Supplementary Information

The representation of solar cycle signals in stratospheric ozone. Part II: Analysis of global models

Amanda C. Maycock[1], Katja Matthes[2,3], Susann Tegtmeier[2], Hauke Schmidt[4], Rémi Thiéblemont[5], Lon Hood[6], Slimane Bekki[5], Makoto Deushi[7],Patrick Jöckel[8], Oliver Kirner[9], Markus Kunze[10], Marion Marchand[11], Daniel R. Marsh[12], Martine Michou[13], Laura E. Revell[14,15], Eugene Rozanov[14,16], Andrea Stenke[14], Kohei Yoshida[7], and Yousuke Yamashita[17,18]

[1] School of Earth and Environment, University of Leeds, UK
[2] GEOMAR Helmholtz for Ocean Research, Kiel, Germany
[3] Christian-Albrechts Universität zu Kiel, Kiel, Germany
[4] Max Planck Institute for Meteorology, Hamburg, Germany
[5] LATMOS, Paris, France
[6] University of Arizona, Arizona, USA
[7] Meteorological Research Institute, Japan Meteorological Agency, Tsukuba, Japan
[8] Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Institut für Physik der Atmosphäre, Oberpfaffenhofen, Germany
[9] Steinbuch Centre for Computing, Karlsruhe Institute of Technology, Karlsruhe, Germany
[10] Institut für Meteorologie, Freie Universität Berlin, Berlin, Germany
[11] Centre national de la recherche scientifique (CNRS), France
[12] National Center for Atmospheric Research, Boulder, USA
[13] CNRM UMR 3589, Météo-France/CNRS, Toulouse, France
[14] Institute for Atmospheric and Climate Science ETH, Zurich, Switzerland
[15] Bodeker Scientific, Christchurch, New Zealand
[16] Physikalisch-Meteorologisches Observatorium, World Radiation Center, Davos, Switzerland
[17] National Institute of Environmental Studies (NIES), Tsukuba, Japan
[18] now at: Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Yokohama, Japan

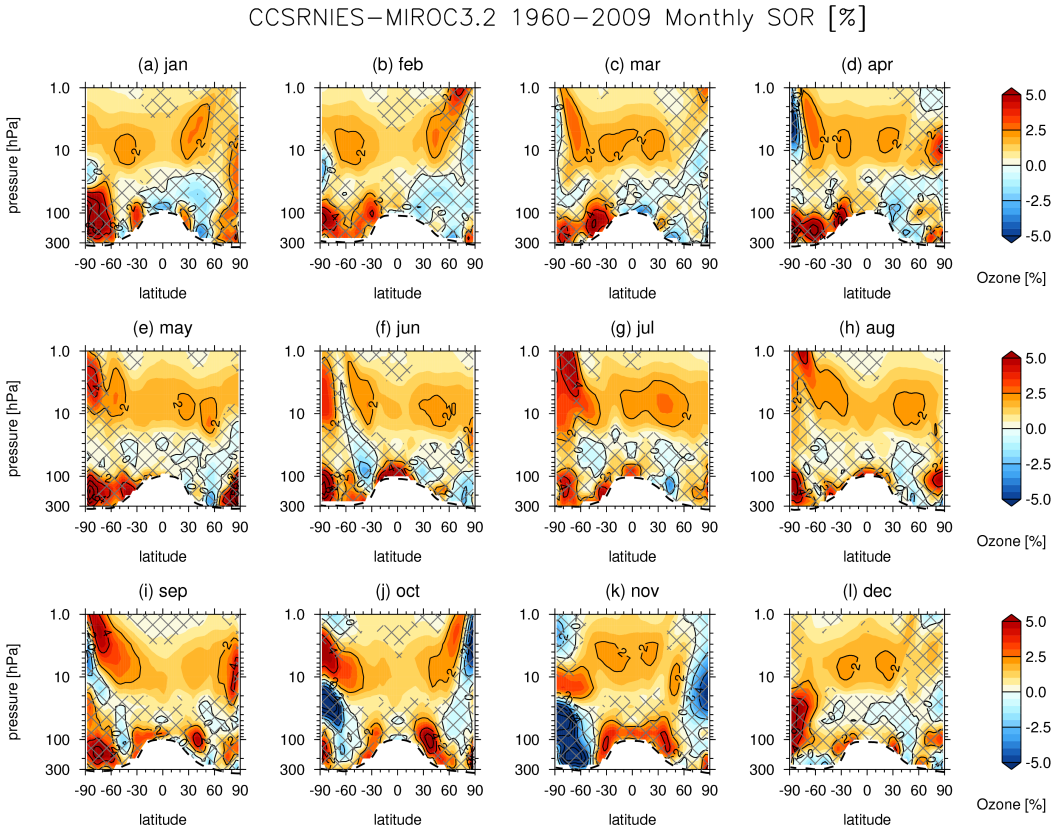

Figure S1: Monthly mean percent (%) ozone anomalies per 130 SFU for (a) January to (l) December in the CCSRNIES-MIROC3.2 model. The solid contours denote 2% intervals. The hatching denotes regions where the SOR is not distinguishable from noise at the 95% confidence level. Tropospheric values have been masked out.

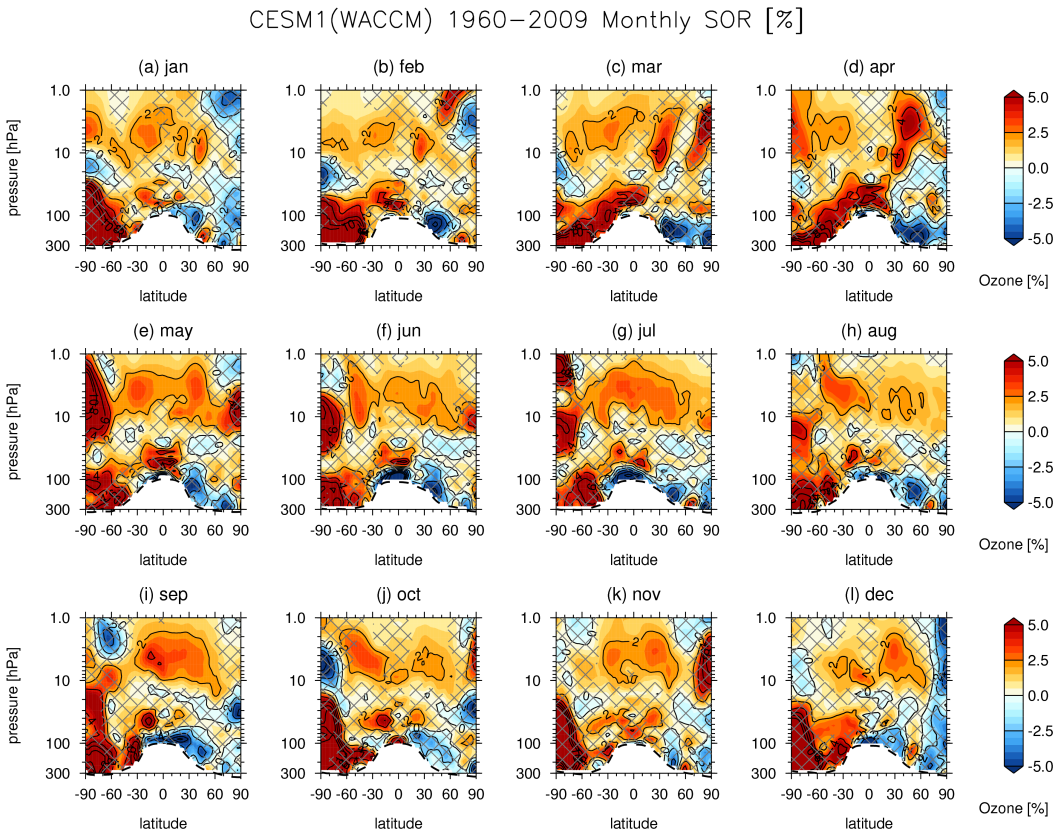

Figure S2: As in Figure S1, but for CESM1(WACCM).

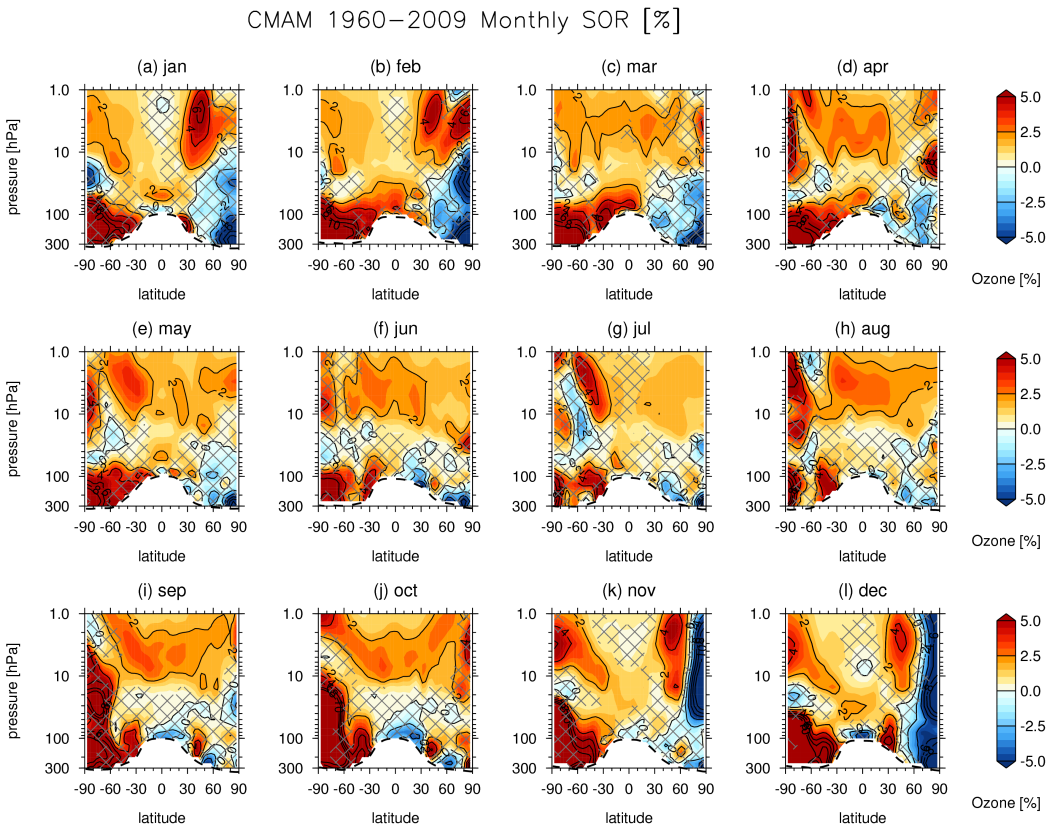

Figure S3: As in Figure S1, but for CMAM.

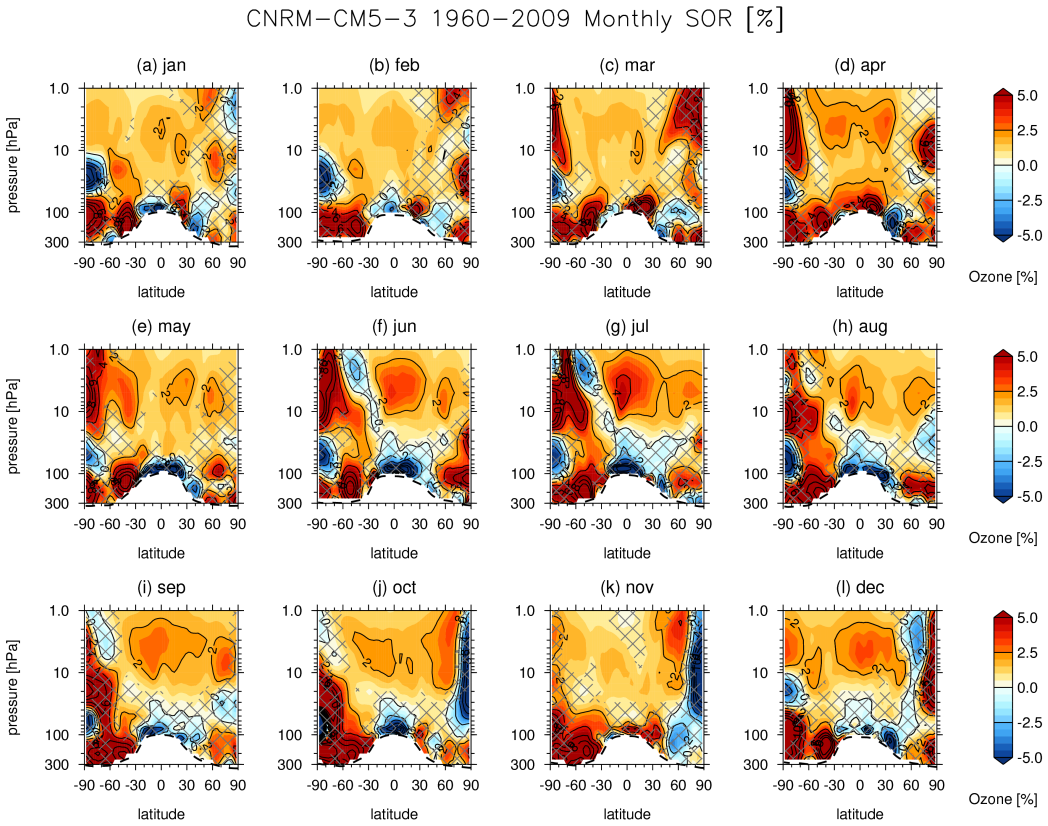

Figure S4: As in Figure S1, but for CNRM-CM5-3.

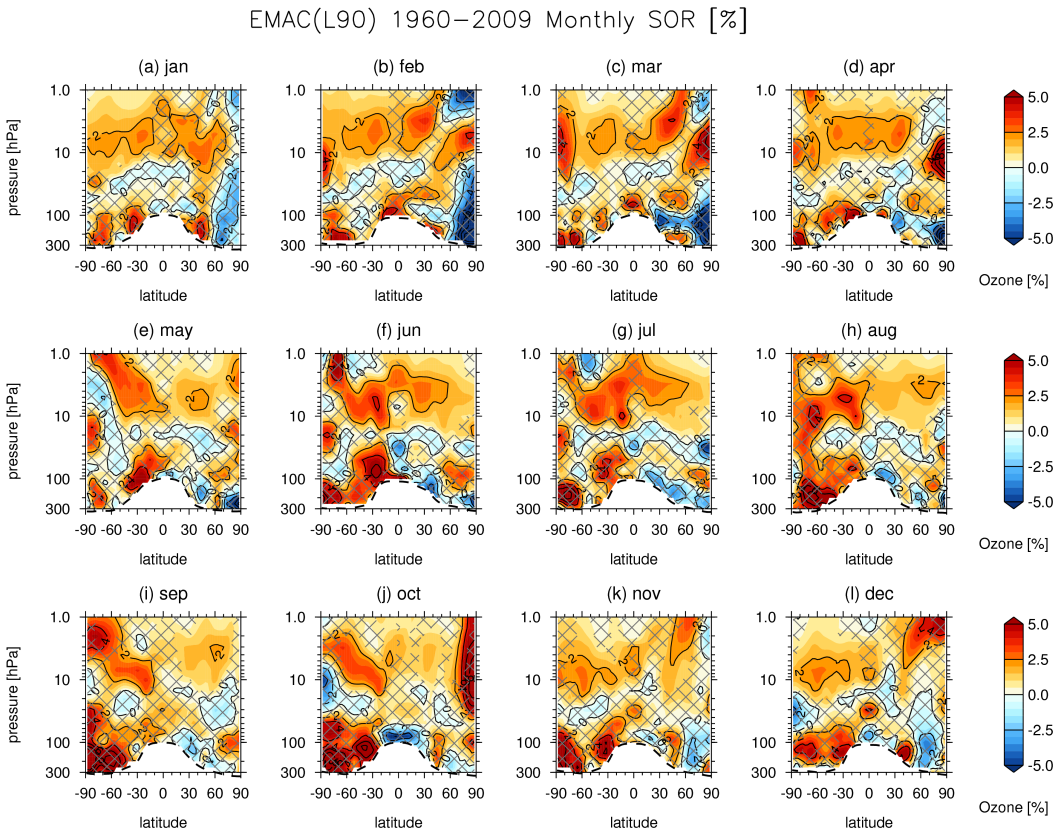

Figure S5: As in Figure S1, but for EMAC(L90).

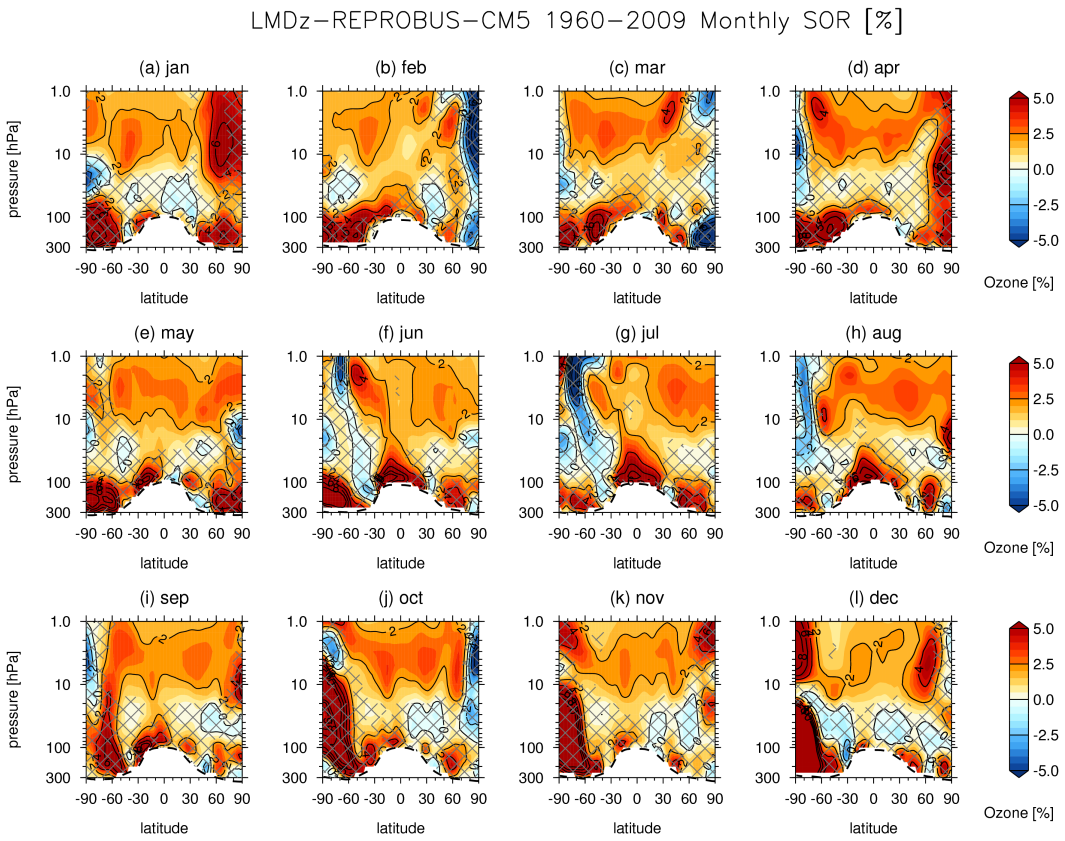

Figure S6: As in Figure S1, but for LMDz-REPROBUS-CM5.

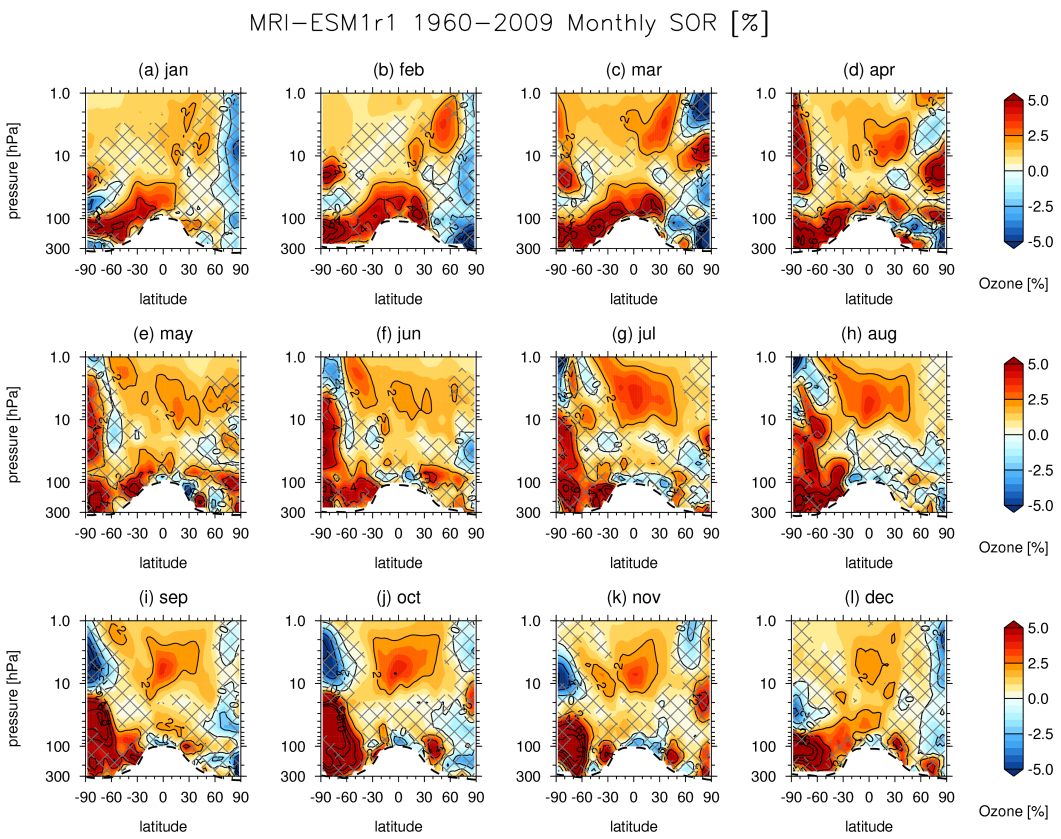

Figure S7: As in Figure S1, but for MRI-ESM1r1.

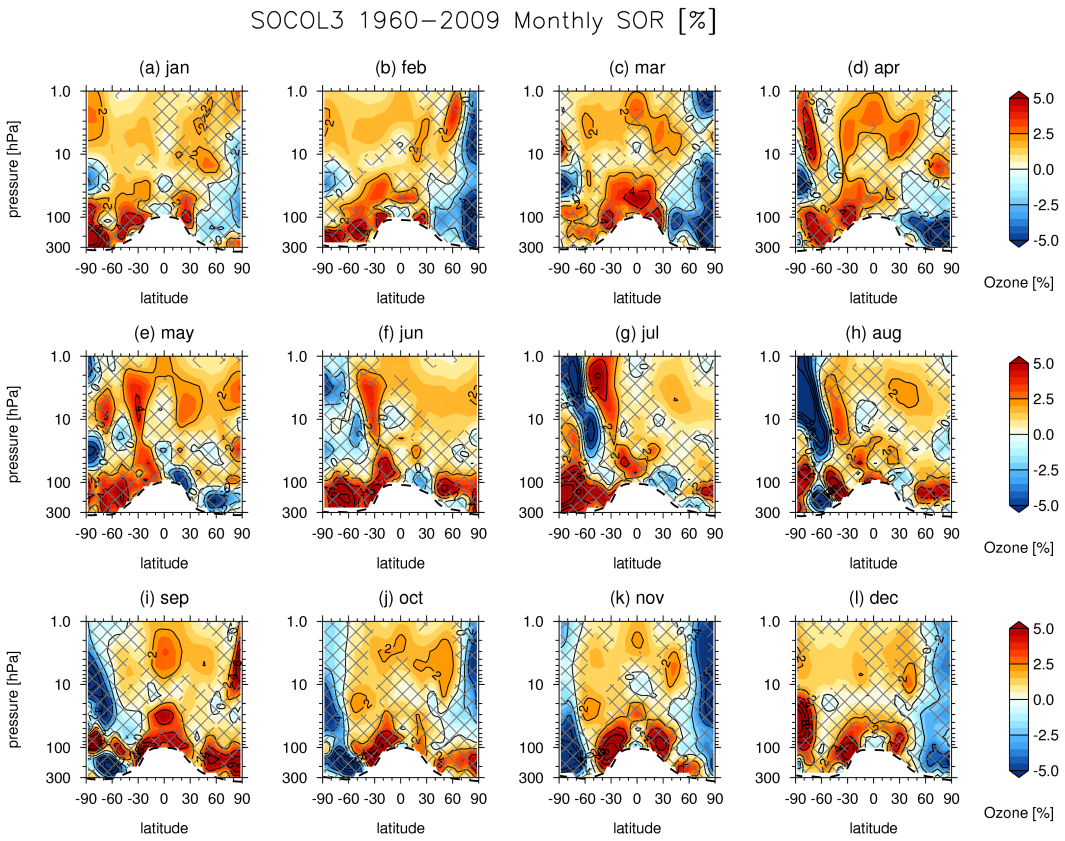

Figure S8: As in Figure S1, but for SOCOL3.