Supplement of

Assessment of regional and interannual variations in tropospheric ozone in chemical reanalyses

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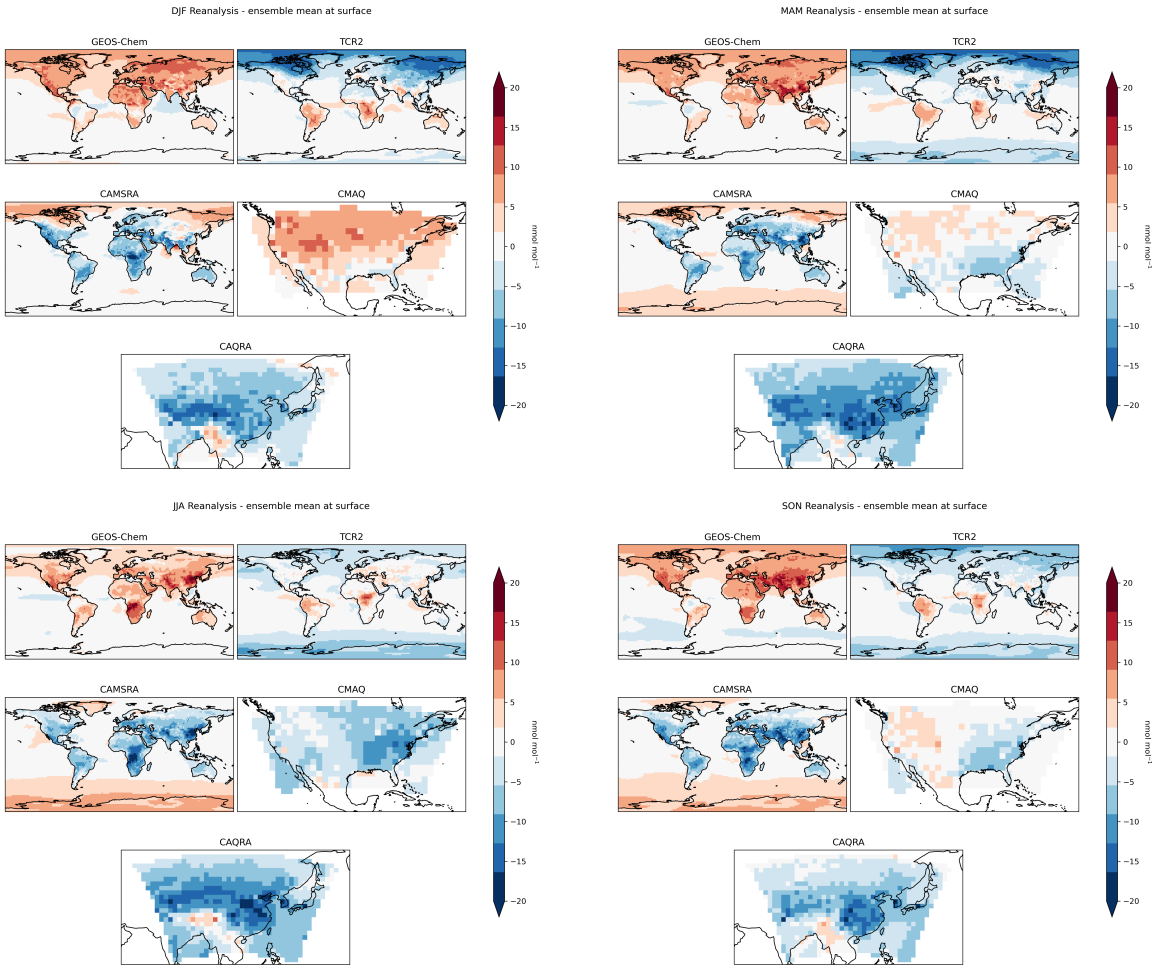


Figure S1. Seasonal mean differences (nmol mol^{-1}) between ozone in the individual reanalyses and the ensemble mean at the surface.

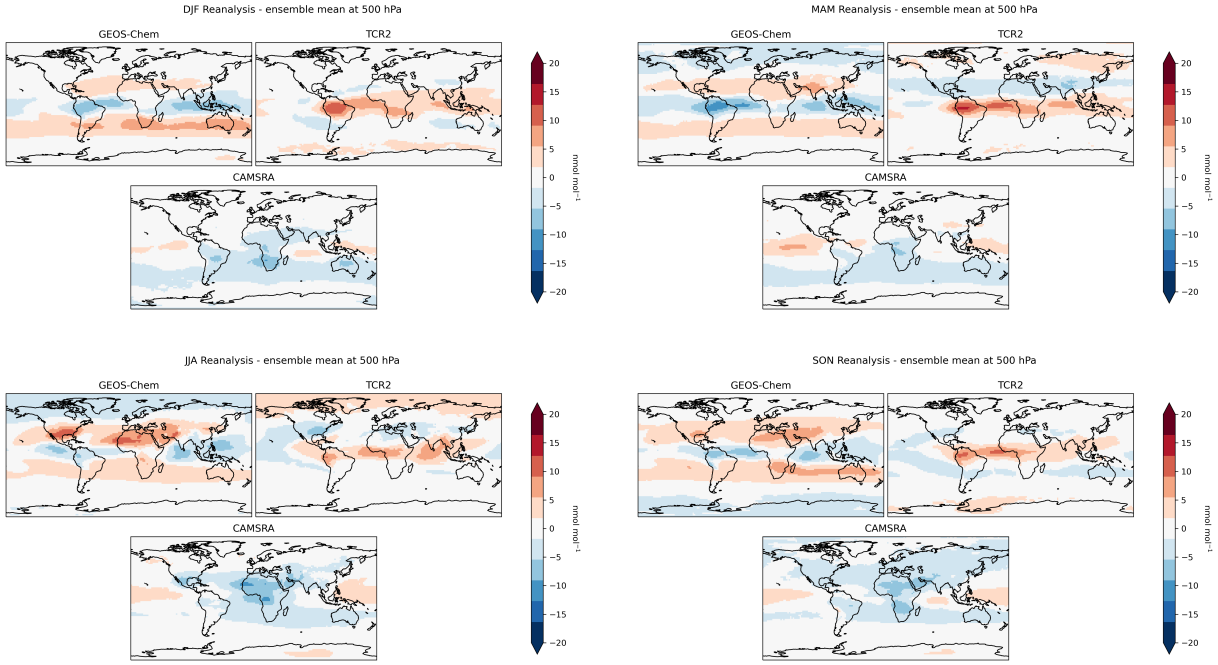


Figure S2. Seasonal mean differences (nmol mol^{-1}) between ozone in the individual reanalyses and the ensemble mean at 500 hPa.

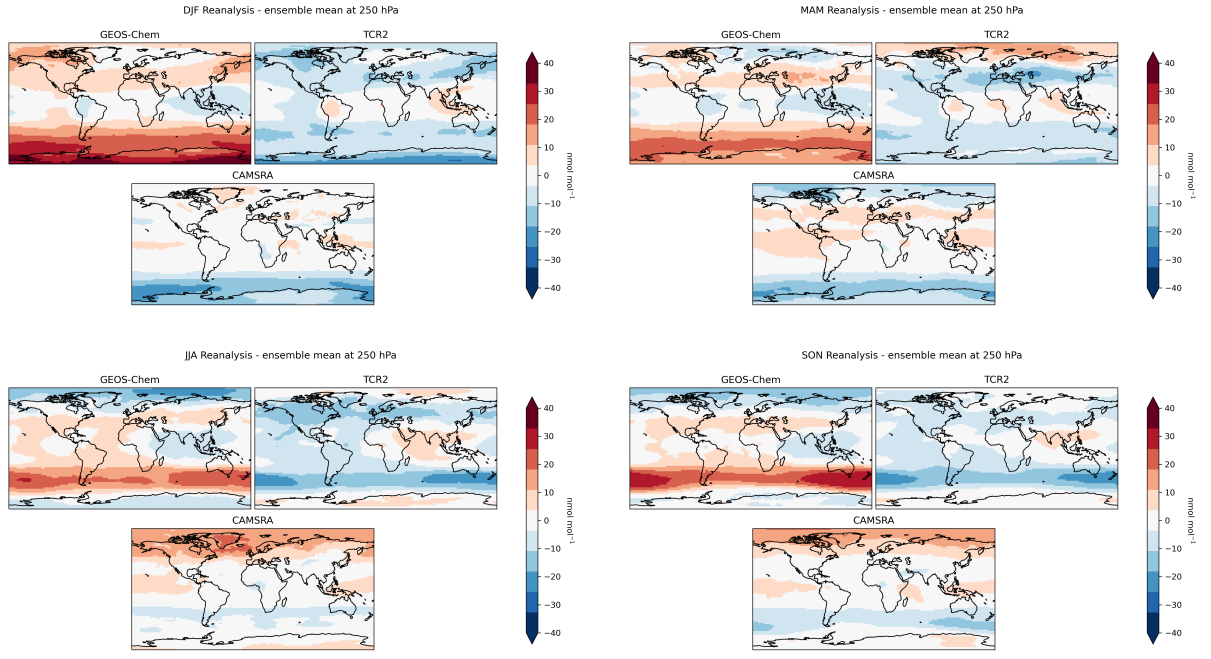


Figure S3. Seasonal mean differences (nmol mol^{-1}) between ozone in the individual reanalyses and the ensemble mean at 250 hPa.

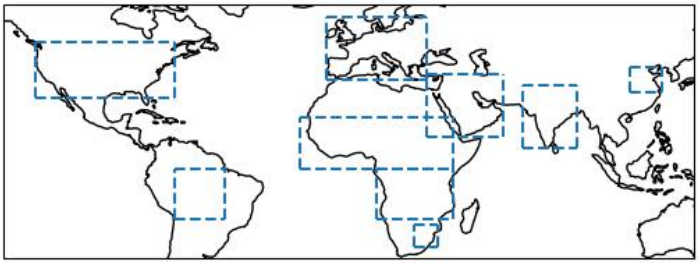


Figure S4. Regional domains used in the regional evaluation. The boundaries of the regions are given in Table 1.

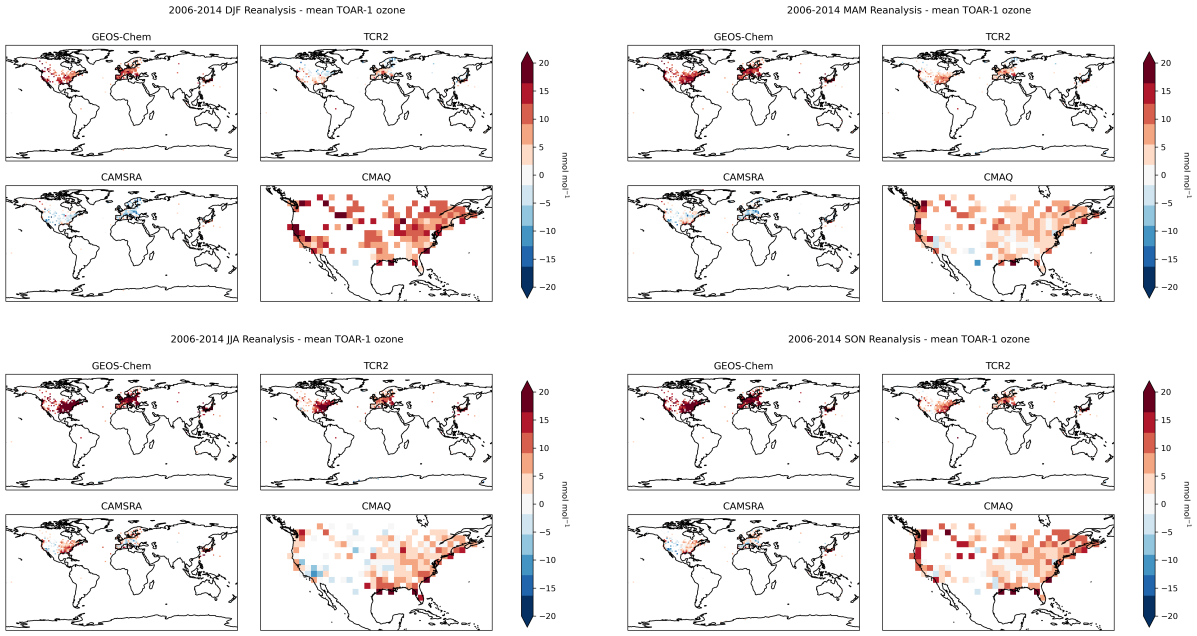


Figure S5. Seasonal mean bias (nmol mol^{-1}) between ozone in the individual reanalyses and the TOAR-I ozone observations (2006–2014) at the surface. The TOAR-I observations and the reanalyses were regridded onto a 2° x 2° grid and only rural observations were used in the comparison.

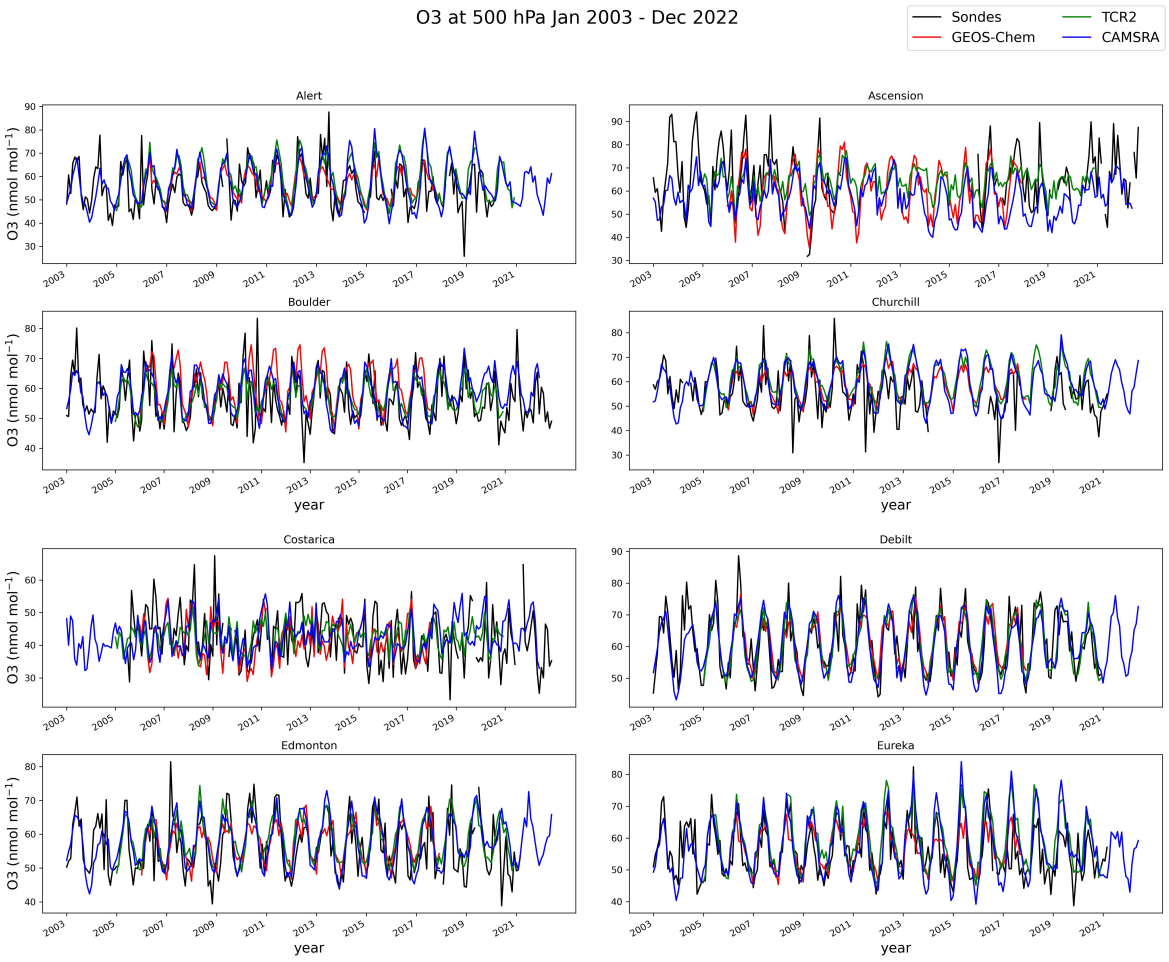


Figure S6. Time series (2003–2022) of ozone in the reanalyses and ozonesonde observations at 500 hPa at individual ozonesonde sites. The ozonesonde data are in black, GEOS-Chem is in red, TCR-2 is in green, and CAMSRA is in blue. The regional reanalyses are not show since only surface fields were available from the regional reanalyses.

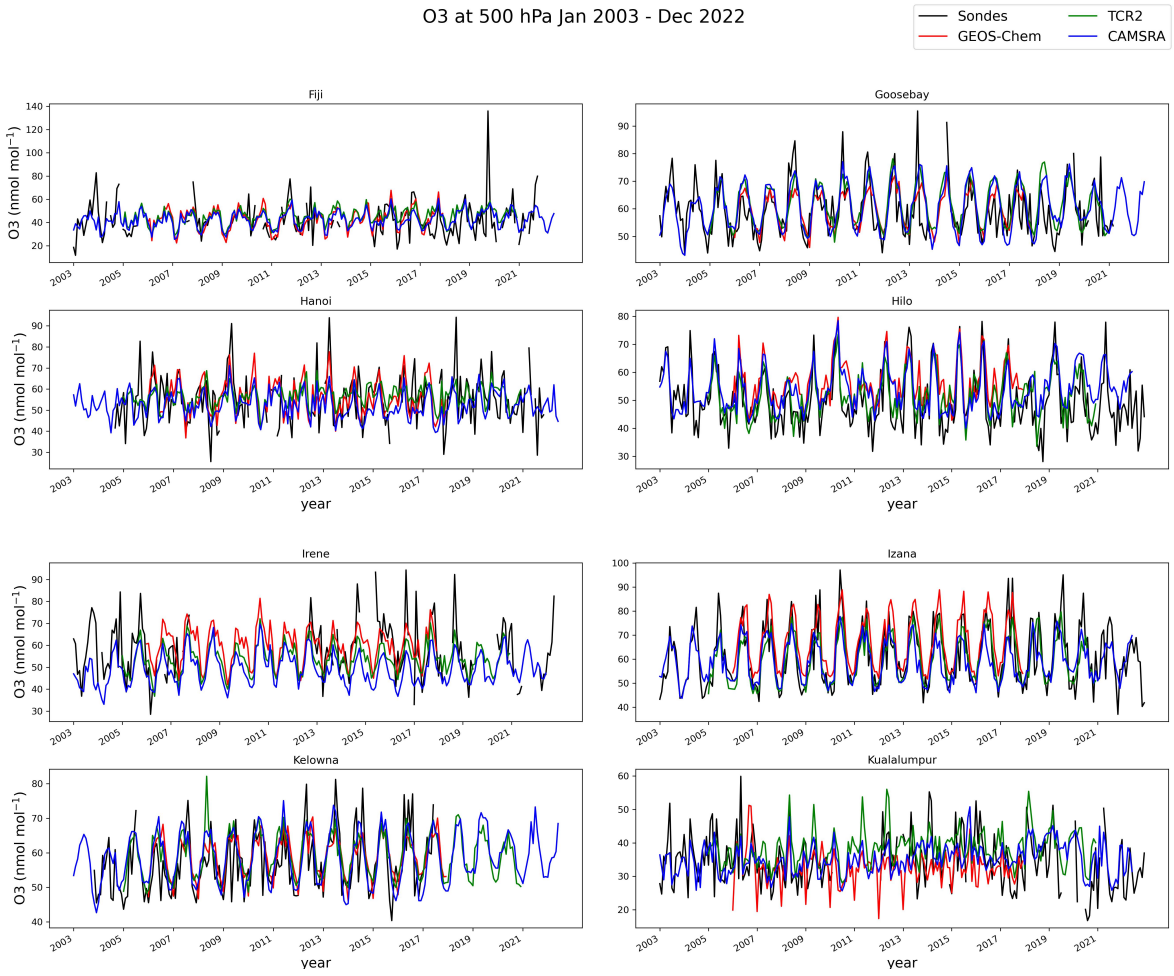
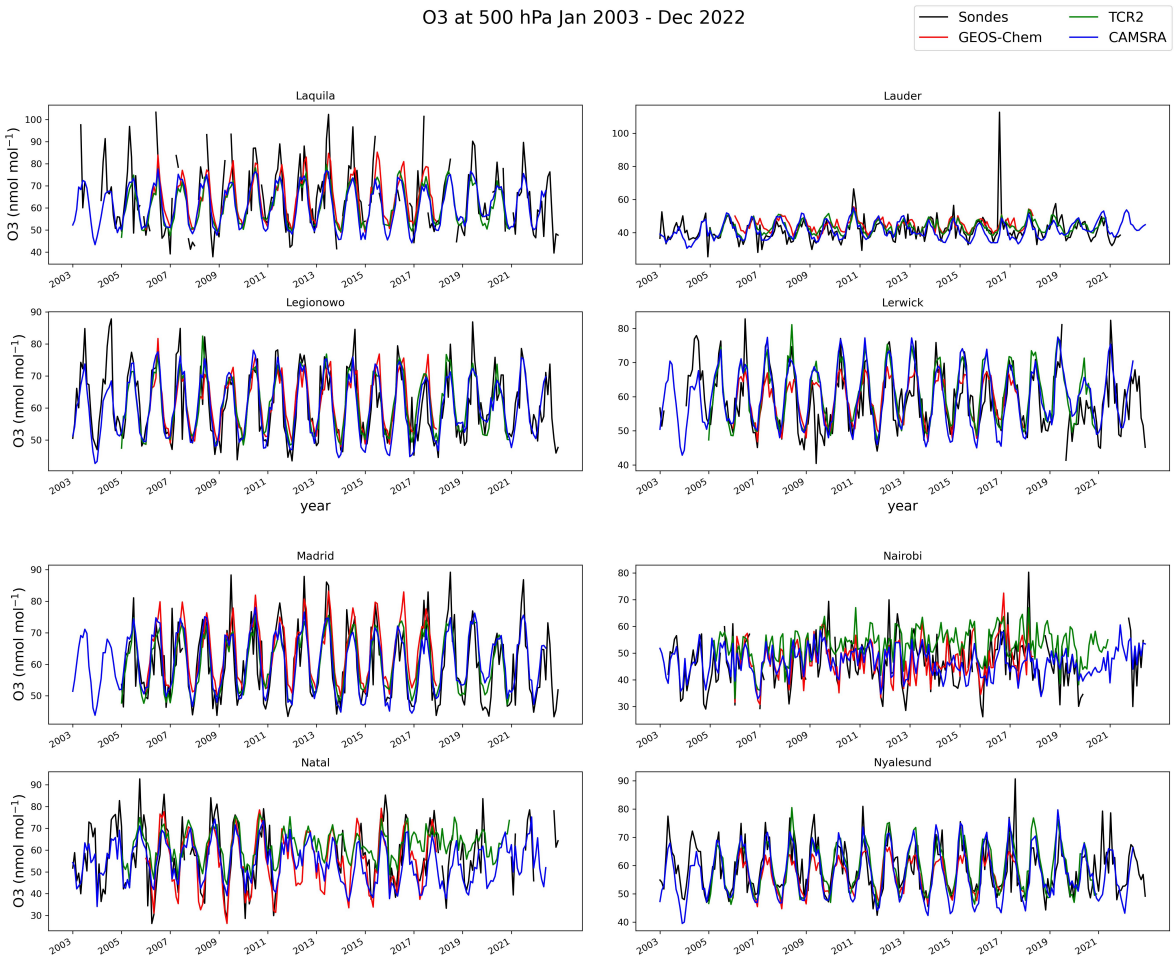


Figure S6. Continued.



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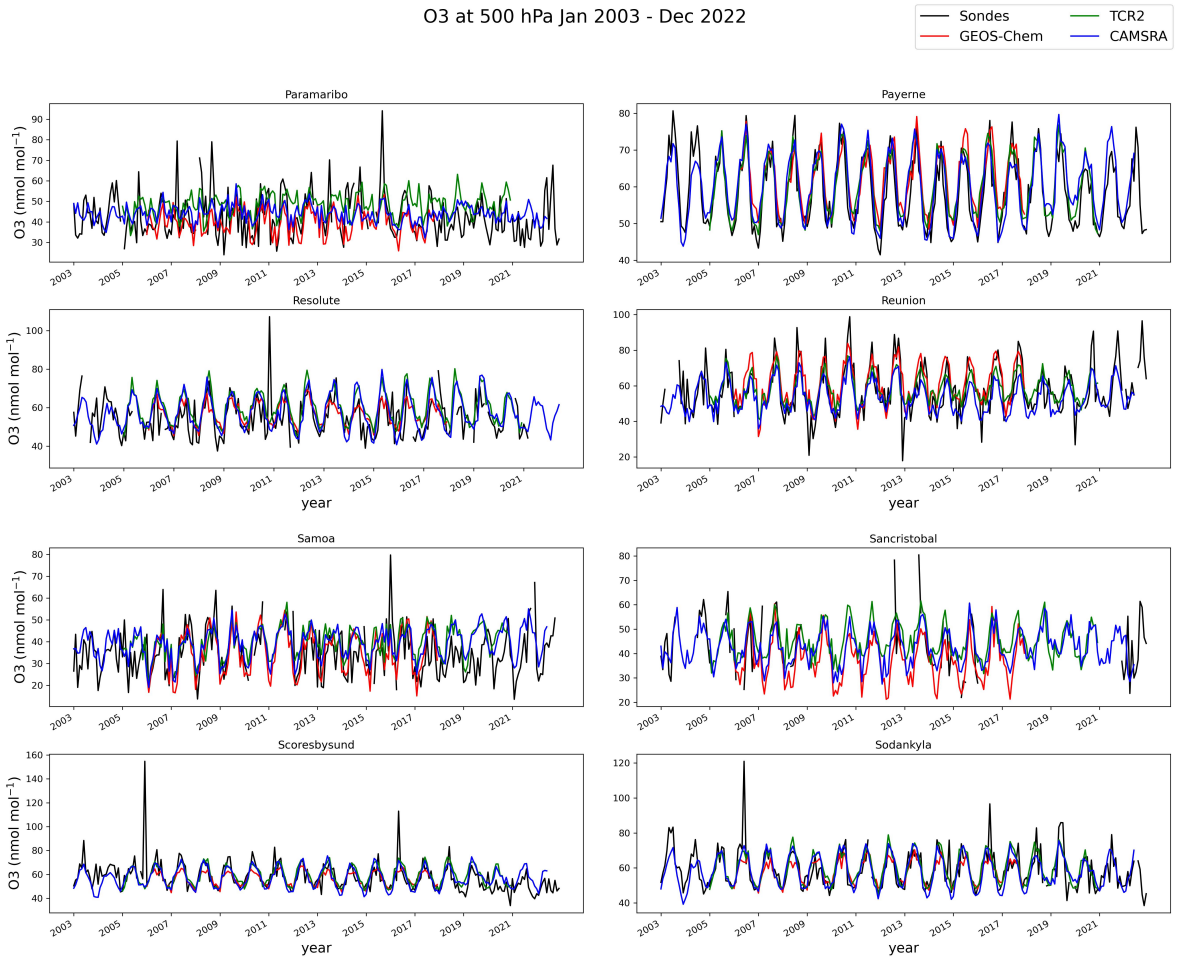

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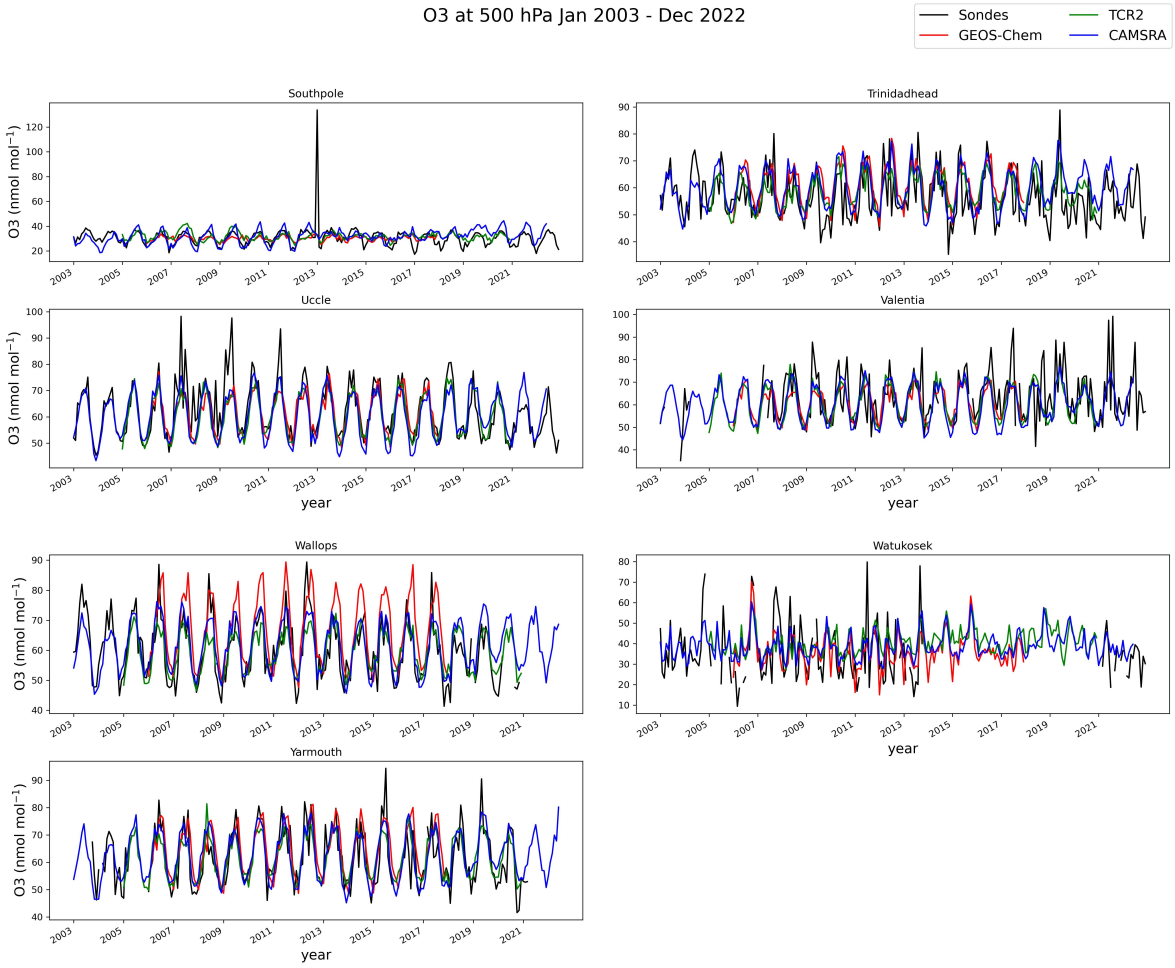

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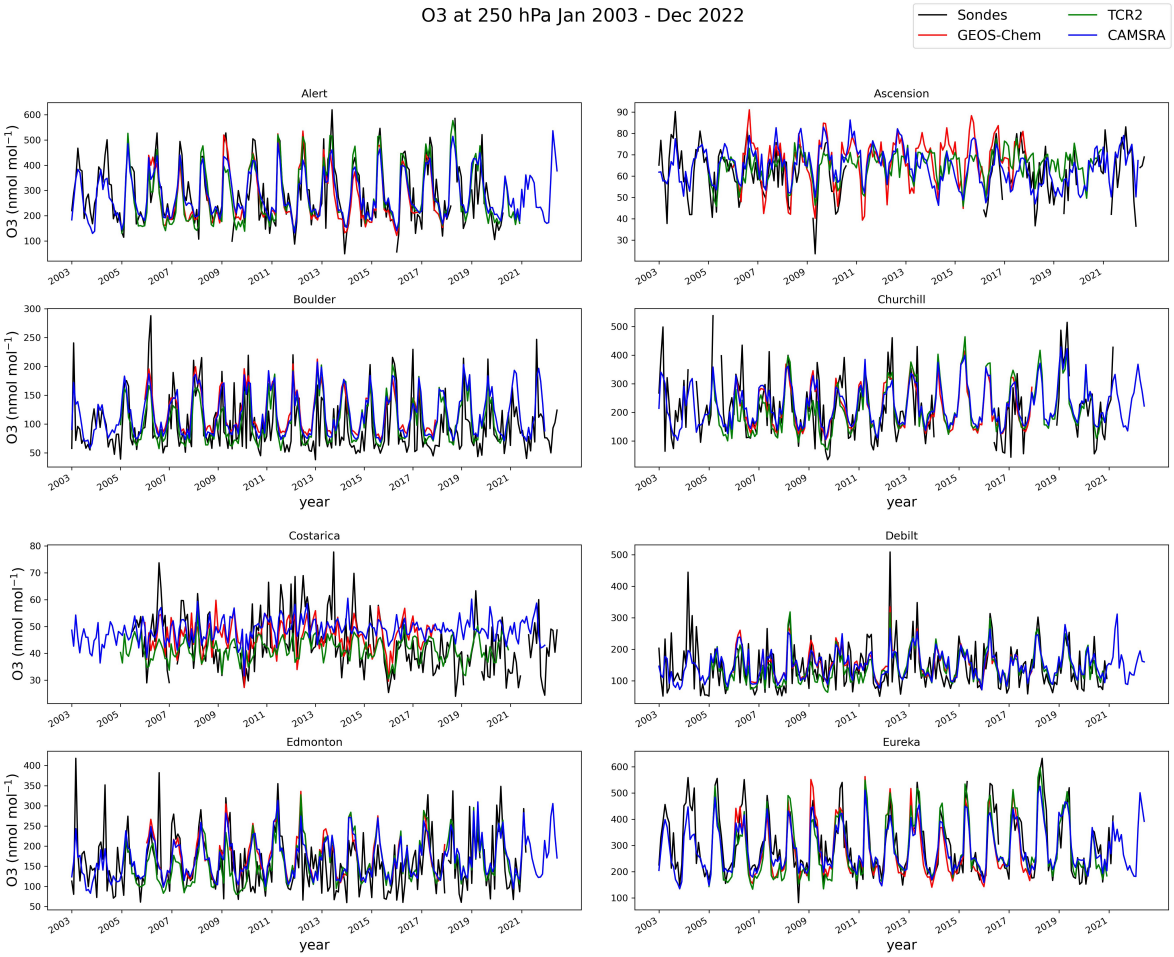
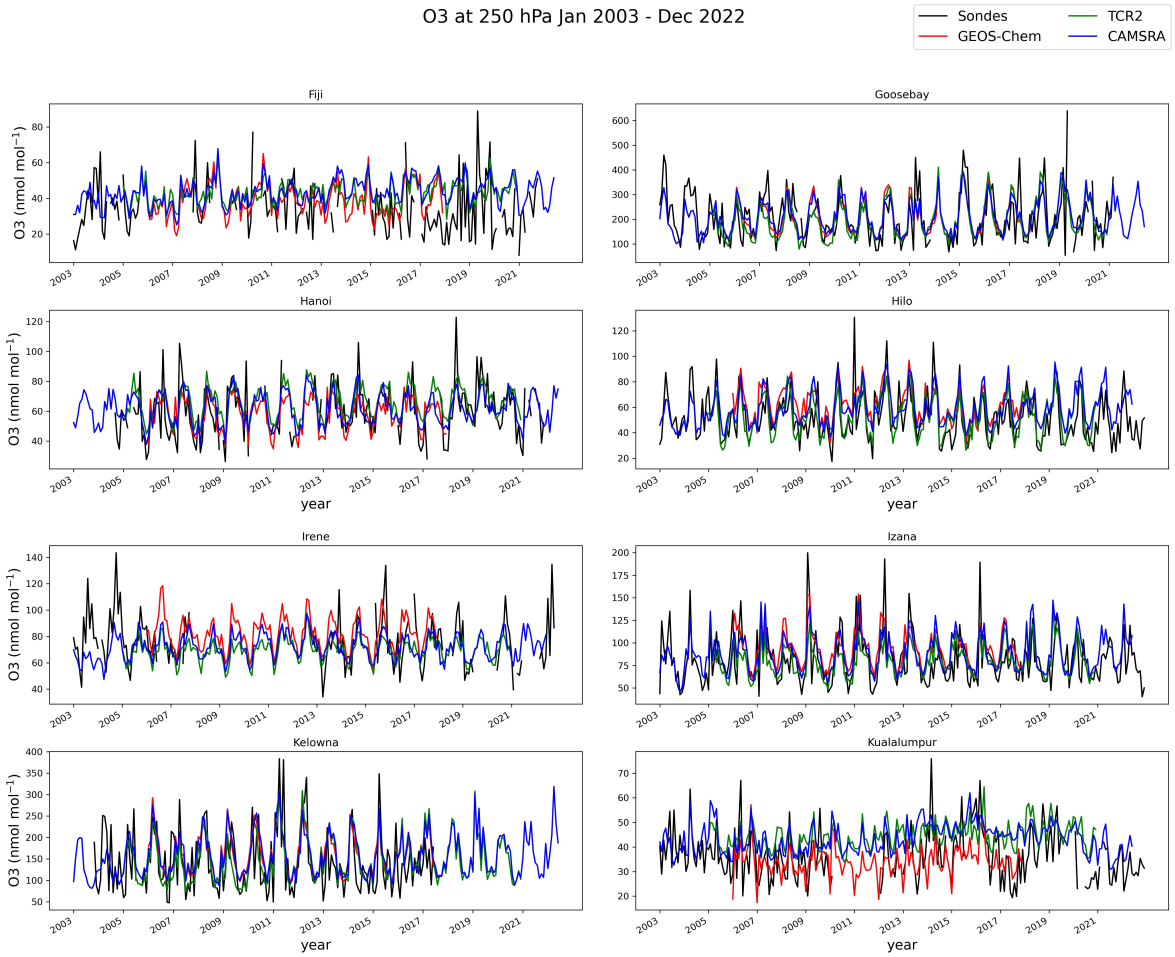


Figure S7. Time series (2003–2022) of ozone in the reanalyses and ozonesonde observations at 250 hPa at individual ozonesonde sites. The ozonesonde data are in black, GEOS-Chem is in red, TCR-2 is in green, and CAMSRA is in blue. The regional reanalyses are not show since only surface fields were available from the regional reanalyses.



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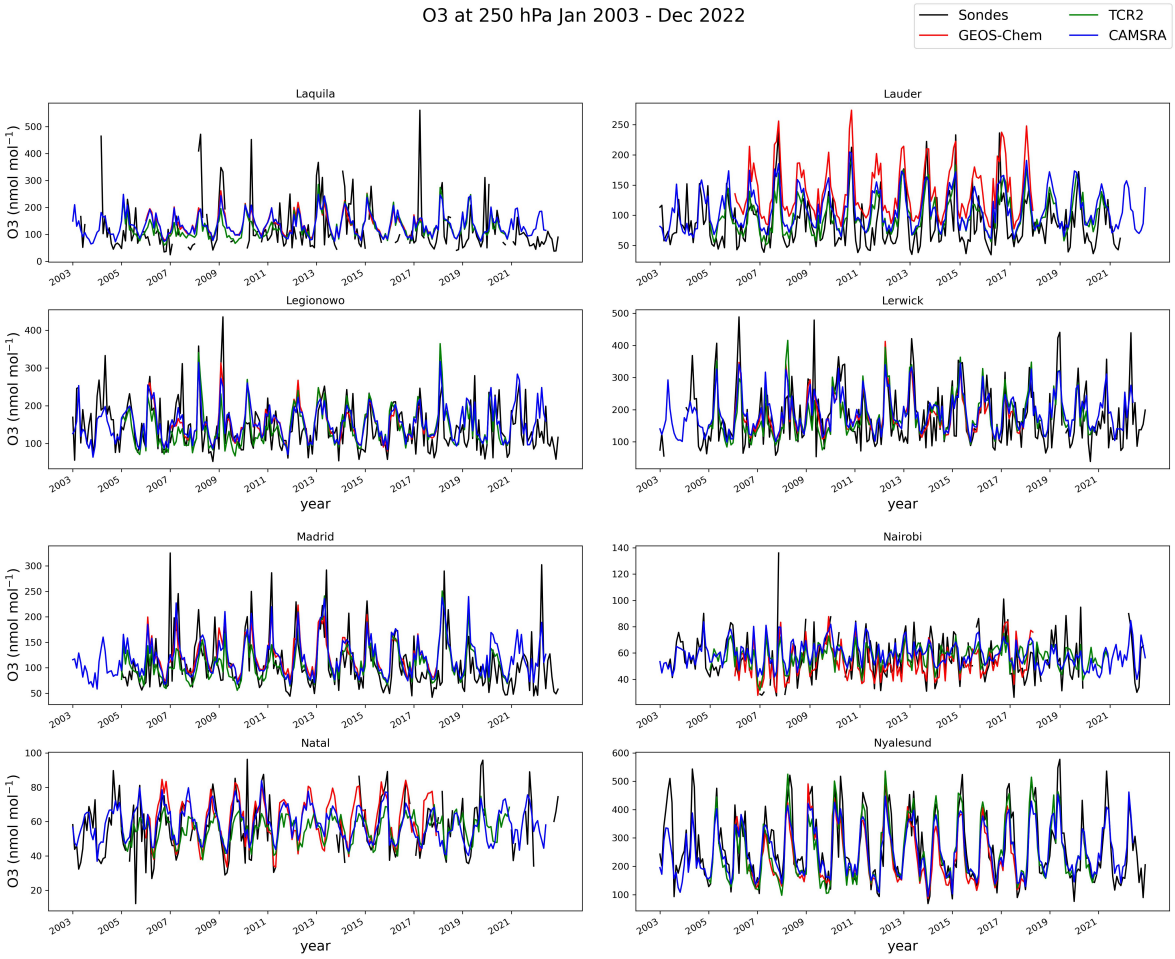

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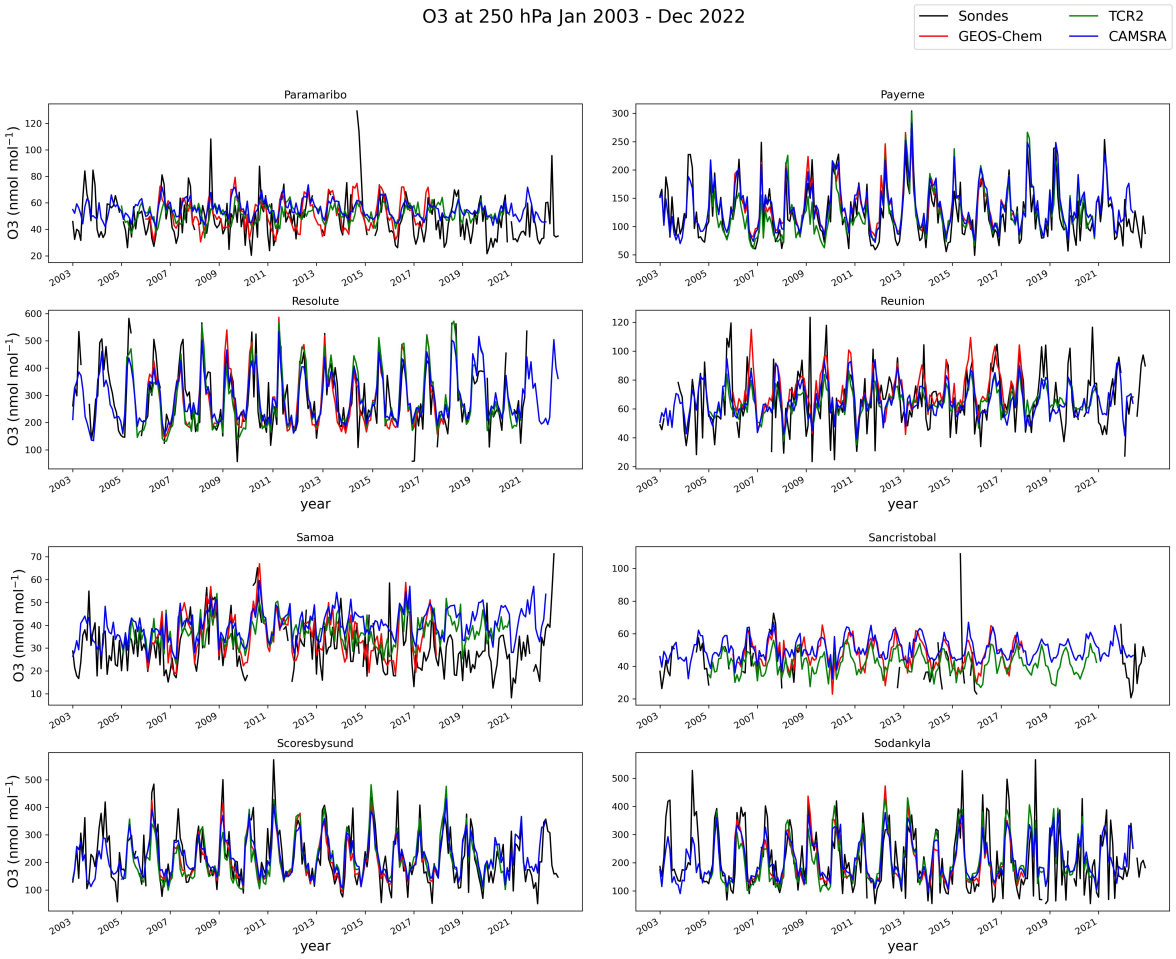

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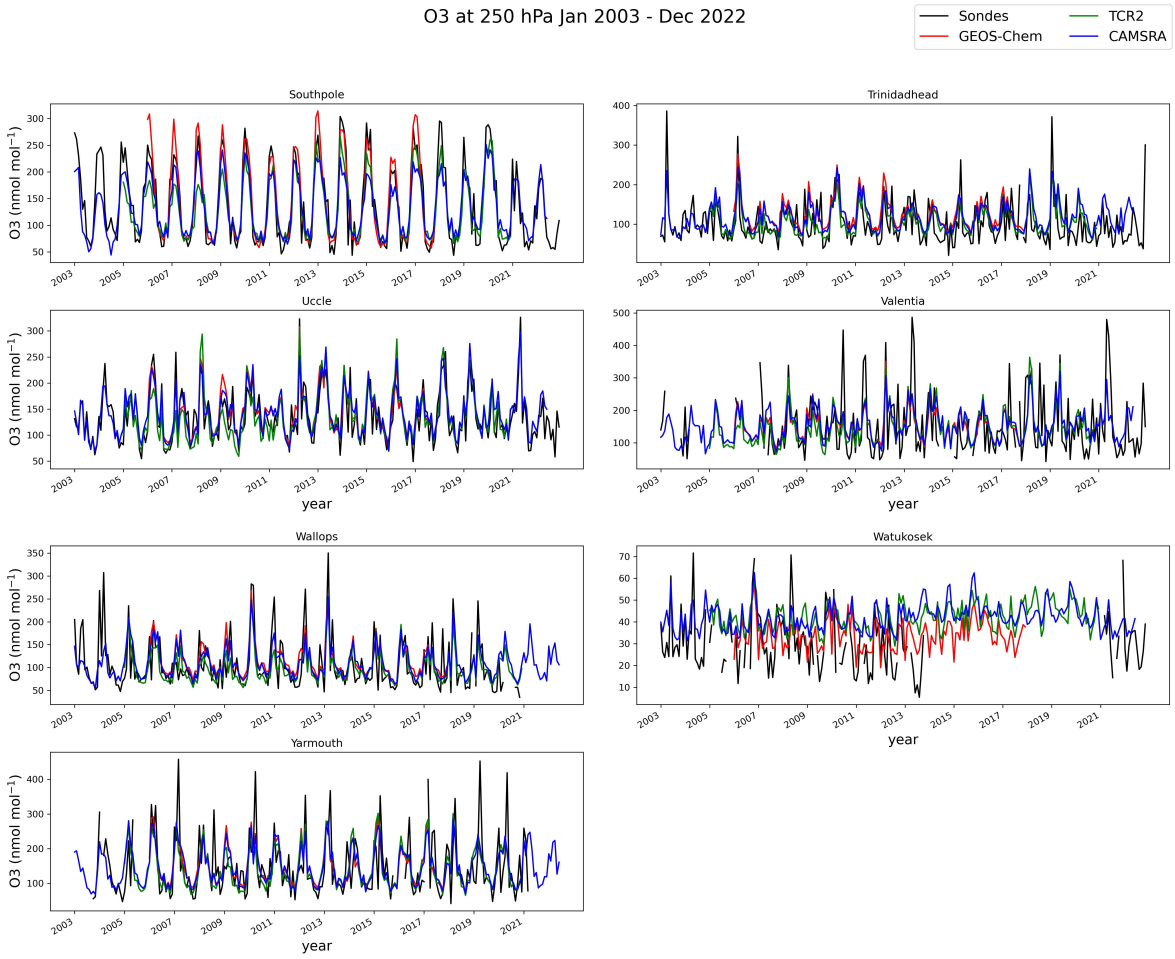

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