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Polar Ozone Loss Diagnosed from Chemistry-Climate Integrations

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Recent observational studies of the northern hemisphere winter have demonstrated a close relationship between the potential polar stratospheric cloud volume and ozone loss rates. We will investigate this relationship in a stratospheric version of the Met Office's Unified Model with parameterised and comprehensive stratospheric chemistry. We will investigate sensitivities in the diagnostic derivation of the ozone loss and we will compare results from model integrations using the calculated ozone either in interactive or non-interactive mode. We will discuss our results in the context of model limitations and contrast them with the observations.