



## **In-situ studies of far infrared radiation from cirrus cloud.**

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Cirrus clouds play a significant role in the energy balance of the climate system and their correct representation in GCMs is essential for future predictions of climate change. On a flight over the North Sea in February 2005, an area of cirrus was sampled with instrumentation that measures cloud microphysics and long wave radiation. Measurements were made in-situ and a coincident AIRS satellite overpass ensured a high coverage dataset. In particular, TAFTS (Tropospheric Airborne Fourier Transform Spectrometer) measured spectra in the far infrared ( $80\text{-}600\text{cm}^{-1}$ ), an important yet little studied spectral region. Here, results from the study of the outgoing long wave radiation and cloud-modeling are presented.