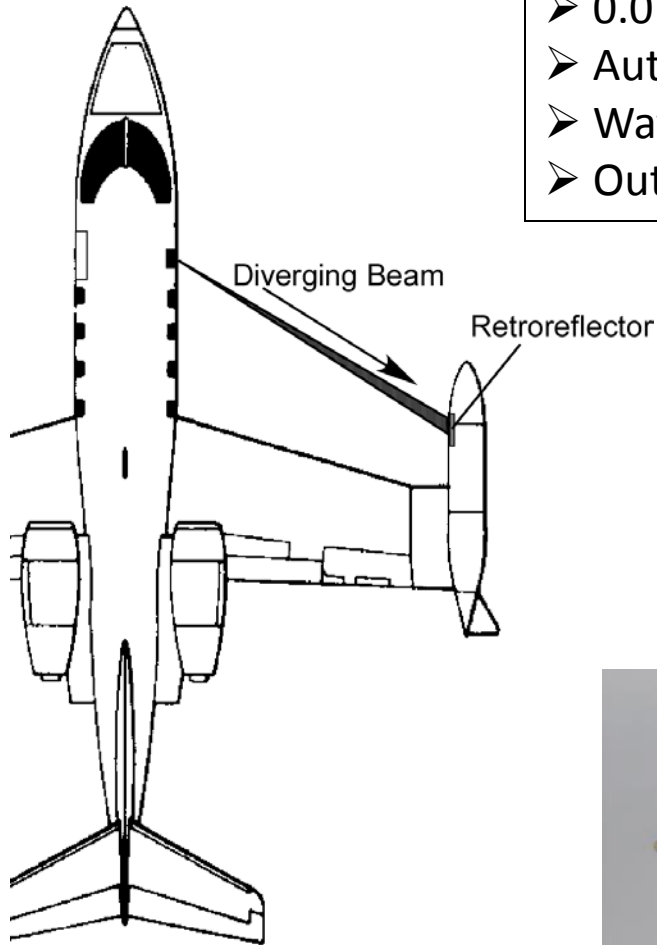


# Diode Laser Hygrometer (DLH) Measurements during SPartICus

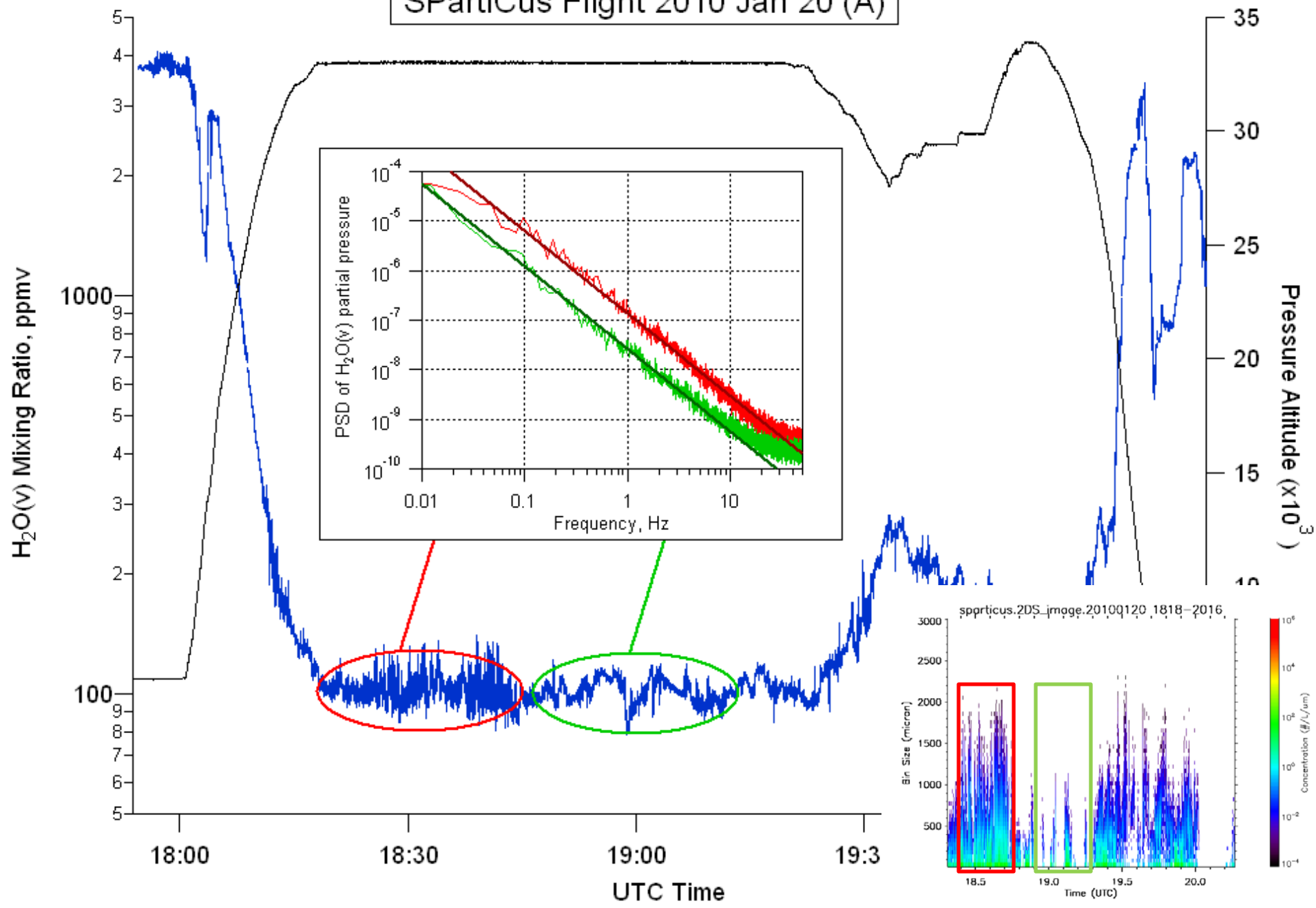
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- Open-Path Tunable Diode Laser Spectrometer
- 0.01 sec time resolution
- Autonomous Operation
- Wavelength Modulation, Multiple-Line
- Outputs Uncalibrated Real-Time Signal



# SpartICus Flight 2010 Jan 20 (A)



# Status of DLH Data (as of 3/26/11)

- Data collected during 91 SPartICus flights
- Some missing flights due to beam path obstruction, lack of purge air
- Some flights only have partial data due to late turn on of purge or purge cylinder running to empty during flight
- Initial data submission during summer 2010
  - Some flights (June 10 and later) had processing error which resulted in reported water vapor mixing ratios significantly higher than the correct values
- System calibrated post-mission and data reprocessed (Jan 2011)
  - Discovered that early in many flights, insufficient pre-purge duration resulted in the need to correct data for the internal path contribution to signal. This correction is underway and will be completed soon.
- Expect to complete reprocessing and submission of data in early April 2011