



THE TEMPORAL AND SPATIAL EVOLUTION OF THE PSC DISTRIBUTION IN THE ARCTIC WINTER 2002/2003 AS OBSERVED BY MIPAS ON ENVISAT

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The Michelson Interferometer for Passive Atmospheric Sounding (MIPAS) has been successfully launched onboard ENVISAT in March 2002. The spectrally highly resolved limb emission spectra give the opportunity for the detection and differentiation of cloud types. In this study, methods for such analyses have been developed and applied to MIPAS level 1b spectra. As a result, the MIPAS is currently the only instrument in space delivering global observations (-90 to +90 deg latitude) of polar stratospheric cloud (PSC) distribution over complete winters. First analyses for the Arctic winter 2002/3 will be presented in comparison with meteorological analyses and coincident trace gas measurements from the MIPAS. The intensive activities of air and balloon borne measurements during the validation campaign VINTERSOL give the opportunity to further validate the MIPAS cloud detection method with in-situ and LIDAR measurements. Key correlative measurements will be identified and examples given.