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*Supplement of*

## **Detectability of the impacts of ozone-depleting substances and greenhouse gases upon stratospheric ozone accounting for nonlinearities in historical forcings**

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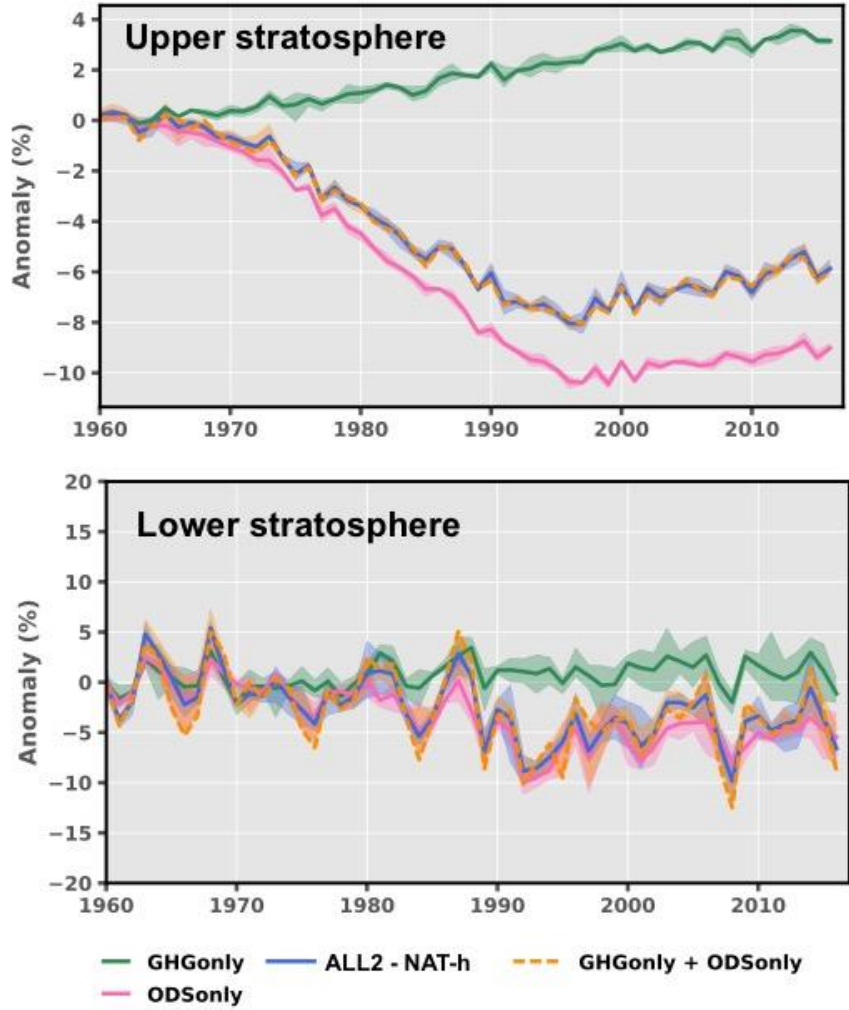


Figure S1: Same as Figs. 1A and 1B in the main text, but showing linear additivity of the GHGonly and ODsonly responses in the upper and lower stratosphere, compared to the ALL2 simulation with NAT-h subtracted.

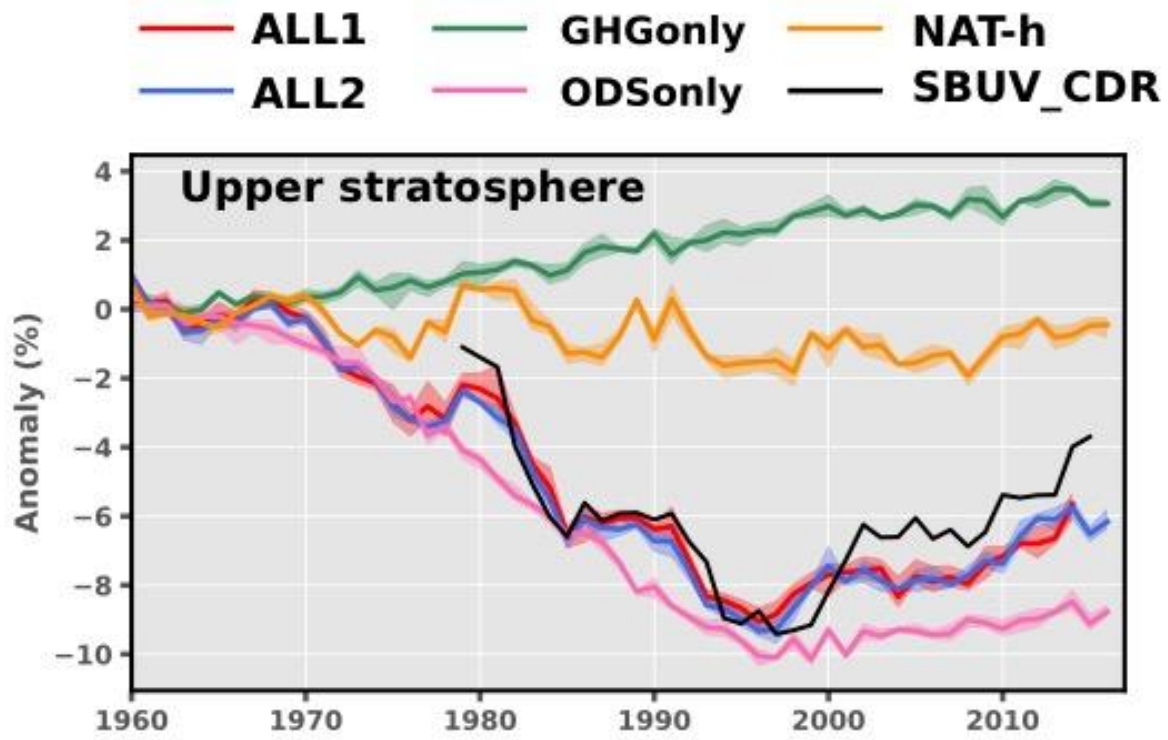


Figure S2: Same as Fig. 1A in the main text, but with the SBUV\_CDR ozone data.

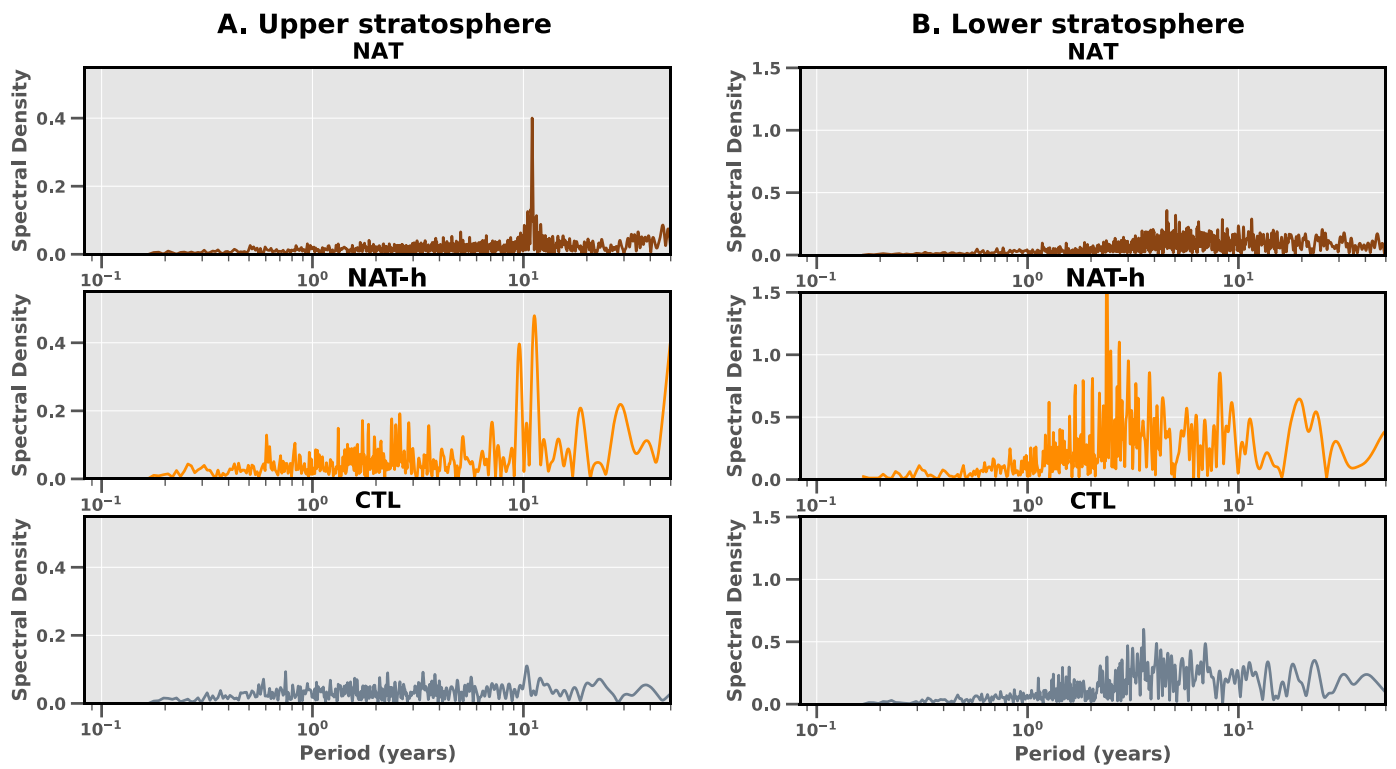
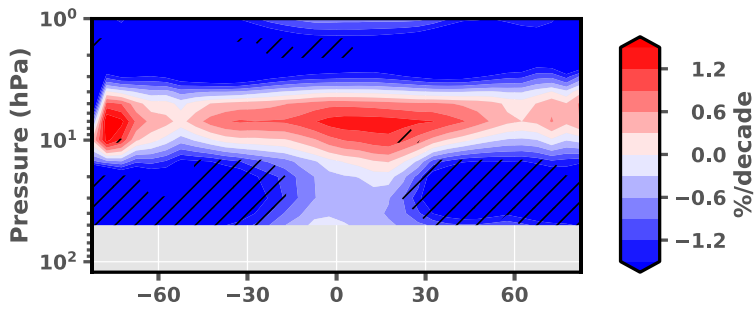


Figure S3: Normalized periodograms of the global stratospheric ozone anomalies shown in Fig 1 and 2 for NAT, NAT-h, and CTL. The power spectra were calculated using monthly anomalies. Note that the lowest frequency that can be resolved given the length of the observational ozone record is 16.5 years.

## SBUV\_CDR

### A. Linear trends, 1979-2015



### B. EESC trends, 1979-2015

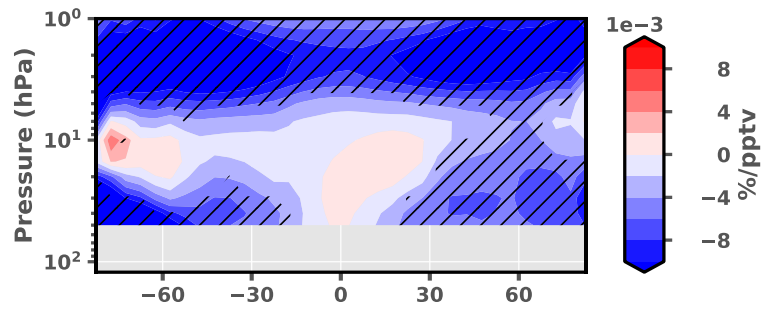


Figure S4: Same as Fig. 4A in the main text but with SBUV-Cohesive ozone dataset.

### SBUV\_CDR Upper Stratosphere

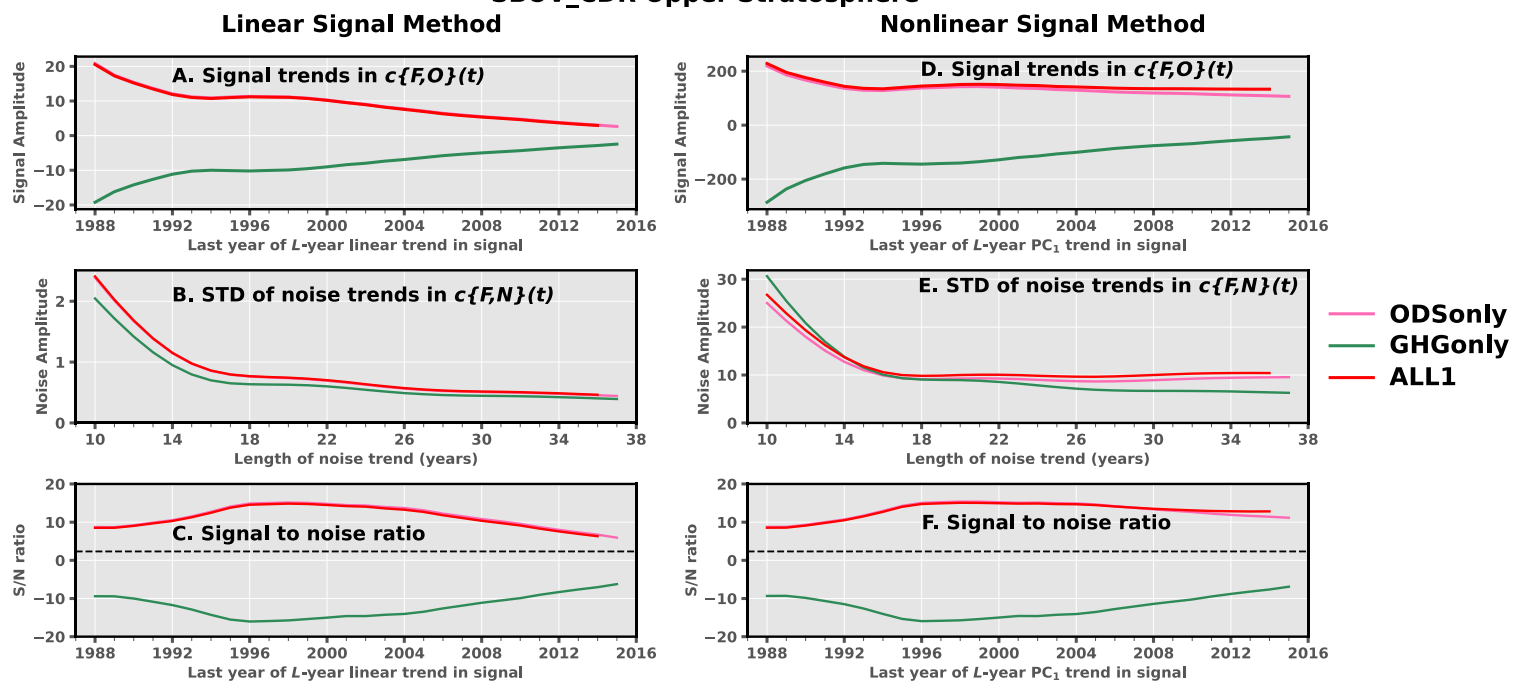


Figure S5: Same as Fig. 7 in the main text showing S/N estimates for the upper stratosphere, 1 to 10 hPa, but with SBUV\_CDR ozone dataset instead of SWOOSH.