

## Polar Stratospheric Cloud lidar measurements at the french antarctic base Dumont d'Urville

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In the frame of the NDACC (Network for Atmospheric Composition Changes), lidar time series are routinely acquired at the french antarctic base Dumont d'Urville. Aerosol and cloud profiles are monitored using a 532nm backscatter and depolarization stratospheric lidar system. We present a ten year [2006 – 2016] lidar-derived Polar Stratospheric Cloud climatology and analysis of the PSC type occurrences and representativeness of typical classifications regarding lidar measurements. The sensitivity of lidar measurements and inversion procedure on particle characterization is investigated. We also report several events of aerosol intrusion within the polar vortex from the lower latitudes due to deep transport, among which the signature of the 2015 plume of the calbuco eruption.