



Supplement of

Description and evaluation of the new UM–UKCA (vn11.0) Double Extended Stratospheric–Tropospheric (DEST vn1.0) scheme for comprehensive modelling of halogen chemistry in the stratosphere

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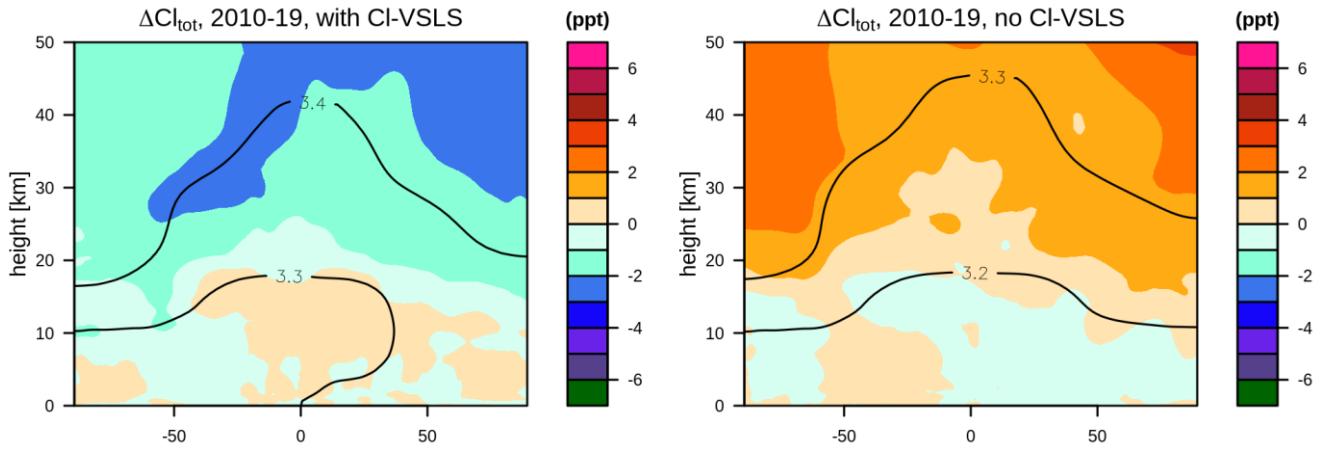


Figure S1. Contours: 2010-2019 mean of total chlorine levels [ppb] in (left) the transient free-running DEST simulations discussed in Section 4.3 and (right) analogous simulations without CI-VSLS (Bednarz et al. 2022). Shading shows the corresponding total chlorine differences [ppt] between simulations carried out using the earlier DEST version containing the two problems discussed in Section 4.1 and simulations carried out using the final DEST scheme.

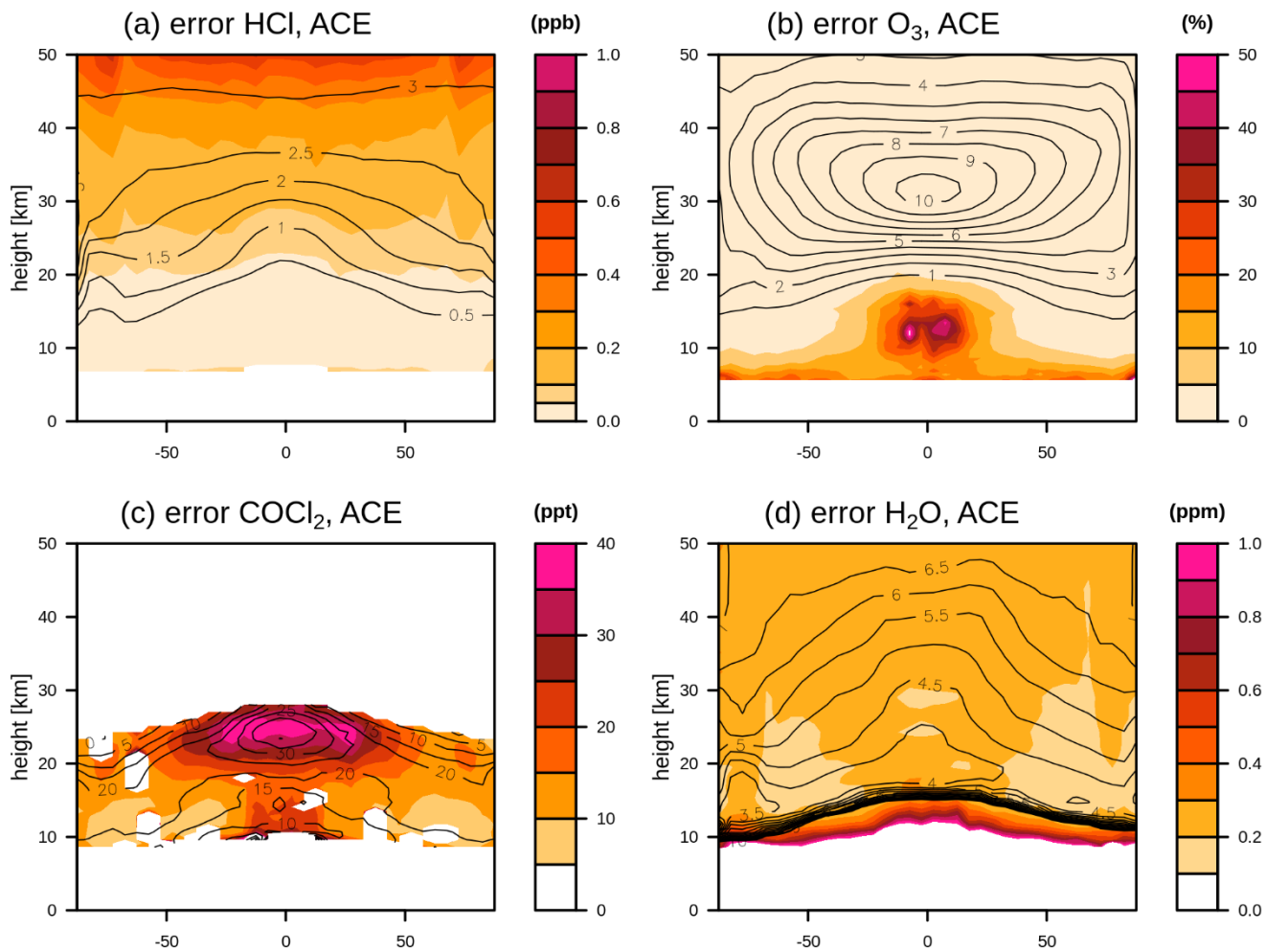


Figure S2. Shading: Error in the 2005-2019 mean of ACE-FTS v3.5-3.6 (a) HCl [ppb], (b) O₃ [%], (c) COCl₂ [ppt] and (d) H₂O [ppm]. Contours show the respective climatologies for reference.