

Figure S1: Simulated and observed  $O_3$  mixing ratios with enhanced VOC mixing ratios for scenario *FLASH\_noBL*.

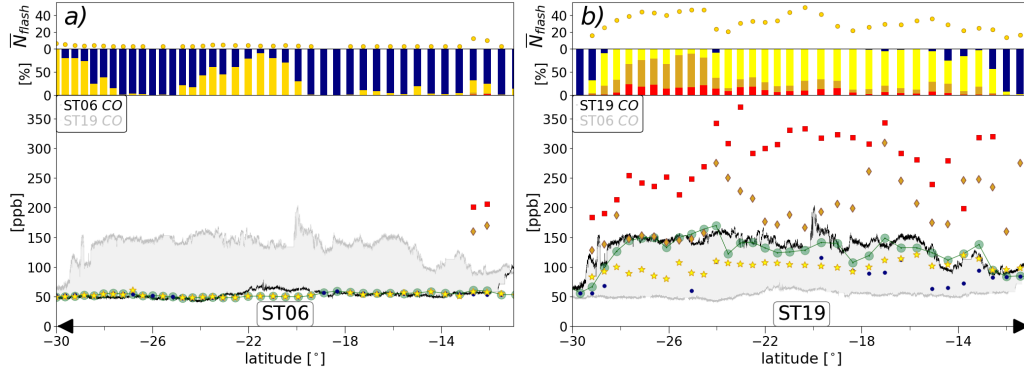


Figure S2: Simulated and observed CO mixing ratios.

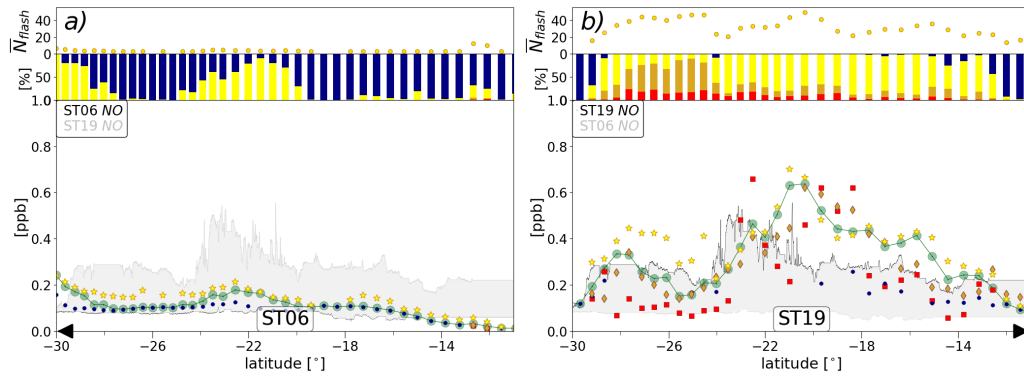


Figure S3: Simulated and observed NO mixing ratios.

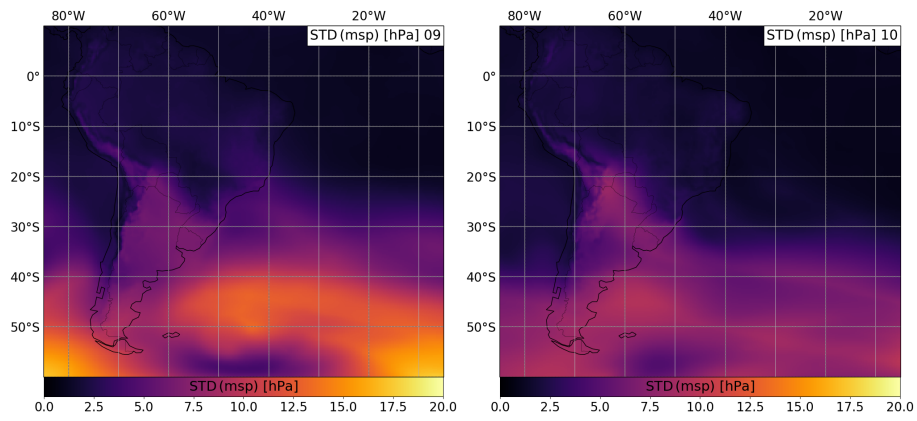


Figure S4: Plots show the standard deviation of the mean sea level pressure for the 7 days prior flights ST06 (left) and ST19 (right).