



# Current Missions

## Support Science Operations of

- MOPITT on Terra (1999 to present)
- OSIRIS on Odin (2001 to present)
  - <http://osirus.usask.ca/>

enabling use of OSIRIS vertical profile measurements of O<sub>3</sub>, aerosols, NO<sub>2</sub>, BrO for generation of Essential Climate Variable data sets and assessment reports

- SCISAT/ACE (Atmospheric Chemistry Experiment) (2003 to present)
  - <http://www.ace.uwaterloo.ca/index.html>





# Future Missions

- Solar Occultation:
  - Mission assessment studies for follow-on to SCISAT/ACE
  - Technology development for improved vertical resolution and range of Occultation FTS
- Limb Scatter
  - Mission assessment studies for UTLS observations
  - Technology development for improved vertical resolution and horizontal sampling (follow-on to OSIRIS), and for new instruments: SHOW (water vapour), TICFIRE (ice clouds in Far IR)
- Nadir
  - Instrument study for FTS on highly elliptical orbit for high-latitude observations of atmospheric chemistry





# Validation, Modeling, Data Use

- Ground-based observations at PEARL (80N)
- Validation of GOSAT
- CMAM-20: Canadian Middle Atmosphere Model reanalyses 1990-2010
- Support SPARC and related activities (e.g. SPARC Data Initiative, assessment reports)
- Support Environment Canada in developing the EC-Carbon Assimilation System
- Ongoing validation of SCISAT/ACE through arctic sunrise campaigns at PEARL
- Grants for research at Canadian universities

