SCIAMACHY NRT Results for ICARTT

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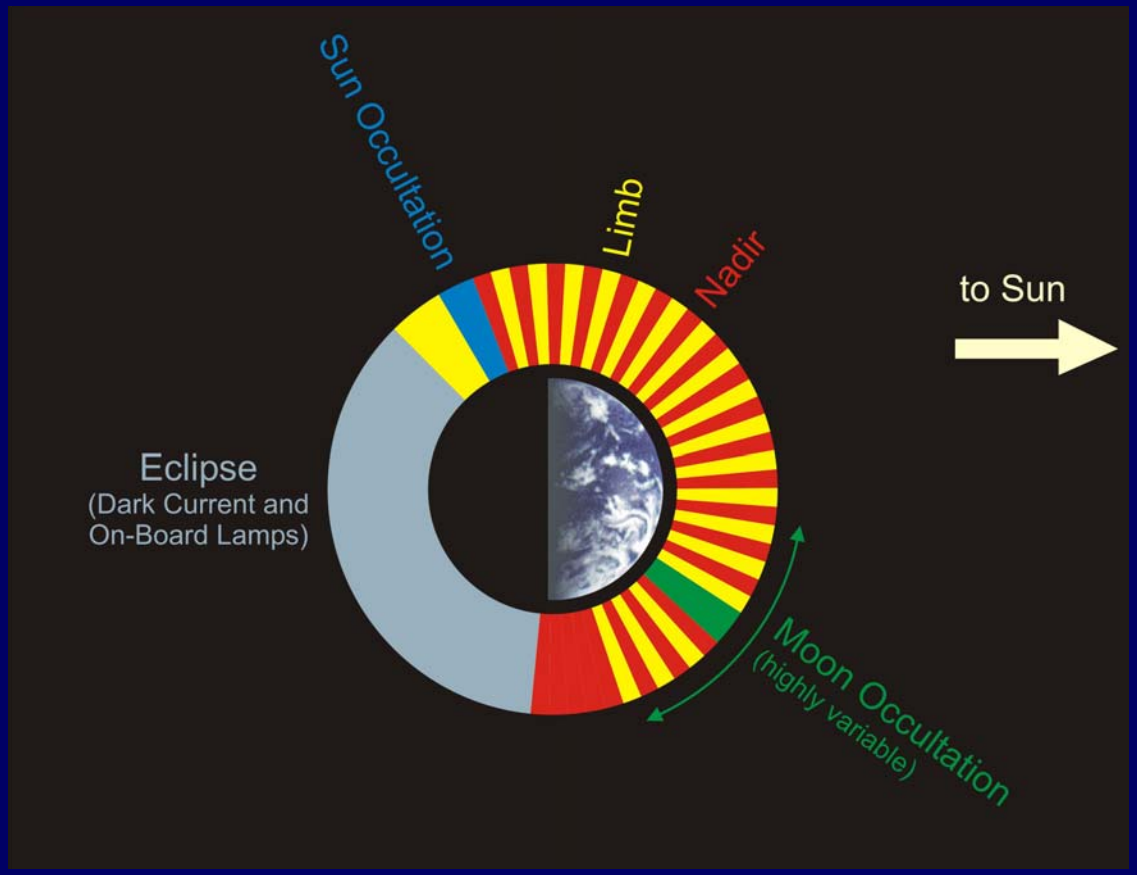
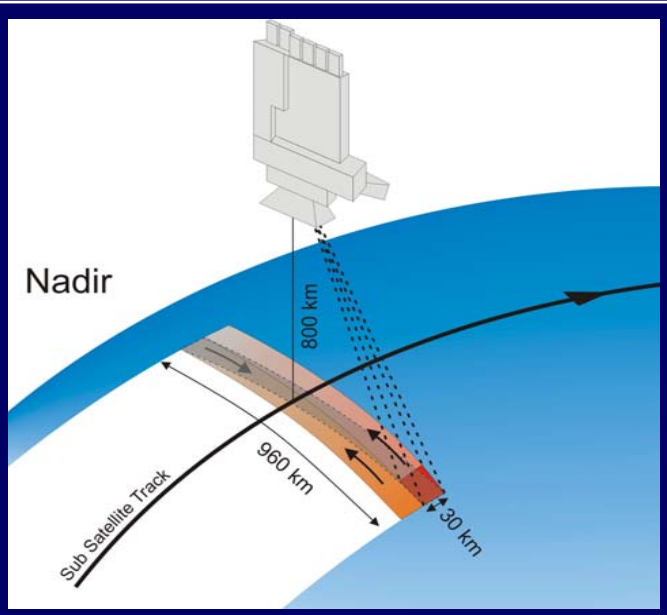
Typical Orbital Sequence

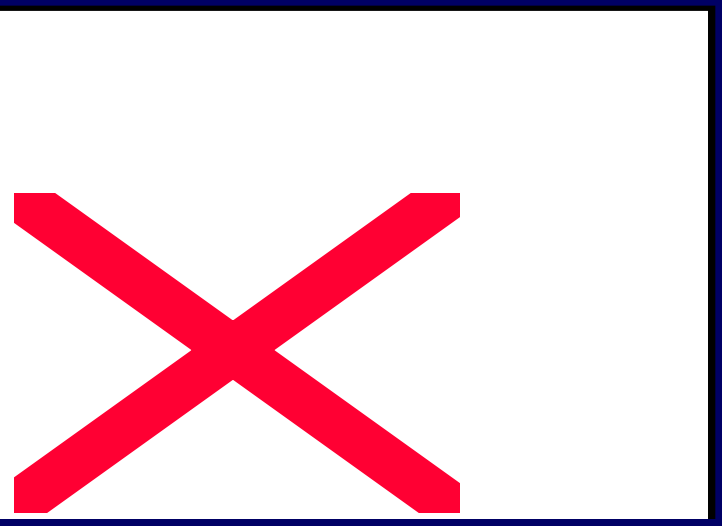


- Polar, sun-synchronous orbit, 10:00 AM
- Alternating limb/nadir is mission baseline
- Solar occultation in NH (extraterrestrial irradiance) every orbit
- Lunar occultation in SH
- Calibration measurements on eclipse side
- Monthly special calibration orbits
- Global coverage within 6 days

SCIAMACHY Instrument



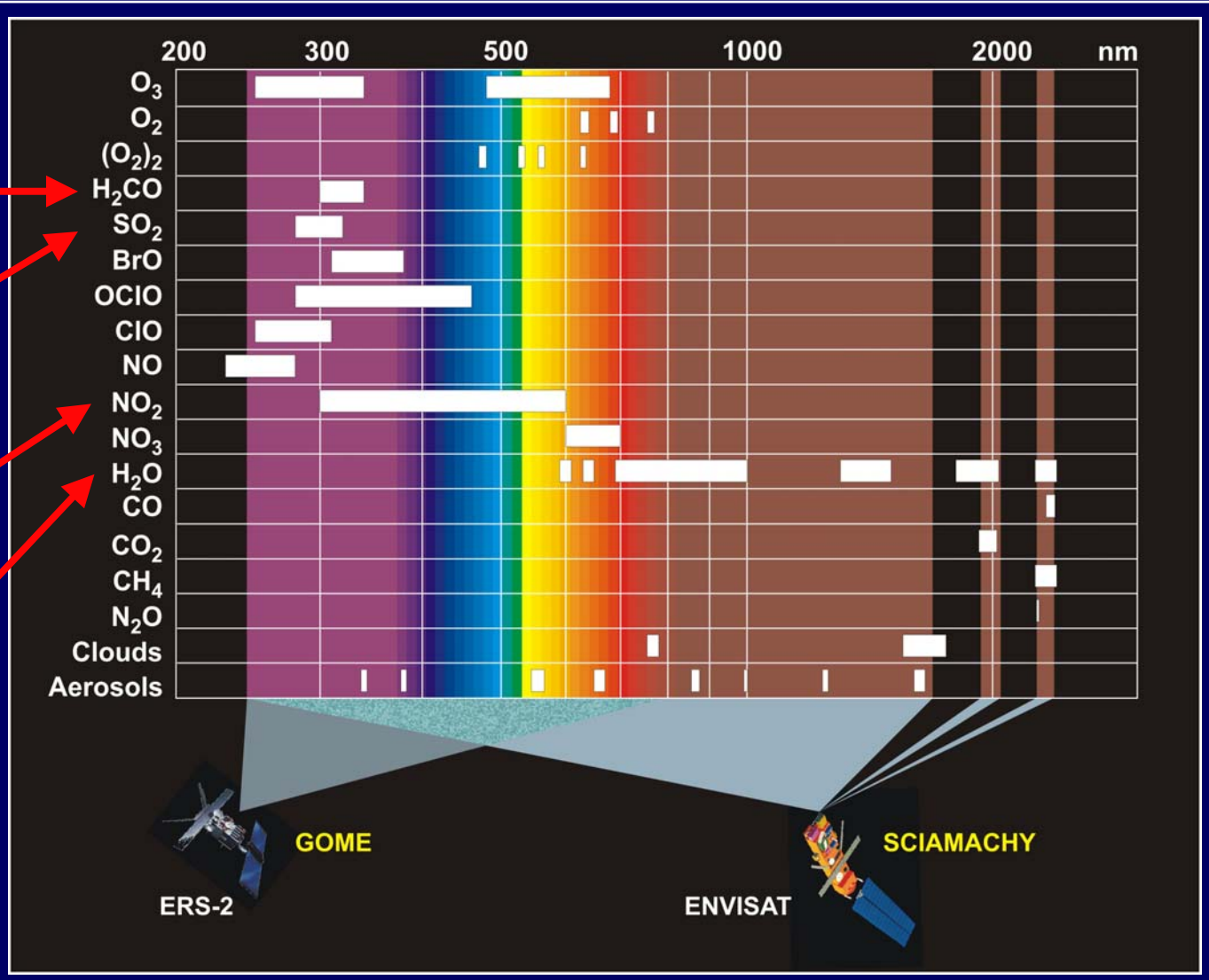
- horizontal resolution across track:
  - 30 - 240 km (60 km typ.)
  - 960 km swath
- horizontal resolution along track: 30 km
- duration of nadir sequence: 60 sec.
- global coverage: 6 days at the equator
- observation optimised to match limb with nadir measurements



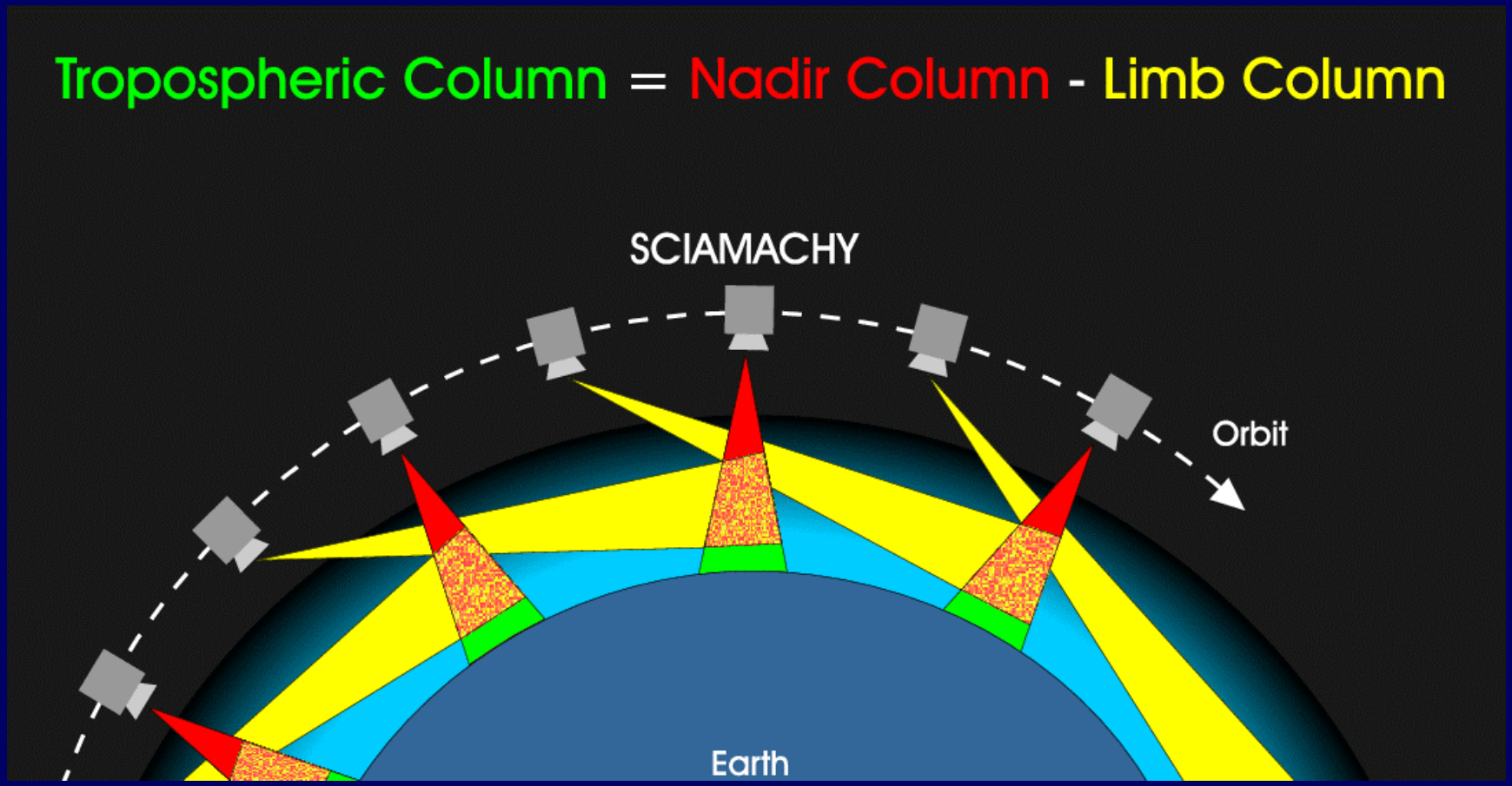
- Vertical resolution: 3km
- horizontal ressolution in azimuth:
  - 240 km (120 km min.), 960 km swath
- horizontal resolution in flight direction: approx. 400 km
- tangent height accurate within 200 m in upper stratosphere

SCIAMACHY Spectral Coverage

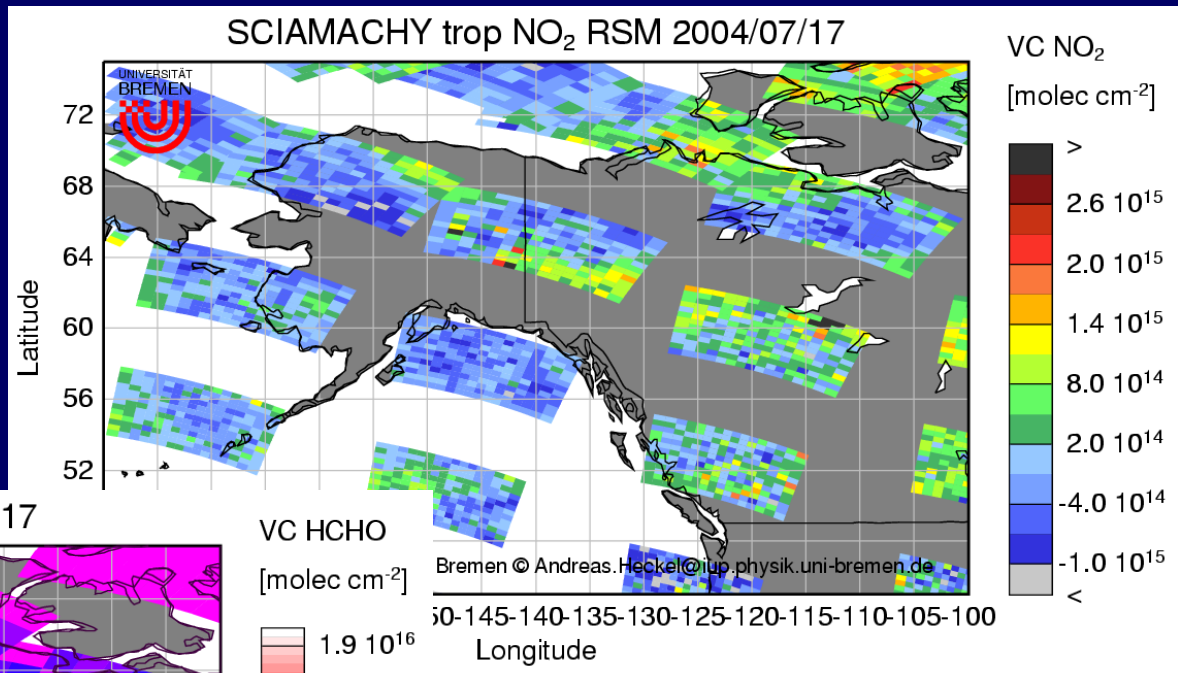
- HCHO
  - 335.5-347nm
- SO_2
  - 320-335nm
- NO_2
  - 425-450nm
- H_2O
  - 685-710nm

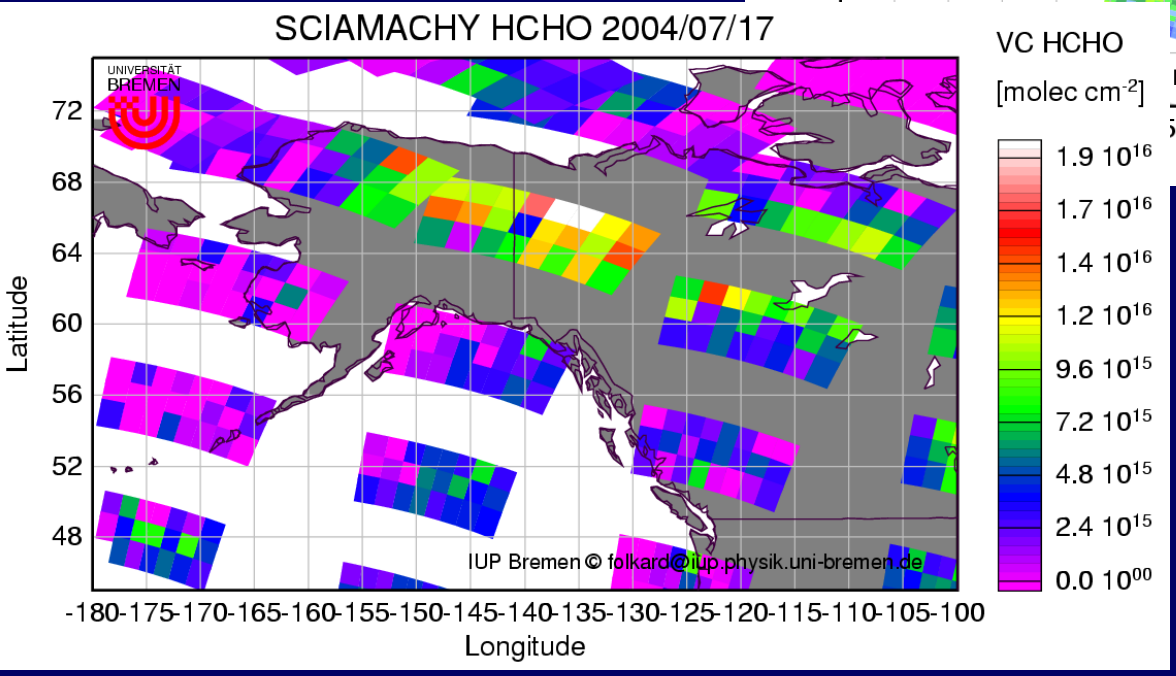


SCIAMACHY Limb Nadir Matching

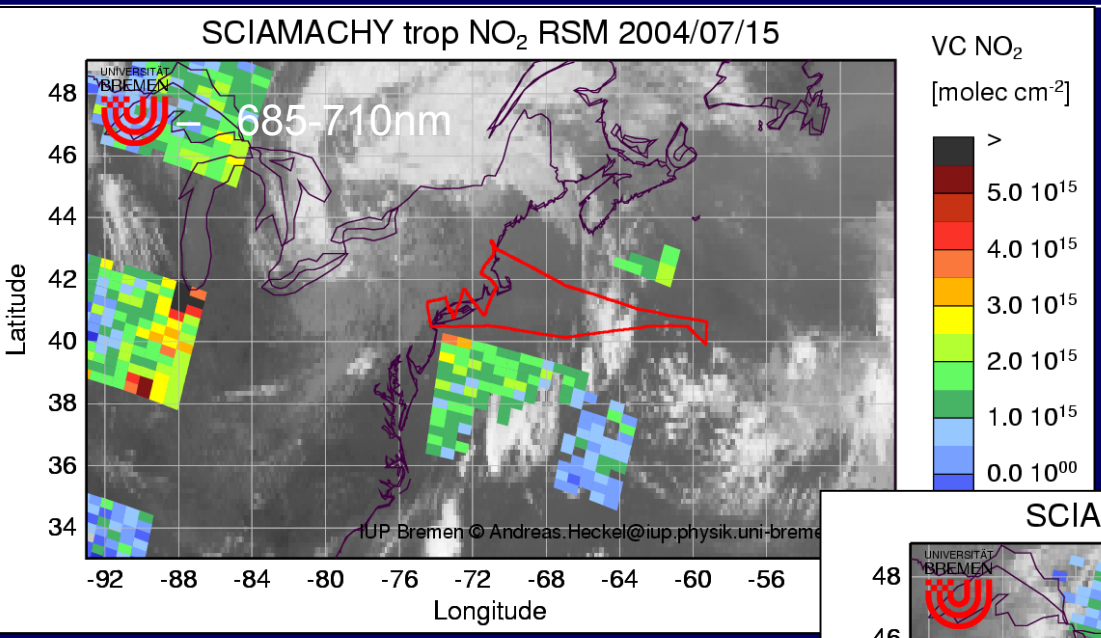


Alaska Fires 2004/07/17

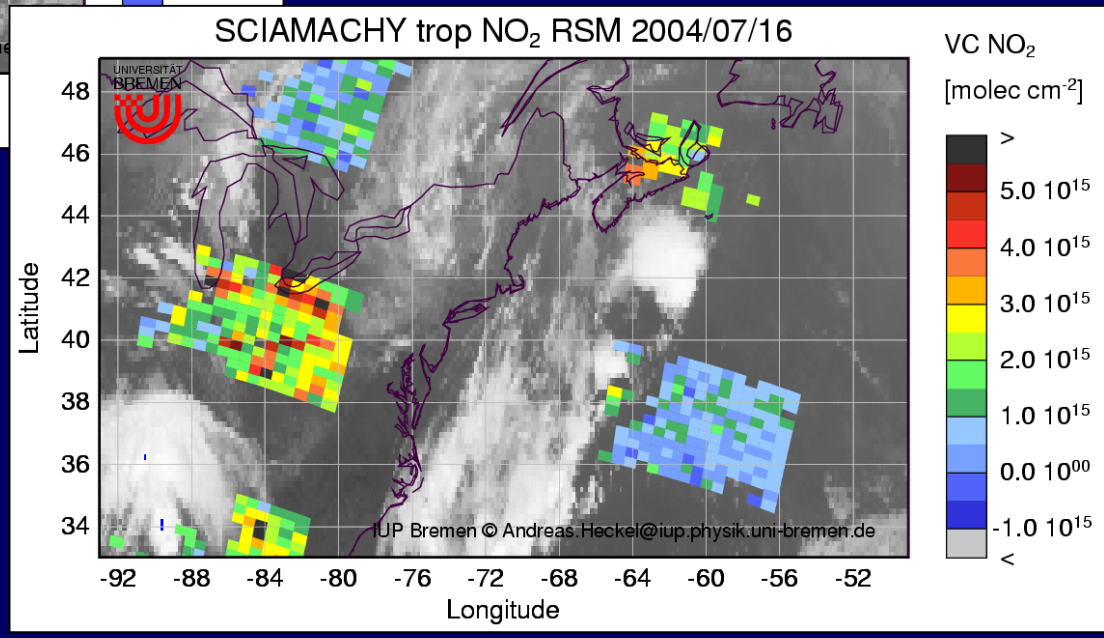


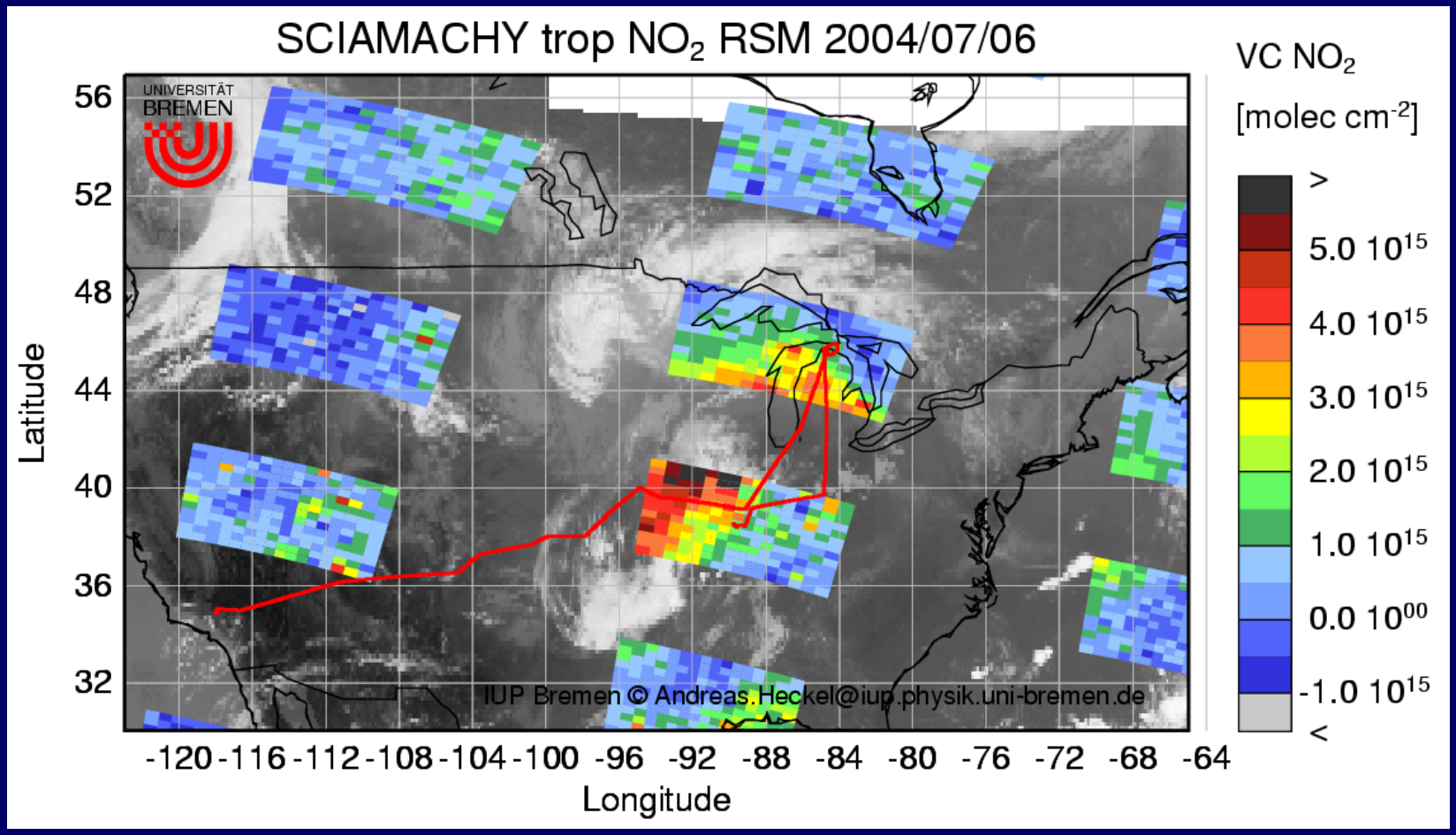


New York Plume



- WP3 sampled :
  - New York Plume
  - Lagranian Outflow



- New York Plume moving across Nova Scotia

Thunderstorm NO_2