TOMCAT and datasets timeseries, 15° lat



Figure S1. Comparison between TOMCAT, ML-TOMCAT, SWOOSH Davis et al. (2016) and GOZCARDS Froidevaux et al. (2019) monthly mean zonal mean ozone at  $15^{\circ}$ N

TOMCAT and datasets timeseries, -15° lat



Figure S2. Same as S1 but for ozone at 15°S

TOMCAT and datasets timeseries, 30° lat



Figure S3. Same as S1 but for ozone at  $30^{\circ}N$ 

TOMCAT and datasets timeseries, -30° lat



Figure S4. Same as S1 but for ozone at 30°S

# TOMCAT and datasets timeseries, 45° lat



Figure S5. Same as S1 but for ozone at 45°N

TOMCAT and datasets timeseries, -45° lat



Figure S6. Same as S1 but for ozone at 45°S

# TOMCAT and datasets timeseries, 60° lat



Figure S7. Same as S1 but for ozone at  $60^{\circ}N$ 

# TOMCAT and datasets timeseries, -60° lat



**Figure S8.** Same as S1 but for ozone at  $60^{\circ}$ S

# TOMCAT and datasets timeseries, 75° lat



Figure S9. Same as S1 but for ozone at 75°N

# TOMCAT and datasets timeseries, -75° lat



Figure S10. Same as S1 but for ozone at 75°S

TOMCAT and datasets timeseries, 15° lat



**Figure S11.** Comparison between TOMCAT, ML-TOMCAT, ESA-CCI, IUP (Arosio et al., 2018) and BSVert (Hassler et al., 2018) monthly mean zonal mean ozone at 15°N at (bottom) 25 km, (middle) 35 km and (top) 45 km.

TOMCAT and datasets timeseries, -15° lat



Figure S12. Same as S11 but for ozone at 15°S

TOMCAT and datasets timeseries, 30° lat



Figure S13. Same as S11 but for ozone at  $30^{\circ}N$ 

TOMCAT and datasets timeseries, -30° lat



Figure S14. Same as S11 but for ozone at 15°S

# TOMCAT and datasets timeseries, 45° lat



Figure S15. Same as S11 but for ozone at 15°S

TOMCAT and datasets timeseries, -45° lat



Figure S16. Same as S11 but for ozone at 45°S

# TOMCAT and datasets timeseries, 60° lat



Figure S17. Same as S11 but for ozone at 15°S

TOMCAT and datasets timeseries, -60° lat



Figure S18. Same as S11 but for ozone at 15°S

# TOMCAT and datasets timeseries, 75° lat



Figure S19. Same as S11 but for ozone at 15°S

TOMCAT and datasets timeseries, -75° lat



Figure S20. Same as S11 but for ozone at 15°S

## References

5

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