TES HNO_3 Status

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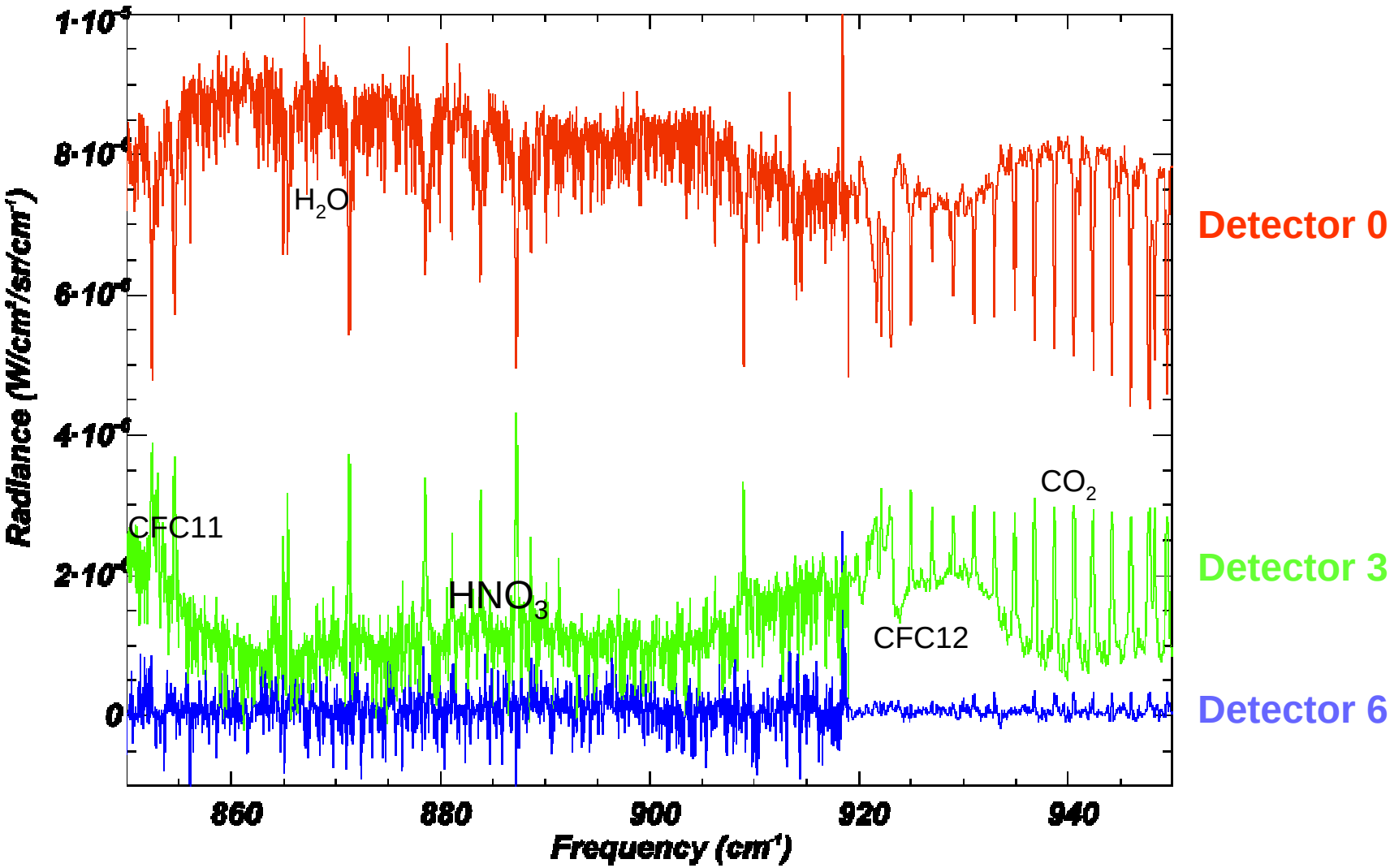
TES Limb Observation Update

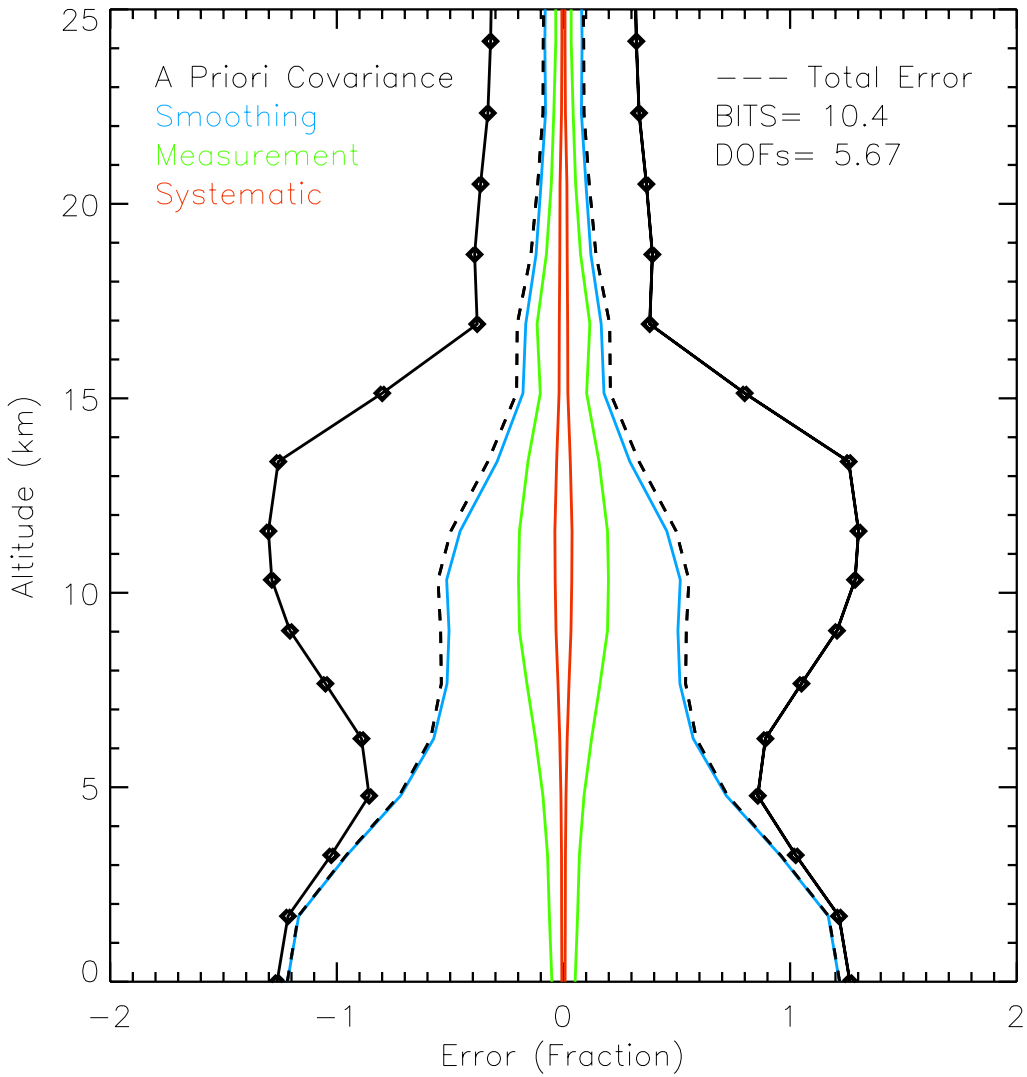
- Global Surveys (with limb scans) taken Sep 2004 – Apr 205
  - 73 16-orbit Global Surveys acquired with limb data
  - Nadir targets ~5°apart along orbit track (2 nadir scans avg'd)
- Global Surveys without limb scans started May 2005
  - 3x more nadir targets, ~1.6° separation, no averaging of scenes
  - Limb mode removed from the Global Survey mode to preserve instrument lifetime.
- Limb measurements still possible as Special Observations
  - Limb special observation run during PAVE on Jan 28, 2005

TES limb radiances by detector

- HNO_3 signal can be seen in mid-range detectors

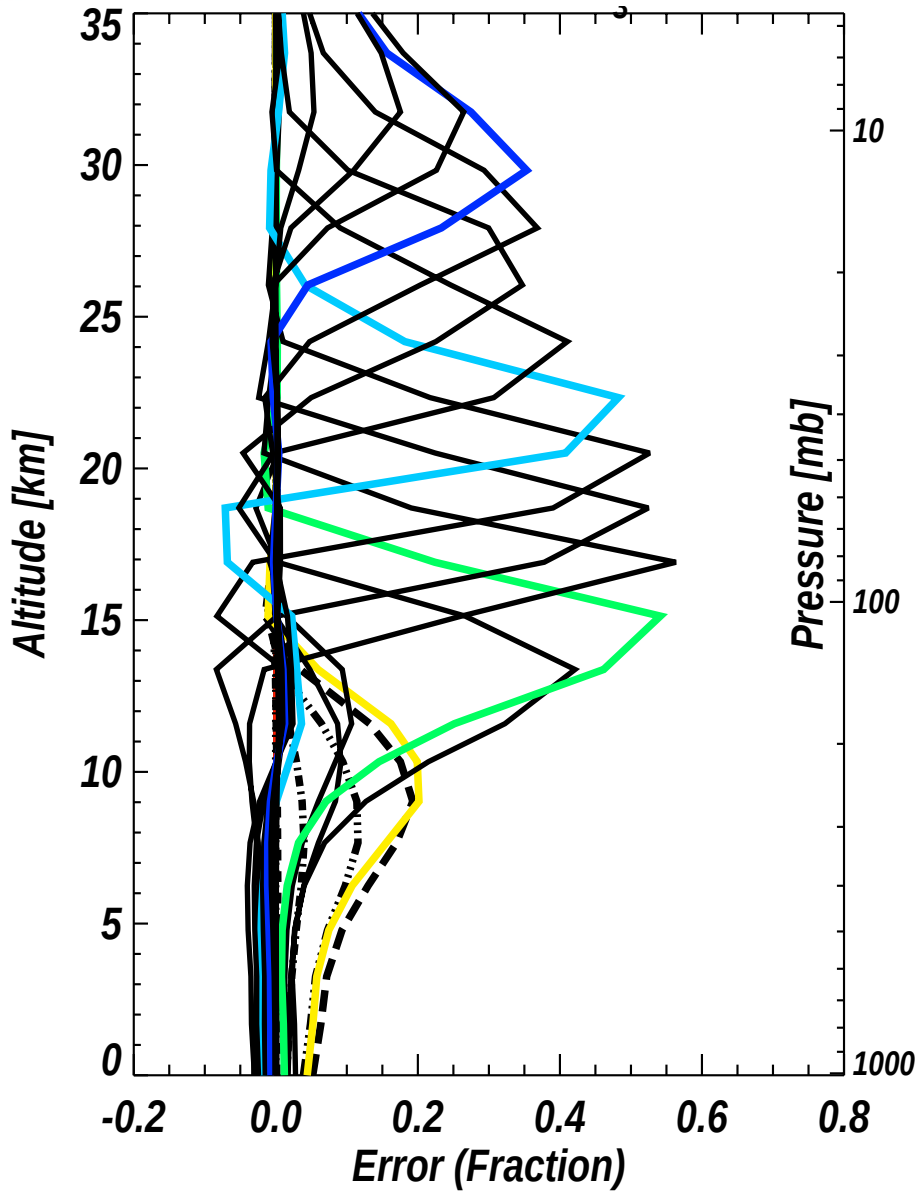


Predicted errors for HNO_3 retrievals



TES improves on initial state at altitudes above 5 km

Sensitivity for HNO_3 retrievals



TES averaging kernels show sensitivity between 8 and 32 km

Future Plans for HNO3

- HNO_3 retrievals using radiances calibrated from our most recent calibration prototype code (Release 9, available at DAAC in Spring 2006)
- Validation effort:
  - Comparisons to MLS
  - Comparisons to CIMS and SAGA aircraft measurements
  - INTEX-B