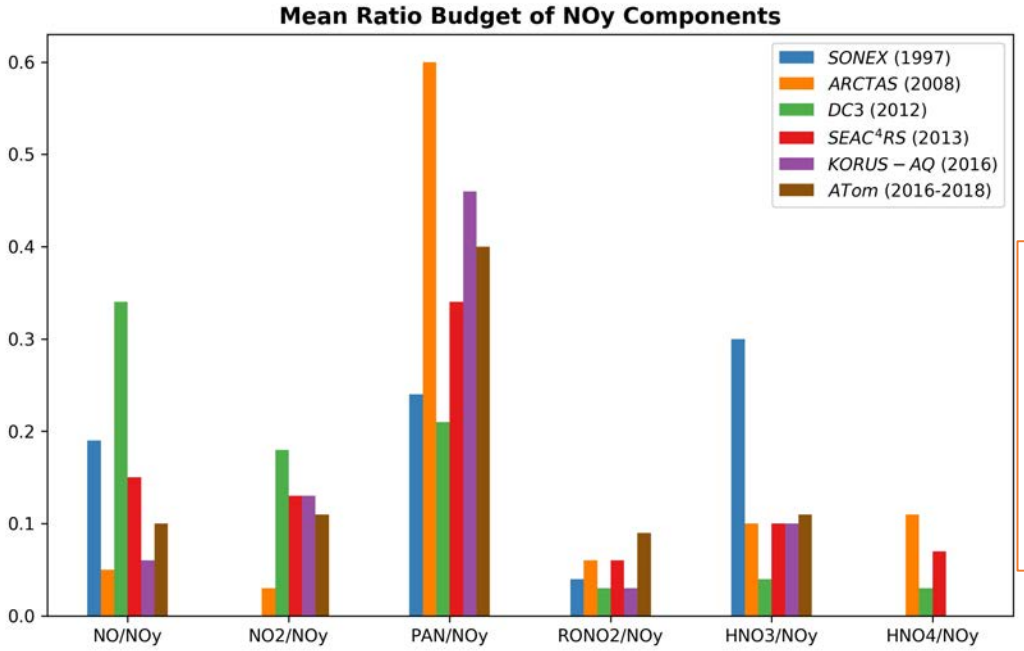
Introduction

- UT NO_y ⟶ global climate, air quality, the oxidizing capacity of the atmosphere.
- Large **uncertainties exist in models.**
- We use NASA DC8 and MOZAIC aircraft observations to improve understanding of global UT NO_y.



References
Hudman et al., 2007, doi:10.1029/2006jd007912
Marais et al., 2018, doi:10.5194/acp-18-17017-2018
Stevenson et al., 2013, doi:10.5194/acp- 13-3063-2013

Results - Budget of UT NO_y Components during DC8 Campaigns from SONEX to ATom



Dominance of **PAN** is 40% for ATom, 46% for KORUS-AQ, 36% for SEAC⁴RS and 57% for ARCTAS.

Concluding Remarks and Next Steps

- PAN dominates over cold temperature locations and NO over locations dominated by lightning.
- Next steps will be to compare DC8 and MOZAIC NO_y, and run GEOS-Chem to assess state of our understanding of global UT NO_y.