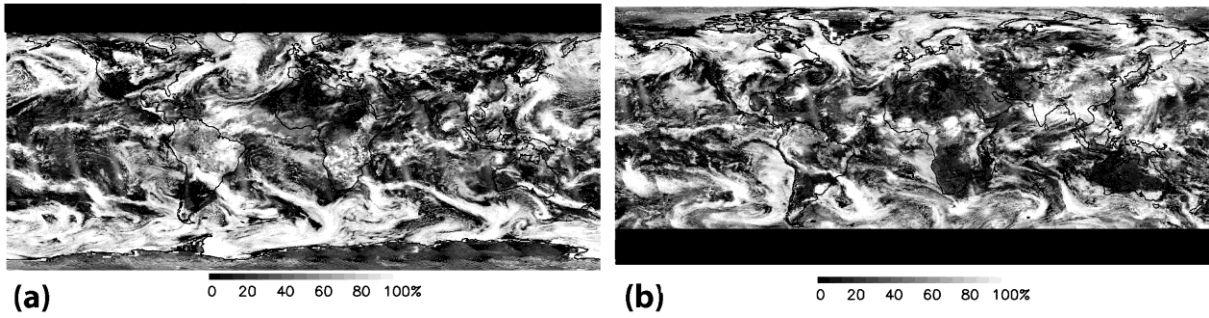


1 Supplemental Section

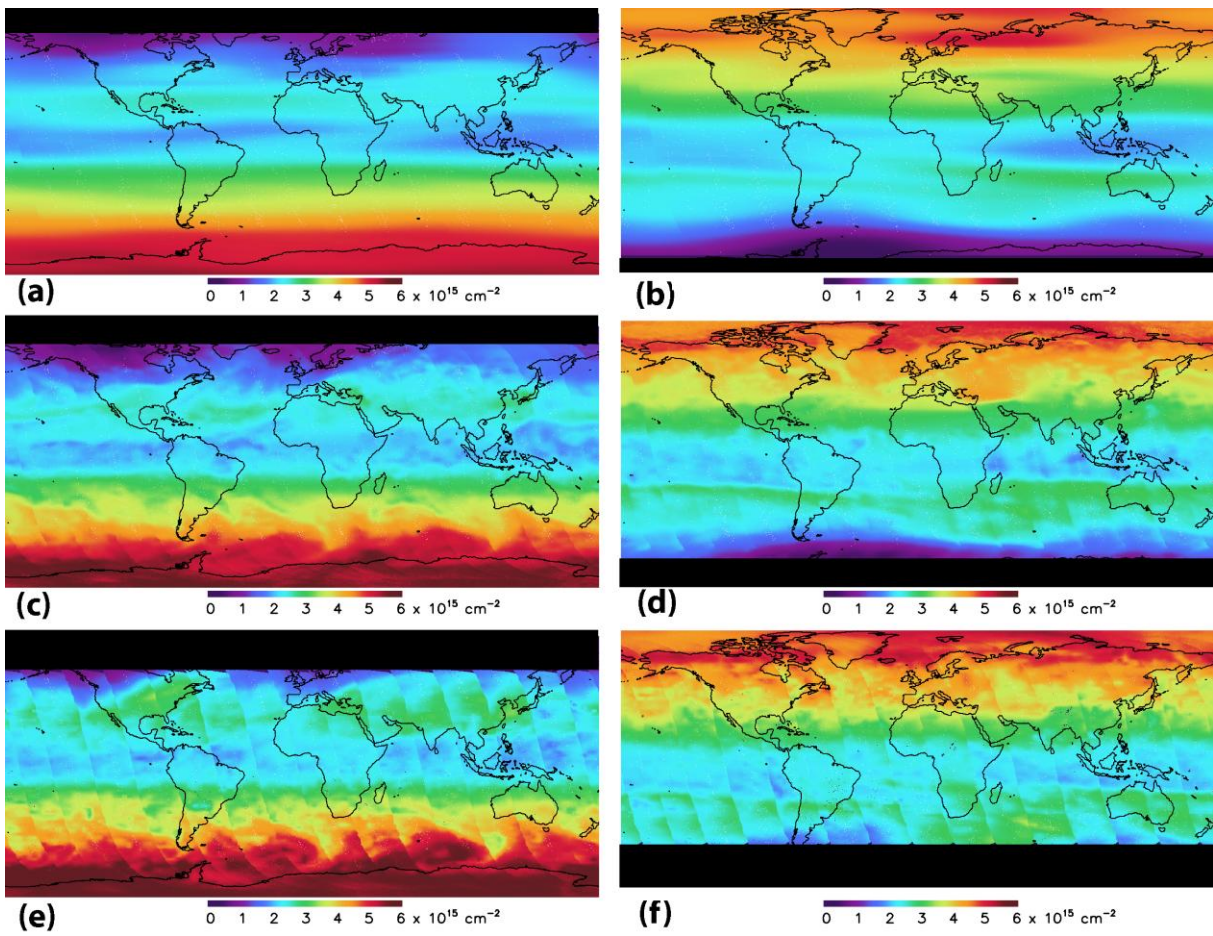
2



3

4 **Figure S1:** Cloud radiance fraction for (a) 15 January 2005 and (b) 25 July 2005.

5

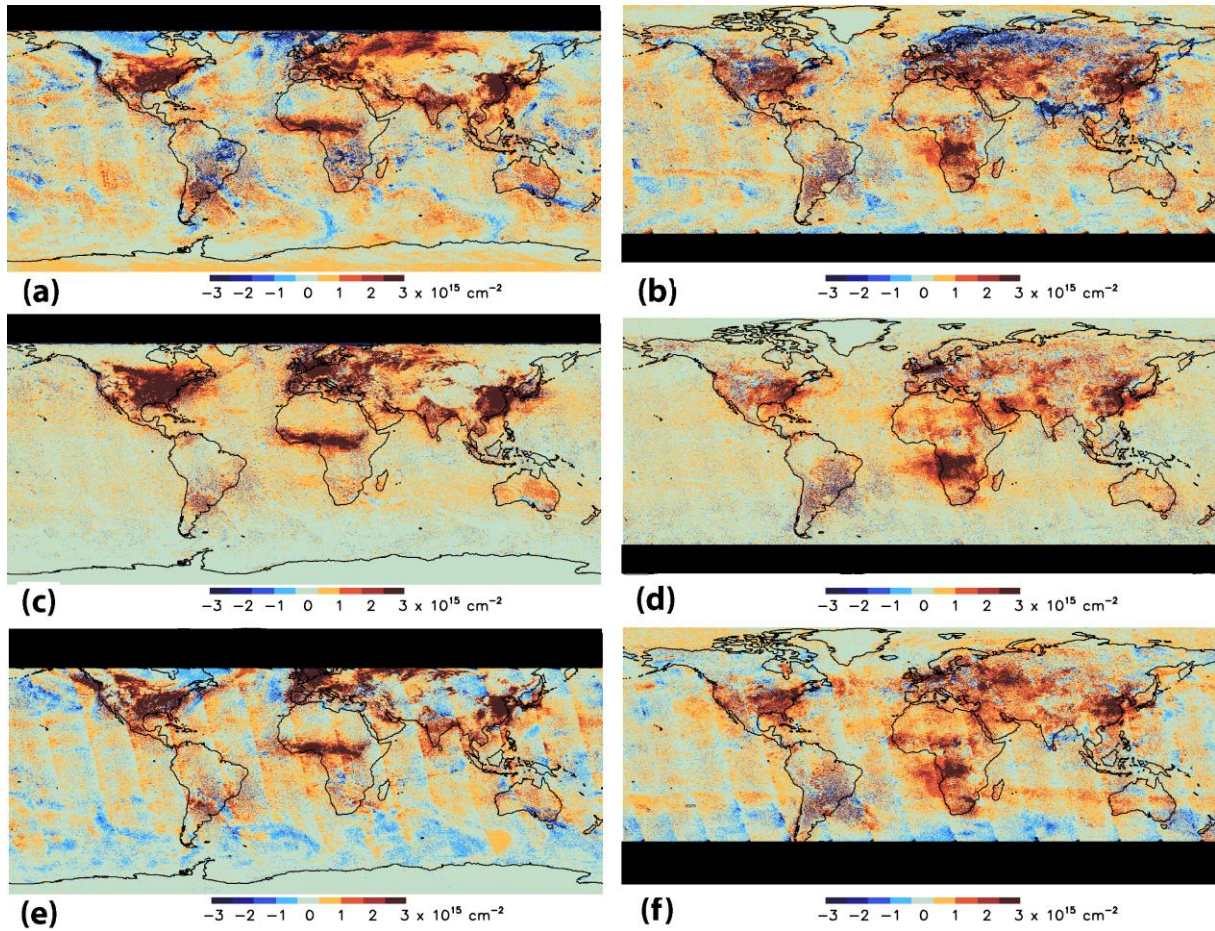


6

7 **Figure S2:** Stratospheric NO₂ vertical columns for 15 January 2005 from (a) SP1, (c) SP2,
8 and (e) DOMINO. Stratospheric NO₂ vertical columns for 25 July 2005 from (b) SP1, (d)
9 SP2 and (f) DOMINO.

10

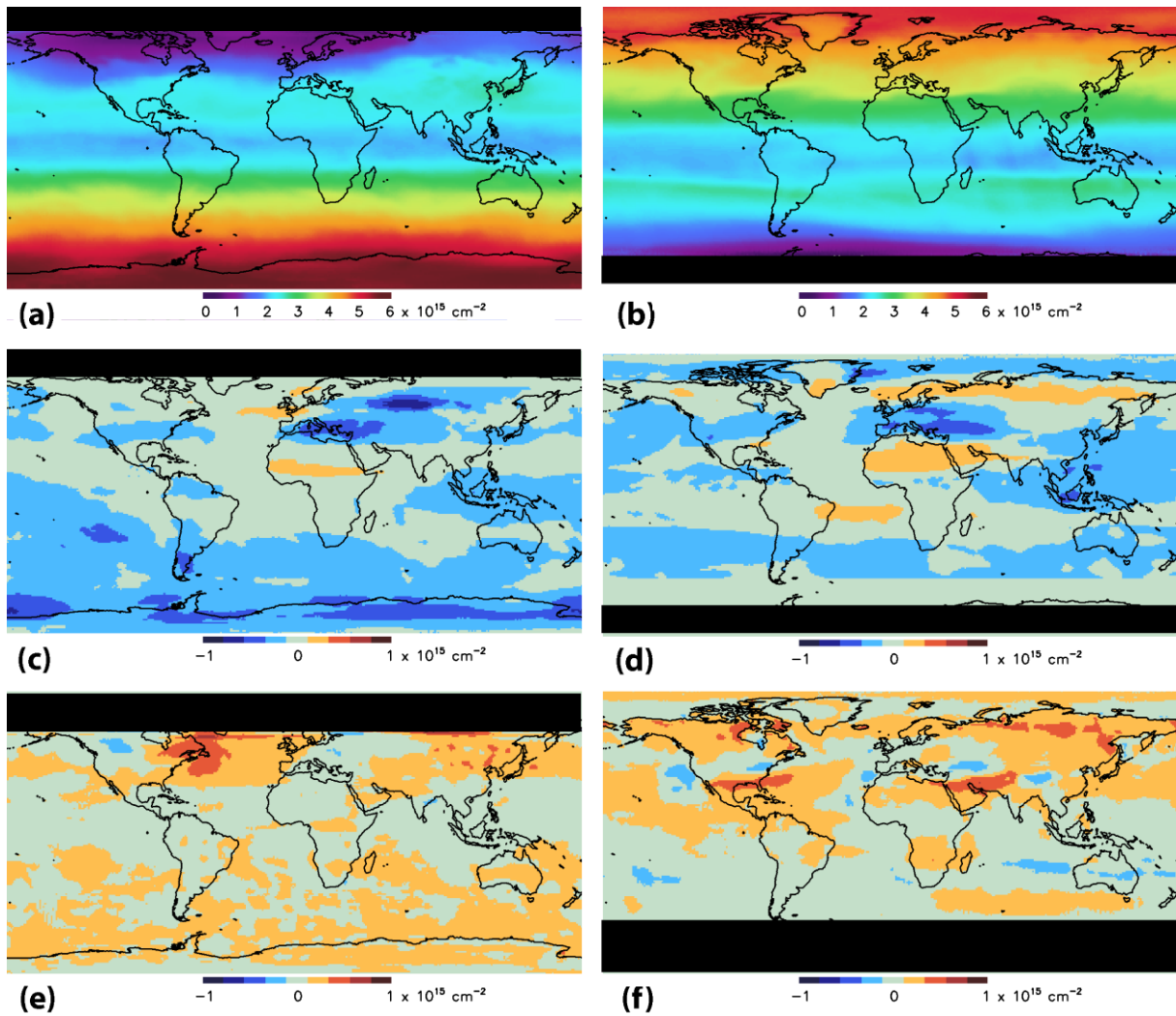
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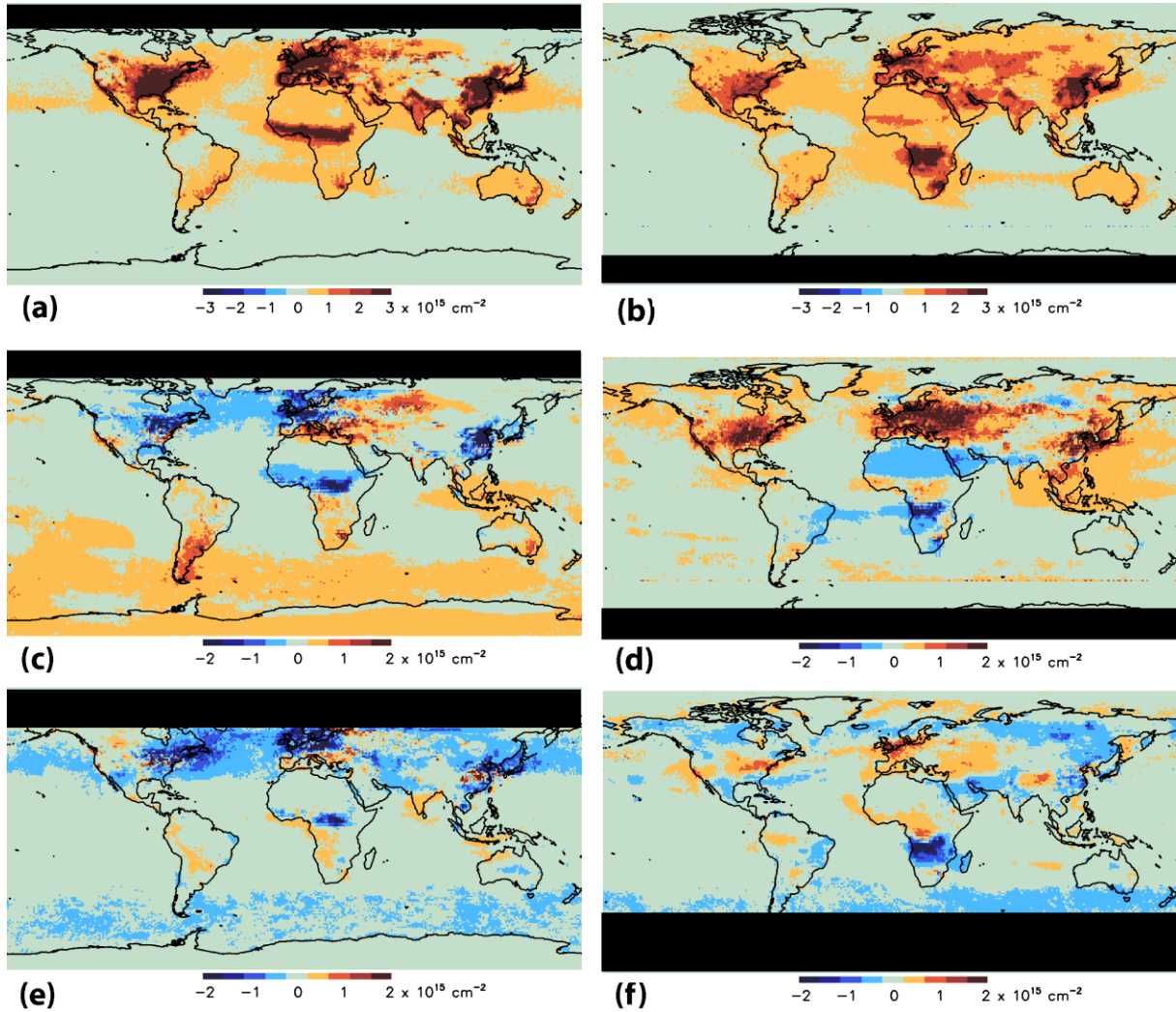
3 **Figure S3:** Tropospheric NO₂ vertical columns for 15 January 2005 from (a) SP1, (c) SP2,
4 and (e) DOMINO. Tropospheric NO₂ vertical columns for 25 July 2005 from (b) SP1, (d)
5 SP2 and (f) DOMINO.

6



1
 2 **Figure S4:** (a) Monthly mean stratospheric NO₂ vertical columns for January 2005 from SP2.
 3 Monthly means of stratospheric NO₂ differences for January 2005: (c) SP1 – SP2 and (e)
 4 DOMINO – SP2. (b) Monthly mean stratospheric NO₂ vertical columns for July 2005 from
 5 SP2. Monthly means of stratospheric NO₂ differences for July 2005: (d) SP1 – SP2 and (f)
 6 DOMINO – SP2.

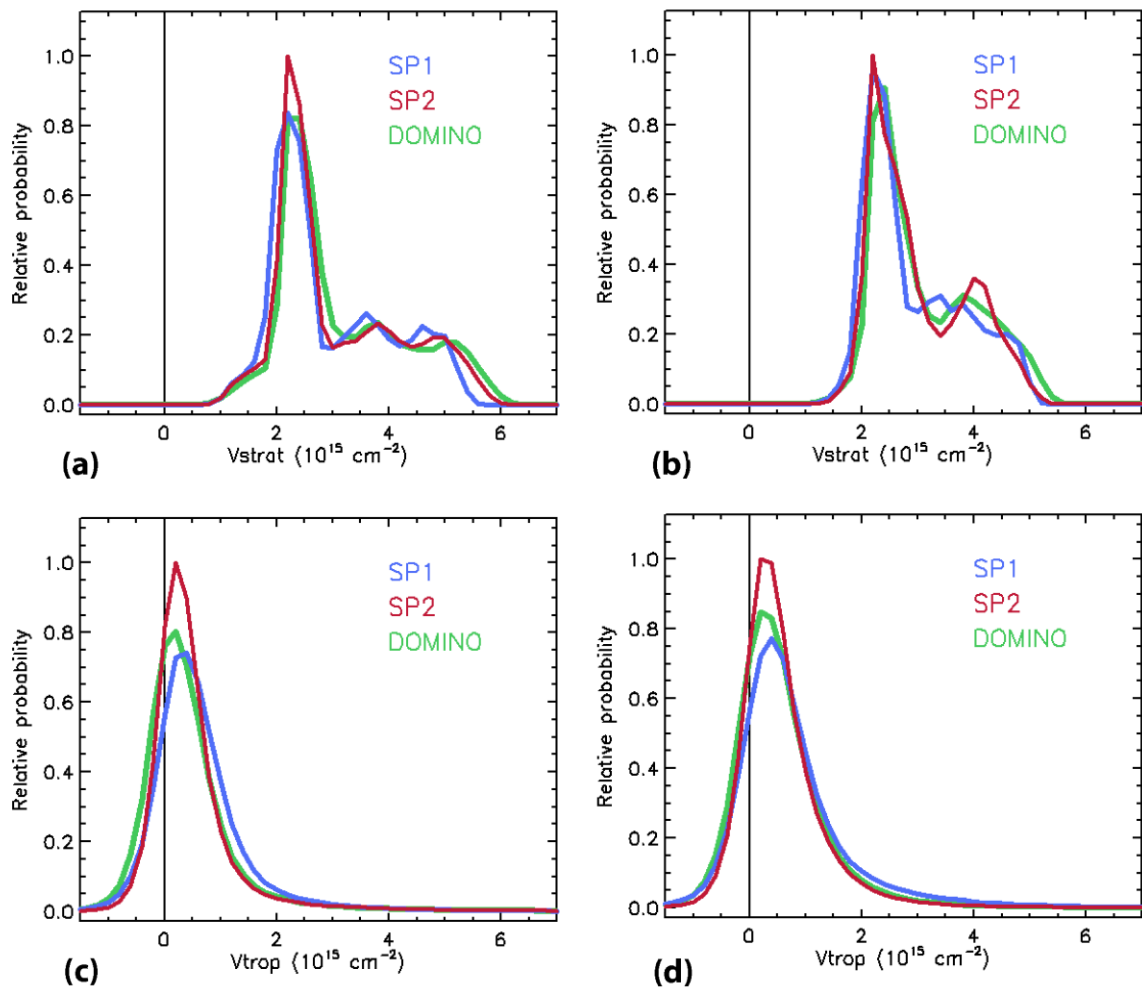
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2

3 **Figure S5:** (a) Monthly mean tropospheric NO₂ vertical columns for January 2005 from SP2.
4 Monthly means of tropospheric NO₂ differences for January 2005: (c) SP1 – SP2 and (e)
5 DOMINO – SP2. (b) Monthly mean tropospheric NO₂ vertical columns for July 2005 from
6 SP2. Monthly means of tropospheric NO₂ differences for July 2005: (d) SP1 – SP2 and (f)
7 DOMINO – SP2. All monthly tropospheric averages exclude measurements with cloud
8 radiance fractions greater than 50%.

9



1

2 **Figure S6:** Histograms of NO₂ measurements from 2005 for (a) stratospheric NO₂ in
 3 January, (b) stratospheric NO₂ in July, (c) tropospheric NO₂ in January and (d) tropospheric
 4 NO₂ in July. All data used in this analysis are between latitudes ±70° and have solar zenith
 5 angles less than 80°. All tropospheric data exclude measurements with cloud radiance
 6 fractions greater than 50%.

7