



Geographic distribution of polar stratospheric clouds

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In the cold polar winters at temperatures less than 195 K, stratospheric aerosols can form Polar Stratospheric Clouds (PSCs). These clouds play a key role in the depletion of ozone in the stratosphere. They contribute to the formation of the ozone hole by facilitating the conversion of chlorine from inactive compounds to active Cl_2 on the surface of the cloud particles. It is possible to detect PSCs from limb scattering measurements using a color index approach. The SCIAMACHY instrument on board the European Space Agency's Envisat satellite provides limb scattering data since summer 2002, allowing the comparison of the geographic distribution of PSCs over the course of several years. The results of the PSC distributions of both hemispheres are shown in connection with ECMWF temperature data.