

## Revisiting the mystery of recent stratospheric temperature trends

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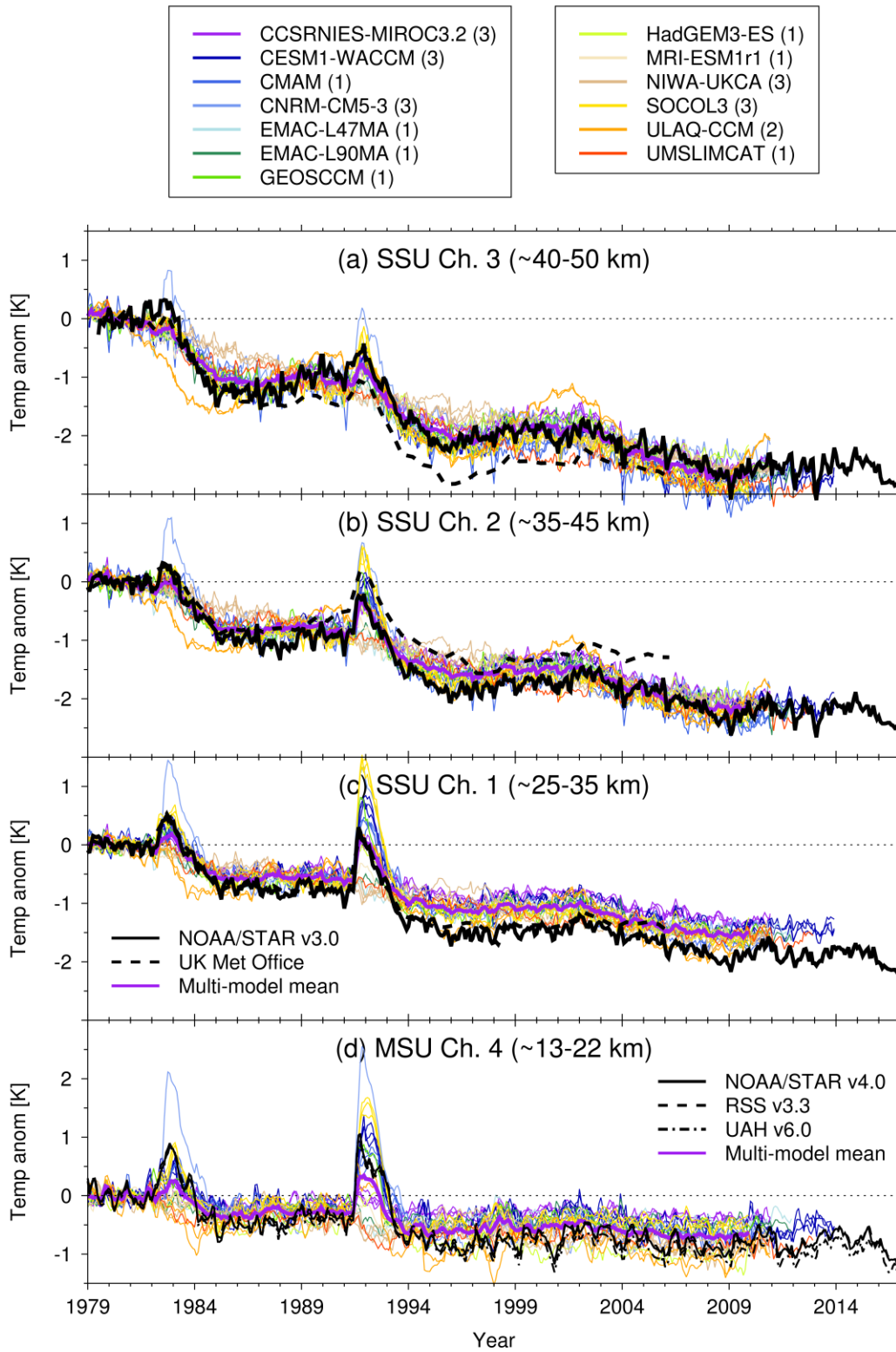
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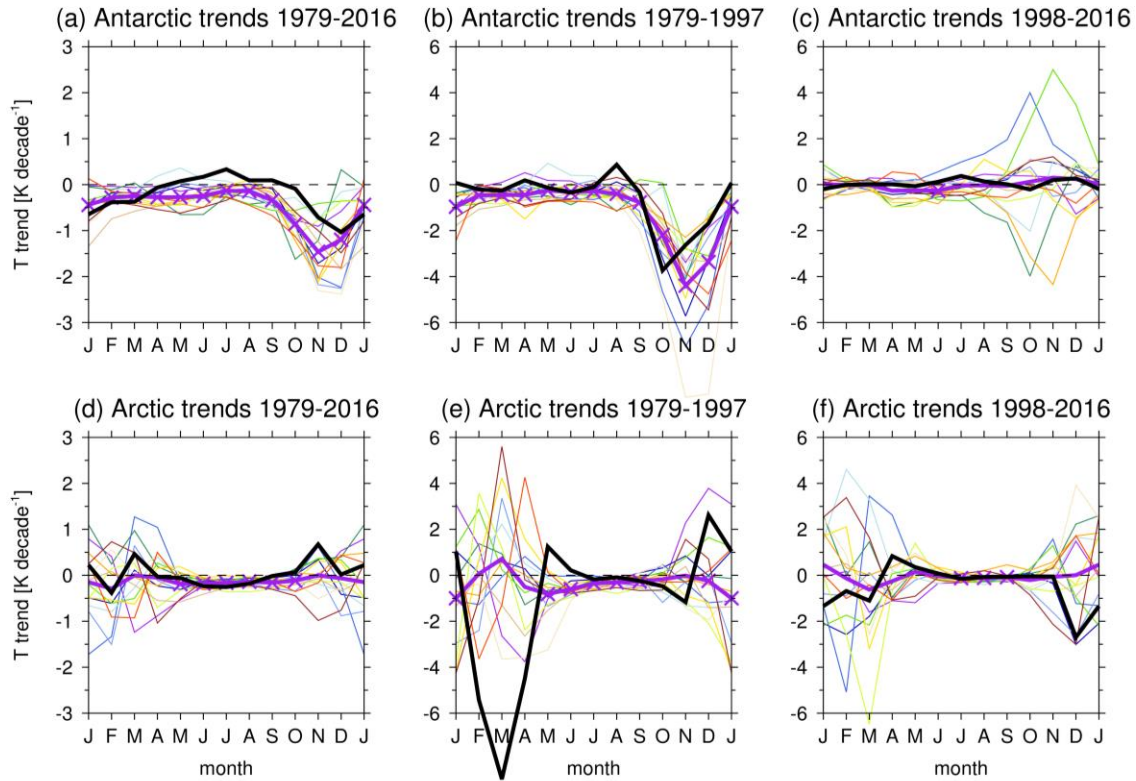
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Figures S1 to S2



**Figure S1.** As in Figure 1 of the main text, but showing the CCMI refC1 simulations compared to satellite stratospheric temperature measurements.



**Figure S2. Lower stratospheric ( $MSU_4$ ,  $\sim 13$ - $22$  km) temperature trends [ $K\ decade^{-1}$ ] by month for the (a-c) Antarctic ( $70$ - $90^\circ S$ ) and (d-f) Arctic ( $70$ - $90^\circ N$ ) for the periods 1979-2016 (a,d), 1979-1997 (c,e) and 1998-2016 (c,f). Black shows the NOAA/STAR v4.0 MSU-AMSU-A dataset. Colours show refC2 simulations from the CCMI models (see Figure 1 for colour legend). The thick purple line shows the trend in the multi-model mean. Purple crosses denote months where at least 10 of the 14 models ( $\sim 70\%$ ) agree on the sign of the trend.**