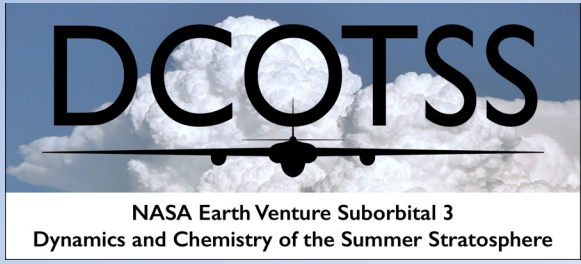
2021 Open Data Workshop
(December 7th)



Compact Airborne NO_2 Experiment

CANOE-NO2

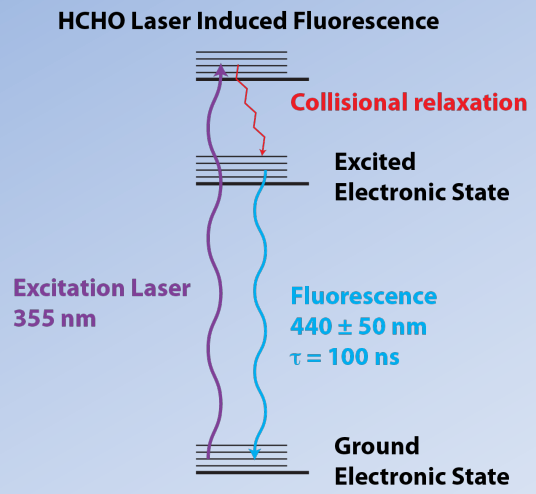
PI: Jason St. Clair (jstclair@umbc.edu)

Data Collection/Creation Process

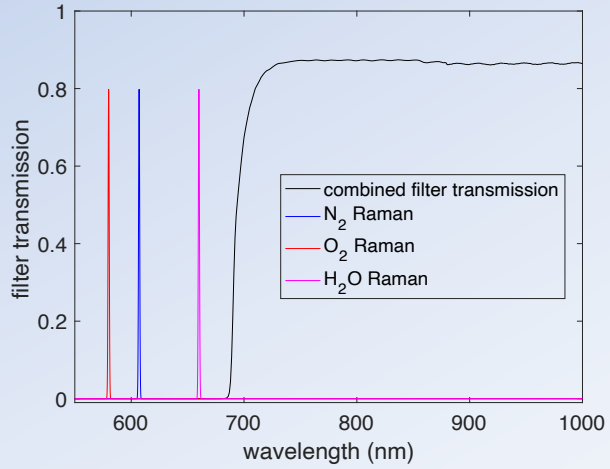
DCOTSS
NASA Earth Venture Suborbital 3
Dynamics and Chemistry of the Summer Stratosphere

- Non-resonant laser-induced fluorescence (NR-LIF)

- Laser excitation
  - NO_2 at 532 nm



- PMTs detect red-shifted fluorescence



- Requires laboratory calibration to convert signal to mixing ratio.

St. Clair, et al., Atmos. Meas. Tech., 2017 & 2019

File Structure & Content

DCOTSS
NASA Earth Venture Suborbital 3
Dynamics and Chemistry of the Summer Stratosphere

- Archived files will include a time stamp and in situ mixing ratio in pptv of nitrogen dioxide (NO_2)
- File format: .ict
- File size: ~400 kB

Data Limitations & Considerations

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- Final details on accuracy, precision will be provided in the .ict data files
- Strongly suggested to communicate with instrument team early in your analysis to avoid embarrassing misuse of data.

Tentative Archival Timeline

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- Final data will be archived by February 2022