

Validation of satellite measurements of ozone depleting substances over the Canadian high Arctic

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Atmospheric satellite data plays an important role in monitoring and surveying trace gas concentrations in the atmosphere, including ozone depleting substances. These datasets have to be validated thoroughly to show their reliability and for their application in atmospheric research. Ground-based measurements at the Canadian Arctic research station PEARL (Polar Environment Atmospheric Research Laboratory) in Eureka, Nunavut (80.05°N, 86.42°W), provide a highly accurate view of the atmosphere within the high Arctic, and are highly desirable for validation studies. In this presentation, we will show inter-comparison results for satellite instruments capable of measuring the ozone depleting substances CFC-11, CFC-12, and HCFC-22 (e.g. ACE-FTS on SCISAT) with solar absorption measurements using a Fourier transform infrared spectrometer at PEARL.