

Overview ICARTT campaign

International Consortium for Atmospheric Research on Transport and Transformation



Research Areas

Regional Air Quality

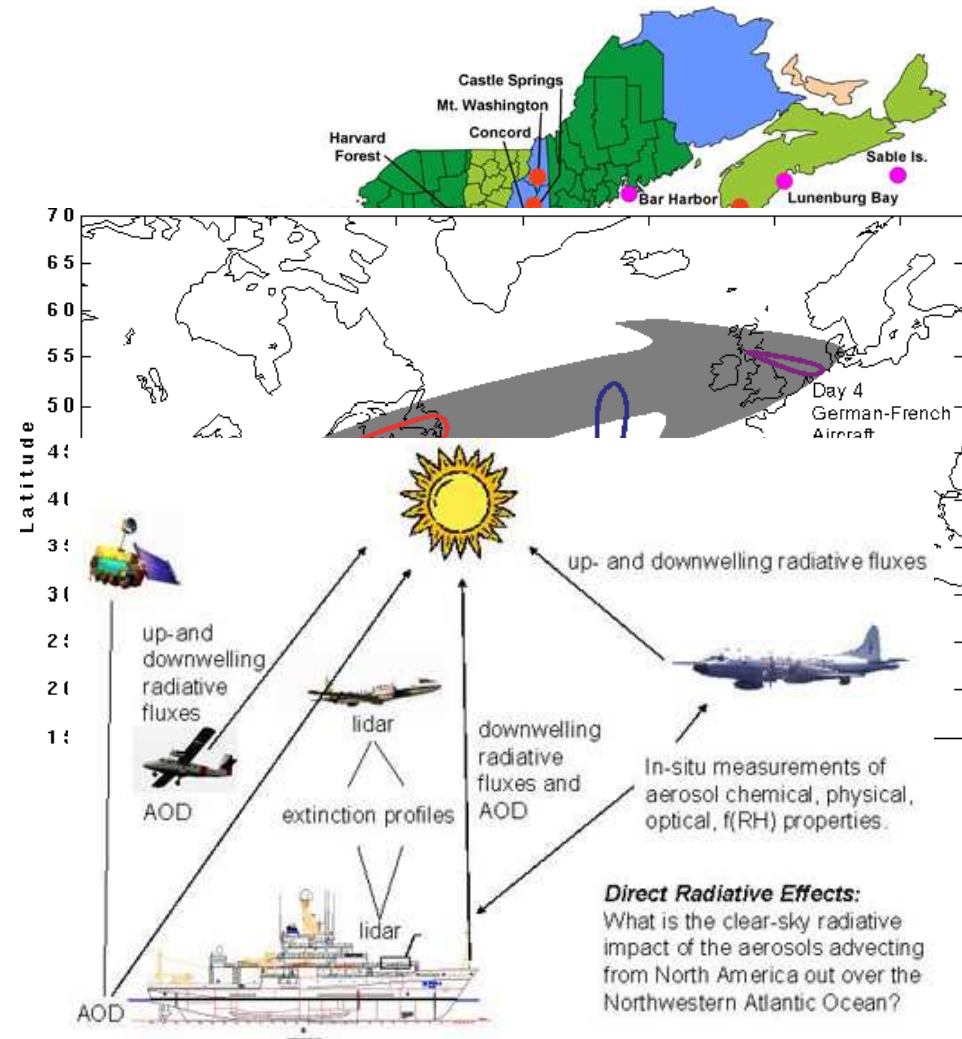
- emissions inventories
- plume development
- transport

Intercontinental Transport

- preconditioning
- transport
- transformation

Radiation Balance

- sources (aerosols)
- evolution
- effects



Platforms involved

Surface in-situ

- air pollution measurements
- MAX-DOAS
- LIDAR

Ship borne

- Ron Brown (in-situ + radiation + LIDAR)

Air borne

- low flying / high flying
- in-situ, LIDAR, DOAS, radiation, MW

Satellite

- Meteorological (NOAA, METEOSAT...)
- MOPITT (CO), AIRS (CO)
- SCIAMACHY



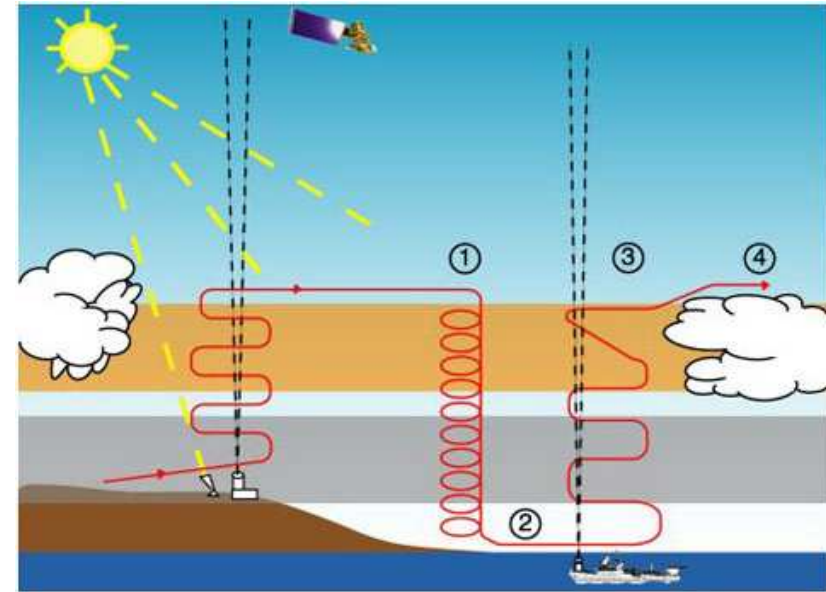
Campaign Planning

Schedule:

- Mid June 2004 - mid August 2004

Idea:

- model prediction of interesting events
- coordinated flights for repeated probing of air masses
- overpasses over surface stations
- underpasses under satellite measurements
- vertical profiles from the BL to the tropopause
- repeated tracks for better statistics
- systematic sampling of plumes



University of Bremen Involvement

During Campaign:

- GOME and SCIAMACHY NRT maps of NO₂ + SO₂, HCHO, CO, H₂O ?
- verification of model predictions

After Campaign:

- data for export events
- data for emissions scenarios
- data for individual power plant plumes
- validation of SCIAMACHY measurements

