Supplement to "On the impact of Himalaya-induced gravity waves on the polar vortex, Rossby wave activity and ozone"

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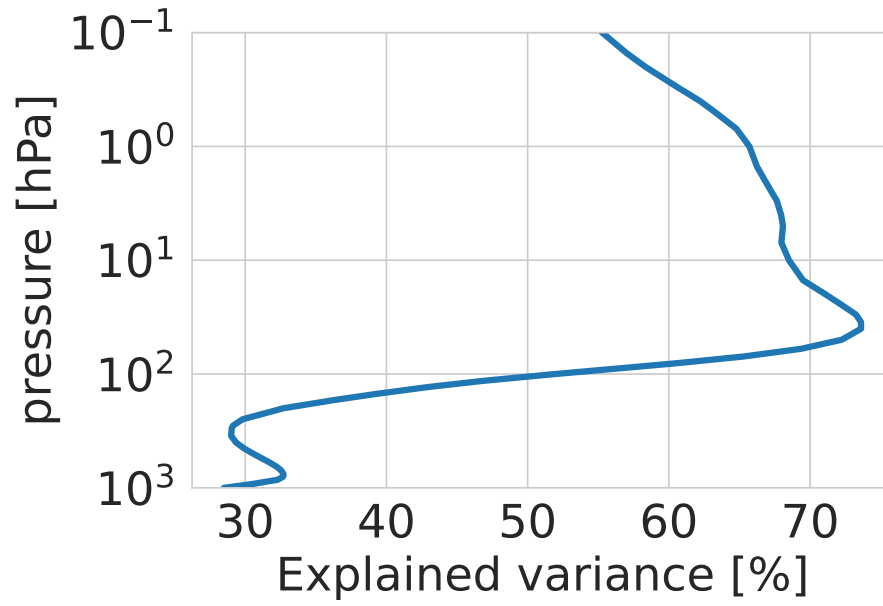## 1 Table of contents

2 Introduction

Figure S1. Explained variance [%] of Northern Annular Mode time series.
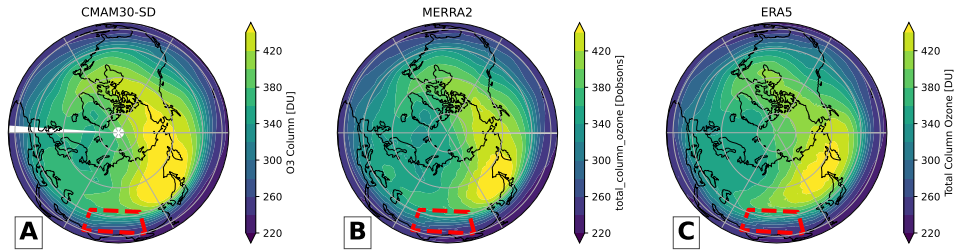

Figure S2. Composites in absolute values documenting total column ozone [DU] in CMAM30-SD (**A**), MERRA2 (**B**), and ERA5 (**C**), respectively. The red box represents the Himalaya (70-102.5°E and 20-40°N) hotspot.
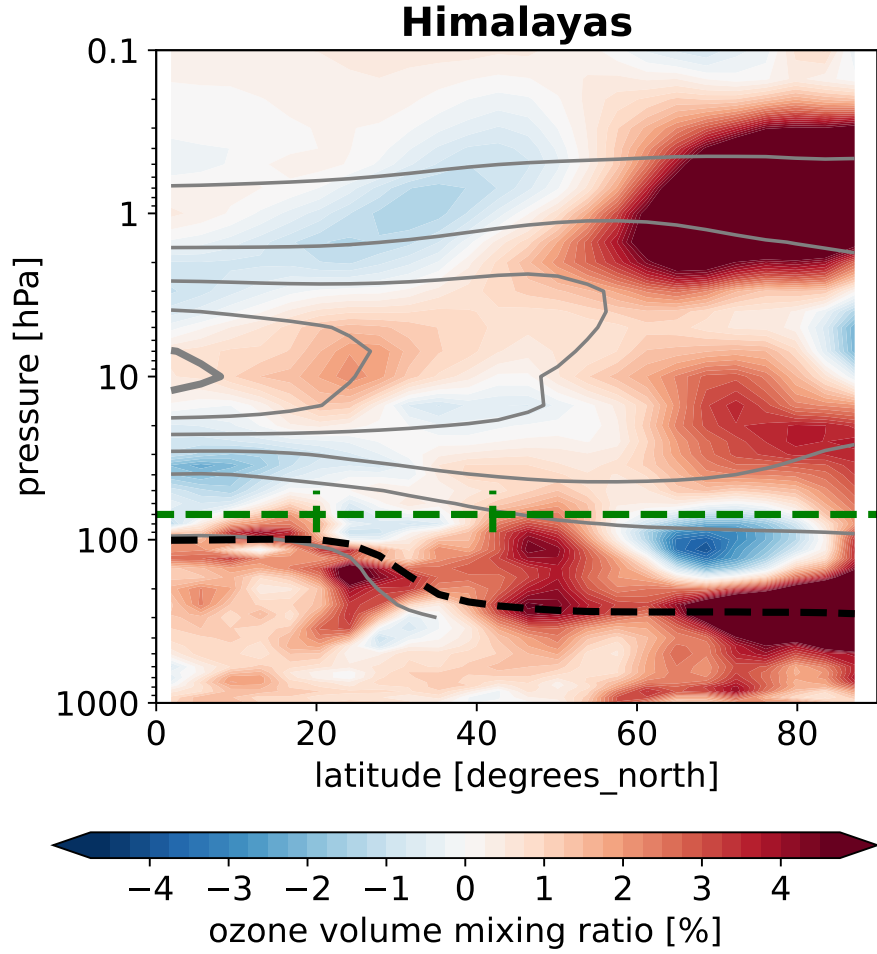
Figure S3. Ozone anomalies (units: %, colored regions) and absolute (gray contour levels: $1 \cdot 10^{-7}, 2 \cdot 10^{-6}, 4 \cdot 10^{-6}, 6 \cdot 10^{-6}, 8 \cdot 10^{-6}, \mathbf{1 \cdot 10^{-5}}$ mole/mole) composite average at lag=0 representing the Himalayas. Green horizontal and vertical lines represent regions of a particular GW hotspot. Black dashed line corresponds to tropopause pressure level of respective composite.